An ethnography of the decision-making processes that health visitors follow when responding to clients' problems and issues

Newland, Rita

Awarding institution:
King's College London

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'… it's a bit of a skill that you develop over time where you're communicating with mum at the same as observing what's happening with the child...'

Rita Mary Newland

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Supervisory team

Dr Lynn Sayer, Professor Patricia Grocott, Dr Mary Malone.

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A wise woman once told me that a PhD is a process. As a ‘novice’ I was sceptical and somewhat disbelieving. However, as I submit my thesis I can now see how true this was.

The PhD journey is long, and can be lonely at times. Although never a dull moment, there have been plenty of times when self-doubt and despair presented challenges along the way. Nothing would have been possible without my family and friends and their constant encouragement and belief in me. Somehow, they managed to listen and never complain as I talked about my research.

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Abstract

Introduction

Distinct in their role and functions, health visitors are accountable for the safety, health, and wellbeing of children from birth during the first five years of life. However, to make decisions for children, they must interact with mothers (or the holder of parental responsibility). Noted in the literature as the need to be 'friendly,' health visitors must adopt processes that enable them to achieve the mothers' acceptance.

As the link to the services children need to achieve optimal outcomes for their safety, health and wellbeing, the decisions that health visitors make have far reaching consequences for children. This means that the processes they adopt must be capable of clear explanation and open to scrutiny and challenge. This is challenging in the current situation where absence of a shared vocabulary and explanatory framework makes it difficult to see or explain the decision-making processes adopted. Although impacting the ability of practicing health visitors to learn from real life decision-making experiences, the lack of a shared vocabulary and framework also makes it difficult for student and newly qualified health visitors to prepare for the realities of decision-making practice.

The plethora of exploratory studies which prioritise professional judgement and needs assessment above that for decision-making practice has led to a paucity of research examining the individual nature and the detail of health visitors' decision-making practice. While research associated with activities like professional judgement and needs assessment can provide useful insights into decision-making, the studies offer insufficient detail to explain the often subtle nuances involved. Although other terms like 'intuition' and 'gut-feeling' are typically used by health visitors to describe their decision-making activities, they too tend not to supply the level of detail required.

Seeking to understand how health visitors make decisions during real life, authentic situations, this exploratory study addressed the following three key intentions:

- **Objective 1**: Explore, using participant ethnographic observation, health visitors undertaking daily practice in real time to identify the decision-making processes that happened.
- **Objective 2**: Explore, using the 'Think Aloud' method, how health visitors, while watching recordings of their client consultations, recognise and describe their decision-making processes.
- **Objective 3**: Examine, using the social judgement theory framework, the discrete behaviours and strategies individual health visitors adopt during decision-making processes.

Methods

Using qualitative methodology and a range of methods for data collection and analysis, the study examined the processes adopted by health visitors undertaking authentic practice in real life consultations with mothers and children. Data were collected prospectively using ethnographic participant observation and the 'Think Aloud' method. In so doing the data set comprised,

- ethnographic participant observations of a purposive sample of 13 health visitors,
- video recordings and verbatim transcripts of 39 consultations between the health visitor, the mothers, and children,
- audio recordings and verbatim transcripts of 11 'Think Aloud' events where the health visitor participants, while watching the video recording of their consultation(s), described their thoughts, and behaviours.

Hammond's social judgement theory and associated framework were also used to guide the exploration of the social, environmental, and behavioural features associated with health visitors' decision-making activity. Focusing on people this theory also provided a route for observing and reporting their typical behaviours, thoughts, and actions as they happen during the decision-making events.

Data were analysed using Braun & Clarke's six step Thematic Analysis process to identify themes within the data.

Results

The decision-making evident in the ethnographic observation data has shown that health visitors' decision-making activity is socially and not medically constructed. Here, the health visitors focus on mothers, children, and the situation to make decisions. Employing informality, using informal strategies for conversation like, 'chit chat' and 'small talk' the health visitors engaged mothers and children by creating a relaxed and friendly atmosphere. While not sequential, health visitors' decision-making approaches were organised, systematic and well-considered.

Discussion

By exploring the way health visitors make decisions when responding to clients' problems and issues during consultations, the study contributes three key aspects of distinct knowledge that will positively influence future understanding and recognition of this crucial area of practice. Firstly, the study has given substance to the expression of health visitors' decision-making which although an important activity is one that is hidden and poorly understood. In so doing, the study has identified that health visitors' decision-making processes are socially constructed and incorporate the simultaneous use of conscious and unconscious thought processes.

Secondly, the study has identified and examined the details of the informality health visitors use to create decision-making processes. By permitting social interaction with boundaries, the study has identified that health visitors use informality to create a context of 'professional friendliness' where they listen, and mothers naturally share their information. In so doing, they lay the foundations for decision-making processes to take place. Thirdly, by examining authentic decision-making in real life practice, the study has identified the subtle,

somewhat nuanced details, of the processes adopted. While systematic and logical, health visitors' decision-making processes are not sequential. Being situation-specific and individually generated, each health visitor adopts a distinct process.

Chapter One: Introduction and Background to the Study

1.0 Chapter Overview

The chapter sets the context and rationale for this exploratory study and outlines the format of the thesis. Firstly, it will introduce the health visitor and outline reasons for investigating the decision-making processes adopted by this professional group. By examining the social and political factors leading to the development of the health visitors' distinct role and functions, the chapter considers the issues that have over time influenced the decision-making processes that they follow. Aligning historical and contemporary factors, literature, and research the chapter will then critically consider the importance of understanding the process rather than merely recognising the outcome of decision-making activity.

Throughout, the chapter will consider, key themes from health visiting and decision-making research to acknowledge the challenges that health visitors face when articulating the processes they follow when making clinical decisions.

1.1 Research question

What decision-making processes do health visitors follow when responding to clients' problems and issues during consultations?

1.1.1 The research problem

Although an important aspect of health visitors practice, decision-making is poorly recognised and understood. The literature suggests that this may be related to a lack of discipline specific research and an inability to acknowledge the significance of uncertainty on decision-making processes.

- **A lack of discipline specific research means decision-making activity is poorly understood and recognised.**

The literature suggests that the dearth of discipline specific research may be associated with the use of terms other than 'decision-making'. Here, rather than, 'decision-making' terms like 'professional judgement', 'needs assessment' and 'problem solving' are used, which although well-understood and recognised by the profession, do not always provide the detail required to fully explain the decision-making processes adopted. Although other regularly used terms like 'intuition' and 'gut-feeling' are again widely recognised and accepted by the profession, they can be associated with impulsive decisions which means they tend to be considered less favourably by professionals in the wider health and social care field.

The paucity of research is important because as autonomous practitioners responsible for the health, wellbeing, and safety of children during the first five years of life, health visitors are the only practitioners to routinely see children in natural settings of the home on a regular basis. Therefore, the decisions they make have far reaching implications for children. Consequently, any decision-making process adopted must be capable of clear explanation and open to scrutiny and challenge. This is difficult to achieve in the current situation where absence of a shared vocabulary and explanatory framework makes it difficult to see or explain the decision-making processes adopted. While the terminology and practice remain diverse and poorly recognised any decision-making processes implemented are likely to remain hidden and unexplained.

- **An inability of publications to acknowledge the impact of often subtle nuances particularly relating to the inherent uncertainty of situations in which health visitors make decisions.**

The practice of decision-making by health and care professionals tends to be highly regulated by employers and organisations alike. This is associated with the need to reduce the risk of practitioners missing important information. To manage this type of risk, systems

have been created which prescribe routine processes for information collection and limit the number of possible decisions. For health visitors, developments in these approaches have been stimulated by national inquiries following the death of a child, through abuse or neglect from parents or the primary carer (Department of Health, 2009b, Haringey Local Safeguarding Children Board, 2010). Throughout history, these situations have tended to focus minds on the need to create good decisions and minimise the risk of a mistake being made (Reader et al, 1993). Focus, in these situations, therefore, tends to be on the decision rather than the process used to make it. This has led to the reliance on creating national guidance and checklist style recording processes (Appleton & Cowley, 2004). These approaches tend to rely on deliberate, intentional activities outlined in systems employing conscious thought processes. Here, the decision-maker is required to follow clearly defined instructions and undertake a series of easily repeatable steps in a linear, organised way (Bell, et al., 2011). However, the need for consistency means that these approaches are more helpful in situations where information is likely to be predictable, stable, and complete (Simon, 1979, Fischoff, 2011). For situations where information is unpredictable, incomplete, and likely to change, the value of these approaches is more limited.

The literature and research show that health visitors are likely to operate in situations where information cannot be predicted, is incomplete and subject to change (Cowley, 1995). The very nature of the health visitor role and functions means that they deal with people rather than conditions of illness and their associated signs and symptoms (Cowley et al., 2013). This means that although when consulting with the client, health visitors may anticipate the issues that can arise, they are unlikely to know what the problems are until the consultation has started (Cowley, 1995). To collect information the health visitor must therefore interact, engage, and get to know the client by listening, observing, and talking to them (Chalmers, 1994). These activities tend not to be considered by generalised approaches because as each person's needs, background and behaviours are different they cannot be predicted. In addition, health visitors' responses will depend on the situation and so cannot be predicted in advance (Cowley, 1995). Naturally, this means that rather than being the same, each situation is likely to be different. To manage and make decisions in these situations, health

visitors must adopt processes which allow them to simultaneously consider the person as an individual, their [social] situation and the associated health issues that influence the problems they face.

1.1.2 The aim of the study

This study sought to explore health visitors' real life decision-making processes. Adopting a qualitative ethnographic approach, the intention was to learn about health visitors' decision-making activity by observing and listening to their experiential accounts as they undertook daily practice. A range of data collection and analysis tools, including ethnographic participant observation, the 'Think Aloud' method, and the social judgement theory framework with its consistent terminology and process, provided the instruments for examining real life decision-making events from the health visitors' perspective.

Although research to date has collected narrative reflective accounts of health visitors practice, until now the studies have tended to consider activity about relationship building, needs assessment, and the use of clinical guidelines and checklists, and has not observed decision-making activity in real-time. By observing and mapping naturally occurring activity and listening to the way health visitors recognise and describe the steps undertaken, this study will collect data about their real life decision-making processes. Following completion, new knowledge will be considered in terms of its potential to influence contemporary practice, and the preparation of student and newly qualified health visitors for the realities of decision-making activity.

1.1.3 The objectives of the study

The study sought to address the following three objectives:

- **Objective 1**: Explore, using participant ethnographic observation, health visitors undertaking daily practice in real time to identify the decision-making processes that happened.

- **Objective 2**: Explore, using the 'Think Aloud' method, how health visitors, while watching recordings of their client consultations, recognise and describe their decision-making processes.
- **Objective 3**: Examine, using the social judgement theory framework, the discrete behaviours and strategies individual health visitors adopt during decision-making processes.

1.1.4 The study

Using ethnography this study explored the daily activity of thirteen (13) health visitors in consultation with their clients. Thirty-nine (n39) consultations were completed in real-time by the health visitor participants between July 2019 and February 2020. Participant observation allowed practice to be examined in real-time. Observing the events as they developed made it possible to identify nuances of practice and the social norms which would otherwise have gone unnoticed. All consultations were video recorded. The 'Think Aloud' method was adopted following each consultation. This method enabled the health visitors, when watching the video recording of their consultation, to talk about what they saw and share their associated feelings and thoughts. The 'Think Aloud' events were audio recorded. Verbatim transcripts were created of the recordings (video and audio). Written informed consent was given by each participant (health visitor and client), (See Appendix One: Consent form). Consent for the study was obtained from NHS Health Research Authority, (HRA Health and Care Research Wales (HCRW), (See Appendix Two: Letter stating consent to undertake the study).

1.2 The structure of the thesis

The thesis will comprise seven chapters.

Chapter One: Introduction and Background to the study. The chapter sets the context and rationale for this exploratory study and outlines the format of the thesis. Firstly, the chapter will introduce the health visitor and outline reasons why it is important to investigate the decision-making processes adopted by this professional group. By examining the social and

political factors leading to the development of the health visitors' distinct role and functions, the chapter considers the issues that have over time influenced their decision-making activity. Aligning historical and contemporary factors, literature, and research the chapter will then critically consider the importance of understanding the process rather than merely recognising the outcome of decision-making activity.

Throughout, the chapter will consider, key themes from health visiting and decision-making research to acknowledge the challenges that health visitors face when articulating the processes they adopt to make clinical decisions.

Chapter Two: A Scoping study and Narrative Review of the Literature. This chapter presents the methodology and literature selected using the 'Arksey & O'Malley [scoping study] framework' about health visitors' decision-making practice. It will outline how the use of the 'Arksey & O'Malley framework' made it possible to explore the complex subject of health visitors' decision-making practice. In addition, the way the scoping study accommodated exploration of this practice-related question, and an examination of the extent, range, and characteristics of associated research activity will be presented. In so doing, the chapter will consider the five steps of the scoping study, incorporating the research question, the strategy for identifying and selecting the studies, as well as that adopted to collate and report the findings.

In portraying the findings of the scoping study, the chapter will firstly present a numerical analysis of the data, and this will be followed by a narrative review of the emergent themes. During the chapter, consideration will be given to the five charting and synthesising elements of the PAGER framework developed by Bradbury-Jones and colleagues (Bradbury-Jones et al., 2022). In this way the discussion will outline the patterns emerging from the data, the portrayal of health visitors' decision-making activity over time, and the associated gaps in current knowledge.

Chapter Three: A Theoretical Framework to Explore Health Visitors' Decision-Making Practice. This chapter considers the theoretical landscape for contemporary decision-making practice and sets the theoretical context in which to explore the decision-making processes adopted by health visitors in their clinical practice. By introducing social judgement theory, and its empirical basis the chapter presents the theoretical framework adopted for the study. Firstly, the chapter considers the origins of social judgement theory, its development, and founding principles. As the chapter progresses, the social judgement theory framework will be presented alongside its six component features which explain the terminology needed to understand decision-making activity in natural settings. In conclusion, the chapter will consider the benefits and limitations of the social judgement theory framework as a tool to explain the processes adopted by health visitors during their decision-making activity.

Chapter Four: Methods and Methodology. This chapter will outline the process used to select the methods and methodology. In so doing, it will explain how each element aligned to create the building blocks of the study. Throughout the chapter, the account will show how this alignment enabled a detailed exploration of the behaviours and strategies demonstrated by each health visitor participant when interacting with mothers and children accessing NHS health visiting services. In this way the chapter will outline how the selected methods and methodology created a context where learning came from the participants' actions and behaviours.

By first introducing the conceptual framework the chapter will explore the relationship between each element selected to collect and analyse data during the study. In so doing the account will detail how these connections created a cohesive research design capable of addressing the study intentions.

In addition, the chapter will introduce each element of the methods and methodology, including ethnography, and ethnographic participant observation, the 'Think Aloud' method, the social judgement theory framework, and thematic analysis. By exploring each design

element in turn, the discussion will outline the ways they have been used to fulfil the intentions of the study.

The chapter concludes with an exploration of the way features have been incorporated into the design of the study to provide assurance of rigour and credibility.

Chapter Five: Findings of the Study. This chapter will present the findings from the study and examine the decision-making processes adopted by the health visitor participants during their consultations with mothers. Using detailed data drawn from the ethnographic observations during the study, the chapter will provide extracts to illustrate the features of the behaviours and strategies that form part of the decision-making processes individual health visitors adopted.

The chapter begins by presenting the findings that illustrate the social norms and culture associated with the contemporary context for individual health visitors' decision-making practice. Using the social judgement theory framework the chapter will then present an examination of the behaviours and strategies allied with the decision-making processes adopted by the individual health visitors and captured during the ethnographic participant observations and the 'Think Aloud' events during the study.

Chapter Six: Discussion. This chapter examines the findings from chapter five concerning the decision-making processes the health visitors follow in their daily practice. Using elements of social judgement theory, the discussion explains the behaviours and strategies adopted by the health visitors and considers the ways they contribute to decision-making processes. Throughout the chapter, emerging knowledge is presented alongside each theoretical proposition, to explain ways in which the features of social judgement theory and the associated framework can increase understanding of health visitors' decision-making processes. The chapter ends with a critical exploration of the extent to which the use of the

social judgement theory framework can provide a route that facilitates explanation and understanding of health visitors' decision-making processes.

Chapter Seven: Conclusion and Recommendations: This final chapter will consider the ways in which the ethnographic study has fulfilled its original intentions. Considering the chosen methods and methodological approach, it will examine how they facilitate insight into authentic decision-making activity, and enable recognition and understanding of the distinct, often subtle, nuanced processes that individual health visitors complete when making decisions. Messages from the study will be presented to explain and critically examine the processes health visitors adopt when making decisions in real life situations. Reflecting on the intentions of the study, each objective will be considered to analyse and examine the contribution its achievement makes to new knowledge, and an emerging understanding of the decision-making processes health visitors follow when responding to clients' problems and issues during consultations. To conclude, key implications will be considered and presented as recommendations for future education, practice, policy and research.

1.3 Context and rationale for the study

The ability to make and articulate decisions is seen as an element of advancing (nursing) practice, which is over and above that expected of a nurse at entry to the profession (Cranley et al., 2009). It involves applying practice, theory, and research during care delivery and is something that develops with time and experience, once the individual has completed activities several times (Thompson & Dowding, 2009). Although research shows that health visitors (as registered nurses with additional post registration education and training), make decisions during their everyday clinical practice (Chalmers, 1994, Carr, 1995, Reynolds, 1996, Hogg et al., 2013), the process is poorly understood and difficult to identify because it tends to be conflated with other activities, including needs assessment, professional judgement, and gut feeling. In addition, rather than describing the decision-making process, the overall situation tends to be summarised as a 'gut feeling' and relevant information is not shared.

Reflecting on experiences throughout my career, I recall several such cases where having made a decision in my clinical practice, I described my reaction to the situation overall, for example, a 'gut feeling'; a sense that something was not quite right and tended not to explain the process I used to decide how to respond. For example:

1. *As a student midwife, being greeted on a home visit by a pregnant woman who told me she was tired because her toddler was very active. Rather than going through the checklist of required tasks for the pre-hospital birth assessment, I decided to prioritise the urinalysis, noted proteinuria, which alongside, other symptoms, indicated that rather than being tired, the woman was in the early stages of pre-eclampsia.*
2. *As an experienced health visitor, I remember the young mother who initially asked for my help because her child was not speaking and then stopped answering the door for planned home visits.*

My actions were not always the same as those listed on my task list, nor were they in the same order as my original intentions. Instead, I collected new information and identified more important tasks that needed to be done first. For example, although my intention during the first home visit to the pregnant woman was to complete the standard pre-birth assessment, a sense that something was not right made me amend my priorities. I decided to first deal with the woman's symptoms and ensure she received the emergency treatment she needed. Regarding the second example, although initially disappointed that the young mother had rejected my help, feeling that it may be related to something more than service refusal, I decided to complete a home visit opportunistically. In so doing, I identified that mental health had affected the mother's ability to accept the service and that the child still needed the intervention.

In each situation, even though I had a sense that something was not quite right, I did not know what was wrong until I explored further. Although I described the outcome, and my

subsequent actions, I did not explain how I made the decisions. Instead, I attributed it all to 'gut feeling', and tended not to explore the process.

Traditionally, 'gut feeling' tends to be considered a beneficial attribute because, as recognised in Benner's seminal research (Benner, 1984; Benner, 2001), it is associated with experience in the field. It is usually aligned to a level of competence that enables the clinician to illustrate that, as well as having the information, they understand it sufficiently to use it in different ways depending on the situation they face (Benner, 2001). Although this belief tends to be recognised by those in the health visiting (and nursing) professions its status and the credibility given by clinicians in related health and care fields is limited because it is seen to be the outcome of impulsive, poorly considered, actions open to bias (Munro, 2011).

1.4 The health visitor

Health visitors are qualified nurses or midwives, registered with the Nursing and Midwifery Council (NMC), who have completed additional education at degree or masters' level. Although the regulatory and associated education and public protection mechanisms relating to health visitors are managed across the United Kingdom (UK), the policies for practice and service delivery tend to be specific to the country in which the health visitor operates. This means that the service offered in each country may differ. Where policy related examples are given in the Thesis, these will tend to relate to England as the largest provider of health visitor services in the UK and location for the study.

Health visitors comprise a mixed population and can work in roles with direct client contact, managerial or education responsibilities. Others work in specialist roles with specific groups of clients; for example, addressing issues relating to safeguarding, breastfeeding, or domestic violence (Cowley et al., 2013).

Health visitors operate in complex situations, simultaneously managing high volumes of information which may be incomplete or subject to frequent changes. Their engagement with children and families begins during the first two weeks of a child's life and ends when the child is five years old. This means that they regularly face situations where their decision-making process begins with a sense or feeling that although 'things are not quite right' they do not know what is wrong (DH, 2009a; DH, 2009b; DH, 2014, Department for Education, 2015, National Health Service England, 2014; NHSE, 2016).

1.5 Why do we need to know how health visitors make decisions?

The literature highlights that health visitors make far reaching decisions about children during the first five years of life in situations that are complex, and often unpredictable (NHSE, 2014, DfE, 2015, NHSE, 2016). However, the continued inability to describe the processes adopted for decision-making activity means that this aspect of the health visitor's role remains hidden and poorly understood. This makes it difficult to review the processes they adopt in a timely manner. In addition, it also makes it difficult to prepare new entrants for their decision-making role and functions (Hamm, 1988, Cader et al., 2005, Dijksterhuis & Nordgren, 2006).

1.5.1 Health visitors work alone as autonomous practitioners

Recognition of how decisions are made in clinical practice is important because by working autonomously with children and their families in community and home based settings, health visitors are rarely overseen by others and so the processes they adopt to make decisions can only be considered and critiqued retrospectively, sometime after the original event. In these situations, information tends to relate to the quality of the decision (i.e., whether it was believed to be good or bad), rather than the behaviours and actions adopted to make it. For example, in the serious case review which documented the circumstances leading to the death of Peter Connolly, evidence of the health visitor's decision-making practice was considered to have been inadequate (Haringey LSCB, 2010.p114). Despite such beliefs, there appears to be no urgency to prospectively identify the processes adopted by

health visitors when making decisions in clinical practice. This may be because many of the decisions that health visitors make are appropriate and lead to positive outcomes for children, which do not receive the same level of media attention, political or professional scrutiny as poor decisions. It could also be because decision-making practice tends to conflate with processes like problem solving and needs assessment. Here, predictable elements are likely to be selected and incorporated into checklist style tools which prescribe the information to be collected and reported. Although these tools assist with the collection and collation of information, they tend not to make explicit the decision-making process adopted, for example, when selecting the information to use and discard, and the most appropriate actions to take. This means that the health visitor's decision-making activity remains hidden and is not recognised as part of their role and functions, despite the impact it has on the child's safety, protection, health, and wellbeing (Luker & Chalmers, 1990, Chalmers, 1992; Chalmers, 1993, Appleton & Cowley, 2004; Appleton & Cowley, 2008a; Appleton & Cowley, 2008b, King, 2016).

1.5.2 Health visitors see children routinely and connect them with the multi-agency team

Health visitors lead a universal child health service and care for children over a five year period from birth to school entry. They are the only health professional to routinely see children in their home. In addition, health visitors focus on children's health and wellbeing, and do not merely see them when they are unwell. This means that the decisions health visitors make can relate to the child's health, wellbeing, and safety; the implications of which can be far reaching. This is particularly the case, because for some children the health visitor may be the only health professional they see on a regular basis during the first five years of life. Consequently, the decision-making processes adopted by health visitors must enable them to consider the issues needed to promote childrens' health, wellbeing, and safety. As health care professionals, health visitors must therefore adopt decision-making processes that enable them to plan and deliver quality care, which is cost effective, efficient, and able to provide a positive, safe experience for children and families (Health & Social Care Act, 2012, Health & Care Act, 2022).

1.5.3 Health visitors work in ways to connect socio-clinical elements of care

Although the focus of intervention and responsibility for the health visitor is the child, to gain access they must first be accepted by the adult carer (usually the mother). This is not automatic and is not legally supported. Access is largely decided by the mother based on personal, social factors; for example, if she likes the health visitor, feels she can trust them or feels she needs their help (Donetto et al., 2013; Donetto & Mabin, 2014). For many, the philosophy of accessing a health care practitioner when one is well, and illness free, is an alien concept. In addition, barriers to acceptance may also be associated with memories (although not personal) of the health visitor as part of the 'welfare', an organisation that could take the child away if the mother was not considered to be a good parent.

Although health regulation and the service offered clearly places responsibility for the care of the child with the health visitor, they do not have direct access. This means the health visitor must decide which strategies and mechanisms to use to engage the mother, and gain access to the child, on multiple occasions. The health visitor is therefore continually focusing on more than one element at the same time. In addition, in contrast to the medical model of care, the health visitor focuses their care aspirations and plans on the person (the child and mother) and not the illness. Intervention involves more than making a differential diagnosis. This is because it requires knowing more about the person than the illness, signs and symptoms, condition, and treatment options.

Indeed, the health visitor decision-maker does not fit neatly into medical or the social model of care delivery. Daily, the health visitor will straddle both models and must adapt their approach according to the situation to manage different issues simultaneously and effectively, including:

- **Child development and the home environment.** As home visitors, health visitors must consider the environment and the availability of safe and sufficient space for the child to grow and develop.

- **Child safeguarding and protection through uninhibited access to the child.** With no legal access to the child, the health visitor seeks to achieve this by brokering effective relationships with parents. To keep the child safe from harm and neglect, health visitors may also be involved in brokering safe relationships between the parent and child as well as those between parents.
- **Child health and wellbeing using measures to improve and promote health and prevent illness.** As public health practitioners, health visitors consider the breadth of issues relating to physical, psychological, social, and emotional health and wellbeing. Although their focus is primarily on children, they must simultaneously manage the parent's feelings, behaviours, and actions. Conversely, although a medical doctor may be faced with similar issues, they tend to direct their attention to the medical condition and associated treatment. For example, by prescribing antibiotics for a bacterial chest, or ear infection.

By observing the health visitor participants in familiar real life situations, the study identified their usual behaviours and activities during decision-making practice. In so doing, it provided important insights about the decision-making processes adopted by health visitors which tend to be missing from existing research and literature.

The next two sections of the chapter will outline the societal and political factors which have contributed to the contemporary role, function, and decision-making position of the health visitor. Presented here they will highlight the issues for consideration during the exploration of how health visitors make decisions in clinical practice.

1.6 The societal position of the health visitor

As autonomous clinicians, health visitors use advanced level skills to work in the client's home and clinic settings; to lead delivery of the Healthy Child Programme, the evidence based programme of support, which starts in pregnancy, continues through the early weeks of life and throughout childhood (DCSF, 2009, DH, 2009a). Current practice requires the

health visitor to contact all women during pregnancy, following the birth and maintain contact with the family for the first five years of the child's life (HM Government, 2021a, PHE, 2021, Office for Health Improvement & Disparities, 2023). Health visitors deliver a universal service that aims to provide personalised care in response to four levels of individual client need (HM Government, 2021a). This makes their work complex and difficult to predict (Cowley, 1995).

- **Community:** information about services that families can choose to access in their community including children's centres and self-help groups.

- **Universal:** all families have access to a health visitor, five (5) development assessments during the first two and a half (2 ½) years of a child's life and information about parenting and immunisation.

- **Targeted:** additional health visitor advice and support for specific issues including maternal mental health, weaning or sleep management.

- **Specialist:** all families with complex needs have access to a health visitor who will provide ongoing support and advice, refer and coordinate interventions from specialist services.

(HM Government, 2021a, Public Health England, 2021, Office for Health Improvement and Disparities, 2023)

Health visitors are important partners in the multi-agency team and work with others including the general practitioner (GP), social workers, the police, and early years practitioners, to safeguard children from abuse and neglect. This element of their casework is considered a priority; however, it may relate to less than 10% (n= 50, 010) of the children with whom they have contact (National Society for the Prevention of Cruelty to Children, 2021). The largest proportion of the health visitor's casework relates to children who may require their help before problems arise (Wave Trust, 2013, Parent-Infant Foundation, 2015, HM Government, 2021b). To work effectively with these children, the health visitor must

manage ongoing situations and anticipate future needs. This may involve working with parents to manage the transition to parenthood, and help them care for the child's health, wellbeing, growth, and development. In addition, the health visitor must work with families to deal with major crises where the child is at risk of abuse and neglect because of issues relating to parenting capacity, the living environment and the child's growth and development (DH, 2000a; DH, 2009a). The health visitor's work is therefore multifocal and occurs concurrently over time. Consequently, this means they may be working with a mother providing advice and encouragement to develop problem solving strategies and at the same time be working with another family that requires emergency and intensive intervention (Carr, 1995, Williams, 1997, Taylor et al., 2009, Cowley et al., 2013).

1.7 The political dimensions of the health visitor role and functions

As a social service provided by women for women, the health visitor service began as a state sponsored service at a time when children were seen to be worthy of national investment (Dingwall, 1982). Throughout history, service provision has continued to be shaped by governmental policy and has therefore been influenced by the prevailing ideology (see Appendix Three: Socio-political influences on the health visitor role and function (1900-2023). This can be seen when different political parties are elected to government. For example, with a Labour party in government, service provision tends to be based on the principles of collectivism and is likely to be universally available to all. Conversely, when a Conservative party is in government, provision is more likely to be influenced by the principles of individualism. Here the service tends to be available to some but not others because provision is targeted to those who meet the requirements stated within selection criteria (Dingwall, 1977).

The variability of political control has also changed the content of service provision. For example, the medical context for child health practice presented in the 1980s. By 1989, the programme of child health surveillance, within the health for all children framework, required the health visitor to scrutinise the child's development at specified ages and identify deficiencies (see Appendix Three: Socio-political influences on the health visitor role

and function (1900-2023). Health visitors at the time were also required to solve problems and refer to other professionals for treatment (Cody, 1999). However, by the late 2000s political attention moved to public health. This was seen, for example, by 2011 in England, when the Westminster Government, focused on creating the 'Big Society' (see Appendix Three: Socio-political influences on the health visitor role and function (1900-2023). This meant that the health visitor was required to direct their focus to the societal factors influencing child health and wellbeing and were again tasked to support and enable parents to care for their children (HM Government, 2010a).

Although the requirement to support, assist, and enable mothers to care for their children has been a key feature of the health visitor's remit for more than 70 years, this has not always been the case (Children Act, 1948, Ministry of Health, Department of Health for Scotland, Ministry of Education, 1956). Policy before the 1948 Children Act required them to investigate children at risk of abuse. Movement away from an investigative to a more passive, supportive role, was confirmed with the publication of the Jameson Report in 1956 (Ministry of Health, Department of Health for Scotland, Ministry of Education, 1956). After this point, the health visitor was required to be the family friend, advisor, and home visitor (Ministry of Health, Department of Health for Scotland, Ministry of Education, 1956). They were required to encourage the poor women of society to voluntarily accept their teaching about hygiene, ventilation, and diet (CETHV, 1977, Dingwall, 1982, Davies, 1988). The imperative not to compel but to entreat was summarised by Dingwall in the following statement,

> "*Health visitors seek to remonstrate, reason, persuade or entreat but not to compel.*"
>
> (Dingwall, 1982, p. 341)

The foundations of this largely, encouraging role can be found in the early 19th century and may provide some explanation for the implicit nature of the health visitor's decision-making activity today. During this time, women were selected into the role not for their skills but for their gender. The aim was to gain acceptance in the workplace, and this happened because women could be tactful, sympathetic, and persuasive (Davies, 1988). The belief was that

men did not have these skills. Indeed, decision-making activity is more likely to be associated with assertiveness and confidence which, if used at the time, may have limited the degree to which the health visitor was accepted.

Throughout the 20th century the health visitor continued to adopt this persona to become the '*family friend*' and engage with people new to or fearful of '*state*' intervention (Chalmers, 1992). Indeed, research shows that they continue to describe using non-authoritarian, informal conversational style approaches, to retain the persona of family visitor and promote friendly, unobtrusive, engagement (Cowley & Houston, 2003). However, for the first time observational research in the 1990s described the use by health visitors of problem solving and prioritisation skills (Luker & Chalmers, 1990, Chalmers, 1993, Cody, 1999). This suggests much more of an active decisive element than tended to be depicted in earlier role descriptions (see Appendix Three: Socio-political influences on the health visitor role and function (1900-2023).

Over time therefore, the health visitor has adapted their activity to meet prevailing political and societal requirements. Although a move to educational preparation for their role came with the introduction of nurse education as the entry route for health visitor training, the health visitor's ability to meet their role and functions was expected to come from life experience and repetition (Council for the Education and Training of Health Visitors, 1977). Political commitment to develop and strengthen capability and capacity in the profession can be seen over time within England and the devolved countries (Scotland, Wales, and Northern Ireland). The most recent change for all UK health visitors has emerged with the publication by the Nursing and Midwifery Council (NMC) of the standards of proficiency for specialist community public health nurses, (NMC, 2022). This marks a change in the educational preparation of health visitors and will come into operation in September 2024.

The political will to financially support increases in capacity continue. Indeed, the publication of the NHS long term workforce plan in 2023 details an aspiration to increase

those entering the profession by providing additional training places (NHSE, 2023). Over time, various UK governments have committed to re-developing the profession. For example, between 2011 and 2015 the Coalition Westminster Government's financial commitment to re-develop health visiting enhanced the profile and recognition of health visitors in health and social policy (DH, 2011, NHSE, 2014, DH, 2015, NHSE, 2016). It did this by increasing the number in the workforce; commissioning health visiting research; developing a service specification and introducing a model of practice (DH, 2011, Cowley et al., 2013, Donetto et al., 2013, Whitaker et al., 2013, NHSE, 2014, DH, 2015, NHSE, 2016). For the first time policy about the health visitor's remit was developed in line with the economic evidence to provide the '*best start in life'* for children, especially those born into families disadvantaged by poverty, mental illness, and unemployment (HM Government, 2010a, Wave Trust, 2013). The political intention focused on '*getting it right for children and families*' (DH, 2009a). At that time, the health visitor's remit was on the child within the family, rather than the child in isolation. This new focus was stimulated by several public inquiries into the death of children including Victoria Climbié and Peter Connolly (DH, 2000b, Haringey Local Safeguarding Children Board, 2010). Although government policy again moved the health visitor remit towards reducing child deaths, the passage of time meant that death was now more likely to occur through parental maltreatment than poor hygiene (DH, 2000b, Haringey LSCB, 2010). The health visitor was again described as the professional with responsibility for protecting children from abuse and neglect and was required to prioritise this element of their role (DH, 2009b, HM Government, 2021a). Although, given these responsibilities, the role of the health visitor continues to be one of case finder which complements the case worker and investigator role of the social worker (Malone, 2000).

The present-day health visitor continues to provide a universal service, which means that they can capitalise on the normality of their presence in families and therefore continue to influence the health and wellbeing of children (Ling & Luker, 2000, HM Government, 2021a). Contemporary health visitors are described as being omnipresent and they join the social structures of several professional groups including social workers (SW), general practitioners

(GP), paediatricians, speech, and language therapists (SALT) to improve the health and wellbeing of children. Current health policy across the UK now positions health visiting services within universal health services, available for all children and families. The service seeks to promote child health and wellbeing and the health visitor's role and function is again to teach parents to care for their children (HM Government, 2021a).

Since devolution in 1999, provision in England differs from that in the other three countries of the UK. Here the health visitor leads the health visiting team and works alongside practitioners including the community staff nurse, the nursery nurse, the administrator, parents, and communities (NHSE, 2014; NHSE, 2016, HM Government, 2021a). Service commissioning is controlled by local authority defined outcomes and provision is the jurisdiction of the health service (Health & Social Care Act, 2012, NHSE, 2014; NHSE, 2016, PHE, 2021, Health & Care Act, 2022). The health visiting service of the 2020s is required to intervene early and act before problems arise (HM Government, 2021b). Although prevention continues to be an imperative, advances in understanding of brain development means that increasing priority is now given to improving maternal-child relationships over time through attachment (HM Government, 2010a; HM Government, 2010b; Allen, 2011, HM Government, 2021a; HM Government, 2021b, PHE, 2021). As the leader of the team, the health visitor continues to consult alone and tends not to be observed by other members. However, because the requirement is to delegate tasks to team members including the registered nurse and the nursery nurse, the health visitor may no longer be the only clinician to work with the child. Furthermore, because of this change in service provision, the health visitor may see some children only once during the five years they are on the caseload. This provides limited opportunities to revisit issues or decision-making activity. It marks a potential change in the health visitor's decision-making behaviour because to be assured of the child's safety, health, and wellbeing, they must now rely on the practice of others, not merely themselves, to collect relevant information.

Further challenges to the health visitor's decision-making activity in clinical practice are likely to be seen with the increasing use of technology to facilitate face-to-face consultations

where individuals are not co-located (Barlow et al., 2020). In addition, the changing composition of the family and society (Childrens Commissioner, 2022) as well as the financial tensions associated with the provision of universal, preventive, services are all likely to pose additional challenges to the process the health visitor adopts when making decisions in their clinical practice. This may be because in these situations the information is not readily available. However, the changing needs of society and people within it mean the health visitor must continually adapt their practice to meet the individual's needs. With more people to see, and the increasing complexity of need, the decision-making processes adopted must be explicit and the detail clearly explained.

It is apparent therefore that, over time, several political and societal factors have affected the health visitor's role and functions. Although their role has changed, the health visitor's function as a non-authoritarian, family friend, has remained relatively stable (see Appendix Three: Socio political influences on the health visitor role and function (1900 – 1923). Considering this background, the following section defines decision-making and acknowledges the difference between the process and the outcome (the decision).

1.8 Definition of decision-making

The study adopts the definition of decision-making developed by Herbert Simon (Simon, 1955). As the first to consider human decision-making, Simon defines it as a process rather than an outcome.

> *Decision-making is a solution focused, person-specific process, comprising the three stages of problem identification, information collection and action selection. Using social interaction, it requires individuals to manage information, understand what it means for the situation and choose from several possible options, the most appropriate action* (Simon, 1955).

While Simon (1955) acknowledges that individual decision-makers use the same brain functions during decision-making to think, pay attention, remember and process information, he also recognises the diversity with which they use each one (Simon, 1955). By acknowledging that decision-making processes continue with incomplete and unpredictable information, Simon defines the process as one which leads to 'good enough' rather than completely rational, optimal choices (Simon, 1955).

1.9 The context of health visitor decision-making

By exploring the context in which health visitors make decisions, the next section illustrates how distinct elements of the environment, setting and circumstances of health visiting practice are accommodated within Simon's definition. In this way the section demonstrates the extent to which the definition provides a good fit with the exploration of health visitors' decision-making activity. Firstly, consideration will be given to the health visitor-client consultation. The section will then examine the four issues identified from the literature which characterise the context for health visitors' decision-making. These include,

- Limited research;
- Person-focused approaches to practice;
- Practitioners that adopt an acquiescent and a friendly style persona;
- Socio-medical client issues that relate to enduring, rather than one-off events.

1.9.1 The health visitor- client consultation

The health visitor-client consultation usually involves the health visitor, the mother, and the child(ren). In line with the peripatetic nature of the health visitors' role and functions, the consultation may take place in home or non-home settings. Although models and frameworks exist for managing the consultation, no such model or framework tends to be prescribed for use by health visitors. In this way, the health visitors are free to choose their preferred approach for conducting the process. Typically, the intention during the consultation is to create a two-way flow of information. Ultimately, the intention is to encourage mothers to talk and share their information so the health visitor can consider the

situation and identify any issues that alert them to problems. This usually marks the start of the decision-making process because it enables the health visitors to begin collecting information. During the consultation, the health visitors are likely to collect information by observing the mother-child interaction, the mother's behaviour, and activity and by listening to what has been said as well as that which, although expected was not heard during the consultation. Although, other sources of information will be available including that within the electronic health record and the personal child health record, the most up to date, current information will come from the mother.

1.9.2 Limited research

Research about health visitors' decision-making in clinical practice is limited and therefore relies on other health and social care professions including medicine, nursing and psychology for information and insight. Although the fields of medicine and psychology provide a strong evidence base for decision-making in health and care situations, there is a dearth of research about the approaches used by health visitors (Hamm, 1988, Cader et al., 2005, Dijksterhuis & Nordgren, 2006). In addition, the theories and range of approaches provided by psychology, although informative, provide little direction about the benefits of one approach over another (Jonassen, 2012). This means that the evidence for health visitors' decision-making is limited and relies on its links to the field of nursing where decision-making research is in its infancy. However, health visitors and nurses operate in different ways. This means that health visiting is unlikely to find the relevant decision-making information and insights from only one profession.

1.9.3 Person-focused approaches to practice

The health visitor focuses on the person and seeks to understand their situation by listening to their story. Operating in non-acute settings, outside of hospital, in the client's home, or clinic, health visitors are more likely to create a partnership than a hierarchical style relationship with the client. Although able to talk and listen, health visitors tend to create situations in which the client talks, and they listen. In this way they are more likely to

engage in conversation than instructive discussion, and collect information through observation, silence and by revisiting issues over time.

The seminal research completed by Benner and colleagues in the late 1970s provides helpful insights when considering the context of health visitor decision-making. Like Thompson & Dowding (2009), Benner and colleagues considered the actions of nurses and recognised decision-making as an element of advancing practice. However, they associated it with the nurse's ability to understand the situation rather than merely remember the signs and symptoms associated with the condition (Benner et al., 2009). Instead of prioritising the need to remember signs and symptoms using recall and rote learning approaches, Benner and colleagues suggested that to make a decision, the nurse must focus on the person (Benner et al., 2009). To Benner and colleagues, the advancing elements of practice came with the ability to understand the situation from the person's perspective and thereby identify changes irrespective of the subtlety with which they present (Benner et al., 2009). Adopting this approach, Benner and colleagues recognised that nurses could make decisions even when faced with situations they did not expect (Benner et al., 2009). Like the nurses in Benner's research, the health visitor's tools for decision-making are related to their ability to listen, observe, and find meaning by aligning salient pieces of information.

1.9.4 Practitioners that adopt an acquiescent, and a friendly style persona

As the '*family friend*' health visitors tend to collect information by engaging with people using non-authoritarian, informal conversational style approaches. This helps them to retain the persona of family visitor and promote friendly, unobtrusive engagement to understand the person's situation and story (Chalmers, 1992, Cowley & Houston, 2003). In line with Thompson & Dowding's description of decision-making as part of advancing clinical practice, the health visitor simultaneously applies theory, practice, and research (Thompson & Dowding, 2009). However, they are likely to describe their decision-making practice in terms of supporting clients, needs assessment and problem solving (Appleton & Cowley, 2008a; Appleton & Cowley, 2008b). Although assertive and intentional in their decision-making

practice, research shows that health visitors are likely to associate with a more acquiescent persona to encourage the client (i.e., the mother) to engage, continue using their services and provide ongoing access to the child (Chalmers, 1994).

1.9.5 Socio-medical client issues that relate to enduring, rather than one-off events

Nursing related decision-making research tends to focus on processes adopted in acute care settings in response to the clinical signs and symptoms associated with episodes of illness (Thompson & Dowding, 2009). In these situations, decision-making is articulated in line with the medical model of care. By incorporating a rational, linear, and progressive approach the process allows information about the symptoms, physical signs, differential diagnosis, and prescribed actions to be collected (Thompson & Dowding, 2009). Characteristically, these processes have considered the diagnosis, treatment, and referral patterns associated with a medical condition (Cranley et al., 2009). This research provides limited insight into decision-making processes suitable for the non-acute care settings in which health visitors operate.

Conversely, the health visitor's use of the term 'clinical' is more likely to refer to the features of illness prevention and associated health and social related problems. Rather than following a traditional diagnosis-treat approach, the health visitor is more likely to follow a process which requires consideration of person specific, historical and current information. By simultaneously using their listening, observational and communication skills, the health visitor collects and makes sense of information, which is often presented as cues from the client's behaviour, actions, and the topics they choose to talk about (Tanner et al., 1987, Cranley et al., 2009, Standing, 2007; Standing, 2009). Consequently, the health visitor tends not to have control over the supply of information but instead relies on the client's willingness to provide it. This means that it may be some time before they receive the information needed to give a full picture of the situation or issues. The health visitor, therefore, operates in situations that are uncertain, complex and where the information may be limited because it is incomplete, ambiguous, and conflicting (Rew, 2000). Working with people (i.e., children and families) experiencing a range of health and social issues, the health visitor also operates in situations that are unpredictable and subject to frequent

changes (Turpin & Marais, 2004, Kirkham & Melrose, 2014). They must, therefore, be able to collect context related, salient, information in a timely manner, using an approach which favours engagement rather than enforcement.

Benner recognised that the traditional diagnosis-treat approaches to decision-making would be insufficient for people-focused professions adopting a social model of care. This is because they fail to recognise the person and thereby risk excluding salient elements of information (Benner et al., 2009). Instead, Benner advocated the use of a combined approach to decision-making which incorporated conscious (rational) and unconscious thinking (phenomenological). To Benner, this meant that the process would be sufficiently person (patient) focused to facilitate understanding and recognition of salient information. Furthermore, Benner et al (2009) suggested that this would also allow the decision-maker to manage rapidly changing situations. Here, Benner and colleagues recognised that this process could enable the decision-maker not only to collect information but also to make sense of it even when changes occurred in the amount and type available. Importantly for health visitors' decision-making processes, Benner's research provides some insight into the features required to accommodate changing information that could be context dependent. This is because health visitors can face information that may mean different things depending on the context in which it appears.

Having considered research and explanations provided earlier in this chapter (Chapter one), by Hamm (Hamm, 1988), Cader (Cader et al., 2005), Dijksterhuis & Nordgren (Dijksterhuis & Nordgren, 2006), Benner (Benner et al., 2009) and Thompson & Dowding (Thompson & Dowding., 2009), about decisions and the processes adopted to make them, it is evident that while insights into decision-making activity are provided, the literature tends not to acknowledge the context for health visitors' decision-making activity and is thereby unable to explain the processes they adopt.

However, taking direction from the 1950s seminal research of Herbert Simon, which acknowledges the fundamental difference between the decision as outcome and the process taken to achieve it, the current study recognises several features that closely align to the context in which health visitors undertake decision-making activity. In explanation, as outlined earlier in this chapter, health visitors operate in social contexts, where to collect information they rely on their ability to interact with people and encourage them to talk. In so doing, their decision-making processes must be capable of accommodating complex situations where information may be incomplete and somewhat unpredictable. In addition, rather than seeking to remember and recall information, health visitors focus on activities which help them to understand it.

By focusing on social interaction, Simon recognises that individuals do not make decisions using formal, logical processes, but use their experience, knowledge and ability to connect with people and the environment (Simon, 1955). While recognising the importance of social interaction, Simon also acknowledges the complexity that comes when dealing with people and environments that are unpredictable. Importantly for the current study, Simon's definition of the decision-making process, acknowledges that to make decisions, the individual must recognise a problem exists and seek sufficient information to generate alternative solutions before they can select the most appropriate. In so doing, Simon acknowledges the capability needed to understand as well as collect information. This is particularly important for the health visitor decision-maker, because as stated earlier in this chapter, they must create both a physical and atmospheric environment where it is possible to maximise availability by limiting any restrictions on the flow, quality and quantity of information.

Decision-making research shows that the process may be presented using rational or phenomenological approaches (Benner, 1984). A rational process happens when information is collected, collated and analysed in a logical and sequential way. These processes are consistent and unlikely to change in response to issues arising during each stage (Jonassen, 2012). Rational decision-making process tend to finish once the decision

maker has collected the information and chosen the required actions (Elstein et al., 1978). Conversely, phenomenological decision-making processes happen when the individual uses their experience, knowledge, and expertise to collect and process information (Benner, 1984, Baron, 2008). Here, in line with Simon's definition, information collection, collation and analysis allow the individual to use their experience, knowledge and expertise to generate alternative solutions and select the most appropriate option (Simon, 1955). In this way phenomenological processes can invariably be subject to change.

Rational processes, favoured for the predictability they offer, tend to dominate health service literature (Jonassen, 2012), while the more unpredictable phenomenological approaches are considered less favourably (Lindholm et al., 2014). However, as rational decision-making processes are better suited to non-complex situations where it is easy to identify linear relationships and conclusions, the tendency for national policy to advocate against the use of phenomenological approaches provides limited support to health visitors' decision-making activity. This is because, during their decision-making processes health visitors manage information from several sources, and in diverse formats which may be incomplete. In so doing, they are more likely to operate in complex unpredictable situations where rational processes are known to be unhelpful (Eddy, 1984a; Eddy, 1984b, Jonassen, 2012).

Rather than seeing decision-making in terms of rational or phenomenological thought processes however, Hammond (1988) found that clinicians made decisions by thinking along a continuum from intuition (where they were more likely to use phenomenological thought processes), to analysis (where they tended to use rational thinking). Indeed, research outlined earlier in this chapter, shows how health visitors continue to describe their decision-making processes using intuitive, sensing and feeling type language like, 'gut feeling' (Chalmers, 1993, Chalmers, 1994, Ling & Luker., 2000). While Benner acknowledges the competence and expertise required, details of the processes adopted for 'gut-feeling' types of decisions remain unexplained. This is because the reliance on instinct, inkling or feelings makes it difficult to articulate and this can present a sense of mystery as the details

remain undisclosed to others. In explanation, this means that identification of decisions, and decision-making processes, continues to be poorly articulated by health visitors or the health visiting profession.

By supporting the purpose of a combined approach that avoids complete reliance on conscious thinking, the exploratory work of Benner et al., (2009), shows how unconscious thought allows the decision-maker to attune to subtle changes in the situation, identify salient information, and respond to patient rather than practitioner generated concerns. Benner therefore suggests that consideration of conscious and unconscious thinking can increase future understanding of decision-making because it helps to explain key concepts she describes as the 'skill of seeing', 'skilled know-how' and the 'skill of managing rapidly changing situations' as well as the use of predetermined plans, procedures, and guides (Benner et al., 2009). This seminal research as well as that by Simon (1955) and Hammond (1988), thereby provides important considerations for future investigations into the processes that health visitors follow during decision-making activity because it explores nurse generated narratives and descriptions of their practice with patients (people) in real-life situations rather than merely asking them to recount their memories of past events.

1.10 Theoretical models for decision-making

Promotion of dual-process theoretical models by decision-making research illustrates the importance of combining the use of conscious (*analytical*) and unconscious (*intuitive*) thought at different stages (Dijksterhuis & Nordgren, 2006). They each require different levels of attention and process information at different speeds (Dijkstershuis & Nordgren, 2006). In explanation, unconscious, intuitive thinking is also referred to as gut feeling (knowing that something is right or wrong, but not knowing why) (Dijksterhuis & Nordgren, 2006). It happens instinctively, is rapid, effortless and uses internally generated information. In contrast, conscious thinking is cognitive and requires the conscious processing of external information (Hancock & Warm, 1989).

Research shows that health visitors tend to describe events in terms of '*gut feeling*' (Chalmers, 1993, Ling & Luker, 2000). This term tends to be used when health visitors are concerned about a situation or the wellbeing and safety of a child, but are unable to articulate why (Chalmers, 1993, Ling & Luker, 2000). Aligned to intuition, gut feeling is described as a feeling that something is wrong or not quite right (Dijksterhuis & Nordgren, 2006). Although it is thought to facilitate 'snap' impulsive decisions, Dijksterhuis & Nordgren (2006), suggest otherwise. Their research demonstrates that decisions generated by gut feeling are based on extensive unconscious thought and are only possible once all relevant information had been collected (Dijksterhuis & Nordgren, 2006). Furthermore, they advocate the use of these unconscious thought processes over conscious thinking. In explanation, they suggest that the limited information collected during conscious thought processes can increase the potential for ill-informed decisions. However, concerns about the safety of 'gut feeling' continue to dominate decision-making policies which advocate the use of conscious processes that make it possible to verbalise reasons rather than feelings (Dijksterhuis & Nordgren, 2006, Munro, 2011). However, research by Dijksterhuis (2004) found that this can lead to poor decisions. In explanation, Dijksterhuis (2004) found that decision-makers used both thought processes - unconscious thought in the early stages and conscious thought in the later stages.

Although these research findings exist, official guidelines and checklist style approaches favouring conscious thinking continue to be used in health and social care. This remains the case, despite child death inquiries since the early 1970s, which illustrate that the routine use of checklists was likely to lead to the collection of limited information (Reader et al., 1993, Reader & Duncan, 2000). In explanation, Reader and colleagues found that when using a checklist, practitioners tended to limit their information search to the items within the list. In addition, by considering general information rather than that specific to the child, family or situation, checklists tended to give an unreliable prediction that all was well (Reader et al., 1993). Interestingly, research by Appleton & Cowley (2004) has shown that despite political will, health visitors avoid the use of official guidelines (checklists) and yet continue to collect the information they need when faced with situations that 'are not quite right'. Instead, the health visitors in this study collated and analysed information to identify its

meaning (Appleton & Cowley, 2008a; Appleton & Cowley, 2008b). These steps are often absent from official guidelines and checklists, which means they may not happen when these tools are used exclusively in the decision-making process adopted (Reader et al., 1993). Research therefore suggests that health visitors may use conscious and unconscious thought. However, they tend not to explicitly articulate their use of unconscious thought when describing their decision-making activity (Chalmers, 1992; Chalmers, 1993, Appleton & Cowley, 2004). Recent research suggests that the use of intuition and gut feeling persists (Hogg et al., 2013, King, 2016). Although the health visitors in the study by Hogg and colleagues recognised the need to align their service offer to the service model, when consulting with clients, they described using intuition. Rather than informing their decision, the model was used to formalise their practice. Furthermore, King's 2016 study highlighted the use by health visitors of intuition and gut feeling. They described their recognition of 'alarm bells' which alerted them when something felt wrong or not quite right (King, 2016). This is in line with the literature which states that both thought processes are important when making decisions (Dijksterhuis & Nordgren, 2006). However, as conscious thinking is easier to document and understand, when attempts are made to improve decision-making practice, they tend to be used instead of unconscious processes (Dijksterhuis & Nordgren, 2006, Munro, 2011).

1.11 Conclusion

In conclusion, the literature illustrates how health visitors' decision-making activity continues to be influenced by the social, political, and educational context in which they operate. As autonomous, lone working practitioners who see children routinely during the first five years of life until school entry, it is imperative that the processes they adopt can be recognised and understood in a timely manner. In addition, as key members of the multi-agency team, health visitors connect children to other professionals to ensure they can access the services needed to promote their health, wellbeing, and safety. The health visitors' ability to clearly explain and justify their decision-making processes is again important because they are likely to have far reaching implications for children.

Although the literature highlights how the lack of research continues to make it difficult to recognise and understand the processes that health visitors follow during decision-making activity, it does offer valuable insights into cognition theories. Here, the value of combining conscious and unconscious thinking presented in research about nurses' decision-making activity is something worthy of further consideration in the current study. However, as professionals whose role and function, bridges the socio-clinical divide, the behaviours and strategies adopted by health visitors in their decision-making processes are different to other professionals, even those from medicine and nursing, considered to be their closest allies. Therefore, as the required knowledge is unlikely to come from existing research, further research is needed to better understand the distinct processes adopted.

1.13 Chapter Summary

The chapter has outlined the rationale and format of the study. The structure of the thesis has been presented and a summary provided of each chapter. By examining the changing role and functions of the health visitor, the chapter has set the context in which they undertake their decision-making activity. A review of the social and political factors influencing the role and functions of the health visitor has been presented to facilitate an understanding of the challenges and opportunities for decision-making activity.

Chapter two will present the methodology and selection of the literature about health visitors' decision-making practice using the 'Arksey & O'Malley [scoping study] framework'.

Chapter Two: A scoping study and narrative review of the literature

2.0 Chapter Overview

The rationale and format of the study presented in chapter one set the context for health visitors' decision-making activity. By appraising the socio-political factors influencing the development of the health visitor role and functions, chapter one also highlighted the factors that over time have contributed to the understanding and recognition of decision-making as an aspect of health visitors' practice. In exploring the literature, chapter one identified two issues pertinent to the detailed exploration of published research to be outlined in this chapter. Firstly, the dearth of discipline specific research about decision-making and the impact this has had on the number of published studies. Secondly, the paucity of published research which acknowledges the often subtle nuances in health visitors' practice and the impact this has on their decision-making behaviours and actions.

This chapter presents the methodology and literature selected using the 'Arksey & O'Malley [scoping study] framework' about health visitors' decision-making activity. It will outline how the use of the 'Arksey & O'Malley framework' made it possible to explore the complex subject of health visitors' decision-making practice. In addition, the way the scoping study accommodated exploration of this practice-related question, and an examination of the extent, range, and characteristics of associated research activity will be presented. In so doing, the chapter will consider the five steps of the scoping study, incorporating the research question, the strategy for identifying and selecting the studies, as well as that adopted to collate and report the findings.

In portraying the findings of the scoping study, the chapter will firstly present a numerical analysis of the data, and this will be followed by a narrative review of the themes. During the chapter, consideration will be given to the five charting and synthesising elements of the PAGER framework developed by Bradbury-Jones and colleagues (Bradbury-Jones et al., 2022). In this way the discussion will outline the patterns emerging from the data, the

portrayal of health visitors' decision-making activity over time, and the associated gaps in current knowledge.

2.1 Examining the research about health visitors' decision-making activity

The initial exploration of the research relating to health visitors' decision-making activity outlined in chapter one of this thesis identified a dearth of discipline specific research, and suggested that this may be a reason why the decision-making processes adopted by health visitors are poorly understood. In addition, the literature also suggests that certain practice-related features, although likely to influence the way health visitors make decisions, tend not to be made explicit in published studies. These include an inability of publications to acknowledge the impact of often subtle nuances particularly relating to the inherent uncertainty of situations in which health visitors make decisions. These features may explain why health visitors' decision-making processes continue to be poorly recognised within and outside the profession.

In searching the research landscape for health visitors' decision-making activity, therefore, the researcher sought to identify a process that would accommodate these characteristic features. In explanation, the review process would need to be capable of locating research about a practice-related issue considered to be complex and poorly understood. Furthermore, the research landscape relating to health visiting practice characteristically features small scale qualitative studies (Cowley et al., 2013). As described by Cowley and colleagues in the 2013 review of health visiting, these studies tend to lack the levels of rigour required for contemporary evidence-based practice (Cowley et al., 2013). In addition, the studies tend to be small, one-off projects and the explanations of how health visitors work tend to lack the detail required to promote recognition and progress understanding (Cowley et al., 2013). Although dissemination through publications about practice occurs, publications about health visitors' decision-making activities tend to be somewhat limited to those that more closely relate to the work of nurses (Cader et al., 2005, Benner et al., 2009, Thompson & Dowding, 2009).

To locate the studies therefore, the researcher adopted the scoping study developed by Arksey & O'Malley (2005). They suggest that the scoping study is an approach capable of accommodating complex subjects (Arksey & O'Malley, 2005). In addition, Bradbury-Jones et al (2022) recognise the ability of the scoping study to adapt to the requirements presented by practice-orientated research questions. These features therefore meant that the scoping study approach was one well suited to the current study. In explanation, the intention of the current study was to create a critical understanding of health visitors' decision-making activity and practice as it has developed from the late 1940s to the present day. The scoping study thereby permitted the researcher to examine the extent, range, and characteristics of research activity about health visitors' decision-making in their day to day practice (Arksey & O'Malley, 2005, Bradbury-Jones et al., 2022). Furthermore, by using the scoping study it was possible to systematically identify and analyse relevant literature about health visitors' decision-making activity, irrespective of the study design and quality (Arksey & O'Malley, 2005, Levac et al., 2010). Again, the dearth of large scale research with the level of rigour required for contemporary, evidence-based practice about health visitors' decision-making or from the field of health visiting itself, would have severely limited the development of the literature review.

The scoping study was therefore adopted because of its ability to address the broad topic area of decision-making by health visitors. Rather than necessitating the use of a narrowly defined research question, the scoping study framework made it possible to explore a range of related topics, including 'assessment', 'professional judgement', 'clinical reasoning', 'health visitor', 'child and family nurse', and 'Plunket nurse' (Arksey & O'Malley, 2005). Allowing this level of breadth was important because the term 'decision-making' tends not to feature in research questions or the title and abstracts of relevant publications. In this way, it would enable the researcher to identify a range of publications, where although not explicit, decision-making activity was described using different terms that could provide the detail required to examine practice. Had the opportunity to broaden the search not been available, important literature may have been missed and therefore not considered in the literature review. In addition, the scoping study permitted recognition of any gaps in the

published studies about health visitors' decision-making in clinical practice and the necessary direction of future research.

2.2 The Scoping study

Distinct from other forms of literature review, particularly the systematic review, scoping studies, at times also referred to as scoping reviews, (hereafter referred to as scoping study), have been successfully used in health related research (Daudt et al, 2013, Bradbury-Jones et al, 2022). For example, the scoping study was the approach chosen by the research team conducting the large scale review of health visiting literature published by Cowley and colleagues in 2013 (Cowley et al., 2013). In addition, it has been used in ethnographic studies including that by Mayor & Bietti, which explored nurse-patient relationships (Mayor & Bietti, 2017).

Although sources challenge the quality of the scoping study because of its inability to provide sufficient methodological detail and impose a well-defined research question (Levac et al., 2010), recent design advances have introduced additional quality measures. These include the publication by Tricco and colleagues in 2018 of the Preferred Reporting Items for Systematic Reviews – Scoping reviews (PRISMA-ScR) checklist for scoping reviews [studies]. Here, in line with the PRISMA reporting guidelines for systematic reviews, Tricco and colleagues designed a list of the items to consider when reporting scoping reviews [studies] (Tricco et al., 2018). In addition, Bradbury-Jones, and colleagues in 2022 published the PAGER framework to address the lack of consistency offered by the scoping study when charting and synthesising the findings (Bradbury-Jones et al., 2022). In explanation, the PAGER framework accommodates the reporting of five elements including, Patterns, Advances, Gaps, Evidence for practice and Research recommendations, when charting and synthesising the findings (Bradbury-Jones et al., 2022). In so doing, Bradbury-Jones and colleagues provide a mechanism for transparency and the avoidance of selection bias when charting and synthesising the findings. By providing a methodological approach to analyse

the findings, they offer another mechanism for illustrating quality within the scoping study approach.

Although the PRISMA flow chart was used in the current study to illustrate the systematic approach adopted to select the literature during the search strategy (see Appendix Four: PRISMA flow chart of the literature selection process for the current study), the elements of the PRISMA-ScR have also been accommodated in the process. In addition, the elements of the PAGER framework have been accommodated in the process adopted for charting, synthesising, and reporting the findings. In line with best practice for the narrative review outlined by Ferrari (2015), the current study included additional quality measures with the use of a structured search strategy, and eligibility criteria in the form of inclusion and exclusion criteria. Furthermore, the current study consulted the Medical Subject Headings (MeSH) thesaurus system to develop the keywords and search terms adopted and was guided by a structured search strategy which outlined the databases used (Ferrari, 2015). Although not reproducible, these features ensured the process adopted to review the literature in the current study were both transparent and systematic (Ferrari, 2015, Aveyard, 2023).

2.2.1 Rational for the scoping study

Rather than seeking evidence to support a clinical intervention, as would be the case when selecting a systematic review, the study sought an approach which would allow an in-depth investigation of the literature. In so doing the scoping study was chosen because by selecting evidence through in-depth investigation, it can create a critical understanding of the health visitors' decision-making activity.

In addition, the broad search strategy offered by the scoping study also meant the in-depth investigation could provide evidence of the extent, range, and characteristics of research relating to health visitors' decision-making activity (Arksey & O'Malley, 2005, Bradbury-Jones et al., 2022). Approaches requiring more narrowly defined search terms like the integrative review were not selected. This is because by excluding the use of search terms that are

associated with decision-making these approaches tend to limit opportunities to select the range of publications necessary for an in depth investigation (Arksey & O'Malley, 2005, Bradbury-Jones et al., 2022).

While the literature review aimed to identify the size and scope of published research, it also sought to outline the nature of publications about health visitors' decision-making activity and the language they use to explain it. Early exploration of the literature has shown the multifaceted nature of health visitors' decision-making practice (Cowley et al., 2013). This means that narrowly defined search terms are unlikely to permit selection of relevant literature. By accommodating the exploration of complex practice-related issues, the scoping study thereby made it possible to select publications about health visitors' decision-making activity despite it being complex, difficult to explain and understand (Arksey and O'Malley., 2005). Furthermore, by permitting systematic identification and analysis of one-off projects as well as large or small scale studies the flexibility provided by the scoping study, also made it possible to recognise often subtle nuances contained in the publications (Grant & Booth., 2009).

By adopting the 'Arksey & O'Malley framework' the study followed the five steps listed below (Arksey & O'Malley, 2005, Levac et al., 2010).

- Step one: identifying the research question.
- Step two: identifying relevant studies.
- Step three: study selection.
- Step four: charting the data, collating, summarizing and
- Step five: reporting the results.

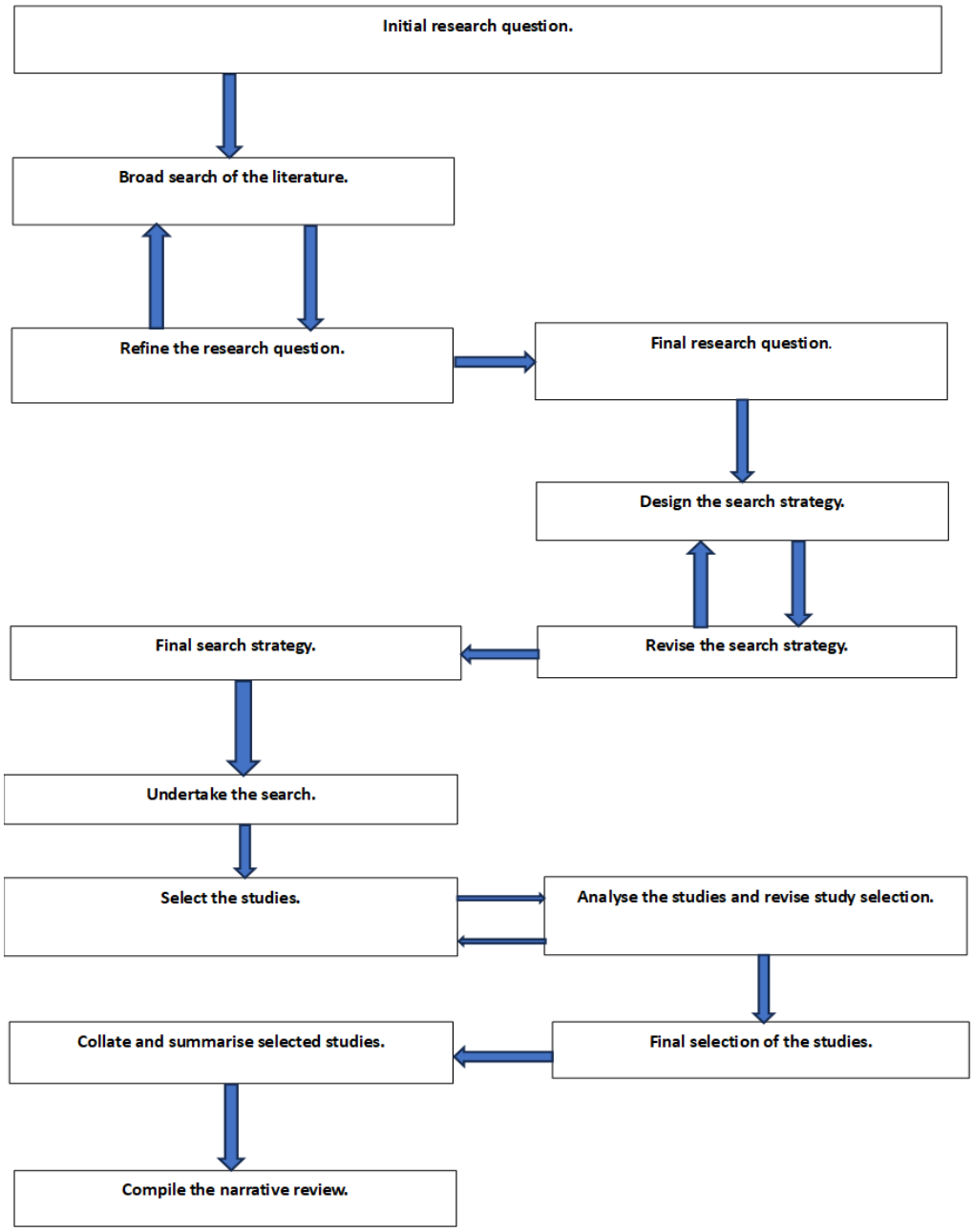
(Arksey & O'Malley, 2005)

Although presented here in a linear way and described by Arksey & O'Malley in a way that implies the scoping study should progress in a linear manner, Levac and colleagues suggest

otherwise (Levac et al., 2010). In explanation, they recognise the opportunities within the flexibility of the scoping study to revisit aspects, including the research question and the keywords within the search strategy. In this way, they suggest that the scoping study permits a more iterative than linear process (Levac et al., 2010). Figure 1: the scoping study process, illustrates the way the scoping study progressed during the current study from the initial research question to the compilation of the narrative review. During the process adopted, opportunities were taken to revisit the research question, the search terms, and the selection of studies for inclusion in the review, as indicated in Figure 1: the scoping study process.

The following section presents the content of each step in turn, from the development of the research question to the reporting of the results. Following this, the outcome of the scoping study is presented and examines the extent, range, nature, and characteristics of research about health visitors' decision-making activity.

Figure 1: The scoping study process



2.2.2 Research question

What decision-making processes do health visitors follow when responding to clients' problems and issues during consultations?

The question allowed exploration of a range of papers about related aspects of decision-making by health visitors. Importantly, it did not seek to test one method of decision-making or to compare one method with another. Rather, the question allowed exploration of several elements, including different processes used by health visitors to make a decision, and different ways that the consultation event may present. Importantly, for the current study, the broad research question made it possible during the search to explore publications which used alternative terminology and presented different perceptions of decision making.

2.2.3 Search Strategy

The scoping study developed a broad search strategy, to draw out and identify the studies about health visitors decision-making activity. The broad search terms presented in Figure 2 were particularly helpful for capturing relevant studies because health visiting research is known to be vast, and has a tendency to span various subject areas, including child health, nursing, and psychology (Cowley et al., 2013).

The research question guided the development of the search strategy. Key points in the question acted as facets which formed the search terms used in the strategy. Arksey & O'Malley, (2005) describe the facets or the aspects of the research question in terms of the population, interventions, or outcomes. However, the framework does not require the researcher to use each facet. Instead, it permits the use of those that are relevant to the research question (Arksey & O'Malley, 2005).

The strategy therefore adopted the facet for population (health visitors) and the intervention (decision-making and consultation). Although decision-making to some may be considered

an outcome, for the purposes of the current study the element of exploration was associated with the process of decision-making and was classified as an intervention. These facets made it possible to search for the studies which considered health visitors and / or the decision-making processes and / or the consultation event.

The aspect of consulting and the health visitor-client consultation was kept broad in the search. This is because health visitors do not use a specific consultation model, nor do they have a prescribed approach that they must use when conducting the consultation event. The health visitors are therefore able to choose their preferred approach. This means that the process adopted is likely to be different for each health visitor and may also depend on the situation. By keeping the search term broad, it was possible to identify studies that described the consultation in different ways.

In addition, terms known to have similar or associated meanings that emerged from the literature were adopted into the strategy. These included health needs assessment and assessment. Although the word, 'consultation' was included as a search term with health visitor and decision-making, it tended to identify publications relating to consultations and the decision-making practices carried out by general practitioners (GP). This finding was perhaps closely associated with the dearth of published studies about health visitors' consultations and decision-making practices. Although these papers were not relevant to the current study, the process was helpful because it picked up publications about consultations and decision-making and thereby supported the validity of the terms used in the searches.

During the early stages of the review, search terms adopted by the 'Why health visiting' study were considered alongside those developed for the current study. This provided a valuable comparison and helped to confirm the relevance and suitability of the terms relating to 'health visiting' (Arksey & O'Malley, 2005, Levac et al., 2010, Cowley et al., 2013, Joanna Briggs Institute, 2015). In explanation, as the search terms had been adopted and used successfully during the large scale health visiting study, they had proven to be relevant

and suitable for locating published research about health visiting practice (Cowley et al., 2013).

Figure 2: The search terms

Health visitor	Decision-making	Consultation
Health visitor	Decision making	Consultation
Health visit$	Problem solving	Consulting
Public health nurse	Clinical reasoning	
Child and family health nurse	Professional judgement	
Plunket nurse	Clinical decision making	
Home visit$	Clinical judgement	
Health visit*		

The databases selected as part of the broad search covered a range of subject areas which included nursing, health, and psychology. Medical subject headings (MeSH) including public health nurse, community health nursing, and home visiting were used. These terms can be associated with health visitors and health visiting in the literature. Although commonly used in the UK, the term health visitor tends not to be recognised internationally. It was necessary therefore to be able to access papers using alternative terminology. Other terms adopted included, 'public health nurse', 'child health nurse,' and 'Plunket nurse'. These terms tend to be used internationally for roles like the health visitor. In addition, generic terms for health visitor including home visit* and health visit$ were used to search the databases. Using the * wildcard meant that it was possible to search simultaneously for health visit-s, health visit-or, health visit-ing which permitted access to all variations associated with the term health visitor. This included the term 'specialist community public health nurse' (SCPHN) used in UK health regulation. Although the term, 'home visitor' is more likely associated with the domiciliary elements of the health visitors' functions than the person, it can also be used in association with accounts of health visitors' practice. It was therefore adopted as a search term.

Although the addition of these terms made it necessary to widen the search, the researcher was cautious not to broaden it to the extent where large numbers of irrelevant papers were retrieved. In so doing, the impact of using of colloquial language including community

nursing in the UK, which tended to be associated with papers involving registered nurses working in non-hospital settings was acknowledged. Furthermore, the term 'public health nurse' in countries, including the USA, also tended to be associated with client groups from various ages through the life cycle, rather than children under the age of five years. Even though the search remained broad, a point of saturation was reached where duplicate papers were retrieved. This helped to confirm the relevance of the search terms, as well as indicating that no new papers were available.

In addition, generic terms for decision-making including problem solving, clinical reasoning and professional judgement were also adopted (see Figure 2). Boolean operators (AND / OR) were used to further clarify the search. Using the operator AND, it was possible to limit the search and the use of the operator OR, helped to widen the search.

The searches were repeated during the study. This helped to confirm the continued relevance and currency of the search terms and strategy overall. In explanation, the continued use of the MeSH headings by the databases to store publications, provided additional confirmation of the enduring relevance of the search terms used (Ferrari, 2015).

The search was conducted on Cumulative Index to Nursing and Allied Health Literature (CINAHL), (covering the nursing and allied health literature); MEDLINE, EMBASE, APA PsycINFO databases, (covering the main biomedical journals). The four databases were accessed through the OVID and EBSCO interfaces and the results were compared to exclude repetition. Figures 3 & 4 provide an example outline of the search conducted using OVID MEDLINE. A search was also conducted using the Web of Science, The Cochrane database, and EBSCO Open Dissertations (see Figure 3 & 4)

The search also included a range of grey literature sources. These were accessed using book chapters and reference lists from articles. A range of policy, guidance and legislative documents were also reviewed. Although these tended not to be explicit about health

visitors' decision-making activity, they provided useful insights which informed an understanding of the history and context influencing this area of practice.

Figure 3: The search strategy for 'health visitors' – OVID Medline

	Ovid MEDLINE	
1	Health visit$	3808
2	Public Health nurse	1180
3	Child and family health nurse	8
4	Plunket nurse	10
5	Exp public health nursing	10507
6	Exp community health nursing	19514
7	1 or 2 or 3 or 4 or 5 or 6	31653
8	Home visit$	8999
9	Exp house calls	3178
10	domiciliary visit	0
11	7 or 8 or 9	9133
12	6 and 10	790

Figure 4: The search strategy for 'decision-making', OVID Medline

	Ovid MEDLINE	
1	Decision making	165861
2	Problem solving	33491
3	Clinical reasoning	2291
4	Professional judgement	174
5	Clinical decision making	14087
6	Clinical judgement	1780

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2.2.4 Study selection: inclusion and exclusion criteria

To eliminate studies that did not address the research question, the inclusion and exclusion criteria presented in Figure 5, were developed at the beginning of the study. This helped to avoid identifying large numbers of papers unrelated to the topics of interest (health visitors, decision-making, consultation). Careful selection also meant that time was spent more closely considering related papers for relevance.

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Figure 5: Inclusion and exclusion criteria

Inclusion Criteria
Primary research papers
Secondary research papers (i.e., systematic review or meta-analysis)
Papers published between 1948-2023 (i.e., this will include any research completed post the 1948 Children Act which formalised the role of the health visitor with child welfare and universal provision to all infants from birth)
Papers presenting qualitative and quantitative research methodologies
Research papers which present decision-making as a process or an outcome of health visitors' activity or practice
Research papers which present studies that refer to health visitors, health visiting, public health nurses, specialist community public health nurses and decision-making, problem-solving, professional judgement, and assessment of needs
Research papers which present studies conducted with health visitors or public health nurses or SCPHN in the UK and non-UK countries (including Scandinavia: (Sweden, Norway, Denmark), Canada, New Zealand, Australia, USA
Papers published in English language
Research papers which present studies about health visitors (PHN/SCPHN) working with children under 5 years old
Exclusion Criteria
Papers which do not present a research study
Papers which refer to community nurses in general
Papers which refer to community nurses that care for people older than 5 years old
Papers not published in English language
Papers published before 1948

Initially, consideration was given to the title and abstract of each paper. If insufficient information meant that it was not possible to make a decision about inclusion, then the article was read in full. This sifting process helped to refine the number of papers. Once this was achieved, the full paper was read, and relevant papers selected. Where the researcher was undecided, the papers were read several times until a decision was made. For example, subsequent reading meant that the initial 35 selected articles were further refined to the 31 that were included in the final review. The details of the search strategy are presented in the PRISMA flow chart (Appendix Four: PRISMA flow chart of the literature selection process for the study).

The searching and sifting process presented some challenges, largely because decision-making is a term that tends to be more readily associated with a medical rather than social model of care. This meant that although papers were found about decision-making, they were not always associated with health visitors or health visiting. Instead, they tended to be associated with the fields of medicine, nursing, and allied health. These papers were excluded because decision-making in health visiting practice and by health visitors in practice is different to that seen in other professions. Papers were also excluded because the focus was on decisions that were made in the context of leading, organising and providing services, rather than in consultation with clients.

2.3 Outcome and findings of the scoping study

The following section presents the outcome and findings of the scoping study. The first section comprises a numerical analysis of the data. The second part will present a narrative review of the themes that emerged from the data.

2.3.1Results of the scoping study

The scoping study located thirty-one (31) papers. To collate the findings, each paper was reviewed by the researcher and the data charted to identify pertinent information using the headings from the ‘Arksey & O’Malley framework’ (Arksey & O’Malley, 2005). These included

the aims, methods, methodology, and the results and outcome of the study (see Appendix Five: charting the data).

The researcher read the papers several times, to identify key themes and issues that came from each study (Braun & Clarke, 2006; Braun & Clarke, 2013). By repeatedly reading each paper, similar themes and issues emerged. The researcher grouped similar issues and themes and in so doing was able to gain greater insight and understanding of the key findings, methods and outcomes relating to health visitors' decision-making activity and practice (Braun & Clarke, 2006; Braun & Clarke, 2013). Further analysis of the groupings made it possible to develop a set of five key themes which shared common issues. These themes are listed in Figure 6.

Figure 6: Overview of the studies- the emerging themes

No.	Emerging theme
1	Health visitors' decision-making processes are hidden.
2	Health visitors' decision-making activity considers far reaching and multi-faceted issues.
3	Sensing and feeling triggers decision making.
4	Decision making is a series and not a one-off event.
5	Decision making is specific to the individual

2.3.2 Numerical analysis of the scoping study findings

The 31 papers identified during the scoping study were published between 1985 and 2020 (Figure 7).

Figure 7: Overview of the studies- year of publication

Year of publication	1980's	1990's	2000's
	2	15	14

Interestingly, the papers retrieved illustrate that over half of the studies were published more than twenty years ago (n=17). As illustrated in the socio-political review in chapter one and Appendix Three of this thesis, health visitors' practice during the 1980s and 90s was influenced by broad role descriptions. This can be seen in the United Kingdom Central Council's 1992 publication about the scope of practice (UKCC, 1992) and the move towards specialist health visitor roles advocated within the Standing Nursing & Midwifery Advisory Committee report published in 1995 (Standing Nursing & Midwifery Advisory Committee, 1995). This could mean that the health visitors taking part in the research studies at the time may not have perceived their role and function to include decision-making activity. Moreover, this may also be why several of the studies published at the time refer to decision-making type activities in other ways. For example, the paper by Chalmers (1993) refers to searching for health needs and in the 1994 study her analysis of the health visitors' semi-structured interviews provides insight into the aspects of their 'difficult work' with clients. These papers illustrate that the health visitors at the time described situations in which they made choices about the issues that required their immediate action and those that could wait until a later date. The papers also described the decisions that health visitors made about where to focus attention during their consultations with clients (Chalmers, 1994). Furthermore, the paper by Cowley (1995) describes a prescribed operational approach to health visiting practice which favoured routine, and failed to recognise the impact of the uncertainty and complexity that health visitors were responding to during their day-to-day activity (Cowley, 1995). This gap between actual and prescribed practice

may have led the health visitors to avoid describing and recognising their activity in terms of decision-making.

Although 14 papers were published in the 2000s, no UK papers have been published within the last five years. The 2018 Australian publication, by Sims and colleagues is the most recent publication and addresses child and family health nurses' decision-making practice relating to maternal mental health. Conversely, the most recent UK publication was by Astbury et al., in 2017.

Most papers (21) were published in the UK. The remaining ten (10) papers were published in countries outside the UK (see Figure 8). Both sets of papers have been included for consideration in the scoping study because they have the potential to inform future research about decision-making practice. This may be because the practitioners have similar role, function, and preparation as health visitors (Lauri, 1989).

Figure 8: Overview of the studies- country of publication

Country of publication	UK	FINLAND	USA	CANADA	AUSTRALIA
	21	6	2	1	1

Although the papers related to decision-making activity and practice by health visitors or practitioners with equivalent roles like public health nurses, this was not always reflected in the title or abstract. The international publications tended to be explicit about decision-making activity. In contrast, for UK publications, decision-making activity was likely to be hidden and couched in process related descriptions like client engagement or support. For example, Rhodes (1985) used self-report questionnaires to explore health visitors' perception of their decision-making remit and found they did not recognise decision-making as part of their role. Instead, the health visitors described their role in terms of 'promoting health' and 'giving support'. In contrast, international publications from the 1990s did not

appear to question the decision-making element of the public health nurses' role. For example, the exploratory studies by Lauri published in 1990 and 1994 do not question if decision-making is taking place; rather they state that decision-making is happening.

However, the UK based Chalmers (1992) paper alluded to the fact that health visitors were making decisions and did not outline how they were made. For example, the health visitors taking part in the Chalmers (1992) study described situations where, to maintain engagement with the client, they chose to focus on some issues and not others. This suggests that some health visitors were not only able to recognise that they made decisions in their day-to-day activity, but they could also explain the situations in which they were made and the outcomes they expected to achieve. However, the title of this paper states that it is about the theory of health visiting practice rather than health visitors' decision-making practice.

The papers also outline the use of different methods for data collection. Eight papers describe a mixed methods approach (8). The most common combination described is the use of interviews with questionnaires (7). This may be because the questionnaires provide greater scope for collecting larger quantities of data. Only one paper described the use of interviews and focus groups (1). This combination offers the potential to gather a rich source of data because it provides greater opportunities to encourage the respondent to tell their story. A disadvantage may be that it is a resource intensive approach, which requires time and preparation, and this may limit the size of the sample. For example, Orme & Maggs (1993) selected 12 clinicians to their study and Reynolds (1996) selected six (6) health visitors. However, these studies used purposive and convenience sampling techniques, respectively. These techniques require the recruitment of people with specific qualities and are known to increase the rigour and credibility of the findings. Furthermore, sample size has not been described as a limitation in the studies identified so it is unlikely to have had a negative impact.

Seven (7) papers used questionnaires alone to gather the data. This method is advantageous because of the potential to gather large data sets without the need for large scale resource.

For example, the large scale studies by Lauri et al (1997) and Lauri & Salantera (1995) recruited 369 (369) and 100 (100) public health nurses respectively to their samples and gathered data through self-complete questionnaires. In addition, the paper by Rhodes (1985) described the perception of 51 health visitors about the extent to which they believed their role and function involved decision-making. Despite increasing the potential to provide a lot of data, the self-complete aspect of questionnaires relies heavily on the motivation of the individual to submit their responses, and a low response rate may limit the reliability of the findings. This means that the sample size is not always reflected in the responses received. For example, the paper by Fieldman et al (1993) aspires to provide insight, through self-complete questionnaires; of 55 public health nurses' service provision decisions when faced with three anonymised real life scenarios. The public health nurses in the study were asked to indicate if they would terminate or maintain the service in each scenario and to rank the factors that determined their decision. Despite sending reminders, Fieldman et al (1993) received responses from only 33 public health nurses, a response rate of only 60%. Furthermore, the data from questionnaires provide responses to set questions which may not always give insight into the respondent's actual practice and activity, especially if this is different to the content of the available responses.

Interestingly, the use of additional techniques for data collection including the 'Think Aloud' method and simulation are limited in the papers selected. For example, using the 'Think Aloud' method, Lauri (1990) asked the 20 public health nurses in the study to talk about their decisions and was able to gain insight into the knowledge they used to make decisions. Also, the papers by Lauri (Lauri, 1990; Lauri, 1992) report the only study to use simulation during the interviews, by asking the 61 public health nurses in the study to answer a series of computer generated questions based on two simulated child health situations, Lauri (Lauri, 1990; Lauri, 1992) was able to gather data about the process they used to make decisions. Both techniques may increase the depth of the data collected. However, the 'Think Aloud', method may offer greater potential to gather data about actual, rather than assumed decision-making activity, because the simulation is reliant on the information given in the scenarios (Lauri, 1992).

Recall and reflection are particularly helpful when used alongside interviews to gather data, as illustrated in the paper by Lauri (1994). Respondents were encouraged to use recent events to explain their clinical decision-making activity. Avoiding the need to recall from long term memory may give greater assurance that the information collected provides an insight into actual rather than assumed activity. In contrast, methods that encourage the public health nurses to answer set questions may limit the findings to issues that prove or disprove the researcher's assumptions. This is because they encourage the respondents to align their responses to the question rather than explain their actual decision-making activity. However, the study by Carr (1995) may have overcome this limitation by adopting a semi-structured approach to interviewing the respondents. This method of data collection may increase the potential for the study to remain focused on the subject as well as allowing the respondent to, 'tell their story' and integrate the experiences that they choose to share during the interview. It is also likely that health visitors recruited to studies such as the one by Carr (1995) are interested in the subject and are therefore motivated to contribute to the findings. This may mean that they are able and willing to adapt their information to the requirements of the study, which may positively influence the quality of the data collected.

Several empirical studies, including those by Lemmer (1998), and Lauri (1994), have sought to gain consensus from experts in the field rather than objective data. Using the Delphi technique, Lemmer (1998) sought consensus about the nature of decision-making in health visiting practice to see if it was based on analytical thinking or intuitive reasoning. During the three surveys the expert panel members reduced from 77 to 30 and the questions were refined to two categories of decision; whether to visit families more frequently and whether to refer them to another professional or agency. Despite specifically focusing on health visitors' decision-making, and achieving a response rate of 82%, Lemmer (1998) highlights the limited insight it provides for health visitors' decision-making practice and warns against the use of the postal survey as a standalone method for data collection. A similar outcome can be found with the study by Lauri (1994) which used interviews to encourage public health nurses to explain the types of decisions they made in practice as well as how they reached decisions. Again, the focus on perception rather than objective data is limiting. However, the Lauri (1994) study used a Likert scale to create a four point model which

illustrated how public health nurses described their approach to decision-making. In so doing, Lauri's findings suggest that the public health nurses made decisions by assessing the current situation, giving information, supporting the family, and creating the conditions for collaboration (Lauri, 1994). Interestingly, this study considered public health nurses' thoughts about their decision-making practice during home visits as well as clinic consultations. However, despite developing the model to illustrate the decision-making process, this study focuses on what the decisions were about (i.e., child health, care and well-being, the type of support to offer) rather than how the decision was made. This means that the focus of the paper detracts from decision-making practice towards the service-related activity and so limits the contribution it can make to future research about how health visitors or public health nurses make decisions in practice.

2.3.3 A narrative review of the themes

The next section presents the narrative review adopted to appraise the five themes and outline the way that the publications selected during the scoping study have informed the exploration of health visitors' decision-making practice and activity. In line with the work of Baumeister & Leary, the narrative review was adopted to construct and evaluate theory. In so doing, the review made it possible to appraise the state of knowledge about health visitors' decision-making practice and activity (Baumeister & Leary, 1997). Throughout the narrative review, the researcher tracked and evaluated the development of published evidence by identifying the key concepts for each identified theme. This made it possible to consider the extent to which these concepts have helped to develop the current understanding about the way health visitors make decisions. Throughout, the review will consider the five elements of the PAGER framework to highlight emergent patterns in the data, the portrayal of health visitors' decision-making activity over time, and the gaps in current knowledge (Bradbury-Jones, et al., 2022). To conclude, the review considers the ways that the selected studies have informed the direction of the current study and the implications for future research (Ferrari, 2015, Bradbury-Jones et al., 2022).

2.3.4 The characteristic features of the publications selected during the scoping study

The scoping study illustrates that three characteristics have remained relatively consistent in the publications over time. Firstly, health visitors' decision-making activity has featured in the content of published research for more than thirty years. However, the term 'decision-making' does not feature in the title or abstract of many UK publications. In addition, the term 'decision-making' has tended not to be used to describe the activity. Other terms that have been used in place of 'decision-making' include, 'needs assessment', 'professional judgment,' and 'problem-solving'. This makes it difficult to locate publications that contain relevant information about health visitors' decision-making activity. Although thirty years of research has provided useful insights, the changes in health visitors' practice, education, and approaches for service delivery, outlined in the socio-political analysis in chapter one of this thesis, means that its currency for contemporary decision-making practice is somewhat limited.

Furthermore, descriptions of the decision-making process tend to be associated with the use of intuitive type language including terms like, 'gut-feeling'. Although, these tend to be related to the outcome, i.e., the final decision, the publications suggest that intuitive thoughts are more likely to stimulate the start of the process by accommodating the collection of information. While the literature tends to associate intuitive style decision-making with approaches that are impulsive and poorly considered, the papers located during the scoping study illustrate that the opposite may well be the case. In explanation, the health visitors that described using 'gut-feeling' in the papers selected, demonstrated how they adopted a systematic, well-considered approach to information collection and selection. While health visitors tend to present a sense that the gut-feeling response is relatively straightforward, the publications suggest that it is somewhat vague, convoluted, and complex. This means that the term, 'gut-feeling' may not provide the detail required to fully understand the decision-making process.

Finally, as highlighted in the numerical analysis earlier in this chapter, most of the studies located described the use of interview type data collection methods. In so doing, they tended to collect information relating to health visitors' opinions or aspirations about their

practice. Consequently, the dearth of publications which describe the use of observation strategies for collecting data, mean that the publications selected are less likely to examine health visitors' authentic practice using real life situations. In these publications, accounts of behaviours and actions tend to rely on memory and recall.

2.3.5 Theme 1: Health visitors' decision-making processes are hidden

There are two key concepts that contribute to the broad theme of hidden decision-making processes. Firstly, decision-making does not tend to appear in the title or abstracts of publications or research articles. The second key concept is that health visitors describe their decision-making activity and behaviours using other terms like 'professional judgement', 'needs assessment' and 'problem solving'.

- **Key concept one: decision-making does not tend to appear in the title or abstracts of publications or research articles.**

Firstly, the data from the scoping study highlight a discrepancy between the UK publications and those from international sources. In explanation, although the international papers included decision-making in the research question and title of the paper, this tended not to be the case for many of the UK publications. For example, the publications by Lauri and colleagues in 1990, 1995 and 1997, decision-making is explicit in the title of the paper. In contrast, the publications by Chalmers in 1992, 1993 and 1994, the titles do not include any reference to decision-making activity (Chalmers, 1992; Chalmers, 1993; Chalmers, 1994), (see Appendix Five: charting the data). This made it difficult to locate the studies when searching the databases. Indeed, many of the UK papers were selected using hand searching methods (see Appendix Six: papers selected by hand searching methods).

In explanation, data from the scoping study show that the term 'decision-making' emerges as a stronger feature in the publications from Finland, Norway, and the USA (8) where it is part of the title and research question. This is illustrated in the suite of publications from Lauri and colleagues (Lauri, 1990; Lauri, 1992, Lauri & Salantera, 1995, Lauri et al., 1997). Although these studies focus on the public health nurse (PHN), a role known to have similar,

but not exact function and purpose as the health visitor, the content of the papers indicate that the public health nurses in these studies were making decisions about children and families. This suggests that the participants in the studies by Lauri and colleagues were undertaking similar functions to health visitors. In contrast, the titles used in the UK publications tend to be less explicit about the exploration of decision-making activity. Instead, these publications have used different terminology including, 'searching for health needs', (1, Chalmers, 1993), 'difficult work', (Chalmers, 1994), 'prioritisation' (1, Williams, 1997); 'needs assessment' (1, Cowley & Houston, 2003), 'health visiting assessment', (2, Appleton & Cowley, 2008a; Appleton & Cowley, 2008b). By making it difficult to locate these studies using formal searching techniques, the risk is that the findings, although relevant, will not be included in future analyses of health visitors' decision-making activity.

During the scoping study, for example, the seminal work of Chalmers (1992) although located using hand searching methods, was not located from the database searches. However, the content of this paper outlines the way health visitors describe how they make decisions when working with children and families. Despite this content, the publication title states that it is a 'theoretical paper about health visiting practice'. Although the paper contains relevant information about health visitors' decision-making practice, including how during client consultations they decided to focus and prioritise some issues and not others, it was initially hidden. Despite being one of the clearest representations by health visitors of how they make decisions in practice, its contribution to the future evidence base may be limited because decision-making is not explicit.

However, the most recent UK publications suggest that the position may be changing. For example, although King's 2016 publication uses the terms 'assessment' and 'judgement' in the title, Astbury and colleagues in 2017, included the term, 'shared decision-making' (King, 2016, Astbury et al., 2017). Although the term, 'shared decision-making' can be a somewhat different concept, the content of the paper suggests that by offering the clients a range of choices the health visitors were also making decisions about the choices to offer.

- **Key concept two: health visitors describe their decision-making activity and behaviours using other terms like 'professional judgement', 'needs assessment' and 'problem solving'.**

The data from the scoping study highlighted that although health visitors made decisions, they tended to describe these activities using different terms which again meant it was somewhat hidden from view. It also gave the impression that the health visitors taking part in these studies may not have recognised that their actions and behaviours during these events were associated with decision-making processes. In addition, as these studies appeared to be focused on other aspects of practice like needs assessment, and the prioritisation and rationing of service offerings to different clients, the participants may have described their actions accordingly. This can be seen in the publications by, Cowley & Houston, 2003, Appleton & Cowley, 2008a; Appleton & Cowley, 2008b, Hogg et al., 2013, (see Appendix Five: charting the data).

In explanation, although the participants in the study by Hogg and colleagues were making decisions about the services to offer clients and the level of need displayed by children and families, they described these processes in terms of 'assessment'. Although, as a method for collecting information, assessment is important to the overall decision-making process, it is merely one part. By describing their decision-making activity in terms of assessment, the studies tend to give the impression that it is merely a process of information collection. In this way, vital aspects of the process tend not to be explored (Hogg et al., 2013). Again, the publications by Appleton & Cowley considered the critical attributes of health visitor needs assessment (Appleton & Cowley, 2008a; Appleton & Cowley, 2008b). In these papers, although the content suggests that health visitors were undertaking intricate decision-making processes, including examining the opportunity cost of seeing some clients and not others, prioritising the service offerings to those considered to have urgent needs and reviewing choices, the activities are again described in terms of 'needs assessment'. In so doing, the paper gives the impression that rather than making decisions, the health visitor participants are collecting information to compile an assessment of need. In this way, the health visitors' decision-making activity remains hidden and unexplored.

In another example, Chalmers, in her seminal research, explored the 'difficult work' done by health visitors and rather than using the term, 'decision-making' tended to favour the term 'choice'. Working with 45 health visitor participants, Chalmers found that they made a range of decisions during their day-to-day consultations with clients. However, she described the decision-making processes in terms of the way the health visitors 'developed strategies' or chose an 'approach' to deal with difficult work. Although the paper goes on to describe what constituted difficult work, it does not make the decision-making aspects of these events explicit, but instead describes the strategies the health visitors used to manage 'difficult work' (Chalmers, 1994).

2.3.6 Theme 2: Health visitors' decision-making activity considers far reaching and multi-faceted issues

There are four key concepts that contribute to the broad theme of far reaching and multi-faceted decision-making. Firstly, health visitors make decisions and secondly, the decisions they make address a range of aspects and issues, relating to people, professional and organisational factors. The third concept is that health visitors operate in complex, unpredictable and uncertain situations where information is difficult to see and collect. Lastly, the fourth concept is that health visitors tend to adapt their behaviours and actions according to the situations in which they operate.

- **Key concept one: health visitors make decisions.**

It is clear from the research reviewed during the scoping study that health visitors make decisions in their clinical practice when consulting with clients. Furthermore, the content of the papers illustrates that their decisions are about a range of issues including childrens' safety, children and family health and well-being; service design, and the allocation of resources (Chalmers, 1994, Carr, 1995, Reynolds, 1996, Hogg et al., 2013). For example, the decisions relating directly to the child and/or family are illustrated in the twelve papers by Lauri 1990, Lauri 1992, Lauri 1994, Cowley 1995, Williams 1997, Newland & Cowley, 2003, Wilson et al., 2008, Browne 2010, Appleton et al., 2012, Hogg et al., 2013, King 2016, Sims & Fowler, 2018. The number of publications describing these areas of practice, suggests that

they may constitute some of the more typical topics addressed by health visitors' during their decision-making practices. This may be because decision-making can be closely aligned to health visitors' safeguarding and child protection work (Chalmers, 1994, Reynolds, 1996, Selbie, 2009).

- **Key concept two: the decisions that health visitors make address a range of aspects and issues, relating to people, professional and organisational factors.**

Other decisions described in the papers selected, however, were much broader and tended to be about the level of service to offer, when to ration and when to offer more than the service model would allow (Chalmers, 1994, Cowley, 1995, Hogg et al., 2013). For example, in their exploratory study Hogg and colleagues used semi-structured interviews with health visitors and mothers to investigate the assessment of family vulnerability. The purposively selected group of health visitors described how they used the family's level of need to make decisions about the resources to offer. The health visitors in this study described their use of scarce resources and situations in which they offered routine contacts to a family despite this not being part of the prescribed service model (Hogg et al., 2013). Although recognised in these papers, the details of the decision-making activities and behaviours tended not to be explored. This means that although the need to make choices and collect information was recognised, there was no acknowledgement or exploration of the intricate details that the health visitor participants incorporated into the decision-making processes they adopted.

- **Key concept three: health visitors operate in complex, unpredictable and uncertain situations where information is difficult to see and collect.**

The papers acknowledged the complexity and unpredictability of the situations in which health visitors were working. For example, in Cowley's observation study, the 53 health visitor participants showed how, in consultation with clients, they made decisions simultaneously about the child, parent, and family as well as the level of services to offer (Cowley, 1995). During this study, the health visitors also demonstrated how they managed

the challenge associated with offering a level of service above that which was indicated by the service model. Although no explicit reference was made to decision-making activity, the content describes how in these complex and unpredictable situations health visitors made decisions. In explanation, the paper also highlights how these decisions were made during the consultation rather than before the clients were seen (Cowley, 1995).

In these uncertain and unpredictable situations, comprehensive information tends not to be available at one time and this means that the health visitors must repeatedly address a range of issues in slightly different ways. Cowley's 1995 paper thereby highlights how in situations of uncertainty and unpredictability, the information is dynamic and emerges over time. Although health visitors are likely to collect information which is expected and easy to see, they must also be ready to gather that which is unexpected, more hidden, and requires additional skills to collect (Cowley, 1995).

Despite the range and unpredictability of the information, Cowley's study illustrates how the health visitors collected it by adopting dynamic, systematic, and logical approaches to their decision-making activity. In addition, a similar picture was provided in other papers selected. Here, the papers highlighted how health visitors were proactive in their decision-making practices, and rather than waiting for information to simply emerge, they actively searched for it. Although the papers also illustrate that in addition to this proactivity, health visitors also adopted dynamic and deliberate elements to their decision-making processes, these elements were unlikely to be reported in the findings. This means that the ability of these papers to progress the understanding of health visitors' decision-making processes is again limited (Chalmers, 1994, Appleton & Cowley, 2008a; Appleton & Cowley, 2008b, King, 2016, Astbury et al., 2017).

- **Key concept four: health visitors tend to adapt their behaviours and actions according to the situations in which they operate.**

Although the papers illustrate that health visitors address a range of different topics when consulting with clients, the paper by Chalmers (1994) also suggests that several issues may

be considered collectively rather than in isolation. For example, in her 1994 paper, the health visitor participants used the term, 'difficult work' to describe situations where parents refused or blocked the service or used it inappropriately. In addition, 'difficult work' was also the term given to situations where the health visitors were concerned about childrens' growth, health, and wellbeing. In these situations, the participants described a 'window of opportunity' where they could effectively influence mothers' readiness to engage. Although the paper does not describe how the health visitors made decisions about appropriate service use, or the window of opportunity, it provides a clear insight into the range of information about which the participants were making decisions. In this paper for example, although the health visitors were making organisational and professional decisions about service use and childrens' health and wellbeing, they were also making decisions which were more person-centred. In addition, during the decision-making processes the health visitors focused on ways to adapt their behaviours and actions to encourage the mother to accept them, as well as the health visiting service during the perceived, 'window of opportunity'.

2.3.7 Theme 3: Sensing and feeling triggers decision-making processes

There are two key concepts that contribute to the broad theme of the sensing and feeling trigger for decision-making processes. Firstly, experienced health visitors describe making decisions in response to a sense or feeling that something is, 'not quite right'. The second key concept is that observations rather than interviews and questionnaires can collect data which illustrate how health visitors recognise a sense or feeling that something is, 'not quite right'.

- **Key concept one: experienced health visitors describe making decisions in response to a sense or feeling that something is, 'not quite right'.**

The scoping study highlighted publications in which the health visitor participants used intuitive terminology including, feeling when something is, 'not quite right', having a 'gut-feeling' and relying on extrasensory perception (ESP) to describe things that encouraged them to act (Reynolds, 1996, King, 2016). This suggests that health visitors' activity and

behaviour may be influenced by unconscious thought processes. In addition, the papers also described situations where health visitors were required to use deliberate, conscious thought processes. In these situations, health visitors tended to describe the requirement to use checklists style tools. Such tools required the health visitors to illustrate the use of a consistent linear approach for collecting and recording information during consultations and decision-making activity (Cowley & Houston, 2003, Hogg et al., 2013, King, 2016).

Sensing and feeling that something is wrong or 'not quite right' were terms used in the papers where health visitors described the things that triggered their decisions to act. They tended to be described in terms of something being 'not quite right' (2, Ling & Luker, 2000, King, 2016) or as something that caused them to be concerned (1, Carr, 1995).

Although the health visitor participants were able to describe when something was 'not quite right', they were not always able to explain how they recognised these situations. This is highlighted in the paper by Reynolds, published in 1996, describing the qualitative evaluation of a post-accident notification system (Reynolds, 1996). In this paper, the health visitors stated that they found it difficult to explain the process adopted to decide if a home visit was required. However, when asked to describe their actions following receipt of the notification, they were very clear about their response. In explanation, once the notification was received, the health visitors followed a defined fact-finding process. However, when outlining their decision-making process, they referred to having a 'gut-feeling' or relying on 'extrasensory perception' (ESP). The impression from Reyolds's publication, therefore, is that health visitors are likely to be using both conscious and unconscious thinking during decision-making activity. In addition, Reynolds's paper suggests that although both processes may be adopted, the conscious deliberate ones are easier to explain to others (Reynolds, 1996). However, despite the inability to describe the unconscious thought processes, this paper illustrates that rather than acting on impulse, the health visitors used 'gut-feeling' firstly to collect information and then to align the individual pieces into a whole picture. In so doing, the paper describes how they established a sense of what was happening and what the information meant (Reynolds, 1996). Although the paper, does not

explain how the gut-feeling was initiated, or how 'knowing the family' facilitated decision-making, it does show that the health visitors described their decision-making process in a way that appeared to be well-considered, decisive, and systematic.

While difficulty explaining decision-making tends to be a characteristic feature in papers where unconscious thought processes are described, in studies where observation type data collection strategies are used, the process is likely to contain more detail. For example, in the ethnographic study which observed home visits to children and families, reported in the paper by Ling & Luker (2000), the health visitors described how they sensed that 'something was not quite right', but were unable to explain what was wrong, or, indeed, if anything was wrong (Ling & Luker, 2000). This paper describes how the feeling triggered further actions and did not tend to be the end point of the process. Again, the impression provided by this paper is that rather than being the end point of the decision-making process, 'gut-feeling' may be the starting point. In this way, it causes the health visitors to collect more information. In explanation, the need to make a decision in this study may be stimulated by unconscious thinking but the actual decision-making process appears to have used a combination of the two (conscious and unconscious thinking), (Ling & Luker, 2000).

More recent publications suggest that 'sensing' may come from the health visitor's ability to delve beneath the surface of the information gathered. For example, King purposively selected health visitors with 8 to 30 years' experience to gain insight into the way they made assessments and judgements in situations of risk (King, 2016). The sense of risk in this study was described by the health visitors as hearing, 'alarm bells ringing' when in receipt of certain information. Again, as indicated in earlier studies, the health visitors described the need to deal with it in a specific timeframe, i.e., 'a window of opportunity' (King, 2016). Although the health visitors described how the information they observed influenced their sense that something is 'not quite right', they also described how not seeing something they expected to see stimulated the same feeling (King, 2016). The paper thereby suggests that the health visitors may gather the information because memories from past experiences

help them to recognise elements that make them suspicious and alert. In addition, the paper suggests that health visitors with more years in the profession have a greater number of experiences on which to draw (King, 2016).

This was also highlighted in the earlier publication by Lauri & Salantera (Lauri & Salantera, 1995). In their large scale exploratory study, Lauri & Salantera aligned years of experience in the field of public health nursing to a range of behaviours and actions demonstrated by public health nurses. Analysis of the questionnaire responses from 100 public health nurses showed that those with more than six years' experience described an increasing ability to adopt client-focused, creative, decision-making behaviours (Lauri & Salantera, 1995). In contrast, public health nurses with up to five years' experience who were described by the authors as novice, were more likely to collect information for their decisions using rule-based tools and closed questioning techniques. Although the study described respondents' opinion rather than actual practice, Lauri & Salantera provide insight into the factors that are likely to influence decision-making activity.

- **Key concept two: observations rather than interviews and questionnaires can collect data which illustrate how health visitors recognise a sense or feeling that something is, 'not quite right'.**

Since many health visitors tend to use the language of unconscious thinking, like 'gut-feeling', to describe their decision-making behaviour, the impression from the selected papers is that they may be instinctively adopting behaviours that allow them to use conscious and unconscious thought processes simultaneously. The ability of the papers to illustrate this combination tends to be related to the methods adopted for data collection. The use of methods which facilitate collection of data focusing on health visitors' perception and self-report mechanisms, for example, questionnaires and interviews, means that the papers tend to report assumed rather than authentic practice. These papers are therefore less likely to provide insights into real life practice. However, the papers published by Chalmers in the early 1990's by collecting data using non-participant observation provide

valuable insights into authentic practice (Chalmers, 1993; Chalmers 1994). Furthermore, the international papers published by Lauri in the early 1990s, also highlight how by using methods like the, 'Think Aloud', which, instead of requiring participants to answer questions, encouraged them to 'tell their story,' made it possible to report data about participants' real-time actions (Lauri, 1990; Lauri, 1992). The ability of these papers to provide information about authentic rather than assumed practice was higher than that published by Reynolds, for example, which reported the findings of interviews (Reynolds, 1996). In explanation, if health visitors are instinctively combining conscious and unconscious thought processes during their decision-making activity, they are unlikely to be able to give a detailed account of the actions and behaviours involved, when asked to do so during interview or questionnaire completion.

2.3.8 Theme 4: Decision-making is a series and not a one-off event

There are two key concepts that contribute to the broad theme of decision-making as a series and not a one-off event. Firstly, health visitors' decision-making processes tend to involve collecting information as it evolves over time, by letting the clients talk and tell their story. The second key concept is that health visitors use their knowledge-based expectations to inform their decision-making processes.

- **Key concept one: health visitors' decision-making processes tend to involve collecting information as it evolves over time, by letting the clients talk and tell their story.**

Several papers selected in the scoping study appear to describe decision-making activity as a series of events rather than a one-off activity. This is illustrated in the exploratory study by Cowley & Houston (2003). Health visitors in this study describe looking at the whole situation rather than focusing on individual elements. Despite being asked to describe their approach to making professional judgements rather than decision-making, the health visitors described an evolving, multi-step process in which they built information by organising and reviewing the content. Although, by relying on questioning to collect information, the health visitors in this study tended to limit the information clients

voluntarily shared, this paper provides insight into the evolutionary nature of a decision-making process which enables concurrent consideration of multiple issues (Cowley & Houston, 2003).

- **Key concept two: health visitors use their knowledge-based expectations to inform their decision-making processes.**

The two papers by Appleton & Cowley, (Appleton & Cowley, 2008a; Appleton & Cowley, 2008b) further support the evolutionary nature of health visitors' decision-making approaches. These papers describe how by using propositional knowledge during fact-finding activities, the participants were able to gather the information using knowledge-based expectations. Although these expectations may be triggered when the element is not seen, the paper does not include these details. However, the trigger, or sense of being alert, is again described by the health visitor participants in the publication by Wilson and colleagues. Here, rather than merely looking at the environment, children or parents in isolation, the health visitors describe looking at all the information together. By being alert to some pieces more than others the health visitors describe how they create a sense of what was appropriate and acceptable (Wilson et al., 2008). This inclusive approach to information collection tends to be described by health visitors when choosing when and how to act. It gives a sense that their decision-making activity may be predicated on factors that are predetermined by their knowledge-based expectations well before the consultation begins. This feature is also reflected in other papers selected in the scoping study, including Carr, 1995, Reynolds, 1996, Appleton & Cowley, 2008b, King, 2016. Although, the focus group methods adopted in Wilson study may have allowed the sharing by participants of aspirational rather than authentic practice, the findings suggest that the decision-making process may well be predicated on the health visitors' level of knowledge and understanding as well as their ability to combine individual pieces of information (Wilson et al., 2008).

2.3.9 Theme 5: Decision-making is specific to the individual

There is one key concept that contributes to the broad theme that decision-making is specific to the individual. This is that decision-making behaviour is individual, and the approaches adopted tend to be specific to the situation and people involved.

- **Key concept one: decision-making behaviour is individual, and the approaches adopted tend to be specific to the situation and people involved.**

Despite providing insights into the possible elements of decision-making, the study by Carr (1995) suggests that the evidence base may be severely compromised because individual health visitors practice in different ways. The study used self-complete case history questionnaires to encourage respondents to explain the way they classified 'cause for concern'. The paper highlights that despite the phrase being familiar and frequently used by health visitors, they each defined the term in different ways. The individuals in the study were also unable to consistently outline the components they used to classify a situation as a 'cause for concern'. This paper suggests that decision-making processes may be difficult to examine because, even when health visitors use similar terminology and language, they can be very different.

2.3.10 Justification for the design of the current study

The scoping study has highlighted several pertinent issues relating published research about health visitors' decision-making practice. The issues include:

1. Health visitors make decisions in their clinical practice, however, as other terms are used to describe the process, it tends not to be recognised as an aspect of practice. The hidden nature of decision-making persists because it tends not to be adopted as a topic of enquiry. In addition, the absence of decision-making in the title or abstract of publications, even where it is a topic of enquiry, means that it is difficult to locate when using formal search strategies.
2. Health visitors operate in situations that require them to make decisions and be able to explain the details of the process to others. This is because in their practice

they address a range of aspects and issues, relating to people, professional and organisational factors. In addition, they operate in complex, unpredictable, and uncertain situations where information is difficult to see and collect. This means they are likely to make decisions in different ways depending on the situations they face. Consequently, the exact processes are unlikely to be repeatable or predicted in advance of the decision-making event. The dearth of research using observation methods to collect data has limited the ability to collect evidence from authentic practice in real life situations. This means that the individual nature of decision-making activity has not been examined and the details of the processes adopted have not been explored in ways that will develop understanding.

2.4 Conclusion

In summary, the messages from the research have remained relatively consistent for more than thirty years. The findings from the scoping study highlight that the term, 'decision-making' has tended to be hidden and other terms like, 'needs assessment' have been used in its place. Although not recognised as such, health visitors' descriptions suggest they make decisions. In addition, their decisions tend to be about far-reaching issues involving people, professional and organisational factors that require intricate, decisive, and systematic consideration and action. By operating in complex, uncertain, and unpredictable situations, the studies suggest that health visitors adapt their behaviours according to the situation. The individual nature of people and situations means that even when events share similar features and use consistent language, the decision-making processes adopted may differ. The dearth of observational data collection methods in research undertaken to date, means that understanding of these situations and the decision-making processes implemented continues to be limited.

The scoping study has shown that an exploration of health visitors' authentic decision-making practices during real life consultations is needed. This study adopted ethnographic observation and the 'Think Aloud' method to conduct the exploration presented in chapter four of this thesis.

2.5 Chapter Summary

The chapter has outlined the way the 'Arksey & O'Malley [scoping study] framework' was used to review the literature and research about health visitors' decision-making practice. By outlining the details of the five-step approach, the chapter has demonstrated the systematic, transparent nature of the strategy adopted to locate published research. Measures for assuring consistency and transparency of the strategy for searching, selection and subsequent reporting of the findings, have been considered using the approaches outlined in the PRISMA, PRISMA-ScR, and the PAGER frameworks.

In portraying the findings, the chapter has examined the extent, range, and characteristics of published research activity about health visitors' decision-making practice. In addition, a numerical analysis of the data, and a narrative review of the themes have been presented.

In conclusion, the chapter has outlined the patterns emerging from the data, the portrayal of health visitors' decision-making activity over time, and the associated gaps in current knowledge.

The next chapter will consider the theoretical landscape for contemporary decision-making practice and set the theoretical context in which to explore the decision-making activity of health visitors in their clinical practice.

Chapter Three: A theoretical framework to explore health visitors' decision-making processes

3.0 Chapter Overview

This chapter considers the theoretical landscape for contemporary decision-making practice and sets the theoretical context in which to explore the decision-making processes that health visitors follow in their clinical practice. By introducing social judgement theory, and its empirical basis the chapter presents the theoretical framework and explains the reasons for adopting it in the current study. Firstly, the chapter considers the origins of social judgement theory, its development, and founding principles. Once its use in the current study is outlined, the chapter progresses by explaining the six component features of the social judgement theory framework alongside the terminology needed to understand decision-making activity in natural settings. In conclusion, the chapter will consider the potential for using the social judgement theory framework as a tool in the current study to explain the features of the processes that health visitors adopt during their decision-making activity.

3.1 Searching for a framework to explain health visitors' decision-making processes

Traditionally, the theoretical landscape for explaining human decision-making processes centres on two main perspectives. These theories are known as normative or descriptive (Bell et al., 1995, O'Neill, 1996). Normative theories explain how decisions should be made. They present the decision-making process as a series of fact-based, rational choices, made in a logical and systematic way that is easily repeatable. Normative theories tend to prescribe both the decision to be made, and the process required to achieve it. Here, the available choices are known at the start and are based on the consequences expected once the decision is made. These theories explain a decision-making process which incorporates the use of conscious thought (Simon, 1975).

In contrast, the descriptive theories consider how people (*actually*) make decisions. They provide a structure which makes it possible for individuals to think about information in different ways. In descriptive theories, rather than considering the individual elements in

isolation, the decision-maker considers the whole situation. Moreover, as outlined in chapter one of this thesis, these theories present decision-making in terms of an individual's choice and activity, which means they can accommodate individual processes that are less open to repetition. By recognising the concept of satisficing, formulated by Herbert Simon in the 1950s (Simon, 1955, Barros, 2010), descriptive theories acknowledge that decisions can be made using imperfect rather than ideal information (Kalantari, 2010). Where normative theories tend to illustrate decision-making as a linear process, the descriptive theories recognise the curvilinear elements. Although characteristically associated with the use of unconscious thinking, descriptive theories can also be aligned with dual thought processes which combine the use of conscious and unconscious thinking (Kalantari, 2010).

3.1.1 Normative decision-making theories

Classical explanations of decision-making processes recognise the inherent risk and uncertainty of decision-making situations (Brust-Renck, et al., 2021). Here, explanations centre on providing ways to manage these challenges. Collectively normative theories are associated with top-down, logical, and linear approaches (Morelli, et al 2022). They explain the problem-solving process and, by producing a set of guidelines, illustrate the elements required to achieve the best possible decision (Bell et al., 2011, Fischhoff, 2011, Bradley, 2014, Morelli et al., 2022). Predicated on expected utility theory, normative theories use mathematical and statistical approaches to explain how a choice or decision is made. For normative theories, the process of decision-making involves the analysis of risk and uncertainty (Bell et al., 2011).

Normative theories use probability calculations to reduce uncertainty and risk and thereby carefully manage decision-making situations (Morelli et al., 2022). This means that the process remains the same, irrespective of the decision-maker, the situation, or the people involved (Bell, et al., 2011). In health care, normative theories are likely to be applied to the development of tools, which are predicated on the fact that the decision-maker uses them as prescribed. This means the level of risk calculated during the development stage remains

unchanged (Shaban, 2005). Although information collection is undoubtedly part of the process, the requirement to choose which information to collect or use during the decision-making process is limited or absent. In line with Bayesian logic, these theories call for information to be interpreted in terms of the likelihood or probability of something happening (Shaban, 2005). This approach is commonly accepted in the field of medical diagnosis, where the outcome or likelihood of a diagnosis is known in advance of any test results (Meadow & Lucey, 2011). Mechanisms for illustrating the decision-making process using normative approaches can include the use of decision trees. Here, the process can be broken down into constituent parts and the decision-maker can analyse the effect of each part (Shaban, 2005).

Rather than focusing on how people make decisions in real life, normative theories prescribe the list of actions and behaviours they should adopt when making a decision. The theories consider decision-making processes that take place in ideal conditions where the optimal decision is possible (Fischhoff, 2011). Normative approaches to decision-making do not help in situations where uncertainty cannot be managed in a reductionist way (Simon, 1979). In these situations, rather than remaining constant, available options and information are likely to change (Fischoff, 2011). The decision-making process, therefore, takes place where information may be insufficient or irrelevant (Simon, 1975). Here, it is not possible to make decisions using a set of rules. Instead, real life situations tend to require the decision-maker to consider available, rather than optimal information (Simon, 1979, Thompson & Downie, 2009).

3.1.2 Descriptive decision-making theories

In contrast, descriptive theories recognise situations where the decision-maker must deal with information that cannot be controlled or predicted. They describe processes that allow people to select relevant, rather than ideal, information. Here, theories explain the process of satisficing and bounded rationality, where good enough information contributes to the decision-making process (Simon,1975). Recognising the complexity provided by the

environment, Simon acknowledges that rather than controlling information, the decision-making process seeks to understand it (Simon, 1975).

Descriptive theories therefore explain the actual, rather than the ideal, process and focus on the way the individual modifies their behaviour to make the decision. By recognising the social nature of decision-making, descriptive theories acknowledge that behaviours will be different and unpredictable (Lee & Harris, 2013). Rather than requiring the same approach, these theories can accommodate the uncertainty that comes with difference (Brust-Renck, et al., 2021). By presenting the way an individual deals with information during people-focused interactions which are neither linear, standardised or rule based they can make important contributions to the exploration of health visitors' decision-making processes (Bell et al., 2011).

Unlike the normative approaches, descriptive theories consider how people make decisions in the absence of rational, cogent information. Here, incomplete information creates a situation which is complex and uncertain (Slovic et al., 1977). In these situations, individuals use inference and perception to help them make sense and understand the information. In addition, by also drawing on heuristics, the so-called, 'rules of thumb', they collect relevant information by recalling similar events (Slovic et al., 1977, Oppenheimer & Kelso, 2015). Using these features enables the decision-maker to select pertinent and discard less relevant information during the process (Oppenheimer & Kelso, 2015). In addition, the decision-making process adopted using descriptive theories also acknowledges the influence of time pressures, personal preference, emotions, and the value an individual gives to a particular outcome (Simon, 1987, Oppenheimer & Kelso, 2015).

3.1.3 Theories of cognition

Theories of cognition recognise the importance of information processing and storage to human decision-making process. These theories acknowledge that the capacity of the

human brain to support decision-making activity is dramatically increased where humans can use the entire brain (Dijksterhuis, 2004).

In line with the theory of human thought, people use conscious and unconscious thought processes to consider information (Simon, 1987, Dijksterhuis & Nordgren, 2006). Describing conscious thought as that with attention and unconscious thought without attention, Dijksterhuis and Nordgren (2006) suggest that with distinct characteristics, each process contributes to different decision-making situations. For example, although conscious thinking is well-suited to simple decision-making processes that use limited information, unconscious thought is more effective when decisions are complex. Here, the large volume of information makes it impossible to adopt rule-based decision-making processes (Dijksterhuis & Nordgren, 2006). For Dijksterhuis, although the capacity of unconscious thought is greater than for conscious thinking, the combined (dual process) approach makes the decision-making process more effective. In explanation, with unconscious thought people can consider larger volumes of information at greater depth and recall it more clearly and accurately than their conscious thinking counterparts (Dijksterhuis & Nordgren, 2006). In addition, those using only conscious thought have a limited capacity to concentrate on multiple issues concurrently.

The combined use of conscious and unconscious thinking thereby makes it possible to process information more effectively during the decision-making process (Dijksterhuis, 2004). This is because it allows people to integrate and evaluate the component parts and thereby make associations (Dijksterhuis, 2004). Observing the practice of expert chess players, Simon (1987) demonstrates how by using dual thought processes, rather than considering information as separate parts, experts consider it holistically and recognise patterns. Like the recognition of Novice to Expert, by Patricia Benner (1984), Simon acknowledges that pattern matching is not part of the novice chess players' repertoire, suggesting their inability to consider the information holistically.

The ability to consider information holistically is thereby a key feature of descriptive and cognition theories. While conscious thought processes have their place in facilitating decision-making, their benefits are enhanced when unconscious approaches are also adopted. Intuition is a process closely associated with unconscious thought, the ability to consider information holistically and to understand the whole situation (Dreyfus & Dreyfus, 1984). Acknowledging intuition in their theory of skills acquisition, Dreyfus and Dreyfus outline the way experiences, knowledge, and perception operate to identify pertinent information and arrange it in order of urgency and priority (Dreyfus & Dreyfus, 1986). Dreyfus & Dreyfus (1986) present intuition using the six key aspects of, 'pattern recognition', 'similarity recognition', 'skilled know-how,' 'sense of salience', 'deliberate rationality' and 'common sense understanding'. In so doing they distinguish it from conscious thought by acknowledging that these processes cannot be replicated using rational, logical reasoning techniques (Dreyfus & Dreyfus, 1986).

Positioning intuition as a necessary component of real world decision-making, Dreyfus & Dreyfus (1986) suggest its importance lies in the way it permits the individual to rely less on rules and more on understanding the context in which the decision is made. To Dreyfus & Dreyfus, like Simon, the ability to understand the context in which decisions are made is key to the processes involved (Dreyfus & Dreyfus, 1986, Simon, 1987). Furthermore, by requiring the individual decision-maker to immerse and become involved in the situation, intuition permits deep, rather than superficial, engagement with the environment. In this way, rather than speculating what the issues may be, the decision-maker recognises the subtle, nuanced factors that may be difficult to see. Distinguishing between the nature of intuition and so called 'guesswork', Dreyfus & Dreyfus (1986) state that,

> "*To guess is to reach a conclusion when one does not have sufficient knowledge or experience to do so.*"
>
> (Dreyfus & Dreyfus, 1986, p.29)

Indeed, by acknowledging the use of experience, knowledge and perception during intuitive thought processes, Dreyfus and Dreyfus recognise the potential they have for well-considered, knowledge based decisions (Dreyfus & Dreyfus, 1986).

While these aspects present the positive contributions of intuition, negative connotations are associated with the inability of these approaches to permit word-based explanations (Dreyfus & Dreyfus, 1984; Dreyfus & Dreyfus, 1986, Simon, 1987). Simon (1987) relates this to emotional style responses associated with terms like, 'sensing' and 'feeling'. Here, by permitting a change in the course of action in line with the situation, these intuition-related responses can make the process appear impulsive, and poorly considered. By recognising the non-logical, non-rational nature of intuition, however, Simon (1987) cautions against considering intuition as irrational. In explanation, Simon (1987) recognises that by using intuition, decision-making processes are more likely to be expressed in actions than words. By considering intuition in this way, the Dreyfus brothers suggest that rather than its non-rational features, it is the hidden nature of intuition that means it is likely to be poorly recognised and understood (Dreyfus & Dreyfus, 1986).

Associating intuition with expert decision-making, Benner (1984) aligns it with the use of perception and perceptual acuity. Acknowledging that perception permits interpretation of real life situations, Benner recognises that it allows simultaneous consideration of the context and the situation as a whole rather than its constituent parts. While decision-making starts with emotions like 'feeling' or 'sensing,' which Benner explains in terms of a series of 'vague hunches', that are difficult to explain in words, other than 'gut feeling', 'feeling that something is not quite right', and a 'sense of uneasiness', she also acknowledges that they cannot be ignored. Importantly, by acting on the 'vague hunches', Benner acknowledges that through intuition, the individual does not require certainty to begin the decision-making process. Rather, Benner recognises that using intuition, the decision-maker acts on the feelings or so called, 'hunches' even when they are uncertain about the source or quality of related information (Benner, 1984). By describing intuition as the ability through experience to recognise subtle changes and patterns in situations, Benner (1984) uses the term to

explain the individual's ability to identify essential elements and information. Although described as an expert skill, Benner does not see the use of intuition as a personality trait permitted through completion of training courses. Instead, by presenting intuition as part of expert practice, Benner acknowledges it as a mode of thinking that comes with knowledge, skill, and experience. To Benner, these are key features of intuitive thinking and associated decision-making practice (Benner, 1984).

3.1.4 A theoretical basis for exploring health visitors' decision-making processes

Although theory helps to explain the decision-making process from a rational and non-rational perspective, the literature and policy suggests that normative approaches have traditionally been applied in healthcare situations (Jonasson, 2012). Here, these theories have been used to create standardised approaches to collect and process information. The introduction of social theories to the landscape recognises the people-focused features of decision-making processes. Here, human interaction is important because it allows the collection of information. The inclusion also of cognition theories provides a further route for explaining the use of inference, perception, and intuition.

When exploring the processes health visitors use to make decisions, normative approaches tend not to be helpful because of their inability to accommodate the complexity and lack of predictability inherent in health visitors' clinical practice. However, approaches provided by descriptive theories, especially those which allow explanation of people-focused, social factors tend to be more helpful because they are capable of capturing social interactions between individuals that can generate nuanced, often subtle information which may be difficult to see. These theories also provide an opportunity to consider decision-making processes as they happen during real life events and make it possible to adopt more qualitative methods for information collection (Bloomsbury, 2002).

Considering the theoretical landscape, the chosen framework needed to be one which could simultaneously accommodate these elements of complexity and unpredictability and provide a language and terminology capable of clearly explaining the processes adopted. While the principles discussed earlier in this chapter, for descriptive, normative, cognitive, social and dual-process theories provide important foundations, they tend not to be constructed in ways capable of concurrently presenting a structure, language and terminology capable of accommodating people-focused decision-making processes. For example, although Hammond's cognitive continuum theory can explain the use by nurses of conscious and unconscious thought during decision-making activity (Cadar et al., 2005), the additional attention paid to people, the environment and social interaction by social judgement theory and the associated framework makes it particularly well-suited to exploring the more socially-focused processes adopted by health visitors during their decision-making activity. In explanation, the complete system provided by Hammond's social judgement theory framework makes it possible to observe and explain the behaviours, and strategies that health visitors adopt when interacting with people during decision-making processes which require them to understand the environment, and the people within it. In additional, the potential that the social judgement theory framework offers to observe these processes in real time, makes it well-suited to the ethnographic participant observation methods adopted for data collection during the current study.

To explore the decision-making processes adopted by health visitors during their clinical practice, this study has therefore looked to the descriptive and socially focused theories for structure and guidance. In so doing, the researcher identified the framework offered by social judgement theory because as well as providing the structure and guidance needed to permit examination of behaviour as it happens in real time practice, the framework also offers the language and terminology necessary for explaining the nuanced, often subtle elements of health visitors' decision-making processes. This is important because as recognised in chapter one of this thesis, health visitors lack a common language with which to explain these features.

Further exploration presented in the next chapter (Chapter four: Methods and Methodology) outlines how during the later stages of analysis, the theoretical framework, provided a tool for explaining the processes adopted by the health visitor participants during their decision-making activities. Presented again in chapter five (Findings of the study) the framework facilitated an examination of the behaviours, and strategies adopted by individual health visitors during decision-making activity and captured during ethnographic participant observations and the 'Think Aloud' events. Furthermore, with data from the study, the language and terminology of the social judgement theory framework has helped to explain, in chapter six, the decision-making processes observed.

3.2 What is social judgement theory?

Social judgement theory provides a mechanism for explaining how people make decisions in complex and uncertain environments while completing real life (life relevant) decision-making activities (Hammond, 1955; Hammond et al., 1975, Brehmer & Joyce, 1988). Developed by Kenneth Hammond and colleagues from the mid-1950s, several key features make it particularly helpful for exploring the decision-making processes followed by health visitors. Firstly, by focusing on the often complex stimuli from social entities rather than physical objects, social judgment theory can accommodate social (people-focused) aspects of decision-making activity. In addition, social judgement theory focuses on the individual nature of decision-making and makes it possible to recognise different behaviours which may be difficult to replicate (Hammond, 1955, Baron, 2008). Founded on the need to be friendly, supportive, and encouraging, the clinical work of the heath visitor takes place in environments that are purposefully social, because they require interaction with one or more people (Davies, 1988). In addition, they operate alone on a one-to-one basis with the client and must engage people from a range of backgrounds with different social and health needs. The decision-making activity of individual health visitors is therefore inherently different, difficult to explain, and tends not to be open to repetition (Chalmers, 1994).

The research associated with social judgement theory has been generated using qualitative and quantitative methodologies. Its use can be seen in statistical studies predicting decisions and cue combinations, as well as those which seek to develop an understanding of the decision-making process. As a metatheory, social judgment theory does not seek to test hypotheses about human judgement and decision-making. Rather, it provides a framework to guide inquiry about human judgement and decision-making (Dhami & Mumpower, 2018). The unifying nature of the framework also means its use is well-suited to a variety of different fields. It is therefore particularly helpful when human behaviour and the social environment can influence the decision-making process (Snow, 1968, Shulman & Elstein, 1975, Cooksey & Freebody, 1986; Cooksey et al., 1986; Cooksey, 1988, Heald, 1991). These fields include medicine, psychiatry, child protection and nursing as well as non-clinical fields like labour relations and primary education (Hammond et al., 1975, Dhami & Mumpower, 2018).

Although it shares its name with that adopted by Muzafer Sherif in the 1940s, Sherif's research focuses on the influence of persuasion, and therefore the two theories are clearly distinct (Hammond, 1955).

3.3 The context and background for the social judgement theory framework

An American psychologist, Kenneth Hammond, is described as one of the most prominent figures in the psychology of human judgement and decision-making. Initially a scholar of human judgement and decision-making in clinical fields, but latterly in different fields, Hammond advocated the use of information from real life situations. He also pioneered applied rather than laboratory based research (Dhami & Mumpower, 2018). In so doing he was able to create a complete system for inquiry which integrates theory and method. The framework Hammond created made it possible to observe and explain decision-making processes (Brehmer & Joyce, 1988).

Initially a student of the eminent Austrian American psychologist, Egon Brunswik (1903-1955), Hammond's creation of the social judgement theory framework was influenced by Brunswik's seminal work exploring the way humans process information to make decisions and judgements. Initially creating the concept alone, Hammond then worked with colleagues to develop the framework.

Using social judgement theory, although Hammond applied and extended several elements of Brunswik's work, his focus was the exploration of human judgment in situations (ecologies) where social, environmental, and behavioural features combine (Hammond, 1955, Brehmer & Joyce, 1988, Doherty & Kurtz, 1996, Goldstein & Wright, 2001). His systematic application of Brunswik's probabilistic functionalism allows recognition of the challenges associated with decision-making in social situations when the required information relies on the individual being able to interact (Hammond, 1955, Brehmer & Joyce, 1988). In these situations, interaction requires the individual to learn the norms, values and beliefs of the group and adapt their behaviour in ways that can promote acceptance. In addition, Hammond's use of Brunswik's Lens Model in the social judgement theory framework provides a route for explaining the way people interact with the environment to collect the much needed information during decision-making activity (Hammond, 1955, Hammond, Stewart, Brehmer & Steinmann, 1975). In the social judgement theory framework, Hammond therefore makes it possible to explore the typical actions, thoughts, and behaviours that people employ when making decisions and judgments (Baron, 2008).

3.3.1 The influence of Egon Brunswik on the social judgement theory framework

Brunswik's influence on the development of the social judgement theory framework is ultimately seen in his analysis of perception (cue theory), (Brehmer & Joyce, 1988). To Brunswik, perception constitutes an indirect process that allows decisions to be made, using inference where information is not available. Illustrating this with his retinal projection studies, Brunswik shows that an object could appear bigger the closer it came to the observer. However, the same object positioned at a distance would appear much smaller

(Goldstein & Wright, 2001). To Brunswik these situations are not static and so require behaviour to adapt in response to changing perception. Importantly, for the design of the social judgement theory framework, this allows Hammond to explain how individuals can make a different decision even when dealing with the same issue and information (Hammond, 1955). In developing the social judgement theory framework, Hammond thereby recognises the importance of behaviour because to be able to collect information and sensitively identify its meaning, the decision-maker must act in ways that can make information available (Goldstein & Wright, 2001). To Brunswik, the dynamic nature of decision-making requires the person to continually adapt (*adjust*) their behaviour in response to changing perceptions. In the social judgment theory framework therefore, Hammond and colleagues provide a route to explain how during interactions with others, people behave and respond to perceptions. Through seeing and hearing, these perceptions allow them to build a picture of what is or may be happening. In this way, the social judgement theory framework makes it possible to describe perception of environmental factors and the decision-making response (Hammond & Stewart, 2001).

3.4 The social judgement theory framework

The social judgement theory framework recognises the importance of key elements which include:

- The decision-maker and the environment have a symbiotic relationship where they are equal and interdependent partners;
- The environment (ecology) allows social, environmental, and behavioural elements to occur simultaneously;
- The individual can behave in different ways (idiographic) that can be difficult to repeat and describe.

Using social judgement theory, the framework acknowledges that a judgement constitutes the integration of several cues from the environment that are collected by the decision-maker (Cooksey, 1996). By observing the clinician in their natural environment, social

judgement theory makes it possible to observe cue collection during real life (life relevant) activities (Hammond, 1955). In so doing, Hammond constructs a situation to accommodate likely rather than predetermined events. By looking for behaviours associated with different rather than repeatable processes, Hammond recognises the importance of the decision-maker above that of the procedure used,

> "*That the clinician not be considered a reader of instruments, but an instrument to be understood …*"
>
> (Hammond, 1955, p. 262)

By focusing on the decision-maker therefore, Hammond's social judgement theory provides a mechanism for chronicling the clinician's (person's) actual behaviour and activity. In this way, it can help to explain how clinicians (people) usually think, solve problems, and make decisions (Baron, 2008).

Using this theory, Hammond and colleagues created the social judgment theory framework to explain the way elements combine to allow the decision-making process to happen. The following section outlines the components of the framework and the influence they have on the decision-making process.

3.4.1 The decision-maker and the environment have a symbiotic relationship where they are equal and interdependent partners

By developing the social judgement theory framework, Hammond and colleagues provide a way to align the cognitive skills of thinking and understanding with the collation of environment-initiated information during the decision-making process (Doherty & Kurz, 1996). In so doing, they moved away from the ethos of mainstream research at the time, which considered these aspects as separate entities,

> *"Social judgement theory calls for an ecological view…. It calls for attention to the outcomes in the environment, and to those aspects of the environment and activities of the organism that lead to successful outcomes",*
>
> (Doherty & Kurz, 1996, p122)

3.4.2 The environment (ecology) allows social, environmental, and behavioural elements to occur simultaneously

Emerging from the field of social psychology, social judgement theory acknowledges that social factors, emerging from the way people interact, contribute, and influence decision-making behaviour and subsequent activity (Brehmer & Joyce, 1988). Using this theory, Hammond (1955) provides a framework with which to observe the interaction between clinician (*decision-maker*) and patient (*the object of the decision*). In so doing, he recognises that to collect information during the process, the decision-maker uses strategies and tactics to better understand the environment and the people within it (Rappaport & Summers, 1973). These strategies and tactics are carefully selected because they affect the information the patient (*object of the decision*) chooses to share (Brehmer & Joyce, 1988). To make a clinical decision, Hammond, therefore recognises that the clinician manages their behaviour during interactions, to influence the way the patient responds. By recognising this, social judgement theory thereby makes it possible to describe the way clinicians (*people)* behave when interacting with patients (*the object of the decision*).

3.4.3 The individual can behave in different ways (idiographic) that can be difficult to repeat and describe

Using social judgment theory to recognise the individual nature of the clinician's decision-making activity, Hammond provides a descriptive paradigm, capable of using situation specific information from real life events (Hammond et al., 1975). In real life situations, which Hammond refers to as the '*representative design',* he highlights that by placing the person in their usual (*familiar*) environment, it is possible to observe the behaviour they naturally adopt when making clinical decisions (Cooksey, 1996).

3.5 Features of the social judgement theory framework

The following section outlines the six elements of the social judgement theory framework and describes their distinct features. Used in the framework these features help to explain how the individual can manage the decision-making processes they adopt. As outlined earlier in this chapter, the language and terminology contained within the six features, will be used in the current study during the later stages of analysis to explain the decision-making processes observed during ethnographic participant observation and outlined by the health visitors during the 'Think Aloud' events.

The key elements of the framework include:

- Brunswik's Lens Model
- Probabilistic functionalism
- The principle of achievement
- The zone of ambiguity
- The principle of parallel concepts
- The principle of vicarious functioning.

3.5.1 Brunswik's Lens Model

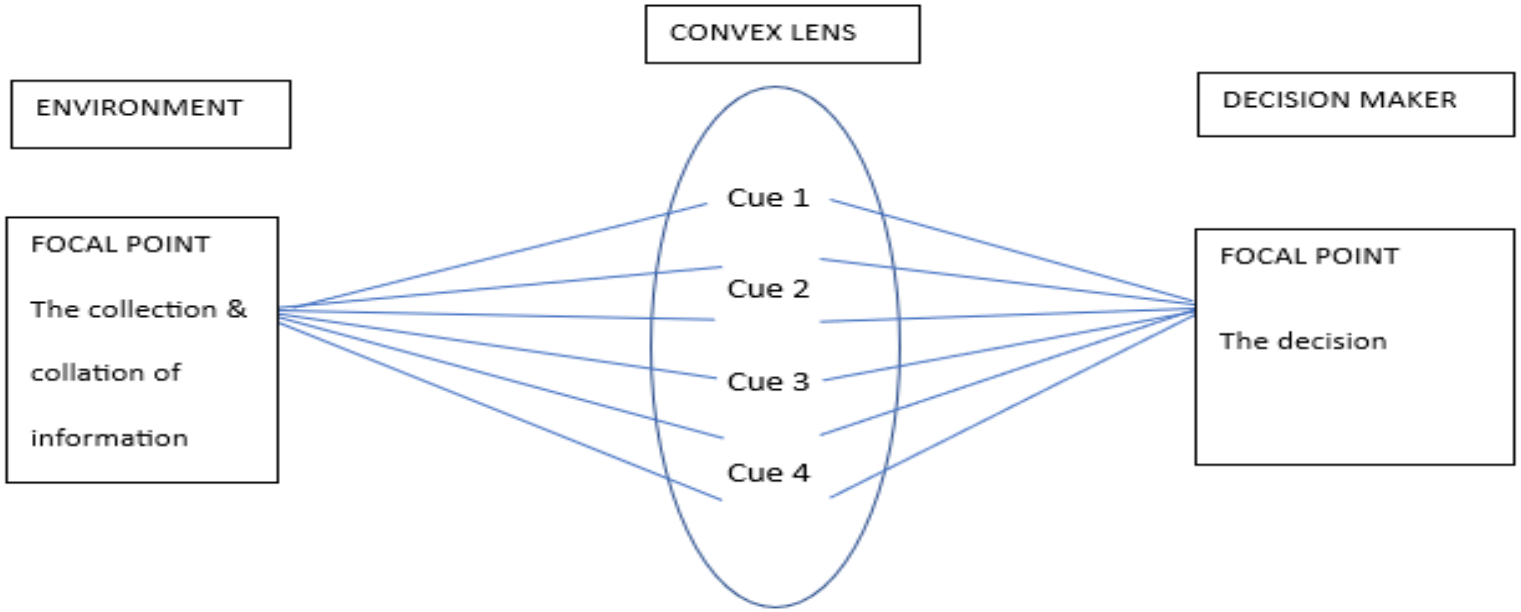
Brunswik's Lens Model presents the three components of the decision-making process in picture format (Figure 9). These include the organism (*decision-maker*) on the right and the environment on the left. Rather than separating these two components, Hammond aligns and presents them symmetrically to illustrate the equal status attributed to each (Hammond, 1955; Hammond, 1966; Hammond er al., 1975, Dhami & Mumpower, 2018).

> "*Both organism and environment will have to be seen as systems, each with properties of their own, yet hewn from basically the same block. Each has surface and depth, or overt and covert regions… the interrelationship between the two systems has the essential characteristic of a "coming-to-terms*".
>
> (Hammond, 1966, p.5)

In addition, Hammond presents cues in the middle between the environment and the individual (Figure 9). The cues concern the information about the situation in which the decision is made (Brehmer & Joyce, 1988). Placing them in the middle of a structure akin to a convex lens, Hammond uses the analogy to illustrate how information (*like Brunswik's rays of light*) is collated during the decision-making process (Hammond, 1955). In explanation, because a convex lens is thicker in the middle than it is at the edges, the rays of light that pass through it will converge. This means that the information (*like Brunswik's rays of light*) comes closer together and creates a focal point.

Hammond recognises that as several cues from the environment combine, they form a judgement, and this represents the precursor to the decision (Cooksey, 1996). Using Brunswik's Lens Model, Hammond therefore shows how, with equal status, the decision-maker interacts with the environment (*which includes the patient as the subject of the decision*) and uses information from it (*cues*) to make decisions (Dhami & Mumpower, 2018).

Figure 9: Pictorial representation of Brunswik's Lens Model



By incorporating Brunswik's Lens Model (*hereafter, the Lens Model*), social judgement theory illustrates that to make a decision, information will converge at two (*focal*) points. The first point on the left hand side of the model is where the decision-maker collects and collates all available information (*cues*) from the environment. The second focal point on the right is where information again converges, and the decision is made. Here the decision-maker has interacted with the environment-derived cues in the middle. Although several cues are available, rather than selecting them all to make each decision, they can select some and reject others (Cooksey, 1996). The Lens Model thereby shows that to make a decision, the decision-maker completes a series of steps which include,

- They interact with people in the environment. Referring to this as the input level, Hammond shows how, through interaction, the decision-maker (clinician) influences the person's (*patient's*) response and willingness to share information (*cues*). The availability of information and ability to recognise a problem exists that requires a decision, is therefore predicated on the decision-maker's (clinician's) ability to interact.
- Secondly, the decision-maker (clinician) uses information from their interactions to understand the environment. During this information processing level, Hammond shows how the decision-maker (clinician) recognises the problem in the context that it occurs (*conditions and circumstances*). In this way, Hammond recognises how individual decision-makers (clinicians) can adopt a different approach to make a decision.
- Thirdly, the decision-maker (clinician) selects the cues considered relevant to the problem, the environment, and the person (patient). Referring to this as the output or decision level, Hammond shows how by considering the extent to which the cues meet their expectations, the clinician chooses some and not others.

This double system Lens Model, where the environment and decision-maker align, thereby allows Hammond to illustrate how decisions can be made, even when information is imperfect, uncertain, and unpredictable. This is because relevant rather than optimal information is used.

3.5.2 Probabilistic Functionalism

By adopting the Brunswikian concept of probabilistic functionalism, Hammond, in the social judgement theory framework, demonstrates how decision-making processes not only continue in uncertain situations but are also intentional and purposeful. To Hammond probabilism refers to the uncertain relationship between the environmental variables and the person. In addition, Hammond uses the term functionalism to acknowledge that in response to the uncertainty, people think and behave intentionally and with purpose (Hammond 1955, Hammond, 1966, Rapoport & Summers, 1973, Brehmer, 1988, Dhami & Mumpower, 2018). Their actions are not impulsive and do not happen by chance.

> *"Probabilistic, 'uncertainty-geared' manner, to the 'semi-erratic medium' that is the environment*".
>
> (Rapoport & Summers, 1973, p. 191)

Recognising that the environment includes the situation, atmosphere and the physical setting, Hammond, in the framework, acknowledges that some information can be easier to see and manage than others. Describing this in terms of surface (easier to see) and depth cues (harder to see), Hammond recognises that in addition to things happening unexpectedly, the environment, although familiar, can also be unpredictable, uncertain, and complex. This is because things can happen unexpectedly (Hammond et al., 1975). In explanation, when making a medical diagnosis, although the clinician relies on the patient being willing to share information, they cannot predict that this will happen. To enhance the availability of the information therefore, the clinician will interact and adapt their behaviour to encourage the patient to talk, share information and tell their story (Brehmer & Joyce, 1988). Hammond thereby recognises that the process can be explained and described in terms of behaviours that the decision-maker adopts. In this way, information about the process comes from observing decision-makers in practice (Hammond, 1955).

3.5.3 The principle of Achievement

Hammond uses the term 'achievement' to describe how the decision-maker can simultaneously understand the environment and the behaviour of people within it. He recognises that to do so, the decision-maker (clinician) simultaneously uses their cognitive skills of perception, thinking and learning, to make sense of the information and understand it more clearly. This is possible because the decision-maker draws on experience of having seen or dealt with an issue in the past and are not merely memorising information. A situation, that Brunswik described as the need to,

> "*Be concerned with the texture of the environment*",
>
> (Brunswik, 1957, p. 5)

In terms of functionalist traditions in psychology, achievement focuses on success rather than failure. It describes the degree to which the decision-maker successfully achieves their goals, rather than how they respond to errors (Doherty & Kurtz, 1996). Instead of measuring their performance against a standard decision-making process or set of rules, as would be the case with normative decision theory, social judgement theory considers the extent to which the decision-maker's responses relate to the situation in which the decision is required (*the environment*). Hammond acknowledges that information is easier to understand when similar or related pieces come together. In this way, he recognises the importance of the decision-maker's ability to recognise patterns and similarities in the information available.

3.5.4 The zone of Ambiguity

Using the term, the 'zone of Ambiguity,' Hammond, recognises the conceptual (*ambiguous*) space (*zone*) that exists in real life processes, where because the decision-maker cannot see all the information, they must rely on inference and assumption to make decisions (Hammond et al., 1977, Brehmer & Joyce, 1988). In this way, Hammond recognises that decisions can still be made when complete certainty may not be possible. In addition, he acknowledges that information is easier to understand when collated rather than as

separate parts. In this way, the decision-maker's ability to recognise patterns and similarities in the information available means they can deepen their understanding of what it may mean (Hammond, 1955).

3.5.5 The principle of parallel concepts

By creating symmetry between the right and left side of the Lens Model, Hammond, in the social judgement theory framework, establishes balance between the cues in the environment and those relating to the decision-maker (Hammond et al., 1975). Although symmetrical, the relationship between the environment and the decision-maker is not necessarily linear. In this way, the decision-making process may not necessarily reflect a cause and effect relationship. Instead, social judgement theory allows the process to be curvilinear, where the cues within the environment may contribute to the process but not be directly responsible for it. Furthermore, when symmetry persists between the two systems, cue selection can take place, where some, but not all, the cues are used in the decision-making process.

3.5.6 The principle of vicarious functioning

Hammond and colleagues use the principle of vicarious functioning to describe the decision-maker's ability to adapt their behaviour by using cues interchangeably (i.e., using one cue in place of another). This non-linear process, therefore, allows the individual (clinician) to make decisions using some but not all the available information. In these situations, even when valid, information can be neglected, and other less valid information used in its place (Dhami & Mumpower, 2018). In this way, Hammond acknowledges that individuals (clinicians) can use different information to make the same decision (Hammond, 1955).

Although a fundamental concept in Brunswikian theory (Goldstein & Wright, 2001), this principle was also used by the behavioural psychologist, Walter Hunter. Using it from a physiological (*rather than psychological*) perspective, Hunter explains how one body organ can operate on behalf of another and function in its place (Hunter, 1932). While retaining

the principle of vicarious functioning, Hammond uses it more broadly, to illustrate how, when making a decision, the individual (clinician) adapts to the environment by substituting one cue for another. For example, during his research with ten clinical psychologists, Hammond (1955) recognises that although using the same standard intelligence test to assess the IQ of patients, individual psychologists could use different cues (*information*) to make their decision. This is because people can describe different symptoms but still share the same condition or diagnosis (Brehmer & Joyce, 1988). In situations like these where relationships are curvilinear rather than linear, Hammond and his colleagues describe how the decision-maker (clinician) uses alternative information by substituting one cue for another. This tends to happen continuously and quickly, and the decision-maker (clinician) is often unaware they are doing it (Wolf, 1999).

By adopting the principle of vicarious functioning, Hammond and colleagues provide a mechanism for describing the decision-making process in imperfect situations (Wolf, 1999). Here, although contemplating the same issues, the decision-maker may need to use different cues to make the decision. In this way, social judgement theory, rather than requiring everyone to do the same thing, accommodates difference and does not expect an individual's decision-making activity to be repeated by others in the same way (Wolf, 1999).

Recognising the similarity with Brunswik's principle of perception, known as cue theory, Hammond, acknowledges that in social judgement theory the individual can make decisions when the information is unclear, obscure, or unavailable. This is possible because the alternative information can be used as a substitute (Hammond, 1955, Hammond et al., 1977, Brehmer & Joyce, 1988). Rather than requiring visible and objective information, or consistent use of the same terminology, Hammond recognises that the ability to understand the environment and situation makes the decision-making process possible. This is because the person simultaneously considers the environment, the people within it, and aligns similar information to form patterns. In this way, the decision-maker can adapt their behaviour and create opportunities to collect and collate the information they need to make a decision.

Attributing this to (*clinical*) competence, Hammond recognises that such behaviour depends on the individual's (*clinician's*) ability to use inference, past experiences, and their senses, including, sight, hearing, smell, and touch, (Brehmer & Joyce, 1988). Social judgement theory thereby provides a means to explain how individuals can use sensory and experiential information to make decisions and, despite facing the same situation as a colleague, they may make different decisions (Hammond et al., 1977).

3.6 The use of social judgement theory in decision-making research

The following section provides an overview of the ways in which the social judgement theory framework has been used in research, exploring decision-making processes. By highlighting the different research applications, the section will outline how they can inform the use of the social judgement theory and the associated framework in the current exploratory study about health visitors' decision-making processes.

Traditionally, the social judgement theory framework has been used in research exploring decision-making in clinical and non-clinical situations. These studies explore decision-making towards a medical diagnosis, or the protection of children from abuse and neglect. The framework has also been used in research to develop an understanding of decision-making processes adopted in the fields of clinical and primary education. Here, findings show the way human behaviour and the social environment influence the processes adopted (Snow, 1968; Shulman & Elstein, 1975, Cooksey & Freebody, 1986; Cooksey et al, 1986; Cooksey, 1988, Heald, 1991).

Over time, the social judgement theory framework has been adopted in qualitative, quantitative, and mixed methods studies. Although the contemporary landscape reflects a dichotomy between quantitative and qualitative methodologies, the tendency to favour quantitative or mixed methods techniques has produced a plethora of studies exploring the decision itself (Unsworth et al., 1997, Holzworth & Willis, 1999, Harries & Gilhooly, 2003, Rassafiani et al., 2008, Stamp, 2011, Hickson et al., 2017). These studies tend to explore the

number of times a particular decision is made. In these studies individuals are given a list of prescribed cues and must choose one option as their decision. The studies also describe how frequently, or consistently prescribed information is used during the decision-making process. Although providing less depth and breadth of information, these predictive studies offer valuable insights about the use of the framework in different settings. These studies have traditionally employed statistical regression techniques (Hammond, 1955). However, in line with the framework's original intentions (Hammond et al., 1975), studies have also explored decision-making processes from a more holistic view. Although less in number, these methodologies according to Dhami & Mumpower (2018), are more closely associated with the underlying philosophy for its use, i.e.,

> "*There is nothing within the framework of the Lens Model that demand that multiple regression statistics be the one and only model of that organising process. Researchers have now successfully developed and tested non-statistical alternatives to the regression model within the Lens Model context".*
>
> (Dhami & Mumpower, 2018, p. 5)

Indeed, Hammond acknowledges the limitations arising from an over reliance on regression techniques (Hammond at al., 1975).

> *"a … sin of commission on my part was to overemphasise the role of the multiple regression (MR) technique as a model for organising information from multiple fallible indicators into a judgement. There is nothing within the framework of the Lens Model that demands that MR be the one and only model of that organising process".*
>
> (Hammond, 1996, p244-245)

Although multiple regression techniques provide a structure capable of describing the decision-making process, Dhami & Harries (2001) recognise that the tendency to describe consistent use of the same cues can limit their ability to explain more than the basic

elements of the process. These approaches tend to be used in studies exploring a decision-making process where a binary (yes/no) decision is possible. Although making it possible to understand how binary (yes/no) decisions are made, they are unlikely to provide the depth of analysis needed for more complex decision-making processes (Dhami & Harries, 2001). This is because information is likely to be considered in isolation and there is limited potential to identify ways in which individuals combine information (cues) or recognise patterns. In addition, the processes tend not to explain how individuals interact with others or the environment in which the decisions were made. This was illustrated by Harries & Gilhooly (2003) in their study of the referral priorities described by occupational therapists.

In situations where complexity exists, the social judgement theory framework offers insights into the holistic decision-making processes. Although in its infancy, the use of the framework in qualitative studies makes it is possible to describe the way individual decision-makers interact with the environment and the people within it. In this way, when used alongside qualitative methodologies, the framework offers a breadth of information including the intricacies of interactions, as well as the selection and combination of cues (Cooksey & Freebody, 1986; Cooksey et al., 1986, Doyle & Thomas, 1995, Thompson et al., 2005). This was highlighted by Doyle and Thomas (1995) in their study of audiologists. The field of audiology is considered complex because it relies on information from the client. In explanation, the reliance on people means that information can be incomplete and difficult to find. In these situations, to collect information the audiologist must take time to carefully interact with the client. Doyle and Thomas use the social judgement theory framework to describe the information (cues) that the audiologists used during their consultations with clients. In addition, the researchers were able to describe the way individual audiologists used specific information. In this way, they explained how the audiologist recognised the information that provided the cues for decisions made in each client consultation. Although all were dealing with people who had a hearing impairment, the information providing cues in each situation will be different because people are unlikely to experience deafness in the same way. Importantly, in their study Doyle & Thomas describe the range of cues audiologists collect during the consultations. These relate to clinical as well as socially

derived information. In this way, their use of the social judgement theory framework appears to have enabled the collection of information that may have been less readily available, or easy to see without client engagement.

Cooksey & Freebody (Cooksey & Freebody, 1986; Cooksey et al., 1986) further demonstrate the benefits associated with the use of the social judgement theory framework to explore the decision-making processes of individuals. The study recognises the teachers' decision-making processes were complex because they addressed a range of issues. In these situations, because of the age of the children, the teacher engaged with the parent(s) as well as the children.

Focusing on the process adopted by novice teachers about their students' reading achievement, Cooksey & Freebody noted the informal nature of the processes adopted. Using scenarios based on real life student profiles, they were able to recognise the way the teachers collected objective and subjective information during their decision-making processes. For example, they collected information about the student's socioeconomic status, ethnicity, past achievements, behaviour patterns, and physical appearance. In addition, the teachers also talked about the student's level of attention, their capacity to think independently, and be receptive to the ideas of others as well as their capacity to work unsupervised. By exploring the process adopted by the individual teachers, Cooksey & Freebody collected detailed information about the individual decision-making processes. In so doing, they recognise how the teachers interacted with the student and their family in an informal, socially orientated way, to collect detailed information about the students. This meant that in addition to education and school based information, the teachers also showed that they used socio-economic, child development and family based information during their decision-making processes. Although not clinical in terms of health or medicine, this study provides a comparable context to that of health visitors, because the teachers worked with children (students) and families. They also operate within a socially constructed model of care, where it is important to interact with others to collect and collate (understand)

information during the decision-making process. Using the social judgement theory framework, Cooksey & Freebody acknowledge how the teachers combine information and recognise patterns (Cooksey & Freebody, 1986; Cooksey et al., 1986). They tended not to use isolated pieces of information. However, when asked to explain the process they adopted, the teachers were unable to do so (Cooksey & Freebody, 1986; Cooksey et al., 1986). This study, therefore, highlights the ability of social judgement theory framework to record behaviours and activities, even when the decision-makers have used them unconsciously during their decision-making activity. Used in this way, the social judgment theory framework makes it possible to collect important information from individual decision-makers. Importantly, by considering the processes adopted by the individual rather than the group, it is possible to collect nuanced, often subtle, information. This tends not to be available with the use of regression techniques (Brehmer, 1994, Dhami & Harries, 2001).

Where real life information has not been used, the studies have designed scenarios or vignettes. To design these cases, the studies have used case-related or hypothetical data. In these studies, rather than observing the decision-makers' interactions with others to make decisions, the participants consider the information within the scenarios or vignettes and respond to a series of questions to illustrate their decision-making practice. Although it may not be possible to collect the depth and range of detail from these studies, the use of these methods has contributed to a developing understanding about the use of the social judgement theory framework to describe different decision-making processes. By recruiting higher numbers of participants than would be possible with observation methods, these studies have also contributed to the increasing data available, which can further inform the use of the framework. For example, the study by Holzworth & Willis (1999) explored the decision-making processes adopted by psychiatric nurses to place a patient into seclusion and employ restraint techniques. Using scenario based events, Holzworth & Willis asked the nurse participants to report their decisions. Despite referring to realistic situations, the reported decisions related to the nurses' considered, rather than actual, decisions. However, by chronicling the nurse's explanations of their decision-making process, the social

judgement framework showed how it was possible to collect the different information combinations that the nurses used during their decision-making processes.

The use of hypothetical information in scenarios limits the extent to which the participants are exposed to the 'real world environment' that would be possible when real life events are considered during the study. This was the case when Unsworth and colleagues employed hypothetical cases to describe the housing decisions made by clinicians when discharging people from hospital following a stroke (cerebrovascular accident) (Unsworth et al., 1997). Although, in the real world, the clinicians and the patient's behaviour may have influenced the decision-making process, this was not explored during the study. Furthermore, the range of possible decisions was limited by prescribing a list of seven options. This reduction means that some options, although possible, have not been considered. By using the list provided, the clinicians could therefore have described the most appropriate option from those available rather than the decision they would have made using information collected from the patient during consultation. A similar situation was presented by Brown and colleagues in their study exploring physician's decisions to prescribe benzodiazepine medication for mothers experiencing nervousness and insomnia (Brown et al., 1997). Again, this study sought a binary decision to prescribe (yes or no). It also restricted the mothers' symptoms. However, had the decision been made in the 'real world', the mother may have described more symptoms, meaning the physician would have had to manage a greater volume of information. Although, like other studies, use of social judgement theory in this way has provided limited insight into the normal (usual) behaviour adopted by individuals during the decision-making process, they offer insight into the way information may be selected.

Incorporating the Lens Model within the social judgement theory framework, has made it possible to explore the decision-making process in greater depth. By illustrating the relationship between the environment and the decision-maker, these studies, although again in their infancy, have been able to show how the individual uses information from different sources, and about different topics during the decision-making process. In a study

exploring the anticipated development of coronary heart disease over a ten-year period, Stamp (2011) investigated the way nurse practitioners made decisions about the patient's level of risk. Focusing first on the right side of the Lens Model, Stamp (2011) sought personal insights and reflections from the nurse practitioners based on case profile scenarios. In so doing, they captured the cues using information the nurse practitioners reported using during their decision-making process. During this stage of the study, Stamp (2011) acknowledged that in addition to collecting information about the clinical factors, the nurse practitioners also considered social factors including lifestyle and the patient's living environment. This suggests that decision-makers may find it easier to recall their actions when focusing on the outcome, i.e., the decision. Although this study did not observe the way the nurse practitioners made decisions during actual (real life) consultations, by using the Lens Model, it was able to capture the range of cue selection and thereby the non-linear nature of decision-making process. This point was reinforced in the research by Thompson et al., (2005) which sought to identify how, following a critical care learning event, student nurses made clinical decisions. By responding to a series of scenarios, the student nurses were asked to make two specific decisions. Again, although using scenarios rather than real life events, Thompson et al., (2005) provide useful insights into the process the students adopted to make the decisions. By recognising that the decision-making process was not linear, Thompson et al., (2005) acknowledge that although each student was given the same information, they each used it in different ways during the decision-making process. Importantly, in this study, Thompson et al., (2005) consider the behaviour and actions of the individual nurses rather than merely focusing on the group of nurses. In this way, they were able to recognise the level of difference and complexity associated with the decision-making activity.

3.7 Conclusion

- Social judgement theory allows the collection of information about individual decision-making processes by observing the person making the decision.
- The social judgement theory framework accommodates decision-making in social situations where the decision-maker interacts with at least one other person.

- Research shows the social judgement theory framework can describe nuanced and subtle information about behaviours and actions even when the decision-maker is unaware of how they influenced the decision-making process.
- Research has shown that the social judgment theory framework can make it possible to describe the decision-making process in situations that are ambiguous.
- Even when information overlaps, is absent or difficult to see, the social judgement theory framework allows substitution by alternative sources, so a decision can still be made.

The social judgement theory framework was created as a route to explore human judgment and decision-making. Research shows that it is particularly helpful when decision-making processes require the people involved to interact effectively and so generate the information required. The unifying nature of the framework means it can be used in different fields and is particularly helpful when human behaviour and the social environment are factors influencing the decision-making process (Snow, 1968, Shulman & Elstein, 1975, Cooksey & Freebody, 1986; Cooksey et al., 1986; Cooksey, 1988, Heald, 1991, Dhami & Mumpower, 2018). This is because it permits the collection of detailed descriptions of an individual's behaviour and activity when making decisions. The use of the Lens Model within the framework increases the potential to systematically collect information about the environment, the cues, and the decision. In combination, this information provides detailed insights into the often subtle behaviours individuals use when making decisions.

Characteristically known to operate in social situations, the environments in which health visitors are likely to make decisions will require effective interaction. As people-focused professionals, health visitors provide a universally available service, predicated on the engagement of people. The literature shows that clients are more likely to engage with the health visitor if they like them (Donetto et al., 2013, Donetto & Mabin, 2014). It also shows that when health visitors behave in a friendly and supportive way, clients are more likely to accept the service (Chalmers, 1994, King, 2016). Interaction therefore forms a key part of

any decision-making process adopted by health visitors. The use of the social judgement theory framework in the current study therefore provides a potential route, language, and terminology to examine these interactions and the way they contribute to the decision-making processes health visitors adopt in their consultations with mothers and children. The use of Brunswik's Lens Model within the framework also provides a route for explaining the behaviours and strategies health visitors use to interact with the environment and the people within it to collect information (cues) during their decision-making activity (Hammond, 1955; Hammond et al., 1975).

Although interaction involves engaging people and the environment, it also requires the individual to sufficiently understand the environment to recognise when situations exist that require a decision to be made. Although the literature tends to associate this with the hidden concepts of 'gut-feeling', the social judgement theory framework offers a route for deeper exploration of the factors involved. Recognition of perception and the ability to make inferences when information is limited or unavailable, makes this framework particularly well-suited to examining the elements involved during health visitors' decision-making activity. This information has, until now, remained hidden and unexplored. However, use of the social judgment theory framework provides a route to examine the details of this highly skilled activity (Hammond, 1955, Brehmer & Joyce, 1988, Doherty & Kurtz, 1996, Goldstein & Wright, 2001).

The literature shows the challenges that may impact the health visitor's ability to engage in decision-making processes. Described in the social judgement theory framework in terms of probabilistic functionalism, means it is possible to explain decision-making processes that happen in social situations when the information required may be difficult to collect. This can be because it relies on the willingness of others to share information, but it may also be associated with the ability to predict and control its availability (Hammond, 1955, Brehmer & Joyce, 1988). The literature suggests that health visitors can elicit a depth of information from clients. However, the processes that allow this to happen are unclear. The level of complexity, uncertainty and unpredictability associated with health visitors' decision-making

activity means that the social judgement theory framework may be a helpful way to explore these processes. By focusing on the complex stimuli from social entities rather than merely the physical objects, the framework can describe and explain the social focused (people and environment) aspects of the decision-making processes.

3.8 Chapter Summary

This chapter has considered the theoretical landscape for contemporary decision-making activity and set the theoretical context for exploring health visitors' decision-making processes. The theoretical constructs of social judgement theory have been discussed alongside the features of the social judgment theory framework.

Social judgement theory and the social judgement theory framework have been considered as a route for exploring the decision-making processes adopted by health visitors. In conclusion, the chapter has considered the suitability of the social judgement theory framework to examine and explain the health visitors use of these processes.

The next chapter will present the process used to select the methods and methodology adopted for the study.

Chapter Four: Methods and Methodology

4.0 Chapter Overview

The exploration of the literature presented in Chapter two highlighted two distinct features that needed to be considered when selecting appropriate methods and methodology for the study. Firstly, knowing that rather than using the term 'clinical decision-making' health visitors tended to explain their clinical choices using terms like 'problem solving', 'professional judgement' and 'assessment' meant that any method adopted for data collection would require techniques other than those using question and answer strategies. In addition, the literature review outlined in Chapter two also identified a dearth of research which has examined the subtle nuances of health visitors' authentic, decision-making behaviour and activity. This meant that any methodology selected for the current study would need to be capable of working with person specific information to explain what was happening and why it was happening during situations where decisions were made.

This chapter will outline the process used to select the methodology and methods. In so doing, it will explain how each element aligned to create the building blocks of the study. Throughout the chapter, the account will show how this alignment enabled a detailed exploration of the behaviours and strategies demonstrated by each health visitor participant when interacting with mothers and children accessing NHS health visiting services. In this way the chapter will outline how the selected methodology and methods created a context where learning came from the participant's actions and behaviours.

By first introducing the conceptual framework the chapter will explore the relationship between each element selected to collect and analyse data during the study. In so doing the account will detail how these connections created a cohesive research design capable of addressing the study intentions.

In addition, the chapter will introduce each element of the methodology and methods, including ethnography, and ethnographic participant observation, the 'Think Aloud' method, the social judgement theory framework, and thematic analysis. By exploring each design element in turn, the discussion will outline the ways they have been used to fulfil the intentions of the study.

The chapter concludes with an exploration of the way features have been incorporated into the design of the study to provide assurance of rigour and credibility.

4.1 Context for exploring health visitors' decision-making processes

Although existing research has considered the decision as an outcome, the literature highlights a dearth of studies that have considered the process of decision-making. In exploring health visitors' decision-making processes, the narrative review presented in chapter two of this thesis, illustrated two pertinent factors of the literature that were acknowledged when selecting the methodology and methods for the current study. Firstly, rather than using the term 'clinical decision-making' health visitors tend to use terms like, 'assessment', 'problem solving', and 'professional judgement'. This means that despite making decisions health visitors, when asked, tended not to describe doing so. Therefore, any data collection methods which seek to ask health visitors to describe their decision-making activity are unlikely to provide the data required to explore the processes adopted.

Secondly, rather than considering descriptions of the process, the literature tended to describe decision-making in terms of the outcome achieved. These studies tended to consider the decision, and whether it was good or bad. In addition, these outcome-focused studies also tended to favour medical rather than social decision-making approaches. They were also likely to standardise and prescribe decision-making processes that used checklists or algorithms. Furthermore, where health visitors' clinical decision-making activity was recognised in the literature, it tended to be conflated with the phrase '*gut feeling*' and given less credibility than the more objective, outcome-focused approaches (Munro, 2011).

Although these outcome-focused approaches tended to provide an answer, they were unlikely to consider any contributory subtle nuances employed during a decision-making process. When preparing the current study, it was therefore necessary to employ methods capable of capturing authentic decision-making activity as it happened in normal situations.

4.2 Context for the selected methods and methodology

To address the issues identified in the literature, this exploratory study used ethnographic participant observation and the social judgement theory framework to examine and map the way health visitors made decisions during regular casework with mothers and children (clients) accessing NHS health visiting services. By observing and examining health visitors' behaviour and activities in this way the intention was to learn from the health visitors about what they did. Focusing on the decision-making processes that happened during client consultations, the selected methods and methodology provided a context in which to examine the events, conversations and descriptions associated with decision-making during daily practice. In applying Hammond's social judgement theory, the study also provided a framework, which made it possible to describe and explain the steps and stages health visitors implemented during real life decision-making processes.

Rather than predicting and prescribing the decision-making processes, in line with Brewer (2000), this ethnographic study looked for contextual structures associated with real life decision-making activity. Adopting an inductive approach, the data collected during the study thereby comprised real life events, conversations and descriptions associated with the way health visitors made decisions in their daily practice (Brewer, 2000). In so doing, this theory building method was designed to facilitate greater understanding of the decision-making processes that the health visitors adopted.

4.3 The Research Study: the objectives

As outlined in the introduction, chapter one of this thesis, the study sought to address the following three objectives:

- **Objective 1**: Explore, using participant ethnographic observation, health visitors undertaking daily practice in real time to identify the decision-making processes they follow.
- **Objective 2**: Explore, using the 'Think Aloud' method, how health visitors, while watching recordings of their client consultations, recognise and describe their decision-making processes.
- **Objective 3**: Examine, using the social judgement theory framework, the discrete behaviours and strategies individual health visitors adopt during decision-making processes.

4.4 The Research Study: Ethics and governance issues

Ethical approval to conduct the study was granted by the NHS Health Research Authority (HRA Health and Care Research Wales (HCRW), as outlined in chapter one of this thesis (See Appendix Two: Letter stating consent to undertake the study). All elements stated by the ethical committee were followed during the study. This included the written consent from the client as well as the health visitor participants. Assurance was given to all clients and health visitors about their anonymity and confidentiality. In addition, they were also assured that the video recordings would not be viewed by anyone other than the researcher and the supervisors and would not be used as part of the dissemination of the findings. Although conducted by a lone researcher, the study was monitored by the three members of the supervisory team during monthly supervision.

4.5 The Research Study: the philosophical position

The framework adopted to explore the processes that health visitors follow when making decisions was founded on several assumptions. Relating to the nature and origins of the

information used to create an understanding of health visitors' decision-making activity, these assumptions were categorised through the four philosophical principles of ontology, epistemology, methodology and methods (Cormack, 1996, Braun & Clarke, 2013, Silverman, 2014, Gerrish et al., 2015). In line with the concept of the 'plumb line' for qualitative research described by Chenail (1997) the assumptions within each principle were aligned to create a cohesive research design capable of addressing the study intentions. This alignment is presented in Figure 10. Focusing on each principle in turn, the next section will explain how, together, they provided the framework for the design choices. In addition, the principles allowed the researcher to explain the context of the study and its contribution to future knowledge and understanding about the processes health visitors followed to make decisions.

Figure 10: The Philosophical underpinnings of the study

Ontology	Epistemology (the nature of knowledge)	Methodology (the framework for conducting research)	Methods (the techniques for collecting and data)
Philosophical assumptions			
• The subject of exploration is the social reality. • There are many social realities, because they depend on the experiences people have and the social context in which they happen. • Realities are created through the social interactions people have with others. • The descriptions people give of their reality is the 'true' reality and depends on their interpretation. • Social realities are integral to human behaviours and practices.	• Valid, legitimate knowledge comes from the human perspective. • Meaningful knowledge of the social reality comes from the person's explanation of what they do and why they do it. • The person's explanation of what they do and why, constitutes the 'true' valid, legitimate knowledge and understanding. • Knowledge informs understanding but does not constitute absolute truth. • Reality is created not discovered through the process of research.	• To know about the social reality, one must view it from the perspective of those experiencing it in their natural environment. • Exploration facilitates understanding and does not seek to prove if something is true or false.	• The techniques used to collect data must be capable of showing the individual's perspective of the social entity (the 'insider view'). • Data is generated inductively from the study. • Data builds over time to develop knowledge an understanding.

4.5.1 The Ontological position

The current study adopted an ontological position in which the subject of exploration was the social reality of health visitors' activities and behaviours seen during decision-making endeavours. This made it possible to explore health visitors' real life decision-making activity. In addition, the adopted position was one which accommodated multiple truths and realities. By exploring decision-making activity from the health visitors' perspective, the study was able to collect data comprising their personal experiences of decision-making when interacting with mothers using their services. This was an important feature of the current study because of the individual nature in which health visitors perform their role and functions (Cowley et al., 2013). In addition, the ability to accommodate difference was also important because health visitors work with people that have different backgrounds and can present with a range of issues. Some issues may be different and others, although similar, can be presented in diverse ways. Any study seeking to explore health visitors' decision-making processes must therefore accommodate difference. In this way, the design of the current study needed to be one which would recognise the personally generated information and experiences individual health visitors used to formulate their decision-making processes (Braun & Clarke, 2013). Adopting this ontological position therefore meant that it was possible to examine decision-making activity from a broad rather than a narrow perspective. In so doing, the study would be able to consider the health visitors' subjective experience of making a decision, alongside their understanding of what was involved and the social context in which the decision-making processes were initiated.

4.5.2 The Epistemological position

From an epistemological position the study was designed to recognise that knowledge and understanding about decision-making would come from the health visitors. In explanation, the study was designed to use as data the health visitors' actions, behaviours, explanations, and descriptions of their decision-making processes. In this way, these aspects formed the subject of the enquiry, and their collection made it possible to gain valuable insights into the social reality of decision-making from the health visitors' perspective.

4.6 The Research Study: the theoretical position

Three pertinent issues were considered when adopting the chosen theoretical framework for the study. Firstly, it was important to demonstrate that all data came from the study. Secondly, there was a need to show researcher impartiality, and thirdly it was important to employ a mechanism that would permit analytical, systematic examination of the findings. This in turn would facilitate the creation of analytical examination of the findings and implications arising from the study.

The choice of inductive rather than deductive data collection processes meant that data about the adopted decision-making processes would emerge naturally. In explanation, the use of deductive methods would have likely imposed a specific terminology using questioning in the form of questionnaires or during interviews (Braun & Clarke, 2013, Silverman, 2014). Inductive processes instead, allowed the collection of data directly associated with the health visitors' natural everyday practice. Furthermore, by permitting observations of actual practice from beginning to end, the design made it possible to identify any subtle nuances and thereby garner insights into each aspect of the decision-making processes adopted by the health visitors (Agar, 1986, Madden, 2010).

The nature of health visitors' decision-making activity meant that the chosen theoretical framework needed to meet five specific priorities. Firstly, it needed to be capable of explaining authentic decision-making processes using information about what and why something happened, and the reasons associated with the way it happened. Secondly, the framework also needed to be capable of recognising the influence of each person involved in the decision-making process, not just the health visitors. In addition, the chosen framework would need to be able to use information generated by individuals even though it may differ. Fourthly, the framework also needed to be capable of accommodating different environments and situations where information may be imperfect and difficult to see. Finally, the theoretical framework also needed to be capable of allowing information to be

collected in different ways, including, by inference, watching, talking, and listening (Collins & Stockton, 2018).

In using a theoretical framework, the researcher was able to apply an analytical lens to health visitors' decision-making processes. In so doing, it was possible to critically examine the data captured during the study and thereby think about it analytically from a range of perspectives. Brewer (2000) acknowledges that this is important because it avoids the production of purely descriptive 'journalistic' accounts of the situations. By adopting social judgement theory in the current study therefore, it was possible to provide analytical, theoretically sound explanations, to better understand the development and use of decision-making processes. This was possible because social judgement theory explores and examines three important elements including,

1. what a decision-making process involves and what it looks like,
2. where in the process the decision comes from,
3. and how a decision is generated.

Drawing on the theoretical work of Kenneth Hammond, the current study adopted social judgement theory to examine what a decision-making process looked like and how the process was activated. It also illustrated when and how a decision was generated (Hammond et al., 1975). Furthermore, by adopting Hammond's social judgement theory framework, it was possible to use its terminology to consistently analyse the decision-making processes health visitors adopted during the study. The addition of the Lens Model within the framework meant that it was possible to present the decision-making processes pictorially. Both these elements of the social judgement theory framework made it possible to explore and explain the decision-making processes using consistent language and terminology.

In explanation, as outlined in Chapter Three of this thesis (the theoretical framework), social judgment theory describes decision-making as a process which involves the environment.

Here, the environment includes the subject of the decision, the decision-maker, and information which, once assigned meaning, is presented as series of cues (Hammond 1955, Cooksey, 1996, Baron, 2008,). According to social judgement theory, decision-making is a process which draws on perception and not certainty. In this way it allows some cues to be used and not others (Hammond 1955, Baron, 2008, Cooksey, 1996). As explained in chapter three of this thesis, the use of social judgement theory in the current study provides a structure, language and terminology which made it possible to question and challenge the data to confirm its alignment with the theoretical perspectives.

4.7 The Research Study: the methodological position

This exploratory study sought to increase knowledge and understanding of the decision-making processes adopted by health visitors during their everyday practice with mothers using NHS health visiting services. Rather than seeking one answer, the study needed to recognise that several answers were possible when individual health visitors completed each consultation and interacted with different people. The methodological position also needed to be able to acknowledge the differences that could emerge as individual health visitors adopted diverse behaviours to achieve the same thing. Here, even though the content, style and approach of the consultation may have been different, the study would still need to be capable of capturing and examining the range of decision-making processes adopted. In addition, the use of perception by individual health visitors meant that the study needed to be able to accommodate multiple truths and realities. This was because depending on the experience, each health visitor could create a different understanding from the same information.

By employing qualitative research methodologies, the current study was able to explore how the health visitors made decisions in their real life clinical practice. This meant that the study was able to capture and explain health visitors' behaviours and activities that happened whilst engaging in decision-making activities. In addition, these methodologies made it possible to capture the health visitors' descriptions and explanations of the way they felt about their behaviours and actions. These aspects thereby constituted valid and legitimate

accounts of the processes that the health visitors adopted during their decision-making activity.

4.8 The Research Study: selecting the methods for data collection and analysis

The study adopted inductive rather than deductive data collection methods. In so doing it was possible to use data generated from the study (Braun & Clarke, 2013). In seeking to explain and interpret data rather than measure it using mathematical or statistical tools, as would be the case with deductive methods, this study was able to describe and explain real life behaviours and actions (Silverman, 2014).

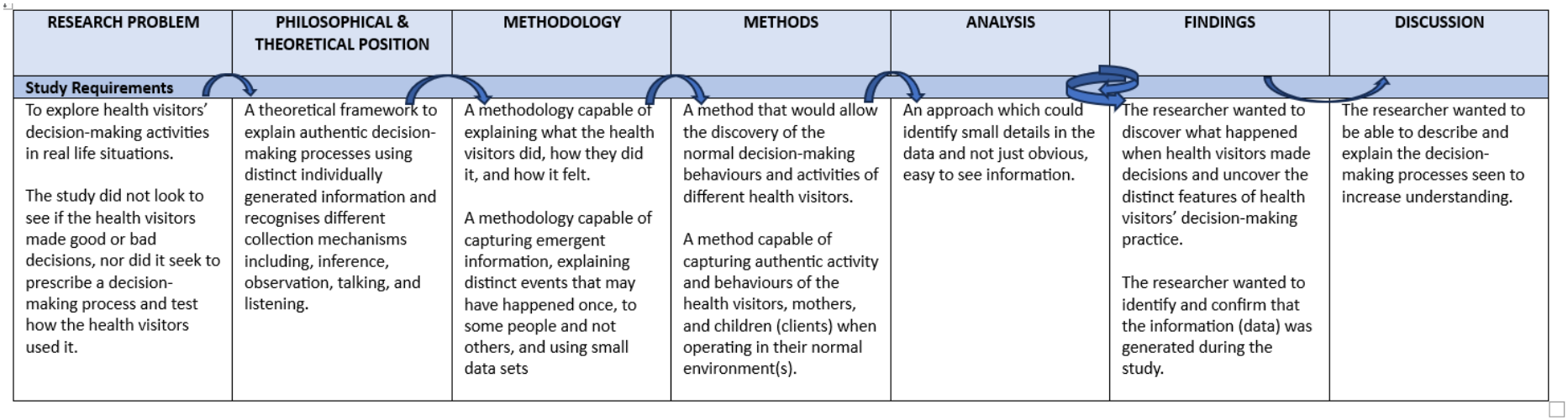
Adopting a constructivist philosophy also made it possible to explore health visitors' decision-making processes in terms of why something happened or may have happened (Braun & Clarke, 2013). By permitting the use of observation techniques it was possible to recognise relationships, patterns, and themes as they emerged from the data and thereby develop knowledge and understanding of the decision-making processes seen (Silverman, 2014). This meant that information was able to build over time and permitted decision-making activity to be viewed holistically as the consultations progressed. By allowing subjective rather than merely objective data to be collected, constructivist philosophies also permitted the generation of several rather than one explanation about the health visitors' decision-making processes. In addition, they also permitted a range of possible responses to emerge when exploring the constituent parts of the health visitors' decision-making processes (Silverman, 2014).

Accommodating these assumptions and philosophical principles, this qualitative study employed ethnography as a methodology and technique for data collection. The content and design of the study was guided by the conceptual framework outlined in Figure 11. Brewer (2000) suggests that study design should align the philosophies, understandings, and beliefs that underpin the methodology and methods. Describing this as the 'flow of

causation', Brewer acknowledges the necessity of these associations when identifying the nature of reality (Brewer, 2000).

As outlined in Figure 11 the study was designed in a way that permitted exploration of health visitors' actions and behaviours during real life consultations where they interacted with people using their services and made decisions about a range of issues. In line with the qualitative methodology, ontology and epistemological positions, the study collected personal experiential insights from health visitors using observation and listening techniques. Through analysis of the data, it was anticipated that the resulting explanations and descriptions would develop understanding and knowledge of the decision-making processes adopted by health visitors in their clinical practice.

Figure 11: The conceptual framework



In this ethnographic study reality, in the form of knowledge and truth, was described by the health visitors. This meant that several truths and realities were possible. The chosen methodology and methods thereby permitted the researcher to use these realities to explain, describe and understand how during the study individual health visitors made decisions.

In adopting ethnography as a methodology and method for data collection the study permitted the capture of normal behaviours and activities completed by individual health visitors during authentic decision-making activities. The use of the 'Think Aloud' method meant that the health visitors, when watching the video feedback of their consultation(s), could describe their behaviours, activities, and associated feelings in their own words (see Figure 12 & Figure 13.

Figure 12: The chosen tools and techniques

RESEARCH PROBLEM	PHILOSOPHICAL & THEORETICAL POSITION	METHODOLOGY	METHODS	ANALYSIS	FINDINGS	DISCUSSION
Study Requirements						
To explore health visitors' decision-making activities in real life situations.	Social judgement theory Dual conscious and unconscious, thought processes.	Qualitative Research using Social Ethnography to collect data from health visitors engaged in authentic decision-making activity to develop knowledge and understanding about the processes adopted.	Ethnographic participant observation (ethnomethodology) + The social judgement theory (SJT) framework + The Think Aloud Method.	Thematic Analysis. + The social judgement theory framework.	Data extracts using verbatim accounts generated during real life decision-making activity. + Lens Model present the decision-making processes adopted.	The social judgement theory framework.

Figure 13: Justification for chosen methods

RESEARCH PROBLEM	PHILOSOPHICAL & THEORETICAL POSITION	METHODOLOGY	METHODS	ANALYSIS	FINDINGS	DISCUSSION
Study Requirements						
To explore health visitors' decision-making activities in real life situations.	Social judgement theory (SJT): Acknowledges that individuals act in different ways (idiographic). Decision-making happens when individual interact and can be observed in the social contexts in which they happen. Dual process thinking theories recognise that people may be unaware of why they make decisions.	Ethnography supports an ontological position which recognises that knowledge is person specific, truth depends on the person and situation, so more than one truth exists. Ethnography supports an epistemological position where knowledge builds over time during authentic events. The socially constructed reality in ethnography believes habits become routines and legitimate knowledge.	The methods selected allowed collection of real life data from consultations that happened in health visitors' familiar settings. The methods allowed nuances, norms, and routines to emerge as they happened during real time observations of health visitor's activities.	Thematic Analysis permitted recognition of emergent patterns and themes from the data.	Using real life data to explain decision-making processes and develop knowledge and understanding.	The SJT framework permitted explanation and examination of real life decision-making processes using consistent language and terminology.

4.9 The Research Study: the location

The research was conducted in an inner London, NHS community trust. The trust offered universal health visiting services to mothers with children under the age of five years and their families.

4.10 The Research Study: selection of the participants

A purposive sample was recruited comprising thirteen (13) health visitors. This enabled the researcher to recruit participants who were likely to illustrate the features that the study sought to explore (Silverman, 2014). In explanation, by adopting purposive sampling techniques, the researcher could recruit qualified health visitors, with access to clients, who engaged in decision-making as part of their every-day clinical activity (Silverman, 2014). The use of the inclusion and exclusion criteria listed below meant that each participant recruited illustrated the features required for the study.

4.10.1 Inclusion criteria

- Practitioners who hold a Specialist Community Public Health Nurse (SCPHN) /health visitor qualification.
- SCPHN/health visitors who conduct face-to-face consultations with clients in English.
- SCPHN/health visitors who are employed in the NHS organisation selected for the study.
- SCPHN/health visitors who have consented to take part in the study.
- SCPHN/health visitors who are permitted to work unsupervised (i.e., no restrictions on their practice have been imposed by the NMC or their employer).
- SCPHN/health visitors who can select clients with child(ren) under the age of 5 years that can give informed consent to take part in the study.

4.10.2 Exclusion criteria

- Practitioners who do not hold a SCPHN/health visitor qualification.
- Practitioners who are not working as a SCPHN/health visitor.

- SCPHN/health visitors who are not employed in the NHS organisation selected for the study.
- SCPHN/health visitors who have not consented to take part in the study.
- SCPHN/health visitors who have restrictions on their practice imposed by the NMC, and recorded on their registration records, or their employer).
- SCPHN/health visitors who cannot select clients with child(ren) under the age of 5 years.
- SCPHN/health visitors who cannot select clients with child(ren) under the age of 5 years that can give informed consent to take part in the study.

Contact with the health visitors took place at the work base. Initial meetings took place during team meetings, where the researcher introduced the study and invited the health visitors to participate. Follow up meetings with individual health visitors were arranged by telephone or email, once they had registered an interest in taking part in the study. Further engagement involved the researcher spending time with health visitors interested in the study, shadowing them during their consultations and engaging in day-to-day conversations. This period of informal shadowing took place during June 2019, prior to formal data collection. As an experienced health visitor, the researcher naturally used similar language and terminology and could thereby engage in professionally related conversations with the health visitor participants. The researcher's informal interactions and general presence in the field provided further opportunities for the health visitor participants to increase their familiarity as they got used to seeing and talking to her in the workplace.

Although a health visitor with experience of the norms and practices of health visiting, the researcher entered the study site from an academic and educational perspective. Unfamiliar with the NHS Trust's health visiting services, the workplace, and the client groups, the researcher was able to maintain the observer role. This was possible because although familiar with health visiting jargon and the ways of working, the researcher did not have any experiential knowledge of the specific social world of the health visitor participants. These aspects of reflexivity are highlighted in the ethnographic literature as pivotal to reducing the

researcher's influence on the study (Agar, 1986, Madden, 2010). Although Madden guards against attempts to satisfy objectivity, he also recognises that rather than seeking subjectivity, the researcher (ethnographer) instead of amending their actions, should consider ways to encourage the participants to act normally (Madden, 2010). Jerolmack & Khan (2017) take this further and suggests that rather than seeking to create invisibility, the researcher should consider how to use the novelty of their presence. By becoming familiar in the eyes of participants therefore, Madden suggests that over time the researcher's presence stops influencing the participants' behaviour. This means that the participants are more likely to behave as they would normally, irrespective of the researcher's presence (Madden, 2010). In so doing, the researcher is likely to face a more reliable portrait of participant's behaviours during decision-making activities. In the current study therefore, the researcher addressed these measures from the perspective of her personal behaviours as well as those of the participants by engaging in conversations and everyday activities like preparing the consultation room and tidying equipment at the end of the events.

4.11 The Research Study: Ethnography the chosen methodology for the study

The philosophical position of this thesis was therefore not to measure the phenomenon of the decision, by identifying if it was good or bad. Instead, the goal was to explain what was happening and why it was or may be happening. To do this, the researcher adopted ethnography, described by Fetterman as,

> "*The art and science of describing a group or culture*".
>
> (Fetterman, 1998, p.1)

As a methodology, ethnography is well-suited to exploring the individual's social world, the composite norms, and associated rituals (Van Maanen, 1988, Fetterman, 1998). In addition, Atkinson & Hammersley (2007) also suggest that ethnography is well-suited to situations where the goal is to explore the nature of social phenomena rather than test hypothesis. They recognise that ethnography can accommodate small data sets, where the intention is to study human actions, collect thick descriptions and explicit interpretations of their

function and meaning (Atkinson & Hammersley, 2007). In line with the theoretical principles of ethnography, the current study looked to explore the social world of the health visitor decision-maker through the lens of the client consultation. In addition, the study also considered what was happening during the consultation and why it was happening. In this way, the intention was to interpret and explain, through the eyes of the individual health visitor, the 'truths' associated with decision-making processes in clinical practice. Furthermore, in terms of multiple realities, ethnography would also make it possible to recognise that although health visitors were experiencing the same event, the consultation, their understanding, and interpretation of it could be different.

In addition, the literature showed that the social world of the health visitor was one which frequently featured complexity and unpredictability. In these situations, as noted by Milliard and colleagues', health visitors needed to respond in different ways depending on the people and situation (Milliard et al., 2006). Consequently, in addition to the multiple realities, complexity, and unpredictability, the chosen methodology would also need to accommodate the idiographic intentions of health visitors' practice. This was addressed in the current study with the inclusion of social judgement theory. Here, the theoretical intentions of human judgement and decision-making focus on the individual. In addition, the use of social judgment theory and the associated framework during the latter stages of analysis made it possible to recognise the individual's interactions and their associated impact on the decision-making process (Hammond, 1955).

As both a methodology and method for data collection, the social act of ethnography facilitates the study of human behaviour (Atkinson & Hammersley, 2007). Using qualitative approaches, it allows human behaviour to be examined during social interactions. Here, it can recognise the subtleties as they happen during the everyday activities that people complete in their natural environments. In contrast, quantitative research methodologies focus on research designed to explore contexts under unnatural or experimental circumstances that are created by the researcher (Braun & Clarke, 2013).

Where qualitative methodologies such as ethnography are adopted, data is collected using a range of techniques including observation and interviews. These studies focus on the things people say and do (Braun & Clarke, 2013). They are likely to be small scale and can explore a single group or setting. In these types of studies data analysis looks to examine and explain human activities and behaviours and thereby deepen understanding (Atkinson & Hammersley 1998). In collecting phenomenological kinds of data, ethnographic studies seek to collate people's 'lived experiences' and in so doing can examine a particular aspect of human life or describe the actions and behaviours of a group of people (Fetterman, 1998). Focusing on learned social behaviour and the norms of life, ethnography can also consider the culture within a group (Coughlin, 2012).

Used in the current study, ethnography as a qualitative methodology, allowed detailed exploration of health visitors during real life consultations. It also provided a route for explaining what health visitors did, how they did it, and how they felt about it (Madden, 2010). Furthermore, ethnography made it possible to explore a relatively small group of health visitors and produce a data set that could be examined in detail (Brewer, 2000, Silverman, 2014). As a methodology, ethnography also made it possible to capture and explain things that happened during consultations even when they may have only happened once. This meant it was possible to capture events that happened in some consultations and to some health visitors but not others.

4.11.1 Ethnography: a methodology for exploring health visitors' decision-making activity

Although studies have considered health visitors' perceptions about their decision-making practice under a range of guises, research which has examined and mapped their authentic practice in real life situations remains in its infancy. For example, although in her study Cowley observed health visitors consulting with clients, she used interviews to compile their recollections of decision-making activity (Cowley, 1995). This was also reflected in the later studies by Ling & Luker (2000), Appleton & Cowley (2008a) and Appleton & Cowley (2008b). While providing important insights, the data from these studies relates to the health visitors' descriptions rather than their actual practice. The close observation of health

visitors' activity permitted by ethnography in the current study thereby provided valuable insights into the steps taken in each decision-making process. In line with the literature, these insights considered how the health visitors used current as well as information from past experiences to manage the decision-making processes they adopted (Brewer, 2000). In addition, the current study employed a constructivist perspective alongside social judgement theory. By applying a constructivist perspective, it was possible to demonstrate how the health visitors built information, and this facilitated a better understanding of the situations in which they were making decisions. In addition, by adopting social judgement theory and the associated framework, during the later stages of analysis, the study could use a consistent terminology and process to describe and explain the decision-making practices adopted (Hammond, 1955). In so doing, language, objective facts, and context could be aligned, and this made it possible to see the composite parts of each situation that the health visitors faced during their decision-making activity. These features were highlighted in studies by both Chalmers & Luker in the early 1990s. However, although they provide valuable insights into the way when consulting with clients, the health visitor participants recalled that they adapted their behaviours in response to the situation; they did not examine actual practice (Luker & Chalmers 1990, Chalmers, 1992; Chalmers, 1993, Hodgson, 2000). In explanation, the health visitor participants described the way their decisions related to the client's circumstances rather than prescribed service delivery patterns. Although the health visitors explained that the actual health visiting service delivered to and received by each client could differ data showing how this happened did not form part of the study (Luker & Chalmers 1990, Chalmers 1992; Chalmers 1993, Hodgson 2000).

In contrast, the opportunity in the current study to observe the same health visitor engaging in a series of consultations made it possible to explore how their behaviour related to the situation. These observations illustrated that the service offer could differ and could also change over time (Brewer, 2000). In this way, ethnography facilitated an in-depth exploration of the way the situation could influence the health visitors' decision-making processes. Furthermore, these observations also made it possible to explore the way health

visitors adapted their behaviours, shaped the consultation, and thereby permitted decision-making activity.

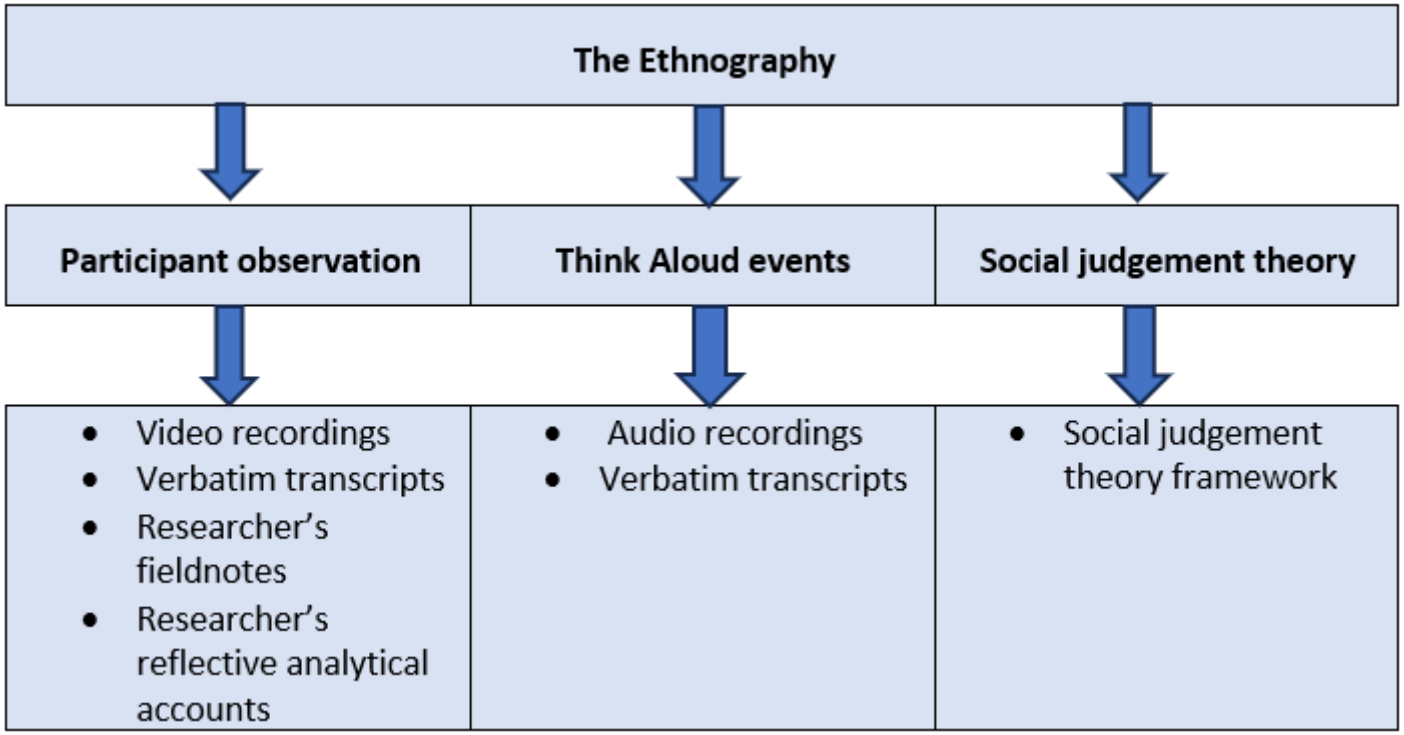
Although ethnography does not tend to be the chosen method for data collection in health visiting or nursing studies, it is well-suited to the exploration of practitioners' conduct in real life practice. Three studies of note explored the complex every-day situations in which health visitors and nurses engaged with clients (Street 1992, Ling & Luker, 2000, Milliard et al., 2006). During her seminal work, Street (1992) used ethnography to explore nurses' thinking, as well as the way they acted and reflected during their clinical nursing practices. Although this Australian-based study considered the real life experiences of nurses in acute hospital settings, rather than the community, it does illustrate the potential of ethnography for gaining insight into the observed 'real' experiences of every-day practice (Street, 1992). Using the context of community nursing service delivery, Millard et al., (2006) have also drawn on ethnography to explore the extent to which nurses involved their clients in the decision-making processes they adopted. By exploring real life nurse-client exchanges this ethnographic study was able to highlight the way the nurses combined social and professional interaction to encourage client involvement in decision-making activity (Millard et al., 2006). Again, Ling & Luker (2000) used ethnography to study the way health visitors' explained events in which they identified children at risk of abuse. By allowing the health visitors to 'tell their story', this ethnographic study was able to examine practice in unique situations which required a different response. All three studies provide a valuable insight into the use of ethnography in socially constructed settings framed by complexity and unpredictability, which further strengthens its choice for the current study (Street 1992, Ling & Luker 2000, Millard et al., 2006).

4.12 The Research Study: selecting the data collection methods

Methods are described by Brewer (2000) as the technical rules that dictate how data is collected. Used as single entities or in combination, methods are an important element of the research process. During the current study a range of qualitative approaches were used to collect data. These are illustrated in Figure 14. The methods included ethnography,

participant ethnographic observation, the ‘Think Aloud’ method, the social judgement theory framework, field notes and written reflexive accounts.

Figure 14: The methods selected for data collection



To collect data during the current study, the chosen methods needed to fulfil several requirements. Firstly, they had to provide opportunities to capture the normal decision-making behaviours and activities of individual health visitors during their daily casework with people accessing NHS health visiting services. In addition, the methods employed also needed to be capable of capturing the activities and behaviours of the health visitors as well as the mothers and children (clients). This is because although health visitors are professionally accountable for their decisions, mothers (parents), through parental responsibility, have the legal authority to decide, whereas health visitors do not (Children Act, 1989). This means that health visitors must advise, encourage, and negotiate with mothers to expedite the decision-making process (Ministry of Health, Department of Health for Scotland, Ministry of Education, 1956, Children Act, 1989). These features are pertinent to health visitors' decision-making processes and mean that the decision constitutes one of several parts that must be captured if a holistic view is to be provided.

Adopting an inductive approach and constructivist perspective to data collection, ethnography also made it possible to capture data as it emerged from the study and to observe the way health visitors built information to establish its meaning. Here, rather than knowing the answer at the beginning of the study, data emerged and created a deepening understanding as the study progressed.

Data was therefore collected using ethnography, a technique described by Brewer (2000) as,

> "*.. the study of people in naturally occurring settings or 'field' by methods of data collection which capture their social meanings and ordinary activities*…"
>
> (Brewer 2000, p. 6)

As a method for data collection, ethnography allowed the observation of health visitors in their natural setting, completing ordinary, 'every-day' activities. This was made possible in the current study because the health visitor participants arranged the consultation with the

client and booked the venue. The researcher did not influence the arrangements for the consultation in any way. All appointments, rather than being made to accommodate the study, were actual appointments that had been arranged as part of the health visiting service offer. These elements of the study thereby meant that the health visitor participants were observed in settings that they would normally use as part of their everyday activity and practice. In this way, ethnography also made it possible to see the detail of the decision-making processes adopted during the consultation.

Importantly for this study, the ability to observe naturally occurring activity negated the reliance on collecting information from the health visitors based on their perceived activity or that which they remembered sometime after the decision-making event. This type of information would normally be collected using methods like the interview, questionnaire, or survey (Braun & Clarke, 2013, Silverman, 2014). Indeed, by observing naturally occurring activity, it was possible to explore what it meant in the context in which it occurred (Brewer, 2000). Furthermore, from a contextual perspective, ethnography also allowed collection of specific data about the individual health visitor's behaviour alongside the observed features in the environment.

Data were collected in the two phases using ethnographic participant observation and the 'Think Aloud' method.

4.12.1 Phase one: data collection

During phase one the use of ethnographic participant observation allowed the researcher to observe each health visitor in consultation with mothers and children (their clients). The consultations were video recorded and took place in the health visitor's natural settings which they chose.

4.12.2 Ethnographic participant observation

Participant observation is described as a characteristic feature of ethnographic research (Fetterman, 1998). Typically, this method of data collection requires the researcher to

participate in the lives of the people under study, while at the same time maintaining a professional distance (Fetterman, 1998). Indeed, the goal of participant observation is to collect and record events (data) as they happen. In addition, the researcher, although present, should not influence the environment or culture but become a familiar part of it (Fetterman, 1998, Madden, 2010).

As described earlier in the chapter, the researcher's entry to the health visitors' 'social world' was initially through the team meetings and then by individually arranged shadowing opportunities with health visitors interested in learning more about the study. By joining the health visitors during client-facing casework the researcher observed them in their practice. This thereby gave the health visitors an opportunity to experience being observed and was pertinent for the current study because as autonomous lone workers health visitors tend not be observed by others. These encounters also allowed the researcher to become a familiar figure and to 'blend' into the environment.

Furthermore, as the participant observer the researcher took other measures to 'blend' in and become a familiar trusted figure in the environment. For example, when a health visitor volunteered to participate the researcher again spent time in the work base engaging in day-to-day conversations. By arriving early and staying to help 'clear up' after the consultation events the researcher was also able to naturally extend the time spent in the health visitors' 'social world' and gain additional opportunities to interact. The familiarity and trusted nature of the researcher in the current study can be evidenced by the fact that once a health visitor had participated, they were more likely to introduce a colleague and suggest they too participate. In addition, although some health visitors were initially reticent about being observed and 'filmed' (video recorded), they tended to report that once they started the consultation they had forgotten about the researcher and the filming. In addition, at the end of the filming and consultation some of the health visitors described how they enjoyed the process and found it useful.

As a method for data collection, participant observation allowed the researcher to observe health visitors in the environment(s) in which they normally operated (Brewer, 2000). This was pertinent to the study, because as shown in the literature, the peripatetic nature of their role means that health visitors operate in different environments and do not have one specific setting in which they make decisions. Participant observation was therefore chosen as one of the methods because it allowed data collection in diverse settings (Van Maanen, 1988, Madden, 2010). In addition, participant ethnographic observation processes made it possible to collect the information first hand in real-time and from authentic consultations (Emerson, 2004, Hammersley & Atkinson, 2007). Its use therefore made it possible to:

- Observe and examine what the decision-making activity looked like when health visitors engaged in everyday casework endeavours.
- Understand the factors and issues that happened concurrently, and that the health visitors dealt with and managed alongside their decision-making activity.
- Understand the factors that motivated the health visitors to act in the way they did, and the issues they described as inhibiting or enhancing their decision-making activity.

During the ethnographic participant observation, the health visitor participants completed several steps as listed below.

- Each health visitor participant selected clients from their caseload and invited them to take part in the study. Clients with children aged 0 to 5 years old were eligible for selection. In addition, clients were selected if they could speak English without the need for an interpreter, and it there were no known safeguarding concerns within the family.
- Each health visitor participant gave their clients a copy of the participant information letter and consent form to read. Once the client had agreed to take part, the researcher talked to them, discussed the study, answered their questions, and invited them to provide written informed consent. It was acknowledged that children would also be present during the study despite not being part of it. This was

made clear within the participant information sheet (Appendix Seven: the participant information sheet for the clients and the health visitors).

- Each health visitor participant was observed in consultation with a client in the home or non-home setting.

Thirty-nine (39) consultations were observed during the study. Each consultation was video recorded, and the content transcribed verbatim (see Appendix Eight: a verbatim transcript of a consultation). By video recording the consultations the researcher captured the events as they happened during the consultation. In addition, recording the consultations made it possible to capture social activities, talk, and conduct in real-time (Heath et al., 2010). Although Gregory (2020) suggests the benefits of video recording lie in its ability to produce a permanent source of data which is open to unlimited review, he also recognises the limitations that come when a structure imposes the researcher's presence and 'operational authority' in the field that would otherwise be unnoticed. However, in the current study the consultations were recorded using a lap-top mounted webcam which avoided the use of imposing camera equipment. Using minimal equipment in this way reduced the tendency for mothers, children, or the health visitor participants to notice it during the consultations. Although literature suggests that video recordings can be limited to one angle depending on the positioning of the equipment and subjects (Gregory et al., 2011), during the current study the limited space in the non-home consultation venues meant that movement of the subjects was limited. It was possible therefore to position the video equipment before the consultations began and leave it in place until they were completed. Consequently, the equipment used during the study captured the consultations in full.

To promote reflexivity and avoid influencing the situation during each consultation, the researcher, before the start, positioned the recording equipment in a corner of the room. The researcher sat on a low stool and did not move during the consultation. Neither did she engage in the consultation or conversation with the health visitor participant, the mothers, or the children, apart from day-to-day pleasantries at the start, if invited to do so. By sitting at a level below that of the health visitors and mothers the researcher did not interfere with

any eye contact between the two. In addition, the researcher made written notes of what she saw, felt, and found interesting and noteworthy during the consultation (fieldnotes).

4.12.3 Phase two: data collection

During phase two the 'Think Aloud' method was used to collect verbal accounts from the health visitor participants. Each 'Think Aloud' event took place following the consultation, in a private room. During the event the researcher and health visitor participant sat together and watched the video recording(s). While watching the recording(s) of their consultation(s) the health visitor participant was encouraged to use their own words to describe what they saw in the video, and how they felt when watching their actions, behaviour, and practice. For many this was the first time they had observed themselves in consultation with a client.

Following the consultation and 'Think Aloud' event the researcher had data in the form of video and audio recordings, and verbatim transcripts (see Appendix Nine: a verbatim transcript of a 'Think Aloud' event). This meant that they could review the content several times to gain an in depth insight, knowledge and understanding of the decision-making processes adopted by individual health visitor participants (Brewer, 2000). Using the social judgement theory framework, the details of the individual health visitor's consultations could be considered in relation to the constitute parts. This made it possible to map the steps taken by individual health visitors and create a visual representation of the processes they adopted.

4.12.4 The 'Think Aloud' method

Recognised for its suitability to small scale qualitative research, the 'Think Aloud' method was used following the health visitor-client consultation (Neilson, 1994, Charters, 2003). With its roots in cognitive psychology and the Vygostkian concept of 'inner speech', thought and language, the 'Think Aloud' method was used to encourage the health visitor participants to talk freely about what they saw in the video recordings of their consultation(s). In his research about experts' decision-making activity, Ehrich (2006) described the way 'inner speech' allowed the concurrent use of speech and thought

pathways in the brain. In this way, rather than all the information, the experts used the 'Think Aloud' process to select that which was pertinent to the problem.

The process and expectations of this method were explained in advance, and the participants were given written details during the recruitment stage of the study (see Appendix Ten: Orientation to the 'Think Aloud' method). This meant that they could prepare. It also allowed them to consider the video and begin talking from the start of the event. They did not wait for prompting or instructions, so the talk tended to be natural and spontaneous (Charters, 2003). While watching the recordings the health visitor participants, gave a verbal account of their thoughts as they made clinical decisions (Charters, 2003, Ehrich, 2006, Lundgren-Laine & Salantera., 2010). The ability of the 'Think Aloud' method to encourage authentic descriptions is important for the current study because as Ericsson (2006) suggests experts find it difficult to describe their thoughts, behaviours, and strategies in ways that their less skilled counterparts can understand. By allowing natural, free flowing talk, the current study sought to collect personal accounts from the health visitor participants rather than those requested by the researcher.

Throughout this part of the study, the process remained consistent. Here, the health visitor participants and the researcher sat together in a private room and observed the video recording of their consultation(s). The 'Think Aloud' event happen immediately following the consultation(s). This was important because it uses working memory which has a limited capacity to store information. Indeed, once new information appears, previous thoughts disappear (Chaters, 2003).

During the 'Think Aloud' events, the health visitor participants talked freely, unprompted and without interruption, about what they saw and any thoughts they had about the content of the video recording (Ericsson, 2003). This meant that their 'Think Aloud' behaviour was as natural as possible. Rather than asking questions, the researcher was quiet and did not lead the health visitor participants' thinking in any way. This is an

important aspect of the 'Think Aloud' method because the intention is not to lead but to encourage free flowing talk (Boren, 2000, Charters, 2003). In contrast, had data collection merely focused on the health visitor participant recounting perceptions of their decision-making activity and behaviour by responding to a series of questions, it would have been very different. In these situations, the participants would have been more likely to provide reflective aspirational information that did not illustrate their actual practice.

The ability to talk freely during the 'Think Aloud' events provided an opportunity to capture authentic behaviours and activities that health visitor participants described in their own words (Van Someren et al., 1994). This was important because the current study did not look to test the extent to which health visitors adopted decision-making language and terminology typically used by professionals in health and care services. Rather, the intention was to collect data about ways the health visitor participants analysed their decision-making processes, using personally generated words and phrases (Charters, 2003).

The health visitor's dialogue during the 'Think Aloud' event was audio recorded and the researcher prepared a verbatim transcript of the content. In this way the method provided information which illustrated how individual health visitor participants used their working memory and higher level thinking skills to make decisions (Charters, 2003). It also allowed the individual health visitor participants to describe the elements of their decision-making processes in an organised and systematic way which increased the potential to present the actual process in full (Lundgren-Laine & Salantera., 2010).

4.12.5 The social judgement theory framework as a tool for data collection

Using the social judgement theory framework meant that it was possible to observe, recognise and map the key steps which health visitors took to make decisions. Firstly, during information collection at the start of the process, the framework requires the decision-maker to interact with the environment and the people within it. This made it possible for

the researcher to observe the way the health visitor participants simultaneously interacted with the environment, the mothers, and children (the client) to collect information.

The importance of social context to decision-making is highlighted in the literature. Indeed, Schwarz (2000) suggests that human thinking and decision-making is dependent on the context in which it happens. In addition, Schwarz recognises the impact on decision-making of a person's motivation, emotions, and perceptual fluency. These factors were important in the current study because by observing interactions the researcher noted the way the participants used verbal and non-verbal communication processes to collect information. Here, they simultaneously used words, observation, posture, and seating position to collect information. Secondly, the social judgement theory framework uses the concept of 'cues' to enable the decision-maker to make sense of the information. Here, the framework requires similar information to be collated to permit recognition of patterns and associated meaning.

Finally, the social judgement theory framework acknowledges that pertinent information is collated by the decision-maker at the end of the process to make a decision. In so doing, the framework permits selection so that some information will not be used. In this way, the social judgement theory framework made it possible to illustrate how the participants used information collected during the process to make a decision.

Comprising five elements and the Lens Model, the framework adopted during the latter stages of analysis in the current study thereby provided the terminology and steps needed to describe and explain decision-making processes. In explanation, the Lens Model describes the decision-making process in three steps (Hammond et al., 1975). These include information collection, the collation of information in a series of meaningful cues and the final collection and selection of cues to make the decision at the end of the process. The five elements of the framework comprise probabilistic functionalism, the zone of parallel concepts, the zone of ambiguity, the principle of achievement and vicarious functioning (Hammond et al., 1975). These elements adopted in the current study thereby helped to

explain the nature and use of information by the health visitor participants during their real life decision-making process. For example,

- Probabilistic functionalism describes the context for decision-making as one which is inherently complex and unpredictable. This helped to describe the decision-making processes in the study where the information was incomplete, uncertain, and unpredictable.
- The principle of parallel concepts helps to explain the benefits to understanding of aligning related information. Here, it helped to explain situations where similar information was collated rather than considered in isolation. In this way, the framework helped to highlight events where the health visitors considered the situation holistically rather than as individual parts. This was particularly important in consultations where the information was not available at the same time.
- The zone of ambiguity helps to explain the way mismatches in information limit the ability to directly link issues and subsequent decisions. Here, the framework recognised the potential for several issues to be related to one decision. This feature meant that it was possible to trace a decision-making process where information used was satisfactory but not perfect. In this way, the framework helped to highlight times when decisions were made using perception rather than certainty.
- Vicarious functioning helps to explain how individuals, when faced with mismatched information, will replace or substitute some information with alternative sources. In this way, the framework helped to illustrate situations where available rather than perfect information was used during the decision-making process.
- The principle of achievement recognises that the goal of a decision-making process is to make a decision, not to recognise reasons for not making the decision. In this way, the social judgement theory framework helped to explain situations where the health visitors used positive terms during their decision-making processes and searched for available rather than missing information.

4.12.6 Fieldnotes

The researcher made field notes during the participant observation and the 'Think Aloud' events. These brief notes contained any points of interest for further exploration following the event and created opportunities for the researcher to concurrently consider information from different sources (Fetterman, 1998, Schindler & Schafer, 2021). In addition, they allowed the researcher to develop a deeper understanding of the decision-making processes adopted by each health visitor participant in their everyday (*not simulated*) practice (Fetterman, 1998, Schindler & Schafer, 2021).

By recording issues or things that happened during the observation, the field notes acted as an aide memoire for the researcher (see Appendix Eleven: a fieldnote account). They meant that points were captured during the observations that may otherwise have been forgotten (Fetterman, 1998, Schindler & Schafer, 2021). These points included information about the environment, things the researcher saw or heard during the consultation, and aspects of the participants' behaviour.

4.12.7 Reflective analytic accounts

Following each consultation, participant observation, and 'Think Aloud' event, the researcher also wrote a reflective account in a journal. Saldana suggests that these informal, open-ended written accounts help the researcher learn from the data and consider what remains to be learnt (Saldana, 2016). Using the process of reflective writing, the researcher captured additional information relating to the feel or impression gained before, during or after the data collection events (Brewer, 2000, Saldana, 2016). Although associated with the data collection events, the information recorded also related to other aspects of the study including those associated with data analysis.

4.13 The Research Study: selecting the process for data analysis

In preparing to analyse the data, the researcher sought a process that would allow fine and subtle, rather than merely obvious, details to be identified from the qualitative dataset. This is because the literature highlighted that health visitors tended to explain any process akin

to decision-making in terms of 'gut-feeling'. Here, they were likely to collate the composite parts under the term ('gut-feeling') and when challenged to describe each part, they were unable to do so. This means that individual parts of the information used to make decisions may comprise mere subtle nuances that are difficult to see and identify. Therefore, to avoid continued invisibility, any process adopted to make sense of the data would need to acknowledge the minutiae, otherwise it will remain hidden and unexplored.

In addition, the purpose of this ethnographic study was to explain the decision- making processes from the health visitor's perspective. The chosen process for data analysis therefore needed to be able to illustrate the voice of the health visitor decision-maker. In so doing, it needed to be able to use the participants' own words as the tools for explaining what happened and why it happened in the way it did. Rather than seeking to identify how often terms were used, or specific decisions made, the study sought to reveal what the health visitor participants did when they made decisions in consultation with mothers (clients). This was important because although research to date has recognised that health visitors' activity allows them to solve problems and collect and collate information during assessments, there is a dearth of research which illustrates their behaviours and activities when making decisions in clinical practice.

4.13.1 Thematic Analysis: the process adopted to analyse the data

The process chosen to analyse the data for the current study was Braun & Clarke's Thematic Analysis, developed in 2006 (Braun & Clarke, 2006). This was because, as a method, Thematic Analysis allowed themes and patterns to be systematically identified across a set of qualitative data. Being free from the restrictions of specific data collection methods, Braun & Clarke (2013) suggest that this method is well-suited to studies seeking to provide detailed descriptions of events, experiences, and happenings. Its use in the current study therefore provided a tool for examining the detailed processes adopted by health visitors during their decision-making activity. Recognising that these processes were unlikely to be the same for each participant the researcher selected Thematic Analysis because it provided a route for acknowledging and explaining when these differences arose. In explanation, it was possible within Thematic Analysis to use verbatim quotations and descriptions in the participants' own words and thereby portray a sense of what was happening between the

health visitors and the mothers (clients) during real life consultations (Fetterman, 1998, Brewer, 2000).

In addition, Thematic Analysis allowed the process of data analysis to commence at the same time as data collection. This meant that the researcher could continue analysing the data each time they entered the field. Used alongside constructivist data collection approaches Thematic Analysis also allowed the researcher to create the 'insider' (*emic*) perspective of the 'social world' of the health visitor decision-maker. This meant that it allowed the researcher to build a sense of what the data meant from the health visitor participants' perspective (Fetterman, 1998, Brewer, 2000).

Importantly, although the literature tends to suggest a preference by health and care organisations for practitioners to adopt linear decision-making processes, the use of qualitative data analysis methods in the current study meant that any non-linear processes adopted by the participants could be recognised. In addition, the use in the current study of ethnography meant that naturally occurring and somewhat 'messy' non-linear data could be seen. Thematic Analysis was again well-suited to the task because it is a method that can accommodate these types of challenges (Braun & Clarke, 2006; Braun & Clarke, 2013).

4.13.2 Thematic Analysis: organising the data

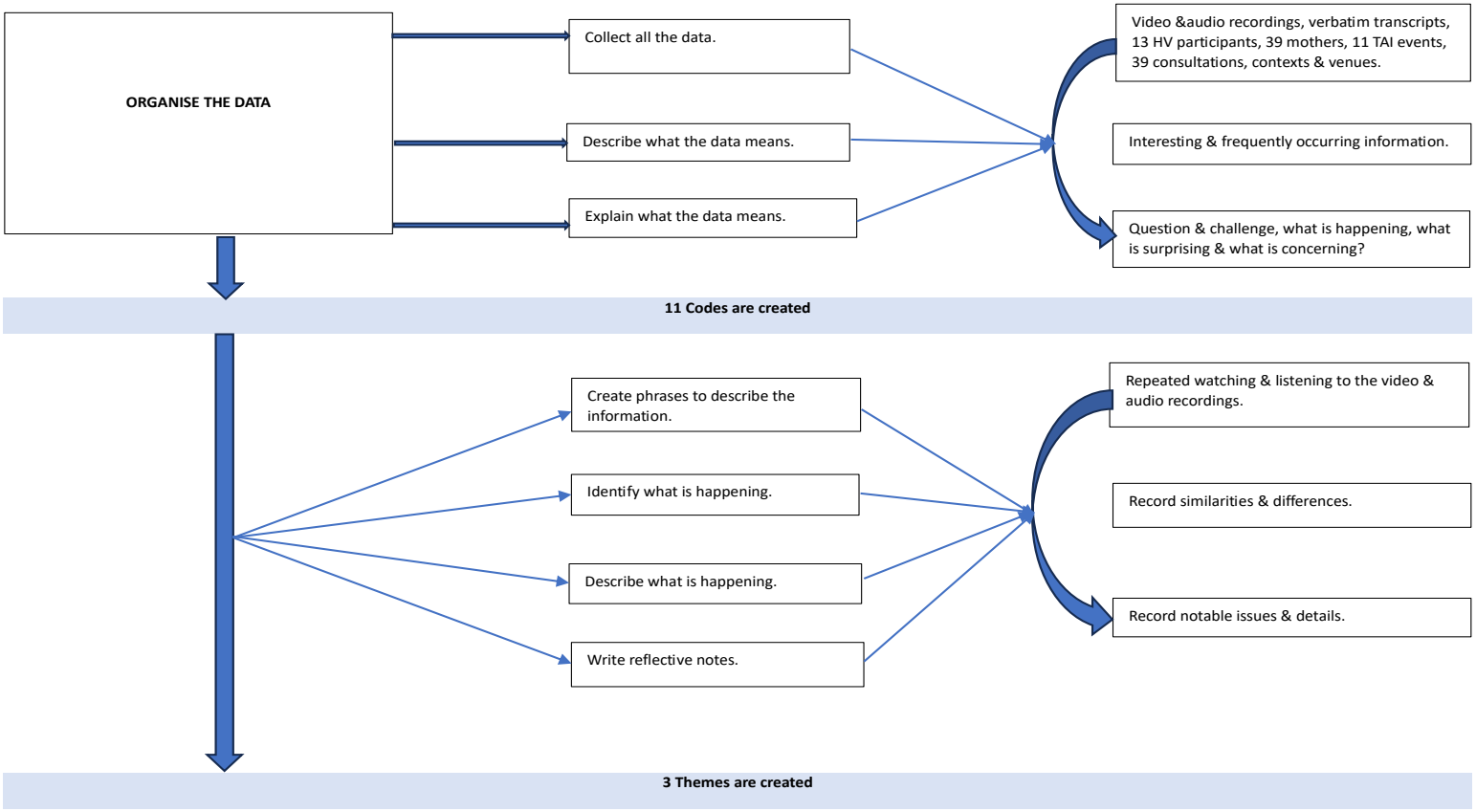
Using Braun & Clarke's six-step process, alongside the social judgment theory framework, the researcher sought to interpret and make sense of the data (Braun & Clarke, 2006; Braun & Clarke, 2013, Maguire & Delahunt, 2017). In Thematic Analysis Braun & Clarke describe the unit of analysis in terms of the pattern or theme. Here, a pattern or theme is created once individual codes have been aligned (Braun & Clarke, 2006; Braun & Clarke, 2013).

To explore how health visitors made decisions the analysis needed to incorporate and organise all the data collected during the study. The complete dataset comprised video and

audio recordings, verbatim transcripts, information from the thirteen (13) health visitor participants, the thirty-nine (39) mothers (clients), eleven (11) 'Think Aloud' events (due to work commitments, 2 health visitors were unable to undertake the 'Think Aloud' event), as well as the venue and context for each of the thirty-nine (39) consultations (see Figure 15). This meant that the data analysis process was complex not only because of the different types of data, but also because of the sheer volume collected during the study. In explanation, each source of data contributed to and influenced the decision-making processes adopted by the health visitors. To gain a broad insight into the process, the researcher needed to consider more than the problem and the decision. In explanation, the process adopted for analysis organised information from the mothers and children (the client), the environment, the context, and reason for the consultation, as well as the way the health visitor participants behaved and acted.

During the first part of the process the researcher considered the data and created codes using trigger questions like, '*what is happening here*', '*what surprised*, *intrigued, or disturbed me*' (Braun & Clarke, 2013, Saldana, 2016). The codes that were developed therefore reflected the implicit meanings given by the researcher's interpretation of the data. Following the identification of codes, data was further combined to create themes. The themes constituted a group of codes illustrating the same point of interest or importance (Maguire & Delahunt, 2017).

Figure 15: The data analysis process



Initially, the researcher collated the data as verbatim transcripts of the video and audio recordings. This helped to avoid any omissions. Importantly, in the current study the researcher compiled the verbatim transcripts and was thereby able to engage with the data at an early stage. Repeated viewing and listening to the recordings meant that the researcher got to know the data very well, much beyond superficial familiarity. This immersion in the data allowed the researcher to gain an in depth knowledge and understanding of the often subtle, nuanced things that happened during the consultations (Braun & Clarke, 2006; Braun & Clarke, 2013, Silverman, 2014). For example, the different ways that the health visitor participants engaged and interacted with, as well as how they talked, listened, and observed the mothers and children (clients). This level of insight also made it possible to recognise the way different health visitors used their time during the consultations and how they engaged concurrently with the technology, usually the computer, the electronic health record, and the mothers and children (clients). In addition, it also helped the researcher to remain alert to events and happenings during the consultations and was particularly beneficial when recognising the unexpected events and happenings in the data.

4.13.3 Thematic Analysis: creating the codes

Data were managed using both NVIVO (a software package which can support qualitative research methods), and manual organising and sorting methods (Richards, 2000, Saldana, 2016). Although used to organise the data during the early part of the coding stage, the NVIVO technology tended to create a barrier which inhibited the researcher's ability to gain the depth of understanding required to effectively manage the data. To resolve this issue, as the analysis progressed, manual methods were adopted to refine the codes and create the themes. This made it possible to engage more closely with the different sources of data and thereby manage the complex nature of the data collected (Saldana, 2016).

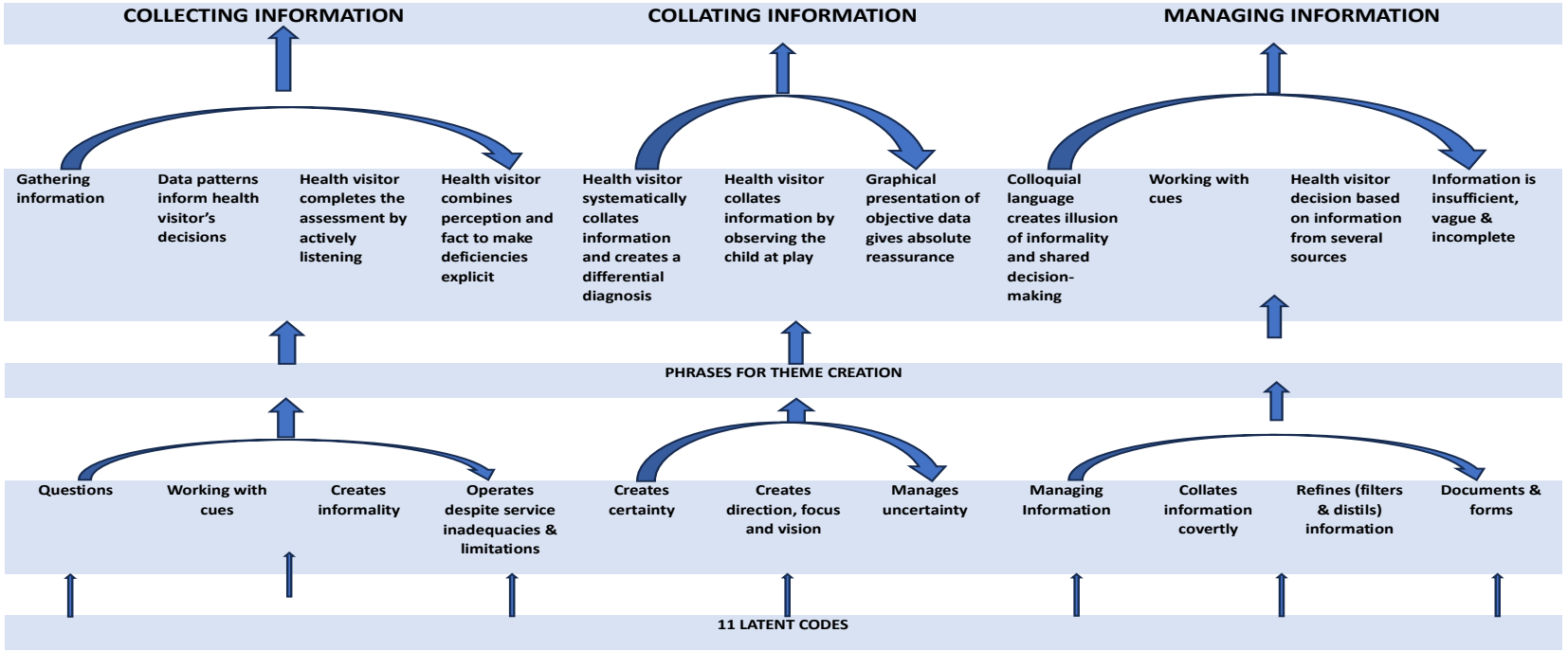
Although the researcher worked alone to identify the codes and themes, engagement in regular discussion took place with the three members of the supervisory team. This provided the level of challenge needed to enable the researcher to review and revise the

codes and themes during the process of analysis. Although Maguire & Delahunt (2017) suggest the advantages associated with having two people concurrently coding data, they also state the value of employing alternative approaches for challenge and scrutiny when this is not possible.

With greater familiarity, data were initially reduced to create codes. Maguire & Delahunt (2017) state that codes are created when small amounts of data are systematically organised to illustrate meaning. Braun & Clarke (2013) identify two distinct coding processes. They state that the process can be selective or complete. By adopting a complete coding technique in the current study, the researcher identified any information that was interesting or relevant to the research question. This inductive style of thematic analysis permitted a comprehensive and precise examination of the information that emerged from each consultation (Braun & Clarke, 2006; Braun & Clarke 2013, Maguire & Delahunt, 2017). The process did not involve searching for information about specific instances, nor did it involve the use of pre-set codes.

The data were read several times, until it was no longer possible to make further refinements. For example, a code of 'Questions' was developed because the data illustrated that questions contributed to the decision-making process in up to ten (10) different ways. Some questions were generated from the mothers (the client) and others from the health visitor participants. In addition, the health visitors tended to generate information using several related questioning techniques like open, closed, responsive and ad-hoc questions. Initially using the data management package, NVIVO, the researcher created more than seventy (70) codes. Further refinement using manual methods resulted in identification of the final eleven (11) latent codes that contributed to the theme development (see Figure 16).

Figure 16: Creating the codes & themes



4.13.4 Thematic Analysis: creating the themes

The eleven (11) latent codes allowed the researcher to capture the underlying ideas, patterns, and assumptions and explain the associated meaning. In this way, these codes provided the building blocks for the emergent analysis and theme development (Braun & Clarke, 2006; Braun & Clarke, 2013).

By reading each transcript in turn, a short phrase or word was assigned to the information. This described the researcher's interpretation about what they thought the information meant. The researcher completed this process using the WORD versions of each transcript, initially noting a brief commentary on the right hand side of the page explaining how the researcher decided what the theme should be. Aligning the information in the WORD document meant that the code, theme, and text remained in close proximately and helped to keep the process consistent and systematic. Braun & Clarke (2013) advocate this process because it allows the researcher to stay close to the data. It also allows the researcher to demonstrate that the analysis was driven by the data. In line with the inductive and constructivist perspectives of the current study, this process also helped the researcher avoid missing information from each transcript.

Repeated reading, viewing, and listening to the data made it possible to recognise things that happened during the consultations. Themes were identified when the health visitor participants acted and behaved in similar ways during the consultations. In addition, ten (10) health visitor participants completed a series of up to seven consecutive consultations. Watching each series further contributed to the creation of themes. In explanation, it allowed the researcher to explore the content and identify any similarities or differences that happened as the health visitor participant interacted with different people and considered different topics and information.

In addition, during the consultations the researcher wrote reflective notes about interesting or relevant content. These notes provided a prompt and aide memoire for the researcher and meant that when reviewing the content of the consultations they did not rely on memory. By noting the time that the event or notable issue occurred on the recording it was easier to identify and review it during the analysis. This again meant that the researcher could revisit the relevant part of the recording once the consultation had ended.

Although some health visitor participants and clients were more vocal than others during the consultations, the whole data set was reviewed when creating the themes. This meant that data extracts were selected from across the dataset to illustrate the points identified during the analysis. This is important because as Braun & Clarke (2013) suggest, it enabled the researcher to use the breadth of each theme to explain what the data meant. As explained earlier in this chapter, the components of the social judgement theory framework were employed once analysis was complete to further explore the decision-making processes adopted by the health visitor participants. By providing a language and terminology, the social judgement theory framework made it possible to explain what was happening and capture the social context, and individual nature of the processes adopted by health visitors during their decision-making activity.

4.14 The Research study: demonstrating reflexivity

By its very nature ethnographic research depends on the researcher's ability to immerse in another culture or social group (Fetterman, 1998, Atkinson & Hammersley, 2007). In so doing, they can understand the subtle often nuanced experiences of the participants (Braun & Clarke, 2013). As outlined during the chapter (chapter four of this thesis), the researcher, a health visitor academic with several years' experience in the clinical field, possesses extensive knowledge, understanding and insight into the world of the health visitor decision-maker. Although, beneficial in permitting deep understanding, this level of immersion can also allow personal assumption and perception and thereby introduce the potential for bias (Braun & Clarke, 2013, Silverman, 2014).

To avoid bias and thereby assure rigour and credibility, the researcher used approaches to encourage what Braun and Clarke describe as mechanisms for critical reflection and challenge (Braun & Clarke, 2013). To critically reflect, there was continual engaged with the emerging data using fieldnotes to record any issues occurring during the consultations and following each consultation a reflective account to analyse information specifically related to the situation. By personally completing the ethnographic participant observations, preparing, and reviewing the verbatim transcripts of the consultations and 'Think Aloud' events, and repeatedly watching the video recordings, the researcher became increasingly familiar with the data (Braun & Clarke, 2013). In so doing, they could consider perceptions of the participants, the consultations, and any thoughts and emotions generated by the data.

- **Writing fieldnotes**

By recording events and information relating to issues that occurred during the observed consultation, the researcher created a contemporaneous record that negated the reliance on memory. This meant that they had a record of anything that could influence the consultation, the context or the processes adopted by the health visitors to make decisions. For example, when observing the consultation completed by health visitor (1), the researcher recorded how within the first six minutes, the health visitor encouraged the mother to tell her story and collected pertinent issues on which to focus during the time remaining. In so doing, the researcher recognised the speed with which pertinent information was collected and the behaviours and strategies used by the health visitor to enable this to happen. By recording the information as it happened, the researcher demonstrated how data came from the study and not personal memory or interpretation.

- **Writing reflective analytical memos**

The researcher also produced a critical reflective account following each consultation using notes made at the time. By including information relating to the feel of the consultation and personal perceptions of the participants (health visitors and / or mothers or children) during the consultation, the researcher could simultaneously engage with the participants and revelations of themselves at different stages of the study (Brewer, 2000, Saldana, 2016). For

example, initially the researcher recorded feeling frustrated because she felt that the health visitor merely asked questions and did not probe the mothers' responses. Later in the reflective account, having interrogated the video replay the researcher recorded how she could in fact see instances during the consultation, where the health visitor did probe information and create conversation. Having initially recognised the frustration arising from perceived deficits, the researcher's written reflective processes permitted personal challenge, and evidence searching to support or refute these feelings. Had she merely considered her feelings, her understanding of the situation would have been founded on personal assumptions and the somewhat hidden data from the study would have been missed.

- **Engaging in reflective discussion with the supervisory team**

To ensure personal challenge, the researcher engaged in reflective discussion with the supervisory team who questioned her personal assumptions and perceptions of the things seen, heard, expected and elements of surprise. This was particularly useful during data analysis to avoid the researcher inadvertently drawing on personal experience and aspirations when identifying codes and themes. For example, supervisory challenge meant that the researcher must explain the data used to create the code 'ignoring cues'. While the researcher could show data examples of situations where the health visitor participants did not interrogate or pick up the cue, she could not show data to demonstrate that they had been ignored. Notes made of the discussions with the supervisory team illustrate that by encouraging the researcher to ask questions of the data ['*what is really going on here?*', *'what am I actually seeing?],* they enabled her to deepen her understanding of it. A comparison of early discussions with those held during the later stages of data analysis demonstrates how the researcher's insight and understanding developed to facilitate data driven analysis.

- **Becoming a familiar figure in the health visitors' environment**

In addition, the researcher spent time in the work base alongside health visitors, by arriving early or staying once the consultation was over and engaging in day-to-day conversations. In so doing the researcher could immerse in the culture more fully and thereby construct their

knowledge and understanding of the issues that contributed to health visitors' decision-making processes and activities. These types of processes are described by Madden (2010) as ways to minimise the impact that the researcher's presence has on the participants' behaviour. They have been used during the current study as a mechanism for managing the researcher's behaviour and its impact on the participants.

4.15 The Research study: demonstrating rigour and credibility

Rigour and credibility in qualitative research set the position of the study in terms of its quality and the extent to which the findings are worthy of the readers' trust (Silverman, 2014). Rigour is created in studies where appropriate methods for data collection and analysis have been selected and used consistently (Mason, 2004, Braun & Clarke, 2013, Silverman, 2014). In addition, credibility refers to the extent to which the processes adopted have demonstrated that the data used to support its claims have been generated by the study (Braun & Clarke, 2013). The current study adopted a range of strategies to provide assurance of rigour and credibility. The summary that follows outlines the strategies and how they assure the rigour and credibility of the current study.

- To explore health visitors' decision-making processes, the current study has demonstrated in section 4.5 (The Research Study: the philosophical position) and Figure 10 (The Philosophical underpinnings of the study), the systematic approach adopted by the researcher to ensure a cohesive design. This approach has aligned the intent to explore and describe the social reality of health visitors' decision-making activity with the methods adopted to collect and analyse the data. In so doing, assurance is provided because the chosen methods can address the inquiry (Braun & Clarke, 2013, Silverman, 2014).
- The ontological and epistemological position described in section 4.5.1 and 4.5.2 explains the intention to explore the decision-making activity from the health visitors' perspective in the context of their social reality. In so doing, the study recruited health visitors working with active caseloads and observed their usual practice as they engaged with people to deliver real life NHS health visiting services.

The recruitment strategy has been described in detail and provides assurance that those recruited to the study can demonstrate authentic health visiting practices.

- The methods for data collection and analysis have been applied consistently during the study as described in sections 4.12 (The Research Study: selecting the data collection methods) and 4.13 (The Research Study: selecting the process for data analysis) of the current chapter. These descriptions make it possible to repeat the research process. Although the idiographic nature of the study and subsequent findings means the process is unlikely to replicate the exact findings, assurance is provided by the exploratory intent and design, as described by the methodological position, and outlined in section 4.7 (The Research Study: the methodological position) of this chapter.
- The findings have been illustrated using data extracts from the study. As presented in the findings outlined in chapter five of this thesis, the extracts used the participants' own words. In addition, a commentary has been provided in the text to set the context, which explains what was happening at the time during the consultation. Data extracts, as presented in chapter five, come from the whole dataset, and thereby provide assurance of the systematic approach applied to the process of analysis. In this way, the extracts provide rich descriptions of what happened during the study and how the health visitors made decisions in these situations.
- Although a lone researcher, the process described in section 4.13.3 (Thematic analysis: creating the codes) of this chapter explains how the three person supervisory team provided monthly challenge and scrutiny. This measure provides assurance that the data were critically considered and not merely accepted at face value.
- The researcher gained proximity with the data and acquired a deep knowledge and understanding of the content. This was described in sections 4.12 to 4.12.7 (The Research Study: selecting the data collection methods) of the current chapter and includes the personal preparation of verbatim transcripts, field notes and reflective accounts. In this way, assurance is provided of the researcher's use of emergent data in line with the inductive approaches employed during the study.

- The measures taken by the researcher to become a familiar part of the health visitors' social world have been outlined in section 4.12 to 4.12.7 (The Research Study: selecting the data collection methods) of this chapter. These strategies give assurance that the researcher reduced the likelihood that her presence had influenced the behaviours and actions of the health visitor participants, mothers, and children (Maher et al., 2018)
- The use of video and audio recordings during the study meant that data collection was not totally reliant on observations collected at the time of the event. This provides additional assurance of data quality because methods avoided reliance on the researcher's memory and ability to recall information. Instead, these methods provided unlimited opportunities for the researcher to review the data.
- As outlined in section 4.12 (The Research Study: selecting the data collection methods) of the current chapter, the researcher as an experienced health visitor, was familiar with the culture of health visiting. However, she had sufficient distance from the specific social world of the health visitor participants not to interfere or bias the data.

4.16 Conclusion

In conclusion, each component of this qualitative exploratory study has provided the tools needed to explore the way health visitors in clinical practice make decisions when consulting with mothers and children. By adopting a range of methods to collect and analyse the data the study has captured a rich dataset capable of providing in depth insights into the actions and behaviours undertaken by the health visitor participants.

4.17 Chapter Summary

This chapter has presented the methods and methodology used to design the study. The philosophical and theoretical position has been outlined to set the context for the current study. In addition, the explanatory account has presented the reasons for the selections made. Throughout the chapter the discussion has explored the ways each design element has been used to help fulfil the study intentions. In conclusion, the chapter has presented an

account which illustrates the way the study design has addressed the requirements for rigour and credibility. The next chapter will present the findings from the study.

Chapter five: Findings of the study

5.0 Chapter Overview

This chapter will present the findings from the study and examine the decision-making processes adopted by the health visitor participants during their consultations with mothers. Using detailed data drawn from the ethnographic observations during the study, the chapter will provide extracts to illustrate the features of the behaviours and strategies that form part of the decision-making processes individual health visitors adopted.

The chapter begins by presenting the findings that illustrate the social norms and culture associated with the contemporary context for individual health visitors' decision-making practice. Using the social judgement theory framework the chapter will then present an examination of the behaviours and strategies allied with the decision-making processes adopted by the individual health visitors and captured during the ethnographic participant observations and the 'Think Aloud' events during the study.

5.1 Context for collecting the data about health visitors' decision-making practice

As outlined in chapter four of this thesis, data collection using ethnographic participant observation began during the health visitor-client consultation. These consultations were arranged by the health visitor participants (hereafter, health visitors) with clients as part of their usual day to day workload. They happened in real time and with people currently using the NHS health visiting service. All consultations were face-to-face, with the mothers, children and health visitors sharing the same venue. The same researcher conducted all the ethnographic observations.

Thirteen (13) health visitors participated in the study and thirty-nine (39) consultations were observed. Three (3) health visitors completed one consultation and ten (10) completed a series of between two (2) and seven (7) during each observation period. Having a series of consultations from the same health visitor made it possible to observe their behaviour and

activity during consultations with different clients. Eleven (11) health visitors undertook the 'Think Aloud' event following the consultations. Two (2) health visitors were unable to undertake the 'Think Aloud' event because of work commitments.

The following key provides an explanation of the coding system adopted when presenting data extracts in the thesis.

Section one	Section two	Section three	Section four	Section five	Section six
Health visitor participant number (01 – 13)	Date of the event (1-31)	Month of the event (July – February)	Year of the event (2019 or 2020)	The type of event (video consultation (VD) or Think Aloud (TAI)	Client number for each health visitor consultation (1-7)

During thirty-six (36) consultations, the mother and child attended. For the remaining three (3) consultations, the father was also in attendance, but the mother contributed most of the content. The fathers did not attend any consultation without the mothers. Throughout the chapter the client will be described in terms of the 'mother'.

All the health visitors were female. Although this was not intended as part of the recruitment strategy, it is likely to be related to the fact that there are more female than male health visitors in the profession. Although there were male health visitors working in the service where the study took place, they did not choose to participate in the study. Three (3) health visitors were relatively newly qualified and had worked in the profession for up to five years and the remaining ten (10) were more experienced, having been in the profession for ten or more years.

5.1.1 Data for presenting the findings

In presenting the findings, detailed data collected during the thirty-nine (39) ethnographic participant observations of health visitor-client consultations are used to illustrate the features of the behaviours and strategies that form part of the decision-making processes individual health visitors adopted during decision-making activity. The findings will be examined using verbatim quotations from transcripts of the thirty-nine (39) video recorded consultations, denoted with the addition of the letters VD to the code. In addition, verbatim quotations from the transcripts of the eleven (11) audio recorded 'Think Aloud' events are used. These are identified with the addition of the letters TAI to the code. An account of the contextual features observed during the consultations is also given. These ethnographic accounts comprise information noted by the researcher detailing features of the health visitors' behaviours (i.e., actions, activities) and strategies (i.e., approaches, methods) employed during their interactions with the clients as well as characteristics relating to the physical and atmospheric environment. Data from the researcher's fieldnotes and reflexive accounts of observations, thoughts and information seen and heard during the consultations and 'Think Aloud' events also contribute to the contextual accounts.

5.1.2 The process for arranging the consultations

The consultations were arranged by the health visitor participants using two distinct approaches relating to the service delivery options. These approaches were part of the health visitors' usual practice and so made it possible through ethnography to illuminate the minutiae of the social norms, culture and context in which the individual health visitors made decisions. Twenty (20) consultations were arranged with an individual appointment. This meant that the health visitors were aware of the purpose and could prepare in advance. Although no appointment was allocated to the remaining nineteen (19) consultations, they took place during scheduled 'clinic' sessions, where the client could choose from a given period, the time to attend. During these sessions, although the health visitors could anticipate likely content, they were unable to prepare fully. Four (4 of 20) of the appointment-initiated consultations took place in the client's home and the remaining sixteen (16 of 20) were conducted in a non-home venue. The non-home venues included a

room in a general practice (GP) surgery, where seven (7 of 35) consultations took place. In addition, nine (9 of 35) consultations happened in a health centre, and nineteen (19 of 35) in a child health clinic (see Appendix Twelve: summary of the consultations). These venues were booked on a sessional basis which meant they were available for a defined period. Consequently, the health visitors had limited time to prepare the environment in advance of the consultation. For consultations in the client's home, the health visitors had no control over the physical environment other than choosing a seating position that allowed eye contact with the mother. Although it was possible to influence the physical environment of the non-home venues, this was dependent on the time available. Any preparation also relied on the availability of equipment including toys and child-focused furniture.

5.1.3 Conducting the consultations – social norms, culture and context

The health visitors appeared to complete the consultations in a systematic way. Although they tended to work in a logical way, there was no defined sequence. This non-linear approach was seen when the health visitors spent time considering a specific issue before moving to the next. They also returned to issues at different points during the consultation. Each consultation lasted between four (4) and one hundred and thirty-eight (138) minutes and took place in home and non-home venues. In general, the consultations conducted in the home lasted longer. Overall, the duration of the consultations tended to depend on content. Although the health visitors acknowledged that they worked in line with a set of standard operating procedures which provided guidance about duration, they did not tend to use this as a reason for ending the consultation. However, it tended to influence the way appointments were arranged and the availability of the venue.

During the consultations the health visitors collected information about similar topics. These included, feeding (breast and / or formula), the child's bowel and bladder function (i.e., the number of wet and dirty nappies), the ability of the child to sleep, the child's growth and development. Implicit in each consultation was an enquiry about the mother's health and wellbeing. Here, the health visitors' enquiry focused on how the mother was feeling, managing childcare, family commitments and return to work plans. In addition, the health

visitors gave information in anticipation or in response to the mother's questions and concerns. These questions and concerns tended to be about topics including the labour and birth, the health and wellbeing of the new-born infant, and the child's health, growth, and development.

As discussed in chapter one of this thesis, there were no prescribed models or frameworks for conducting the consultations. However, the health visitors tended to manage the information they collected using two frameworks. Firstly, the Ages and Stages Questionnaire (hereafter, the ASQ) was used to record the details of a child development assessment. The ASQ incorporates the calculation of a numerical score which gives an indication of the extent to which the child's development aligns to age related expectations (Squires et al., 1997). Secondly, the health visitors used the Framework for the assessment of children in need and their families (DH, 2000a), commonly known as the assessment triangle. This prompted the health visitors to consider information about the child in terms of their growth and development, the environment in which they lived and the capacity of the parents to meet their needs for safety, health, and wellbeing. In more than half of the consultations (23 of 39) the mothers asked about specific issues. Here, the information and help requested formed the basis of the consultation. During the remaining sixteen (16 of 39) consultations the focus was on the child's development. Eight (8 of 16) of these consultations specifically used the ASQ. Of the remaining eight (8 of 16) consultations, three (3 of 8) involved an assessment following the birth, and five (5 of 8) focused on revisiting the outcome of an ASQ assessment completed earlier in the child's life.

5.1.4 The decision-making process – social norms, culture and context

During the 'Think Aloud' events, the health visitors tended to describe situations where they felt they were operating under pressure, which tended to influence their decision-making activity in terms of the amount and type of service to offer. The sources of pressure were described in terms of the need to meet the requirements and expectations of a service delivery model, which dictated the availability of resources especially in terms of time and the service offering the health visitors could give to mothers and children. Health visitors

also described feeling under pressure to meet the expectations outlined in the policies and protocols from other professional services, including paediatrics and medicine. Here, the health visitors described the need to align their practice with current evidence, outlined in local and national policies, protocols, and guidance. For example,

> *Yes, yes, you've always got this pressure, pressure, if you've missed something. If you didn't discuss Vitamin D, and the baby has got rickets, five years down the track, they are going to look back, because it happened to my xx (colleague), they looked back about five years into the records and she had mentioned vitamin D, and documented it but that always plays on my mind all those things that she taught me, if you didn't cover that, that day, or if you forgot about the blood spot result, you know there's so much (laughs), and the team leader told me the other day when I was on XX (roster), she went to see a child who died from cot death, and the baby was dead when she got there (a long time ago) and she was saying to me, remember SIDS is so important and she explained why. The other thing now is the jaundice.*
>
> 13_31_01_2020_TAI_client1

Although operating as part of a community service, health visitors' practice was also dictated by paediatric and medical services from the secondary care sector. However, while they followed the instructions provided, they were unable to predict if the mother would do the same. By operating in an advisory capacity of encouragement, not enforcement, the health visitors relied on the mothers' motivation to follow their advice. Consequently, although during their decision-making processes they acknowledged current evidence, they also needed to consider implementing strategies and tactics to encourage the mothers to act. This again provided a context where health visitors' decision-making processes were influenced by factors that they were unable to control with certainty. For example, when consulting with the mother of a child who had jaundice which continued over a period of time, health visitor (7), although conscious of the need to follow locally set guidance which stated the child needed to be examined by the GP, also recognised the limited control she had over the mother's behaviour,

I thought he (the child) was yellow round the nose and it was a bit strange …, because XX (health visitor) … last week… said go to the doctor and she (the mother) hadn't gone to the doctor, um, but when he (the child) came in I thought (he) looks slightly yellow, um and I know XX (hospital) at the moment they are very tight on checking ongoing jaundice … their whole policy now is a lot more stringent on prolonged jaundice than it was so it would be good I think if he was checked again for jaundice and the levels were checked.

07_07_01_2020_TAI_client5

In addition, the development of service delivery aspirations, particularly with the use of technology and the desire to deliver person-centred, personalised care, meant that the health visitors had to adopt different styles to record information using the computer and the paper record, which added another level of pressure, for example,

I'm mindful that I have got to get a few notes on to the computer because we don't really take handwritten notes anymore… I want to focus but also get a couple of things down because I am trying to give up hand writing notes, because we've been told not to do that, that's the policy now, we are not allowed diaries, we don't have diaries, it all has to go in here (the computer), so I am trying to incorporate into practice while still looking connected cause you know when you have been a nurse for so long you can write while looking at the mum (laughs).

13_31_01_2020_TAI_client1

Health visitors were also conscious of the time limitations set by the service model for each consultation. Although they could manage the time available during some consultations for example, by anticipating the likely content, it was not always possible to accurately predict in advance. This was the case for the consultations generated by individual appointment as well as those that happened during scheduled clinic sessions. Consequently, the health visitors were conscious that they may need to adapt and change their focus before the consultation could begin. They also described being conscious of the need to anticipate

situations where they would have to make changes at short notice. Although time limitations were in place as part of the service delivery model, the health visitors tended not to describe preparation strategies which included the addition of extra time. It was also not something that caused them to curtail the consultation. However, the health visitors were aware of the amount of time available for each activity, and this was something they described that tended to influence the content of their decision-making activity. For example, during the 'Think Aloud' event, health visitor (13) described the way time pressures influenced her activity, and how she needed to design her practice to meet the service requirements,

> *We are allowed 45 minutes… I am trying to listen …, but mindful that I don't want to be like a doctor who is not listening … because he's just got 8 minutes, I overran the appointment, and it seemed to take forever, I was thinking of the mum out in the waiting room (laughs)… I've learnt that with these first time mums you just have to explain everything… yes, yes, you've always got this pressure, pressure, if you've missed something. If you didn't discuss Vitamin D, and the baby has got rickets, five years down the track, they are going to look back.*
>
> 13_31_01_2020_TAI_client1

By outlining the categories which made it possible to provide more resources to some mothers and not others, the service delivery model describes the basis on which the health visitors could justify their decisions. Despite considering what was preferrable, the health visitors also tended to describe the service that was permissible through the delivery model. They described the anxiety associated with the consequences of not following the 'rules' outlined in the model as well as not achieving set workload targets. For example, although during the decision-making process, health visitor (13) recognised the potential benefit of continuing to see the mother, the need to align to the service delivery model meant that she decided she could not do so,

> *I was trying to reassure her …, reassuring just to normalise things a bit, in the old days, this would probably be someone who would come and see me every couple of weeks for*

a while, just to talk about everything, but now it's corporate (caseload) so we don't have ability, … now she'll come to a baby clinic, … and she will see, whoever is on the roster, … but I think somebody like her would enjoy the rapport and relationship, … but I can't offer that to her. I could possibly but I don't really have the capacity because I can't put her onto the universal plus… I am the sort of person who would give the extra visit, and I have done that in the past, and I'll just get too much behind in my day, … because I like to engage with my families, … I try and do everything really properly, so I can't give people these quick little visits …, it would take a good half an hour.

13_31_01_2020_TAI_client1

Additional pressure was described in relation to the team-based service delivery model. This was described when mothers were sent the incorrect documentation prior to the consultation or when they had not received the required documentation. This meant that the allocated time was insufficient to complete the activity and so the consultation invariably lasted longer that the time available. Other issues were associated with the concept of children not being seen and information being missed. This limited control added to the feelings of pressure and tended to influence the decision-making processes adopted. In these situations, the health visitors described feeling a sense of shock and personal responsibility and having a desire to make up for things they described in terms of 'lost time' and 'missed opportunities.' For example,

I felt bad for my department here in a way, because I think we gave the wrong form and … I feel protective towards this mother, I don't know why… I want her to come back, and I want to catch up what we've lost, kind of catch up with her, she hasn't come (to clinic), I didn't see one dot there (referring to the dot for weight in the growth chart).

11_13_01_2020_TAI_client2

So, as soon as I glanced at the questionnaire I thought, 'oh my God, there's a problem here because there was all zero's… so it was a big shock to me and I have to calm myself

down (chuckles), because global developmental delay… but I have to do everything to satisfy myself. I am still trying to work out why the development is so delayed because this type of case is not very common. Not very common so I was trying to work out, could it be due to all the corporate working, people are not really seeing children.

01_01_11_2019_TAI_client2

5.2. Presenting the behaviours and strategies associated with the decision-making process

The next section will present the behaviours and strategies the health visitors adopted during decision-making activity.

5.2.1 The behaviours and strategies of decision-making processes

During the decision-making process the health visitors tended to collect, collate, and manage information (see Figure 17: Health visitors' decision-making process). Each element of the process was associated with a range of behaviours and strategies, and they tended to happen simultaneously, where one flowed into the other, sometimes without separation. For example,

It's pretty much like a cycle in my head, so I pick a cue, and while I'm finishing with that, discussing it, I'm already watching for another cue, and I use that as my next. The problem is when I pick two or three, oh she said this, this, and this, you know phrases, and sometimes there could be three things that may worry me and whether I explore it. I am going back to work, and my husband has lost his job, to me that's finance, mental health, coping and you know safety of baby, what does it mean for the family, so all this going round in my head and my head is already full of questions as I go along… and it could be one or two things that they said, I divide it in my head and I know what areas I need to explore.

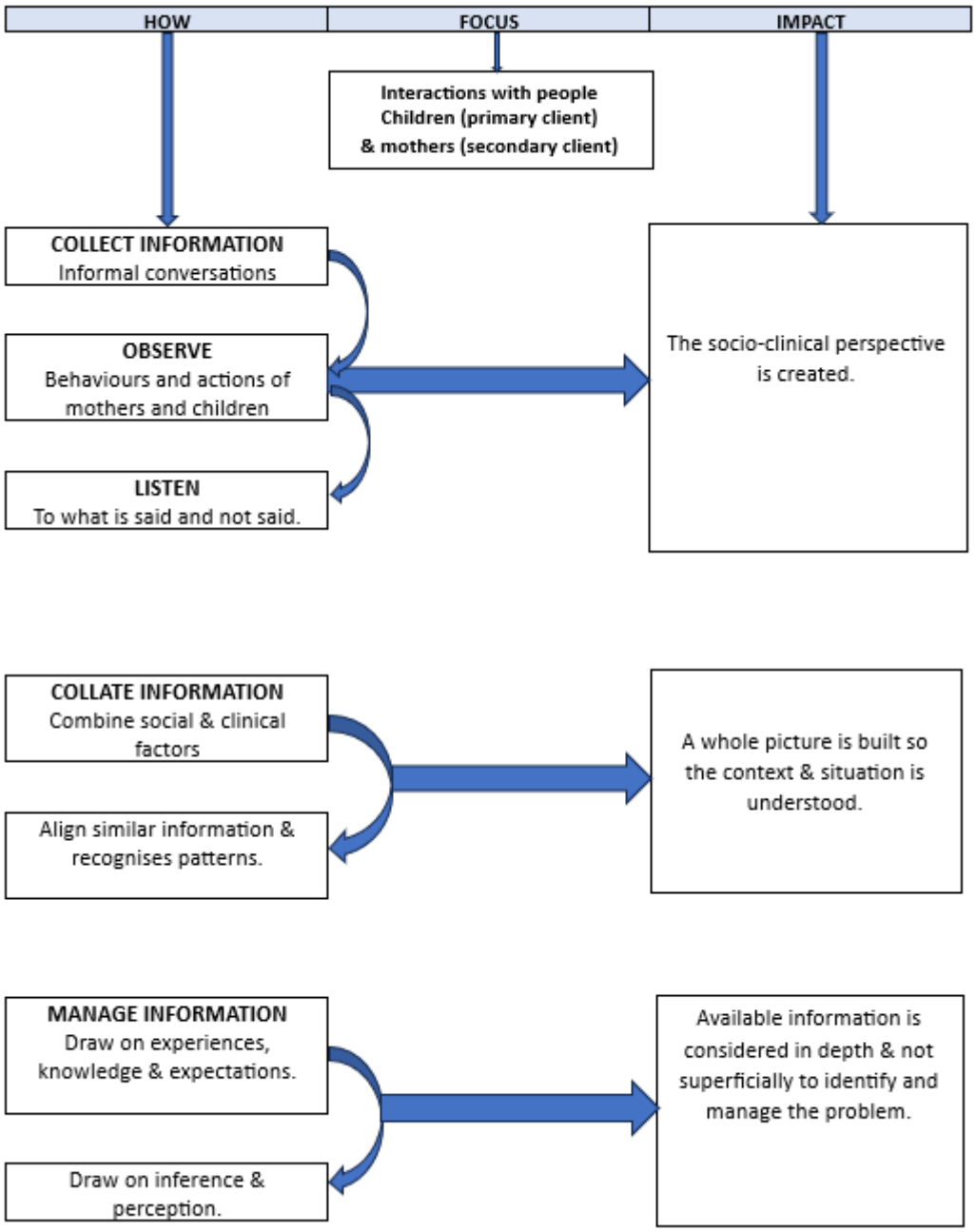
11_13_01_2020_TAI_client1

The health visitors interacted with the mothers using a range of communication techniques. This enabled them to collect information. In so doing, the health visitors talked and listened to the mothers and also observed events as they happened. These included the interactions between the mother and child as well as the child at play. Some health visitors tended to prioritise observation and listening, and others were seen to talk more than listen.

The health visitors also simultaneously distilled and refined information. In so doing, they combined similar information by recognising patterns and associations. Using a combination of social and clinical information, these behaviours and strategies for collating information helped the health visitors to establish meaning and understand the presenting and associated contextual issues. For example, health visitor (11) in the extract above described how during a decision-making process she would collate information about parental employment and work plans to enable her to consider the family's financial situation and if additional interventions were necessary.

Lastly, the health visitors selected information to use to inform the decision. By managing information in this way, some of the health visitors merely followed the questions as they were listed in the ASQ document. Here the decision was based only on information drawn from the pre-set questions, and related to the final score, and associated narrative within the document which detailed the required actions. Other health visitors, however, broadened their enquiry by drawing on their experience, knowledge and perceptions to manage information relating to particular issues that may have arisen during their conversation with the mother. These health visitors were observed to be making decisions arising from issues and information, they were not aware of at the beginning of the consultation. For example, health visitor (11) in the extract above, outlined how she simultaneously talked and listened to the mother and observed the situation as it evolved during the consultation. In this way the health visitors demonstrated how they managed information they were aware of alongside that which they were unaware of. In so doing they revealed how by picking up cues during the consultations they could manage information which was unknown and unexpected not merely that which they expected to see.

Figure 17: Health visitors' decision-making process



Like their approach to the consultation, the health visitors' decision-making process was systematic and logical but not linear or sequential. Instead, as indicated during the 'Think Aloud' events, the health visitors went back and forth over the information, allocating time and attention to different issues. This tended to be associated with their knowledge as well as the things they saw and heard during the consultation. For example, health visitor (9) during the 'Think Aloud' event, described this process as part of her usual practice,

> *I tend to flick between one area and the other … that's just how I've worked over the years, and I don't rush because I find that's where the mum's feel, she's not got enough time for me. So, I try to make sure that the atmosphere is relaxed and give them (the mother) the opportunity to just talk … it (the conversation with the mother) kept on coming back to the dietary intake, so we know that's a concern for her.*
>
> 09_03_01_2020_TAI_client1

Two decision-making processes were observed during the study. One process related to the route the health visitors took to decide a course of action. The other process detailed the route taken by the health visitors to make a decision about the situation. During the situation-related processes the health visitors tended to simultaneously consider what the situation could mean for the mother and child, what was good, bad, acceptable, or unacceptable and what needed to happen to improve it. For example, health visitor (13) knowing that the child may have an undiagnosed syndrome affecting growth and development, wanted to stop the mother worrying and decided to do this by continuing to see them personally,

> *I don't want you to get worried, because you went through quite a lot, all those testings and everything, so I don't want to worry you… So, I'll book you to see me, so you don't need to go to the drop-in clinic, in four weeks' time, is that alright?*
>
> 13_31_01_2020_VD_client2

This suggests that the decision-making process adopted did not merely consider the need to review the child's growth and development but was also to influence the context in which the child was developing. For example, by seeking to allay maternal anxiety. This was outlined during the 'Think Aloud' event, as health visitor (13) explained the priority she gave to maternal concerns and how this influenced her decision-making process, for example,

> *I am very careful … because um, you know how a lot of new mums can get quite upset if they think their baby isn't developing at the same rate as everyone else's baby I am quite subdued and softer around that stuff.*
>
> 13_31_01_2020_TAI_client2

Although her assessment of the child indicated that a syndrome may be delaying the growth, health visitor (13) did not focus on identifying the syndrome. Instead, as indicated in the 'Think Aloud' event, the decision-making process intentionally centred on creating a situation where she could continue to monitor, collect information, and support the mother to care for the child, for example,

> *So because her tongue was sticking out a lot they did a lot of testing on her, but I think she was born with a condition, it hasn't been picked up, but when I look at the baby I wonder, and with the length and the tongue movements still quite excessive, I don't know if baby does have a syndrome or not, she's not really smiling, and she's 8 weeks, so then I thought let me have them back in four weeks' time and see what she's doing. If she is smiling, if her length has crept up.*
>
> 13_31_01_2020_TAI_client2

This was presented in terms of 'monitoring' and helping the mother not to worry, for example,

> *Mum: What, I mean what are the implications of her being at the bottom of the length percentile, she might just be really short or…?*

HV: Yes, well at the moment, what we would do is just monitor you… and if she's not starting to pick up, then we'll just refer you back to the GP. But that's thinking in advance.

13_31_01_2020_VD_client2

Secondly, when the decision-making process adopted sought to choose a course of action the health visitors tended to focus more on the diagnosis and less on the situation, context, or the mother's coping and caring capacity. These decision-making processes were likely to consider if referral was required or not, or what actions the health visitors needed to take to resolve a specific issue. For example, following the development assessment, health visitor (2) decided to refer the child to the paediatrician,

HV: … in terms of development ... he is delayed yes… we really need to make a referral to a paediatrician … it's… an urgent referral because there are quite a few things of concern.

02_24_10_2019_VD_client1

Decision-making processes about the situation tended to sound somewhat vague compared to those which sought to choose a course of action. This is likely to be related to the need to simultaneously address several issues. This meant that alignment between the issues and the decisions were less clear. For example, although the decision-making process adopted by health visitor (13) centred on collecting more information about the child's development as it emerged over time, she presented her decisions in terms of wanting to stop the mother worrying and needing to meet other health visitors by having to attend the drop-in clinic.

5.2.2 The health visitors collected information to begin the decision-making process

The collection of information was a key element and the starting point for the decision-making process. To collect the information the health visitors adopted one of two approaches. Firstly, some of the health visitors behaved in an informal way and created a friendly atmosphere. Other health visitors tended to act in a somewhat formal way and the

atmosphere in these situations felt more distant. The health visitors also created the physical environment so it would help them to collect information. They tended to do this by positioning the chairs so they could maintain eye contact with the mothers and see the children. They also prepared the environment for the purpose of the consultation. For example, when they intended to assess the child's development, some health visitors prepared the physical environment by adding child-focused furniture to the room before the start of the consultation, for example,

> *I really cannot do a health review without toys. You have to try and create a child environment as much as possible for them to explore while you build the review… So, it also allows me the opportunity to observe the child while (the mother is) completing the questionnaire.*
>
> 01_01_11_2019_TAI_client1

The difference in the two approaches tended to be seen in the way the health visitors,

- talked and listened to the mothers.
- prepared the consultation room.
- managed and made sense of the information.

The data show that the health visitors who were able to influence and shape the physical and atmospheric elements of the environment tended to collect a higher volume and quality of information. Conversely, in situations where the health visitors did not prepare the physical environment or influence the atmosphere by behaving in an informal way, although they collected information, the decision-making processes adopted tended to involve the collection of information that was more limited in amount and range.

The use of informality during the decision-making process facilitated the collection of a greater depth and range of information than was seen during the seventeen (17 of 39)

consultations where more formal approaches were used. The more informal approaches incorporated the use of friendly, cheerful, and jovial behaviours alongside non-technical language. Conversely, the formal approaches were associated with behaviours that tended to be more distant and detached. Alongside these behaviours, the health visitors tended to use technical language. Health visitors adopting informal approaches also tended to incorporate informal chat, akin to, 'chit-chat' or 'small talk'. However, when formal approaches were adopted the health visitors were unlikely to use this style of conversation.

During the study informality was used by more than half of the health visitors (7 out of 13) and in twenty-two of the consultations (22 out of 39). Five health visitors (5 of 13) adopted a more formal approach in all their consultations. Of the seven health visitors (7of 13) using informality, three (3 of 7) used a more formal approach in at least one (1) consultation. During the study the health visitors tended to use one or the other and did not combine the approaches during individual consultations. The approach adopted was not influenced by the topic or purpose of the consultation (see Appendix Twelve: summary of the consultations).

In situations where the decision-making process enabled the health visitors to collect a range of information about different issues, the health visitors were seen to be acting in an informal way using friendly, chatty style language. For example, when engaging with the mother during the consultation, health visitor (11) talked about how she acted in a way to encourage the mother to talk,

> *… this is two professional women having a conversation about the baby and how life went, I couldn't add more because she was doing all the right things, but she could reflect into me, what she was doing, and I think that was a positive thing. Because sometimes you don't get a chance to speak to your friends like that, with your friends, …, it's about more moaning, whereas here, it's more proactive, what have you done, are you happy where you are at the moment… It's about asking the questions, rather than*

you telling, it's about asking the right questions and people responding, through their own strengths, that's rights it's through their own strengths.

11_13_01_2020_TAI_client1

5.2.3 The health visitors collated information to continue the decision-making process

Although the health visitors did not have a prescribed process for decision-making, the reason for the consultation tended to influence the approaches they adopted to collate the information. For example, during eleven (11) of the consultations the focus was on undertaking an assessment of the child's development. During eight (8) of these consultations the health visitors completed the assessment using the ASQ. In consultations where the health visitors collected information by asking the questions verbatim as they appeared in the ASQ, additional information tended not to be collected. In these situations, the health visitor collated the available information but tended not to search for more. In explanation, they tended not to encourage the mothers to talk and share additional information or observe the child at play. For example, during the consultation, health visitor (10) reviewed the child's development at the mother's request. The consultation happened during the clinic session and the physical environment in the room was not prepared in advance for assessing children's development. The consultation comprised a series of questions from the health visitor, and the mother's responses. There was very little conversation about any of the responses.

Mum: She had her one-year check when she was eleven months… there were various issues, and I was told to come back, and she is doing all the stuff

HV: … So, it says, while holding onto furniture does your baby bend down and pick up a toy? Yes, I have just seen her… While holding onto furniture does your baby walk by herself, does your baby walk beside furniture while holding with one hand?

Mum: Yes. Oh, not one hand.

HV: Not one hand?

Mum: Well, no, I think she does actually because she holds, yes, she does

HV: Yes, (HV changes the response on the questionnaire)

HV: If you hold both hands, just to balance your baby does she take several steps?

Mum: Yes

HV: And what about if you hold her hand?

Mum: Very reluctant

HV: So, shall we say sometimes?

Mum: Yes sometimes

HV: Does your baby stand up in the middle of the floor by herself and take several steps?

Mum: No

HV: Not yet …

10_08_01_2020_VD_client6

Although the mother at times seemed hesitant with her responses, health visitor (10) tended not to explore them further. However, she appeared to complete the relevant sections of the ASQ and used the numerical score during the process to decide if a referral was needed,

HV: So today she has come up on the higher scores, she's doing well so we don't need to do any referrals.

10_08_01_2020_VD_client6

5.2.4 The health visitors selected the information to complete the decision-making process

During the decision-making process the health visitors selected information, and this acted as a cue to influence the final stages of the process. These cues provided information about actual as well as the likely issues. By using these cues during the decision-making process, the health visitors made decisions in situations where they knew the quality and integrity of

the information was limited. In addition, the information was not always available at the same time or at the beginning of the consultation. In these situations it tended to emerge at different points. This meant that the health visitors could not predict the content or outcome of the decision-making process before the consultation event. In some cases despite selecting some information, it was insufficient to make decisions with complete certainty. For example, during the consultation with health visitor (1) the mother reported concerns about the behaviour of one of her children,

> *So, …. I also asked them (the children) to build a tower, one put the bricks on and the other did a bit of it and that was good interpersonal skill. So, you can link when mum said that child one has behaviour issues, but it was not evident then, and I asked her about what happens in the nursery and mum said no so it has to do with the home circumstances because they were able to relate to each other, even with me a stranger, they were able to relate to each other.*
>
> 01_19_07_2019_TAI_client1

As the consultation progressed health visitor (1) selected different pieces of information to establish the likely or possible cause of the problem, for example,

> *So, it has to do with what goes on at home and mum's ability… So, I am just asking exploratory questions, … I am trying to … get more details of the history of the behaviour… I am trying to make sense why mum says the child has behavioural problems at home but not in the nursery. They (the nursery) have not raised that, so I am trying to work out what is going on in the home… Now in my mind I am thinking about the history of mum, a teenage mum,… pregnant when she was only 15… what is going on at home, who is supporting her. Has she got the right parenting styles because if the child definitely has got maybe organic, neurological problems the nursery will pick up that behavioural issue, but if it's just at home so developmentally and with what I am seeing that development is age appropriate, so I need to work with mum. So, I am trying to get more detail.*
>
> 01_19_07_2019_TAI_client1

5.3 Examination of the behaviours and strategies associated with the decision-making process

As discussed in chapter three of this thesis the social judgement theory framework comprises six features. These include, the Lens Model, the principles of probabilistic functionalism, parallel concepts, achievement, and vicarious functioning. In addition, the framework incorporates the zone of ambiguity. The guiding principles, language and terminology embedded in these features, are used to provide a structure with which to report how health visitors make decisions in contexts which are characteristically socially constructed, complex, uncertain, and unpredictable.

The next section will present the structure in terms of the behaviours and strategies that the health visitors adopted during the observed decision-making activities. In so doing, the social judgement theory framework provides a route for chronicling and examining how they align with social and environmental features of context and culture during the naturally occurring consultations in which the health visitors made decisions. Fundamentally, during the study the health visitors showed how they made decisions using three key groups of behaviours and associated strategies.

- Firstly, by carefully selecting behaviours and strategies to facilitate their interaction with mothers, children, and the environment, health visitors could encourage the mothers to share information. These behaviours and strategies are recognised in the social judgement theory framework through the Lens Model and the principles of probabilistic functionalism and achievement.

- Secondly, by behaving in ways that enabled them to use the cognitive processes of perception, inference, sensing and feeling the health visitors could capture, process and interpret stimuli. In so doing they understood the environment and context sufficiently to be able to adapt their decision-making processes accordingly. These behaviours and strategies are recognised in the social judgement theory framework

through the principle of parallel concepts. While the health visitors demonstrated how they acted with intention and purpose, they also illustrated how they continued to make decisions when the situation was somewhat vague and ambiguous and when they were uncertain if the available information was optimal. These behaviours and strategies are recognised by the zone of ambiguity in the social judgement theory framework.

- Thirdly, by completing the decision-making process, during the study the health visitors acted in ways that permitted them to select information. In so doing, they could discard some information and choose only that which they considered relevant to the situation and presenting issues. These behaviours and strategies are associated with the principle of vicarious functioning in the social judgement theory framework.

The following section uses the features of the social judgement theory framework to examine the behaviours and strategies observed when health visitors in the study completed decision-making processes.

5.3.1 Health visitors interact to create a connection with mothers during the decision-making process

As discussed earlier in this chapter, during the study the health visitors made decisions by interacting and connecting with mothers and the environment. Although some of the decision-making processes observed appeared relatively straight forward most were somewhat complex. The complexity was associated with things that happened unexpectedly or where the information was limited in terms of the volume and quality. In response to these unexpected events the health visitors acted in ways that enabled them to continue their decision-making activity.

- **The Lens Model and health visitors' decision-making processes**

The Lens Model uses a picture-based format to track the behaviours and strategies used by the health visitors during the decision-making process. Encompassing the environment, cues and decision-maker, the Lens Model illustrates the way the decision-maker aligns information from the environment known as cues to formulate a decision. While health visitors during the study considered the same or similar issues like child development, during their decision-making activity, the Lens Model illustrates how individual situations can involve the collection of different information. In this way, it helps to explain the individual nature of health visitors' decision-making processes. For example, during the study both health visitor (2) and (4) made decisions about children's development. While both children were of a similar age, the context in which the decision-making process took place differed as health visitor (4) chose to create informality and health visitor (2) operated in a context which was more formal in nature. The cues (information) arising from the two environments were also observed to be different. Although, such differences may typically make it difficult to explain the processes adopted by health visitors to make decisions, the Lens Model provides the tools and structure to allow this to happen. This is because it provides a way to chronicle the contribution of the environment, the cues and the decision-maker as decisions are being made, and by recognising the different contributions, it provides a route for considering the impact each has on the decision and the process adopted to achieve it.

- **Probabilistic functionalism and health visitors' decision-making processes**

The health visitors regularly faced unexpected events and uncertainty when making decisions. For example, during the thirty-nine (39) consultations, thirty-one (31) illustrated complex events where information was limited in terms of quantity and quality (i.e., it was either incomplete, or unavailable). Here, rather than focusing on trying to stop the event happening, the health visitors tended to anticipate likely events and prepare in advance so they could manage the situation when it arose, for example,

> *I always carry more forms, I am always prepared yes, so I come with extra… because human error happens … then I can correct it.*

11_13_01_2020_TAI_client2

When facing an event that they had not expected, the health visitors, rather than keeping to their original plan, were seen to respond by amending the focus of the consultation as well as their behaviours and strategies. In this way they accommodated the changing situation. In so doing, they used the resources available in terms of time, space, documentation, and any tools, including the toys to assess children's development. For example, health visitor (1) appointed one child to the consultation and intended to assess the development. However, the mother attended with two children. In response, health visitor (1) described throughout the 'Think Aloud' event, that during the decision-making process, she seamlessly amended her original plan for the consultation so she could assess both children, for example,

> *My plan was for one (child) but now as a health visitor I have to see the two of them. I've no plan for child two … the plan was for child one but now the child is here it is an opportunity for me to catch up and see the child, so I am engaging both of them …*

01_19_07_2019_TAI_client1

Unexpected events were also likely to contain uncertainty. For example, this tended to be the case when mothers did not access the services despite invitations and reminders to do so. In addition, uncertainty also prevailed when mothers failed to bring the children's health record or any additional documentation they were asked to complete prior to the consultation. This was again illustrated in the consultation undertaken by health visitor (1). Here, the mother had not previously accessed a development assessment for either child, neither had she attended the health visiting services on a regular basis which meant that health visitor (1) had limited information about the family or parenting capacity. Furthermore, as the mother did not provide the health record for either child (the personal child health record, commonly known as the red book) and had not completed ASQ, the situation became more uncertain, for example,

> *HV: So, you didn't bring the red book you've lost the red book.*

Mum: I've still got it I just didn't realise

HV: You didn't realise ok, so I think we'll just have to improvise then, did not receive any information in the post?

Mum: No to be honest I probably just didn't see it

01_19_07_2019_VD_client1

This meant that as well as amending the focus of the consultation, health visitor (1) also adapted her behaviour and strategies to manage the situation and continue their decision-making process with a limited set of information.

- **The principle of achievement and health visitors' decision-making processes**

To respond with intentionality and purpose the health visitors in the study tended to adapt their decision-making processes to encourage the availability of information by behaving in a friendly way and using informal approaches to create a relaxed environment. In so doing, the health visitors used positive, success focused techniques to collect as much information as possible. Typically, the health visitors did this by talking about a range of non-medical, everyday issues, including the weather, holidays, and general family life, for example,

HV: Oh, I haven't seen you for some time, um, did you travel?
Mum: Yes, we've been away, um, to the Canary Islands,
HV: And did you have a good time?
Mum: Beautiful sunshine.
HV: Oh yes

14_19_02_2020_VD_client1

In so doing, the health visitors were more likely to listen than talk. When talking to the mothers, they tended to use a conversational style that incorporated colloquial, every-day, rather than formal, technical language. By adopting these behaviours and strategies, the

health visitors portrayed themselves in a friendly, warm way towards the mothers and showed concern for their wellbeing as well as that of the children. To the observer the things the health visitors talked about made the consultation feel somewhat relaxed. In addition, the gentle, cheerful way they spoke to the mothers tended to make the health visitors sound as though they were trying to be friendly and keen to hear the mother's news. For example, in the following extract, health visitor (5) enquired about the mother's family and friends and incorporated a point she remembered from an earlier encounter. Although, not directly related to the purpose of the consultation, by remembering the information, health visitor (5) appeared to purposefully use it to engage the mother in conversation,

> *HV: How's the family, husband ok, and what about your friend who was there with her baby last time I came?*
> *Mum: Yes, I seen her recently, like three days ago.*
> *HV: So, you are keeping in touch with your network of people.*
>
> 05_22_10_2020_VD_client6

Some of the health visitors also interacted using formal processes. Employing these behaviours and strategies the health visitors tended to talk more than the mothers, in ways that to the observer sounded somewhat formal, tense, and distant, rather than friendly. For example, conversations thanking the mother for coming or asking how she was feeling were less likely to be seen when the health visitors employed formal processes. Instead, rather than engaging in a conversation and interacting with the mothers, the health visitors were more likely to embark on a discussion, focusing largely on the topic of consultation.

In addition, the level of interaction during a formal process was limited by comparison to that achieved when informal processes were used. The flow of information from the mothers tended to be limited and sounded more guarded than it was with informal processes. For example, in the following extract, rather than using any preamble-type strategies or pleasantries to ease into the consultation, health visitor (1) began by describing the expectations that the mother had failed to meet. No enquiry appeared to be made

about the mother's wellbeing or why she had not attended previous appointments. Instead, the health visitor's introductory discussion which was to shape the central focus of the consultation, was associated with receipt of the ASQ.

> *HV: OK, yes, I noticed he (the child) missed his one-year review, usually we do that between 8 months and 12 months, so that's why I sort of put a bit of pressure to see the child because the whole of last year we did not see him…. Did you get a questionnaire in the post?*
> *Mum: No. no questionnaire.*
>
> 01_19_07_2019_VD_client1

Consequently, during the consultation, the mother was observed looking at the screen of her mobile phone and thereby appeared to disengage. Although she responded to the questions posed by health visitor (1), she did not engage in free flowing conversation and tended to give responses comprising a few words rather than sentences. While the use of more formal processes was described by health visitors, during the 'Think Aloud' event, as a way to create certainty by controlling the situation and securing the collection of information, as the mothers were unlikely to provide the level of information required to inform the decision-making process, it tended to lead to more uncertainty than certainty. For example, in the following extract although health visitor (1) described the need to be firm and consistent when sharing her information with the mother, the mother continued to disagree and thereby provided limited information in response,

> *So, I was trying to find a way to express my concern with mum, … mum is a bit defensive, … so I have to be firm and factual – 'I have not heard' the child respond to… so I have to be very specific, trying not to be judgemental*
>
> 01_01_11_2019_TAI_client1

In contrast, when health visitor (9) appeared to use informality, to simultaneously collect information about a range of issues relating to the impact of the child on family life, she was

able to create an understanding of the child's family environment by linking socially orientated information with the things she observed and heard during the consultation. For example, although the focus of the consultation was to observe the child's walking ability, health visitor (9) also asked about the child's bedtime because as noted in the 'Think Aloud' event, she could see that the child was very active and engaging and assumed it would be tiring and all-encompassing for the mother.

> *Seeing how active xx (the child's name) is, mum probably doesn't have time in the day to do the things she'd want to do. ……. so, it's all done at night then when dad's back and she can slip away.*
>
> 09_03_01_2020_TAI_client1

By asking the questions in an informal, matter of fact way, health visitor (9) appeared to encourage the mother to give additional more contextual type information. This meant that not only did health visitor (9) collect information about the child's bedtime, but the mother also explained that she had created a routine to manage the situation, for example,

> *HV: ……. what time does she go to bed?*
> *Mum: Between 7 and 7.30pm. We really try to aim for 7, she starts the bedtime routine about 5.30……*
> *HV: That gives you more time, to get on with family life.*
> *Mum: Yes*
> *HV: That's very, good for you*
>
> 09_03_01_2020_VD_client1

Although health visitor (9) expected the childcare to be challenging, the response to her question about 'bedtime' appears to have also provided the information needed to inform a decision about the mother's coping capacity, and the strength of the parents' relationship. Using an informal process, therefore, health visitor (9) collected a range of socially and medically related information (i.e., about physical health and general wellbeing).

Yes, I was looking at the fact you know, because she's a couple, having that time, if they've put the children to bed in good time, then there's always that space … for parents to really interact and… they don't have that time and their relationship begins to be affected. Because you've not organised that part of your life and everything is on the baby, so she seems to have got it right … putting baby down at 7 or 7.30 then they have got … 3 or 4 hours afterwards to talk and have time together.

09_03_01_2020_TAI_client1

Health visitor (9) also used the information provided by the mother to gain a sense of her parenting capacity, for example,

Mum spoke of her ignoring when she (the child) was rejecting the food, spitting it out, she said, I just ignored her and that is important because some mums would make such a fuss about it, you'd need a referral to dietician.

09_03_01_2020_TAI_client1

The range of information provided by mothers when health visitors used informal strategies to interact was also seen to increase when the health visitors' behaviour favoured listening and observing rather than talking. In response, the mothers tended to talk in a way that appeared to be unguarded. For example, in the following extract the mother's information appears to flow freely and address a range of issues, somewhat unrelated to the consultation,

Mum: She loved the (Christmas) cards, more than the paper. It was the cards that were far more interesting. We have got so many pictures of her upside down looking at the cards.

HV: And the shiny pictures. Ah hello (child), just look. She's (the child) coming for her book …… (HV laughs) …She's got a thing about her book, not going to let me have it for too long, so we'll move on then.

09_03_01_2020_VD_client1

Using client-specific information in this way at the beginning of the consultation provided a preamble to the conversation. This made it feel like the health visitor was 'breaking the ice' and creating an informal relaxed atmosphere. The health visitors tended to do this intentionally using laughter, jollity, and colloquial language. For example, during the 'Think Aloud' event, health visitor (9) described how she remembered the child's fascination with the 'red book' (Personal child health record), and how she used it to engage the child at the start of the consultation. To the observer, this made the start of the consultation feel somewhat light-hearted,

> *So, she (the child) was coming for her book, and I knew from the previous visit that she's got this thing about her red book.*

09_03_01_2020_TAI_client1

In contrast, during consultations where a more formal process was adopted, the mothers began by describing the problem and associated this with their reasons for attending the clinic. There was no preamble or informal, chatty style enquiry. When this happened, the health visitors responded to the mother's request, but tended not to interact in ways that could broaden their search for information. For example, in the following extract, health visitor (10) responded to the mother's request to review the child's development assessment using the ASQ. In so doing she asked the questions verbatim and calculated the revised score but did not explore additional issues,

> *HV: So, the areas … to review again were … gross motor, fine motor and personal and social*
>
> *Mum: Yes, I thought it was just gross motor,*
>
> *HV: So, the gross motor … was in the grey area and the others were in the grey area so that means just to provide some activities to help the child to reach that skill, but the gross motor was the one that was concern. So, we'll do the review and the ones that*

were in the grey, yes is that alright? … (health visitor smiles), … so we will go through the questions, the gross motor – (health visitor reads the questions verbatim from the ASQ and the mother answers) … and is he standing in the middle of the room without support?

Mum: … nods her head indicating no

HV: Not yet?

Mum: Oh. No, he will do that, he won't walk yet.

HV: He is not taking any steps forward.

Mum: But if he's got two toys, he doesn't bother holding on

HV: Ok, so he's not taking steps forward yet. But he's taking steps whilst supporting himself?

Mum: he likes dancing.

HV: Oh, so he will do a dance while standing (health visitor and mum laugh).

10_08_01_2020_VD_client6

Irrespective of the chosen process, the health visitors demonstrated that they were persistent and decisive in their decision-making activity. In addition, they tended to carefully plan their behaviours and strategies so they could pay attention to details which may be subtle and not easy to see. In this way the health visitors were also intentional and purposeful during their decision-making activity. This was illustrated by health visitor (11) during the 'Think Aloud' event. Here, health visitor (11) described the way she intentionally started the consultation from the mother's perspective rather than her own. In addition, during this consultation, health visitor (11) also appeared not to rush, but allowed the mother to talk, for example,

I always start with, 'what is your problem?' ……., other than my agenda, my agenda, is, we have another one (child) coming (for a consultation).

11_13_01_2020_TAI_client2

The intention not to rush her activities or that of the mother, was again something described as important by health visitor (9). By also adopting an informal process, she explained the behaviours and strategies selected. Using her experience, health visitor (9) described the steps she took to encourage the mother to talk freely during the consultation and how this permitted the collection of the information she needed to make a decision about the child's health and wellbeing, for example,

> *You know even though we were just reviewing the weight and head circumference, I could have made that a very quick consultation and out through the door, … but I needed to find out about her (the child) dietary intake and mum said it naturally just because I asked if there were any concerns and that's often what will get the parents talking… that's just how I've worked over the years, and I don't rush because I find that's where the mums feel, she's not got enough time for me. So, I try to make sure that the atmosphere is relaxed and give them the opportunity to just talk.*

09_03_01_2020_TAI_client1

Although the health visitors in the study explained how they used their knowledge and experience to collect information (i.e., child development and parenting capacity), they also demonstrated behaviours that enabled them to manage the situation and conditions within the environment. When the health visitors described these behaviours during the 'Think Aloud' events they tended to outline how they purposefully made conscious decisions about the actions taken and the way these actions helped them to achieve specific outcomes. For example, health visitor (1) described how rather than engaging with the child as soon as they entered the consultation room she would behave in a way that to the observer looked like she was using the computer. This illustrated how during the decision-making processes health visitors tended to undertake several activities at the same time. For example, health visitor (1) described how she simultaneously searched for different sources of information about the child at the same time as observing the way they engaged in self-directed play,

OK, what I am trying to do now is to bring the details of the child in the computer… I am checking the red book trying to get previous information… to enable me to do my assessments.

01_01_11_2019_TAI_client1

While the health visitors that adopted a more formal process were still intentional and purposeful in their actions, the behaviours used to form a connection with the mother and child tended to be less visible to the observer. In explanation, this was because rather than describing the intentions in relation to how they managed their personal behaviour, these health visitors tended to focus on the way they addressed the purpose of the consultation. In explanation, while at the start of the consultation health visitor (1) looked like she was focused only on reading the child's electronic health record, during the 'Think Aloud' event she explained her intention with this behaviour was to prepare the physical environment for the child development assessment. Using her experience, health visitor (1) outlined the value of allowing the child time to settle and explore their environment. By focusing on the electronic health record rather than ignoring the child at the beginning of the consultation, health visitor (1) was thereby purposeful in her intention to create an opportunity to watch from afar. In so doing, she was able to observe the child's natural behaviours and activities and thereby collect information about their development, for example,

… at the same time allowing the child to settle in the environment. So, the child is busy playing which is what I want. So, from time to time I am turning around to see what the child is doing.

01_01_11_2019_TAI_client1

5.3.2 Health visitors understand and adapt to environmental stimuli during the decision-making process

As indicated earlier in the chapter, health visitors tended to make decisions about a course of action or a situation. While a course of action was easier to recognise, both types of

decision-making process required the health visitors to engage behaviours and strategies to enable them to understand the available information. Although health visitors in the study were more likely to use a decision-making tool like the Ages and Stages Questionnaire (ASQ) when choosing a course of action, the process adopted when making situation-related decisions was much less formulaic and thereby difficult to see and explain.

Ethnographic observations during the study illustrate how health visitors were likely to simultaneously align, collect and collate information during decision-making processes. However, during the 'Think Aloud' events they tended not to explain these concepts as individual behaviours or strategies, instead they described their perceptions of situations in terms of a 'feeling' when information was lacking, and when they did not have a sense of the whole picture or situation. They also described a sense of hearing 'alarm bells ringing' in situations where they were alerted to information that caused them to be concerned. In situations like these, the health visitors tended to use vague sounding language like, 'I just feel'.

- **The principle of parallel concepts and health visitors' decision-making processes**

Where health visitors' processes sought to understand the situation and context they simultaneously aligned, collected and collated related information. In so doing they tended to explain what the information meant or could mean. This decision-making process recognised through the principle of parallel concepts in the social judgement theory framework, helps to explain how health visitors employ behaviours and strategies during their decision-making activity, that enable them to understand the situation and the presenting issues.

These types of behaviours and strategies were observed in consultations when the mothers shared large volumes of information but released individual elements at different stages, making it somewhat disparate. The health visitors described situations where information

was shared in stages like this, as challenging because the staged release meant that it was difficult to follow and understand. For example, in her consultation, although the mother seemed to ask health visitor (10) for help, she also refused the help offered. While subtle and not explicit, when this happened in situations where information was also disparate, the health visitors tended to look for similarities and align related pieces. While alignment could be considered for both mother and child, the health visitors in the study tended to consider information relating to the child first and the mother second once they were assured of the child's wellbeing. For example, during the following consultation with a mother, who was anxious and upset because she was experiencing problems breastfeeding and was concerned about her use of formula, the mother shared several elements of disparate information, but very little detail with health visitor (10),

> *Mum: …, I have a couple of questions about feeding for starters. I am breastfeeding but I'm finding it quite difficult, so I am formula feeding as well to top up. But I am not even sure how much now to do because I've kind of stuck with the same amount, but I think I probably shouldn't be if she is getting bigger, but um to be at the correct weight, she is in the middle, average but I've stuck with the same formula, so does that mean she is just getting more from me?*
>
> 10_08_01_2020_VD_client7

Despite asking supplementary questions, the mother continued to give convoluted responses and health visitor (10), during the 'Think Aloud' event described how with such limited information, she found it difficult understand and identify the source of the problem. While unsure of the cause, health visitor (10) continued to align the available information forming possible relationships, for example,

> *… I wasn't really sure whether the child has some wind or whether she is full, and she wants to come off, but mum is still offering the breast, that wasn't very clear to me.*
>
> 10_08_01_2020_TAI_client7

Health visitor (10) was therefore aware of the uncertainty, and during the ethnographic observation appeared to deal with it by trying to align somewhat disparate but related pieces of information to identify possible rather than actual causes of the problem. In so doing, during this situation-related decision-making process she used her expectations, knowledge and understanding to align and make sense of the information. This meant that she could distinguish between a situation that was reasonable and one which was a problem, as illustrated during the 'Think Aloud' event,

> *Because the child's weight was coming up nicely so her concern to me wasn't more of the weight but reassurance for her …, that is what I was thinking at this point, because the weight was coming up nicely… usually it is about being a bit patient when it comes to breastfeeding it comes with time and not everyone has a baby that just goes on (to the breast), but it seems she's quite anxious … in herself.*
>
> 10_08_01_2020_TAI_client7

Although she outlined her impressions in terms of the feelings evoked by the information, to get to this point health visitor (10) completed a series of precise and thorough observations to align information and understand the root of the problem. This meant that in addition to considering information collected via verbal communication, during her decision-making process health visitor (10) took time to recognise fine details of the mother's non-verbal communication and behaviour, for example,

> *She seems quite, you know, very anxious, not patient to… Because she, she mentioned that, you know, she did say herself that I'm not patient with the breastfeeding and I just want to know that she is getting enough… , how she's expressing herself …, she's spoken to everybody, it doesn't seem like she's got confidence in herself that you know, I'm the mother, baby's putting on weight… the way she is talking, her facial expression, you know she seems quite low in herself… she did mention that it is only in the last week that she's gone out to see people so I'm thinking the first four weeks she's only been by herself at home.*
>
> 10_08_01_2020_TAI_client7

In consultations where the health visitors sought to gain greater clarity about issues related to the child's development or the mother's childcare capacity, they tended to put provisions in place based on inferences or assumptions they had made about the situation. They tended to describe this as a process that enabled them to prepare for events which could limit the clarity of information available during the consultations. For example, in preparation for the consultation, health visitor (1) decided to have a spare ASQ available. This was because of the perceptions she developed by aligning the available information about the mother's age, her failure to use the health visiting services and inability to bring the children to the clinic. During the 'Think Aloud' event, health visitor (1) described the way in addition to this information, she also aligned her personal experience, and this influenced the assumptions she made during her decision-making process. Here, health visitor (1) appeared to have used her view of teenage mothers in general, to inform her decision-making process about the mother she had invited to the consultation,

> *It's always good to have a spare one. Personal experience you know these teenage mothers sometimes they are in their own world so I thought she might never even come with the questionnaire; she might not even turn up (to the appointment).*
>
> 01_19_07_2019_TAI_client1

The vague, somewhat unclear responses from the mother during the consultation, meant that rather than using explicit, instruction style communication, health visitor (1) tended to suggest actions for her to complete. For example, although health visitor (1) wanted the mother to complete the ASQ, she appeared to allow her to choose how this would be done,

> *HV: I've got a spare one here only it's going to take a bit of time to complete it, usually we send it out so that eh, so we call this ages and stages questionnaire, I just get a spare one. Would you like to go through it yourself or you want us to do it together?*
>
> *Mum: eh*
>
> *HV: because you should have completed it before coming.*

Mum: Ok

01_19_07_2019_VD_client1

This was illustrated by the health visitors during the study in the way they sought information as well as how they aligned it to identify what it meant. Although, during the observations the health visitors tended to group related information during their decision-making processes, when describing their actions during the 'Think Aloud' events, they tended not to describe how they did it. Despite this, the health visitors tended to describe the impact of such alignments on the decisions they made. The process of aligning disparate information appeared to enable the health visitors to describe its meaning with differing levels of certainty.

In addition, although the health visitors could describe their observations in detail, they tended to outline what they saw but not how they adapted their behaviours to enable them to see the things. Although intentionally alert, they tended not to describe how they were consciously looking for specific information, but instead explained how they used it. For example, when health visitor (11) compared the communication skills of two mothers seen during consecutive consultations, she decided to give more time to one mother so she could explain the information in greater detail,

The English mums allow me to put it clearly in one sentence, so I had to be overly explicit… I felt I had to break it down all the time for this mum, in comparison with the previous mum where I felt her knowledge, pretty much and her language was a different level, so I had to adjust my advice with this one to a more basic…

11_13_01_2020_TAI_client2

By listening to the way the mother (client2) shared information and the content she shared, health visitor (11) was able to identify that she had limited spoken English. In addition, she

recognised that this mother appeared to have difficulty understanding the information shared and its impact on the child.

Furthermore, during the study, rather than talking about the information sequentially, at the beginning of the consultation the health visitors tended to group topics together and talk about them in a general conversational way. This appeared to enable them to recognise any priority actions that they should address first. Again, health visitor (11) simultaneously held a conversation with the mother while weighing the child, for example,

HV: So, let's, … weigh you (health visitor talks to mum via the child). How are we doing with the weight? How are we doing with feeding?

Mum: She feeds well

HV: She is eating alright.

Mum: Yes

HV: And how we doing in terms of moving about, how is she with that? Is she very active, is she running around? As in crawling or…

Mum: Crawling

HV: She's crawling? And is she pulling herself to stand up?

Mum: Yes, she's fine, the furniture, she stand up by the sofa

HV: (baby on scales) Woh, so you're a big girl!

Mum: She born ten month early (mum laughs)

HV: She was born 10 weeks early.

Mum: Yes

HV: Ooh, interesting and how was the pregnancy? (health visitor is talking to mum during the weighing of the baby)

11_13_01_2020_VD_client2

By so doing, certain topics triggered information that she described as 'raising bells' and alerting her of the need to discuss some issues in more detail, for example,

> *So, this is where I found out she was premature (by asking, so how was the pregnancy?). So suddenly my bells went up, I remember in my head, … what do I need to know now. What do I need to ask, is she on track with things, two weeks she was ventilated. I mean to me she didn't look like a prem at all, and eleven weeks is quite a significant time, … So, eleven weeks early, that is, … 29 weeks, yes, it is about 29 weeks, not too bad, … mum said there's no concerns, and yet she's giving her celeriac at night, to me that was a concern.*
>
> 11_13_01_2020_TAI_client2

The curvilinear nature of these decision-making processes adopted by the health visitors is also seen in the intentional way they aligned information by simultaneously recognising relationships between individual pieces. In this way, the health visitors appeared to demonstrate strategies that they used to simultaneously attribute meaning to the information. For example, although health visitor (13) recognised that the mother was showing signs of anxiety, she aligned information which assured her that the mother had developed systems for dealing with it. Health visitor (13) could thereby assure herself that all was well,

> *I think the mother is a bit anxious because, the way that she was talking a lot, sort of around in circles … and does seem to be quite worried. I think maybe she is quite isolated and so she is not able to talk to many people about what's going on.*
>
> 13_31_01_2020_TAI_client1

By aligning information from her observation, the mental health assessment tool and the family situation, health visitor (13) decided the mother was managing the anxiety and the transition to parenthood appropriately and did not require further intervention,

Mum: His dad is very excited to find out how much he weighs.

HV: Has he gone back to work now?

Mum: Yes

HV: And how are you doing now that he's gone back to work?

Mum: Alright, like it's ok, … it's weird not having an adult to talk to in the day… so now that he's a little bit bigger I'm going to start going to the sure start centres and take him to the sensory play and stuff, …

HV: Oh, that will be great, and you'll be able to see other parents.

Mum: Other adults.

13_31_01_2020_VD_client1

HV: He (the partner) sounds nice and supportive.

Mum: Oh no, he's great

HV: Have you got anyone else around?

Mum: My mum but she's in XX (name of country), that's the problem, not having a support network down here, …

HV: Yes, and you might find going out to the groups will help. So, you are still managing to do some of your interests?

Mum: I cannot wait to get back to the gym. I am counting the days … because not going to the gym is stressing me out because I go to the gym for my mental health as much as my physical health, and I think that's the thing as well, not having that time off, …

HV: That's going to make you feel a lot more relaxed isn't it, yes definitely, and how's your appetite?

13_31_01_2020_VD_client1

I think she's fine, … she only scored one on the GAD2… Yes, I think that the fact that she is connecting back into her exercise soon, is going to help in getting into some groups.

13_31_01_2020_TAI_client1

Again by aligning related information, the health visitors could recognise any similarities or co-dependencies between the different parts. For example, by hearing about the mother's lack of adult companionship during the day, health visitor (13) explored opportunities to encourage her to describe the actions she was taking to resolve the problem.

In other situations, the health visitors prepared the consulting room to enable the collection and alignment of information from the environment as well as the mother. For example, health visitor (4) undertook an ASQ focused consultation by appointment with a mother who brought the completed questionnaire as requested. This meant that at the start of the consultation, health visitor (4) had written information about the mother's perspective on the things the child could do. Although the consultation focused primarily on the content of the completed questionnaire, health visitor (4) had prepared the room with a play mat and age appropriate toys. During the consultation, health visitor (4) simultaneously observed the child and talked to the mother. This meant that she continued to add information as it emerged. In so doing, she used the ASQ as one, but not the only, source of information during the decision-making process. In this situation therefore, the health visitor's preparation was not merely for the consultation topic but also to create an environment for related information to emerge naturally and organically.

In explanation, when she saw the child acting in a way that illustrated an aspect of development, health visitor (4) acknowledged it, complemented the mother, and praised the child, by making statements like *'you are doing so well'.* These aspects appeared to add to the feelings of informality and friendliness and thereby encourage the mother to continue talking and sharing information about her child's development. In this way health visitor (4)

could see how the mother and child interacted and behaved in each other's company, many aspects of which were subtle and may not have otherwise been visible, for example,

HV: ….and it's good that I've also got the mat here so some of the things I'm asking you... I can also see her doing it, which is really good……

HV: That's good…… So, we are doing really well XX (health visitor talks to the child referring to her by name)…

HV: (health visitor gives a brick to the child and says to mum), if you give her a small toy is, she able to put it down without dropping it? … So, (child) passes the toy backwards and forwards. I think we've seen her do that already and you have marked it as ten. She is able to transfer.

Mum: Yes.

HV: Pick up a small toy and transfer it, yes, we have seen her do this already. You are doing it right now, aren't you (health visitor and mum look at the baby together and both talk to her), health visitor laughs)

Mum: (Mum laughs), she knows the questions.

HV: I was wondering that these bricks might be too big for her. But she's following it very well, so that's good, that's good (health visitor laughs) …. When holding a small toy in her hands does your baby bang them together, we've just seen that already, star pupil! (health visitor laughs). Can she pick up raisins from her hand? Have you tried that?

04_18_10_2019_VD_client1

The health visitors also demonstrated how they used information from their experience and the expectations they had about similar aged children and aligned this to the child they were seeing during the consultation. This appeared to help health visitor (8) decide the severity of the problem. For example, she collected information about the mother's concerns for the child's social, emotional, and physical development and related this to the expectations she had of similar aged children,

HV: So, is she just drinking milk and toast? … Nothing like MacDonald's, she won't eat it.

Mum: No, she doesn't even touch MacDonald's, she doesn't touch Pizza. She doesn't eat anything, it's so frustrating, … I take the kids (siblings) to Burger King, she'll sit there and won't eat nothing.

08_30_12_2019_VD_client1

During the 'Think Aloud' event health visitor (8) outlined how she considered the child's development in terms of her ability to eat the common types of take away foods that she considered children of a similar age would like to eat, for example,

…, not even MacDonald's, you know most children, they like MacDonald's but she won't even eat MacDonalds. She won't pick from the parent's plate... She's on the 50th centile (for weight). Yes, which is quite average. I am just making sure she is having the right milk.

08_30_12_2019_TAI_client1

Furthermore, health visitor (8) also demonstrated how knowing that the mother was caring for the five children alone, she carefully selected her words to enquire about the level of practical help the mother was receiving from family and friends, for example,

HV: How was your (Christmas) holiday?

Mum: Yes, it was alright, hectic,

HV: Busy?

Mum: Very

HV: Lots of gifts and everything?

Mum: Too much, still trying to sort out where to put it all…

HV: did they (children) go to the grandmother for Christmas?

Mum: I went to my mums on Boxing Day.

08_30_12_2019_VD_client1

Rather than asking a direct question, as described during the 'Think Aloud' event, health visitor (8) consciously used alternative but related issues by asking the mother about Christmas presents and visits to family members over the holiday period, for example,

I think I am just asking her about, yes, so just looking at support for the Christmas holidays, if they were in contact with the dad, especially on the dad's side you know see there's support and there are gifts for her, even though she and the father doesn't get along, just looking to what support they give her, which is non-existent.

08_30_12_2019_TAI_client1

By acting in these ways, the health visitors were able to manage large volumes of information, even when the content appeared somewhat disparate, and make well-considered decisions about the health and wellbeing of children and their mothers. While they did not know the problem or the cause, the assumptions and inferences they made were not the result of guesswork or impulse, but careful, precise alignment of the information.

- **The zone of ambiguity and health visitors' decision-making processes**

During the study, health visitors explained the behaviours and strategies they employed in their decision-making processes to successfully deal with ambiguous situations where the information was somewhat vague, difficult to manage and understand. This was particularly seen during consultations in the so called, 'drop-in' clinics. Here, reliant on the mother's account of their reason for attending, the health visitors did not always have complete clarity of the issues. This tended to happen when mothers provided limited information or where the outcome they wanted to achieve was not in line with the health visitor's

aspirations, contemporary research or national policy. To accommodate this lack of clarity, the health visitors again tended to interact with the mothers using informal approaches which permitted in-depth rather than superficial consideration of the issues. In so doing, the health visitors talked about things unrelated to the consultation topic, like the weather and holidays and laughed with the mothers. This informal approach again tended to make the atmosphere feel relaxed and meant that the information collection processes could begin early in consultation. Here, the level of informality appeared to further encourage information sharing even if initially it was limited. For example, in preparation for the consultations health visitor (5) collected the mothers and children from the waiting area and walked with them to the room. In so doing, health visitor (5) extended the use of informality beyond the consulting room, because while walking and talking with the mothers she engaged them in a 'chit-chat', day to day style of conversation. This meant that, once in the consulting room, she could immediately engage the mother in a somewhat light-hearted, jovial style conversation. In the following extract, while the mother initially said her intention was merely to say 'Hello', the light-hearted style of conversation used by health visitor (5) appeared to encourage her to share more information relating to the worries she had about the child's weight. In this way health visitor (5) considered a range of information about possible or potential issues and honed it down to identify the actual problem, for example,

HV: How can I help you today?

Mum: So just a general, HELLO, I don't have any questions really.

HV: Hello!

Mum: I just wondered if his weight was ok. He started on 50th and now he is on the 75th so I don't know if I should be worried about that or not?

HV: Um, um (health visitor turns and looks directly at the mother and nods her head while listening to her) … Do you want to be worried (both the mother and health visitor laugh)

Mum: I worry about everything.

05_22_10_2019_VD_client2

To the observer this sounded very much like an informal greeting from health visitor (5) and the mother appeared to engage very quickly in a two-way conversation. By using an informal chatty, free flowing style of conversation early in the consultation, health visitor (5) appeared to use pleasantries, open, closed, and probing style questions to collect information about a range of issues. During the 'Think Aloud' event, health visitor (5) described how using this process enabled her to clarify the issues and identify possible problem areas on which to focus her attention during the consultation, for example,

> *He's (the child) looking at mum, but I am looking at mum, so he looks away. I need to look at her to hold her attention… She handles him well; … I am giving her confirmation… See how he looks at me, and then looks away sometimes, he really wants me to interact, but I am not doing it. I want to see him interact with his mummy… There's a person behind that baby.*
>
> 05_22_10_2019_TAI_client2

Although the mother reported her concerns related to the child's weight, health visitor (5) rather than considering the information superficially also described using strategies which enabled her to look beyond the issues that were explicit and easy to see. In so doing, by collecting non-verbal as well as verbal information health visitor (5) could further clarify the issues and recognise possible problems with maternal-child interaction and maternal anxiety.

While the ability to interact using informal styles of verbal and non-verbal communication tended to help the health visitors achieve greater clarity in some ambiguous situations, in others, for example, when professional boundaries became blurred, it could also create circumstances in which they felt high levels of anxiety. This tended to happen when the health visitors could not predict or anticipate the mother's response to the informality. When facing these types of situations, the health visitors in the study demonstrated how

they responded by adapting the level of informality used in their behaviour. For example, during the 'Think Aloud' event, health visitor (7) explained how she felt anxious because she sensed that by using an informal style of communication, the mother was trying to encourage her to give advice that was not in line with current evidence,

> *So , this one, …, she's breastfeeding well but his (the child) weight wasn't that brilliant and she said to me, it's your call, so you know I felt a bit, I felt quite intimidated by this one actually, I could feel myself going red at one stage because I thought she was kind of staring at me and kind of saying well it's your call you know, should I start solids, at four months, or do I carry on as it is and I felt a bit intimidated I think, a little bit.*
>
> 07_07_01_2020_TAI_client6

In this situation, while health visitor (7) continued to use informal styles of behaviour, she sought to increase clarity and thereby reduce ambiguity by responding using more formal language and terminology similar to that included in national policy, and research documents relating to the importance of avoiding the early introduction of a solids-based diet in children under the age of six months.

In another example, during the study, ambiguity happened when familiarity associated with having known the mother for several years blurred professional boundaries. In these situations, the health visitors described the emotional burden associated with a sense of responsibility for the wellbeing of the mother as well as the child. For example, during the 'Think Aloud' event, health visitor (7) described a situation where she felt anxious because, having known the mother for several years, she noticed a marked change in her physical appearance,

> *I was quite worried about mum because I thought she was really skinny and when I saw her next door, I thought the legs were really skinny, ... I was a bit worried that she was anorexic … I don't remember her that thin before and I've known her, this is her second child and I've known her since the first …* ***I*** *was worried, I was worried when I saw her.*

07_07_01_2020_TAI_client3

While social interaction using informality in this way could help the health visitors to manage ambiguity by facilitating engagement and information sharing, during the study, the zone of ambiguity within the social judgement theory framework can also help to illustrate how health visitors carefully and skilfully use a range of behaviours and strategies to manage the mother's behaviour during decision-making processes, especially when this is something they cannot predict or anticipate.

5.3.3 Health visitors select information to inform the decision-making process

During the ethnographic observations, health visitors were seen to be using different types of information during the consultations. This largely related to the information available, however, the health visitors were also seen to use alternative terminology or topics of conversations that they assumed would be more pleasing for the mother or appropriate for the situation. Despite being different, the selected information still contributed to the decision-making process. This feature is recognised in the social judgement theory framework, through the principle of vicarious functioning.

- **The principle of vicarious functioning and health visitors' decision-making processes**

During consultations where the information came from several sources, and some was more accurate than others, the health visitors used different terms to establish a clearer understanding of the situation. For example, they accessed information from the paper, and electronic health records, and the mother's verbal accounts. Although information within the health records was likely to be presented chronologically, this was not always the case with the verbal accounts from the mother. This meant that the health visitors had to revisit topics as new information emerged. They also had to manage extra challenges when English was an additional language and variations in health literacy meant that the mothers did not

understand the terms and thereby were unlikely to share the health visitors' sense of urgency. For example, within the opening minutes of the consultation, the mother requested help from health visitor (11) because the child had a lesion on her face that although requiring medical attention, the mother had not accessed the GP services. Furthermore, while the mother initially reported that all was well, she later explained that the child had been born prematurely. Although the focus of the appointment was the development assessment, as health visitor (11) explained during the 'Think Aloud' event, within a few minutes, it became one of several foci, for example,

> *That was actually quite scary, it was actually oozing…, that took me by surprise, … I keep looking at it (the skin lesion on the baby's face) thinking is it something else that I am not seeing*, obviously when I look on the baby's skin, there was no other patches, but I wasn't sure.
>
> 11_13_01_2020_TAI_client2

Although both speaking the same language, health visitor (11) during the 'Think Aloud' event explained how uncertain she was that the mother shared her understanding of the words used to explain the situation, for example,

> *So, I think I was trying to raise the mum's awareness …, because I don't think that she understood that a broken skin can actually cause further infection, … so I think, advising her to go to the GP it was for me a priority and I want to get that message that it is urgent. It's not like, oh, I go next week, it needs to happen today or tomorrow, … I stressed that a million times (the need to go to the GP ASAP), and I wrote it down because I know a mum of five (children), … I was thinking so, what other priorities may she have, cooking dinner and doing this and shopping, … so I wanted to stress, you need to go … (to the GP) and I actually watched her. I actually wanted to see where she was going, she did go up, (to the GP surgery) she went to the lift (laughs), I haven't followed her, but yes, she was almost there (laughs).*
>
> 11_13_01_2020_TAI_client2

Health visitor (11) also explained the additional challenges associated with the child's prematurity. For example, during the consultation, health visitor (11) needed to align two assessment scales and thereby selected information from each during the decision-making process. The choice related to the way the information helped health visitor (11) build a more accurate picture of the child's development. Both scales provided information about children's development, however, health visitor (11) chose the information that was better suited to the child, for example,

> *… the ASQ not being matched with the baby's age…, that should have been adjusted to the baby's age, so because she was eleven weeks early, … I felt bad for my department here in a way, because I think we gave the wrong form … I wanted to reinforce to say there's nothing wrong with the baby, the baby's probably behaving alright for the 10 month, so that's when I took the 10 month out (adjusted for prematurity) and I started to circle the areas that* scoring.
>
> 11_13_01_2020_TAI_client2

This meant that in addition to recognised terminology, health visitor (11) also used different words and phrases to enable her to get a more accurate picture of the situation.

In terms of choosing information to select and that which to discard, the health visitors in the study could describe a point at which having gained assurance of the child's wellbeing, they acknowledged that they could not resolve all the problems or issues presented by the mother. In these situations the decision-making processes employed allowed them to involve other professionals and use different interventions to collect information that although necessary was currently unavailable. For example, acknowledging the mother's unwillingness to accept her help and having gained assurance of the child's wellbeing, by aligning weight gain with appropriate feeding, health visitor (10) selected information from her detailed observations of the mother's actions and behaviours and decided to refer to another health visitor and that a home visit was required.

Mum: I've spoken to like a zillion different people so I can't be bothered to talk about it again it's just a waste of time, …

HV: is it time for feeding now? Do you want to show me how she goes on (attaches to the breast)

Mum: I have to say, I feel like I have shown that to God knows how many people I just think that

10_08_01_2020_VD_client7

Because … the weight is fine, so I know baby is getting some milk, however, mum still seems to think this needs to happen and it has to happen really quick and I need to get this done and I need to get this done, what is going on for mum that, she's not even feeling that baby is doing well, … she's just looking on the other side, saying I want to wean her off the formula, why can't I do it, so it could be another thing going on for mum herself that actually needs the health visitor to follow her up, it might not be just one visit, you might have to do another contact before you might, you know see what is going on… I just felt that she needed a follow-up home visit because there was a lot more to explore really because sometimes in clinic …, you cannot do everything, … so she might need some follow up on, you know assess her mental health, maternal mood, and all that.

10_08_01_2020_TAI_client7

By aligning and considering the information holistically, the health visitors during the study showed how they were able to understand the issues. By also incorporating informality into their consultations the health visitors appeared to present the issues in a more positive way than when formality was used. As illustrated in the following extract, by adopting an informal process health visitor (4) made the venture sound collaborative by selecting the positive rather than information about the things the child could not do, for example,

HV: This is normal he just needs more exposure, the good thing is you can give him more exposure, he's done really good on that … we have to give him the opportunity to do it… and explore …, so that is really important that we let him to do. So, let's give him more practice, yes?

HV: Does he pick up a piece of string, have you tried him with that?

Mum: Yes, I have, to be honest I think I put no, sometimes he does. And he is getting better and better at it, but it's not good.

HV: Ok, shall we say sometimes or not at all?

Mum: Sometimes.

04_18_10_2019_VD_client2

In this way health visitor (4) used different terms to address the issues about the child's development and rather than providing instructions she phrased the information using the positive issues selected and presented it in a way that sounded like general achievable actions for the mother to do.

While this approach appeared to facilitate the collection of information needed to inform the health visitors' decision-making processes, it also enabled them to retain the advisory, engaging persona, typical of the role. For example, although health visitor (4) recognised development was not age appropriate, she also acknowledged that the cause of the delay could be related to social rather than medical factors. This meant that referral to another service may be only one of several possible solutions. For example, although health visitor (4) observed the cues from the completed questionnaire, which indicated that the child's development was not age-appropriate, she also appeared to select information from her observations of the child's behaviour alongside that of the mother and adapted her enquiry accordingly. Rather than repeating the questions verbatim from the ASQ, her enquiry was informed by identifying the positive aspects of the mother's actions and she used colloquial, non-technical language to discuss the things she observed and heard. In this way health

visitor (4) selected information that enabled her to continue sounding informal and friendly, and rather than presenting her decisions as formal, distant, instructions, she made them sound more like suggestions, for example,

HV: So, this bit, they are both zero … Ok, does he have opportunity at home to be on the floor like this?

Mum: Yes, that's all he does.

HV: Yes, so you give him that time?

04_18_10_2019_VD_client2

Furthermore, in the behaviours and strategies that followed, health visitor (4) appeared to search for more information by asking similar questions in slightly different ways, for example,

HV: Do you take him to any groups?

Mum: To be honest I just don't. She (the older child) goes to nursery three mornings a week, and so all of it is kind of around her rather than him eh.

HV: OK, (health visitor nods)

Mum: I go to see some friends as well but more of the children are around her (older child) age. We do go to the park and things but a lot of it is around her needs.

HV: Ah, so you do things, you are taking him out he is getting that fresh air, but the groups will be good, he is around children of his age… it will be nice but otherwise is he quite sociable?

Mum: Yes, he is.

04_18_10_2019_VD_client2

In so doing, rather than searching for information about what the child could not do, health visitor (4) selected that which informed her about the things he could do. In this way the

decision-making process adopted by health visitor (4) meant that she acted in ways to promote the things the mother could do to facilitate the child's development.

During the study the health visitors tended to illustrate these skills in situations where the information was imperfect because it was not available at the same time. In addition, health visitors also had to use alternative terms when the mothers' use of English language and their health literacy were both somewhat limited. In other situations, health visitors replaced information with that which could demonstrate the same point but meant more to the mothers. For example, during the consultation, health visitor (4) was assessing the child's fine motor skills and used different terminology to that presented within the ASQ to get a more accurate indication of the child's development.

HV: Ok, does he pick up a piece of bread with thumb and finger?

Mum: No, he doesn't do that

HV: I know it may be messy but …,

Mum: I prefer raisins, I think raisins will be cleaner.

04_18_10_2019_VD_client2

Although, the mother's initial response suggested that the child may not be able to demonstrate the skill, by using different terminology, health visitor (4) established that rather being unable to pick up the bread, the child was not being provided with opportunities to do so. By considering that the concern may be related to the mother's desire to reduce the mess in the home, health visitor (4) selected a different question i.e., by asking about raisins and not bread, and established that the mother was offering some opportunities for the child to practice the skills. In so doing, health visitor (4) could focus on ways in which the mother could further develop his skills, for example,

HV: OK… So, … raisins … So, practice, practice, at this stage you need to be getting them to be doing more, more.

Mum: One of the problems is, I'm not letting him pick up his food.

HV: Why (laughter/ smile)

Mum: (Mum laughs/ smiles and raises her arms) because it goes everywhere. ….. I spend my time cleaning floors.

HV: I know, I know how you feel but what can we do, we have to give him the opportunity to do it. And explore … that is *really important … So, let's give him more practice, yes?*

04_18_10_2019_VD_client2

5.4 Concluding comments – behaviours and strategies that health visitors' adopt during decision-making processes

The findings of the study show that the processes health visitors adopted during the study drew heavily on socially derived information. Here the health visitors considered a range of issues relating to health, social and environmental factors. The combination of clinical and social factors in the processes adopted, although distinct entities, tended to merge. This meant that it was difficult to see where one ended and the other began. Other contextual issues that influenced the decision-making processes included time limitations and the anxiety associated with performance in the role. In addition, the health visitors described the challenge of operating in situations where although accountable for their decisions, to implement them fully they needed the mothers' engagement. This meant that the decision-making process required the health visitors to interact effectively with the mothers.

Furthermore, the findings from the ethnographic observations present a range of behaviours and strategies adopted by the health visitors during decision-making processes that can be examined using terminology and philosophical principles provided by the social judgement theory framework. The health visitors appeared to use these behaviours and strategies to accommodate client and contextual features typically associated with health visitors' decision-making practice. Although examples from the data have been aligned to individual features of the framework, the distinctions are not absolute. However, used in this way the

framework provides insight into the inherently complex landscape for health visitors' decision-making activity. In so doing, the framework has revealed that while employing decision-making behaviours and strategies in unpredictable situations and in a landscape that is inherently complex, it is possible to present accounts detailing the processes health visitors adopt to continue making decisions.

In presenting the findings aligned to the social judgement theory framework the different processes that health visitors go through when making decisions during client consultations have been revealed. In explanation,

1. Using informal and friendly processes, the health visitors were seen to be able to encourage the mothers to talk freely, and this meant they could collect more comprehensive and current information, especially when compared to the use of more formal, distant processes. By outlining the symbiotic relationship between the environment and the decision-maker, the Lens Model feature of the social judgement theory framework makes it possible to recognise the importance of this interaction during the decision-making process. Furthermore, the principle of probabilistic functionalism provides insight into the way decision-making processes can continue even in situations that are typically uncertain, complex, and unpredictable.
2. Using positive language and accessing the information available rather than recognising that which was missing, the health visitors can identify salient information. By adopting the route recognised through the principle of achievement, the health visitors illustrate how they intentionally use events from past experiences and success-focused techniques during their decision-making processes to inform the decisions they make.
3. Aligning similar information means that the health visitors can recognise patterns and understand the information and the context in which it emerges. By adopting the process recognised by the zone of parallel concepts, the health visitors can illustrate how during information collection, they group pieces together. In addition, the health visitors also showed how they collated the information to help them make sense of situations even when complete certainty was not possible.

4. Adopting informality during social styles of interaction also means that the health visitors can achieve greater clarity when information is vague and professional boundaries blurred. In adopting the process recognised by the zone of ambiguity, the health visitors illustrate how they can use perception and inference to understand the situation more clearly.
5. Lastly, the health visitors substituted unavailable or unacceptable terminology or information for those more pleasing to the mothers or that which provided a closer fit to the situation. By adopting the route recognised in the principle of vicarious functioning, the health visitors illustrate how they can explore the same or similar issues several times from different perspectives, and thereby collect greater depths of information during their decision-making processes.

The findings show that the routes to decision-making activity were influenced by health visitors' use of informal and formal processes. While both permitted collection, informality created situations where it was possible to gather more comprehensive information in larger quantities. Informality was associated with social, people-focused interactions which, to the observer, looked and felt friendly and more relaxed. The health visitors tended to use informal conversation styles like, 'chit-chat' and 'small talk' and incorporated these behaviours and strategies into other activities by, for example, walking and talking, or observing and talking. Although formality was associated with a sense of being 'in control' and gaining greater certainty, the use of less friendly and more distant processes tended to reduce the amount and quality of available information. In this way, it was less likely to create certainty or effectively facilitate the health visitors' decision-making processes which rely on the ability to interact with others.

5.5 Chapter Summary

The chapter has presented the findings of the study. Data extracts have been used to illustrate the processes adopted by the health visitor participants during their decision-

making activity. Key insights from the findings have been examined to outline the context in which the decision-making processes were employed.

The social judgement theory framework has been used together with data from the study to permit greater insight, into the behaviours and strategies the health visitors adopted during their decision-making processes.

The next chapter will critically consider the impact that the behaviours and strategies adopted by the health visitor participants had on their decision-making processes. The use of the social judgement theory framework as a route for explaining the decision-making processes adopted will be considered. Exploration will consider the potential for using the framework when preparing student and newly qualified health visitors for decision-making practice.

Chapter Six: Discussion

6.0 Chapter Overview

This chapter considers the findings from chapter five concerning the decision-making processes the health visitors follow in their daily practice. Using elements of social judgement theory, the discussion explains the behaviours and strategies adopted by the health visitors and considers the ways they contribute to decision-making processes. Throughout the chapter, emerging knowledge is presented alongside each theoretical proposition, to explain ways in which the features of social judgement theory and the associated framework can increase understanding of health visitors' decision-making processes. The chapter ends with a critical exploration of the extent to which the use of the social judgement theory framework can provide a route that facilitates explanation and understanding of health visitors' decision-making processes.

6.1 Constructing health visitors' decision-making processes

In collecting data about health visitors' authentic daily decision-making processes, this study provides unique insights about a group of professionals, distinct from nurses, whose practice is rarely overseen, described, or understood with any degree of clarity. Through the observations of real life practice the discussion presents fresh insights into the activity of health visitors engaging in regular, daily clinical practice consulting with people using NHS health visiting services.

By exploring the decision-making process, the current study has moved beyond traditional decision-making research and will thereby add new perspectives to current thinking. In explanation, the study has not focused on the decision, or sought to explain the difference between those that are good or bad. In addition, the study provides the much-needed prospective accounts of authentic decision-making processes. Importantly, as discussed in chapter one of this thesis, lone worker status means that prospective accounts detailing health visitors' processes are not usually available. The collation, in the current study of these accounts of decision-making, therefore, provides the opportunity to explore normal

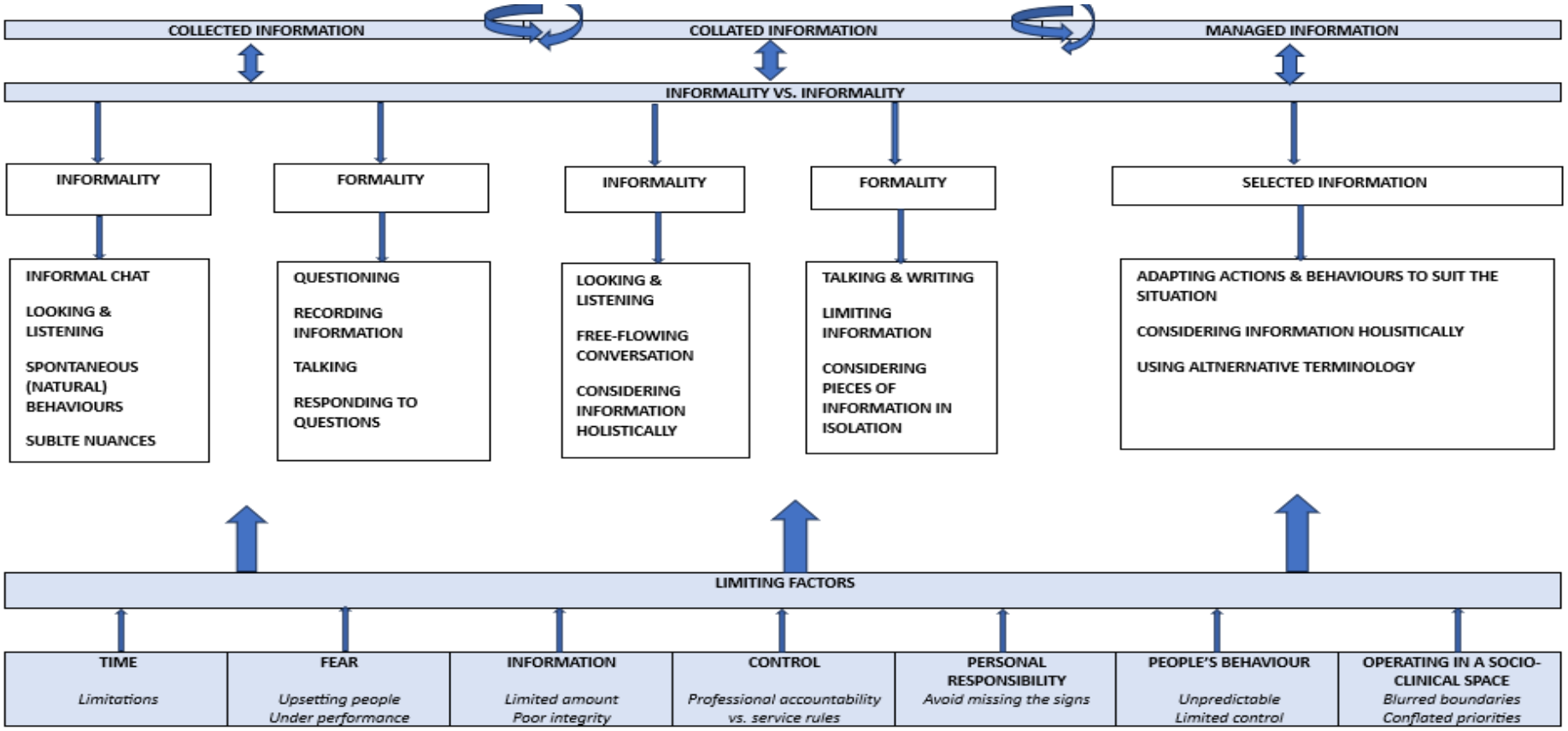
processes as they happen. These first-hand observations into the culture and social norms of health visitors' professional practice will thereby inform the discussion.

As outlined in chapter four of this thesis, observation of health visitors' authentic practice during consultations which they arranged was permitted with the use of ethnography as a methodology and tool for data collection (Fetterman, 1998, Atkinson & Hammersley, 2007). Although, as discussed in chapter two of this thesis, research to date offers insights into assumed practice, ethnographic participant observations of authentic activity during the current study provide a rich dataset of naturally occurring decision-making processes (Brewer, 2000, Silverman, 2014). In so doing, the data consist of detailed, subtle, and nuanced accounts of health visitors' decision-making processes which would otherwise have been lost. The inclusion of the 'Think Aloud' method, because of the way it encourages people to talk, allowed health visitors to describe their personal decision-making processes in their own words (Charters, 2003). By considering their behaviours and strategies, the discussion throughout this chapter reflects the idiographic nature of health visitors' decision-making processes. Using insights from the data, situation-specific processes captured during the study are explained alongside the features of the social judgement theory framework.

In completing this study, the essence of health visitors' decision-making activity has been identified. As presented in chapter five of this thesis, findings indicate that health visitors' decision-making processes are socially constructed and rely on their ability to interact with others. Their behaviours and strategies are intentional, and they are active agents driving the process. During the study, the health visitors were specific in their behaviours and strategies, and this enabled them to recognise and consider precise details in what people said, did not say, as well as the way they behaved and acted (see Figure 18: the process the health visitors took to make socio-clinical decisions). Using informality and familiarity, the health visitors structured their conversations. In so doing they used informal conversation styles like 'chit-chat' and 'small talk' to enable them to look beneath the surface in situations and see what was not immediately obvious. While some health visitors used formal

processes, as outlined in chapter five, they tended not to uncover the quality or quantity of information seen with informal processes. This suggests apparent advantages of using informality during the decision-making process. Throughout this chapter the focus will therefore be on informal processes because of their ability to reveal the layers of complexity inherent to health visitors' decision-making processes.

Figure 18: The process the health visitors took to make socio-clinical decisions



6.2 Explaining health visitors' decision-making processes through the lens of social judgement theory

Fundamentally, social judgement theory and the associated framework was applied to the findings to explore the minutiae of exchanges and interactions between health visitors, mothers, and children. Using its six component features (including, the Lens Model, the construct of probabilistic functionalism, the principles of achievement, parallel concepts, vicarious functioning, and the zone of ambiguity), the framework permitted exploration of the behaviours and strategies used by health visitors to process information during decision-making activity (Hammond, 1955, Hammond et al., 1975). By revealing a breadth of information associated with intricate interactions and the selection and combination of cues during decision-making activity the social judgement theory framework made it possible to unearth, previously hidden, unexplained aspects of the environment, behaviours and strategies, that influence decision-making processes (Doyle & Thomas, 1995, Cooksey & Freebody, 1986). By also offering a vocabulary, the framework permits explicit and consistent explanations and makes it possible to consider the complex, uncertain, and unpredictable social structures typical of health visitors' decision-making activity (Hammond et al., 1975).

Although the context for much of the health visitors' practice is dynamic and heavily influenced by prevailing social and political issues, it tends to retain a focus on the mother, the child, the wider society, and public health (Cowley et al., 2013). The impact that frequent changes have had on practice has been considered within chapter one of this thesis and provides context for the decision-making behaviours and strategies demonstrated during the study. In line with current literature, as autonomous practitioners, accountable for the health, wellbeing, and safety of children for five years from birth (NHSE, 2016, OHID, 2023), health visitors make decisions about a range of issues, directly and indirectly related to children. In addition, because of the peripatetic nature of their role, health visitors make decisions in different venues, using home and non-home settings.

As outlined in the findings presented in chapter five of this thesis, health visitors adapt their behaviour and the environment to fit the requirements of the consultation. Although adaptations to the physical environment were made for some consultations, during the study many of the adaptations involved the health visitors modifying their personal behaviours and strategies. While an important feature of the decision-making process, the strategies health visitors use to adapt are rarely discussed or recognised. However, use of ethnography and the social judgement theory framework in the current study has made it possible to reveal and examine the strategies adopted. The discussion throughout this chapter will outline these strategies and consider the way they help to explain the intricacies of health visitors' decision-making processes. Using the decision-making routes provided by the six features of the social judgement theory framework, the discussion will consider the issues and explain how they influence contemporary recognition and understanding of the processes adopted by health visitors during the study to make decisions.

The next section of the chapter will present a detailed consideration of the key findings from the study using the vocabulary and structure provided by social judgement theory and the associated framework. In so doing, the content will relate to the three aspects of the behaviours and strategies adopted by health visitors during decision-making processes throughout the study. As outlined in chapter five of this thesis these are:

- Health visitors interact to create a connection with mothers during the decision-making process.
- Health visitors understand and adapt to environmental stimuli during the decision-making process.
- Health visitors select information to inform the decision-making process.

6.2.1 Health visitors interact to create a connection with mothers during decision-making processes

Although the collection of information is essential to start the decision-making process, the current study shows that to maintain the supply of information over time, health visitors focused more on ways to modify their personal behaviour. Rather than collating their activities within the scheme of relationship building as stated in earlier studies (Chalmers, 1994), health visitors described how they intentionally behaved in ways to make the mothers feel comfortable and relaxed and thereby be receptive to their advice. Referring to these strategies as 'being friendly', the health visitors described how they made conscious efforts to interact so they could listen and avoid doing anything that would make mothers feel rushed.

Implicit in their interactions was the desire to normalise and de-escalate concerns to reduce maternal anxiety. In so doing, health visitor (11), for example, when seeking to manage the mother's concern about her child's growth, focused her decision-making process on personally seeing the mother and child again and so demonstrated how she sought to 'be friendly' and make a connection by simultaneously caring for the mother and child. The health visitors were also seen walking and talking with the mother from the waiting area to the consulting room to intentionally present in a friendly way. They also remembered specific details about the children or the mothers and used this information to start conversations. This strategy tended to create opportunities for smiling and laughter, giving a positive, relaxed feel to the consultation and overall situation. For example, remembering that the child liked to hold the red book (personal child health record), health visitor (9) used it to encourage her to walk and incorporated the activity into a light-hearted conversation with the mother, using laughter and humour. By describing the intentional nature of her behaviours during the 'Think Aloud' event, health visitor (9) described how she drew on her experience of earlier encounters with the mother and child to inform the current consultation. These carefully constructed conversations thereby illustrate how health visitor (9) understood the environment in ways that enabled her to create opportunities to collect the information she needed in a relaxed, informal way. In so doing, health visitor (9) was

able to simultaneously interact with the mother and the child, while at the same time collect a breadth of emergent information. The use of 'chit-chat' style informal conversation meant that health visitor (9) could encourage a free-flowing exchange of information.

The early influence of personality characteristics and experience as role essentials have typically contributed to the social foundations of health visitors' decision-making processes (CETHV, 1977). Although more professionally related elements like the ability to communicate in verbal and written ways, and self-management skills, now contribute to role expectations, they tend to be additions to the existing social nature of the role.

- **The social constructs of health visitors' decision-making processes**

In essence, although not explicit in their descriptions, the health visitors adopted socially-focused behaviours and strategies to encourage the mothers to like them. Lee & Harris (2013) recognise that the desire to be liked is not atypical of socially constructed decision-making processes. In explanation, they suggest this is because of the uncertainty that comes when it is difficult to predict peoples' behaviours and preferences. However, for the health visitors in the current study, rather than addressing a personal preference to be liked, these friendly styled interactive behaviours and strategies were consciously and proactively used to engage mothers and encourage them to share information, and to continue using and accepting the service and their advice.

Research by Goffman presents social interaction as a process during which people communicate and respond to each other. Here, the exchange of information is possible through perceptions of cooperation and accommodation (Goffman, 1983). The use of social judgement theory during the current study made it possible to observe in the findings the multi-faceted nature of the behaviours and strategies the health visitors employed to create this two-way engagement and free-flowing interaction. In this way the social judgement theory framework has helped identify a key route for explaining health visitors' decision-making processes because to make decisions they must interact with one or more people in

ways that permit consideration of the person's needs as well as those of the situation. In addition, the interaction must be sufficient to encourage the person to share their information (Davies, 1988). As discussed earlier in chapter three of this thesis, the decision-making process presented in social judgement theory and the associated framework is capable of recognising routes that are person-specific and thereby individual in nature (Hammond et al., 1975). By also permitting examination of processes during real life decision-making activity, this theoretical framework offers a route to explain the way people naturally behave when making decisions (Cooksey, 1996).

Importantly, in the current study the detailed ethnographic observations in the data show that the health visitors carefully, and intentionally, organised their behaviour so they could communicate effectively and engage informally with the mothers. In so doing, the health visitors appeared able to consider the issues from the mother's perspective. They were likely to prioritise the information that the mothers shared and discuss it using similar colloquial and informal language. Critically, during this social interaction, health visitors showed how they engaged in reciprocal conversations, by taking turns to talk. Here they tended to allow the mother to speak first, or they steered the conversation, using a brief open style question, for example, asking how they could help, and prompting the mothers to continue talking. In addition, the health visitors tended to position themselves facing the mothers, and showed in their facial expressions that they were listening. Research states that the ability to show the other person, you are listening to them is important during social interaction (Goffman, 1983). So too is the ability to express feelings, demonstrating being happy to see someone, using jocular tones, and laughter (Warner, 1984).

In her observation study, Warner found that health visitors used humour and laughter intentionally during the consultation. To Warner, humour meant the health visitor could set aside the institutional rules and assumptions about their role (Warner, 1984). In so doing, they could negotiate the topic of conversation, especially if it was a difficult one that the health visitor assumed would upset the mother. Used in this way, humour allowed health visitors in the current study to test out difficult topics of conversation and in a short time

encourage mothers to explain their worries and concerns. For example, these behaviours and strategies were illustrated by health visitor (5). By responding in a light-hearted way to the mother's statement about attending the clinic merely to say, 'hello', health visitor (5) opened the way for the mother to continue talking and explaining her concerns about the child's weight and sleeping position. Without this carefully managed, intentional approach the mother's concerns would likely remain hidden and not considered during the consultation or the health visitor's decision-making process.

Although the intentional and instructive elements of the health visitors' behaviours and strategies were not always seen during the consultations, the health visitors, during the 'Think Aloud' events, described using them during their decision-making processes. Intentional behaviours and strategies included the way the health visitors selected the language they felt was appropriate for the situation. They also carefully selected verbal and non-verbal communication skills to align with the situation faced. For example, they intentionally selected a tone of voice which allowed them to appear warm, caring and interested in what the mother had to say. They also intentionally chose a seating position that enabled them to face the mother. In addition, instructive elements of their behaviours and strategies included the way the nod of their head, a smile, and direct eye contact gave the mother a non-verbal instruction to continue talking. These illustrations of social norms are reflected in research by Dingwall (1982) and Chalmers (1992). Here, they show how a friendly, positive approach appeared to give the mothers a sense of solidarity, especially when the health visitor amended their intended activity to accommodate the mother's rather than service priorities (Chalmers, 1994).

Although the social foundations and building blocks of health visitors' behaviours and strategies were set nearly seventy years ago, the hidden, somewhat silent, nature of health visitors decision-making processes in the current study suggests they continue to be influential (Ministry of Health, Department of Health for Scotland, Ministry of Education (1956). Even though the founding issues are more likely to be associated with societal norms of the 1950s, than the 2020s, the imperative for being friendly, encouraging, and advisory

continued to provide the backdrop for the decision-making behaviours and strategies demonstrated by health visitors during the current study (Ministry of Health, Department of Health for Scotland, Ministry of Education, 1956). In explanation, the health visitors described a desire to be friendly and welcoming, as well as the intentional behaviours and strategies they adopted to enable them to do so. For example, to encourage the mothers to talk and like them they modified aspects of their behaviour to display a friendly persona. In so doing, they adopted strategies that enabled them to talk in a calm, measured way, and used positive, colloquial language to create conversations about banal everyday issues like the weather and holidays. Certainly, from an observer perspective, the way the health visitors behaved towards mothers and children appeared to make the consultation feel more like an informal chat style conversation. In these situations, the health visitors' use of informality and familiarity also meant they were able to give a positive feel to the consultation. Health visitors were able to use these behaviours and strategies because by understanding mothers' priorities and needs during early parenthood, they could select appropriate topics of conversation. In so doing, they were able to encourage mothers to talk and share their information. The friendly, cheerful, and jovial elements of these conversations included the use of 'chit-chat' and 'small talk' which were also influential in encouraging the mothers to talk and share current information. Although research shows the value of these behaviours and strategies, they tend to be given less importance than the ability to be professional (Aston et al., 2016). However, as shown in the current study, both friendly and professional elements of behaviour are crucial to the health visitors' decision-making processes (Peckover & Aston, 2018).

Friendly and agreeable behaviour was also used by the health visitors in the current study to reduce the perceived distance between themselves and the mothers (Davies, 1988). The sense of informality and familiarity inherent in these positively framed behaviours and strategies enabled the health visitors to position themselves alongside the mothers as the friendly ally. These behaviours and strategies appeared to be used by the health visitors to enhance their ability to interact and create free-flowing conversations. Importantly, the way that the health visitors in the current study adapted to use informal language and styles of

conversation also meant they could interact with mothers in ways that in addition to feeling friendly, and relaxed, also made their approach sound relatively casual and 'easy-going'. In this way they tended to give a sense of solidarity with the mother. In so doing, they used the word, 'we' rather than, 'you' when advising the mothers to carry out certain activities. Modifying their behaviours in these ways meant that they also tended to be overly encouraging and intentionally avoided openly disagreeing with the mothers' actions and intentions. For example, rather than openly disagreeing with the mother's decision to give her three-month old child, paracetamol, who was thought to be unsettled because of teething, health visitor (7) used moderate, language during the consultation to remain more friendly and advisory than instructive. In so doing, she advised against the routine use of paracetamol as a way 'we', the mother and health visitor could avoid missing the actual rather than assumed issues that may be causing the child to be unsettled. These social constructs are familiar in the research and literature about health visitors and have been discussed in the introduction, chapter one of this thesis (Cowley & Houston, 2003). Here the social nature of the health visitors' decision-making processes tended to be most pronounced, and they permitted the collection of much needed information in relatively short periods. This was because the mothers appeared happy to share their information even when they were not asked specific questions.

Although mutually regulated, social interaction does not always happen smoothly because people behave in different ways and do not necessarily mirror each other's behaviour (Goffman, 1983). In this way, the health visitors in the current study used informality and familiarity to align their behaviours and encourage the conversation to flow freely. They did this by talking about non-technical issues, including the weather, holidays and the wellbeing of family and friends. In so doing, they appeared to use acquiescence and friendliness to get the conversation started.

Social interaction therefore appears to form the basis of decision-making processes used by health visitors in the current study, because it allows them to create opportunities to collect

and share information. By making the situation appear friendly the health visitors could reduce the social distance, and so give a sense of working alongside the mothers. In social distance, Lopez (2021) recognises the existence of social boundaries and the interaction that takes places within these boundaries. Health visitors in the current study worked within boundaries, permitting encouragement but not enforcement. In addition, the social norms of the health visitors' role, and context in which it happens require friendliness and adjustment to consider the issues from the person perspective, rather than that of the service (Ministry of Health, Department of Health for Scotland, Ministry of Education, 1956, CETHV, 1977, Davies, 1988, Cowley & Houston, 2003). Issues causing distance, including ethnicity and social class, must be reduced to encourage free-flowing social exchanges (Lopez, 2021).

Data from the findings of the current study, show that the health visitors acknowledged and decreased social distance by carefully phrasing their suggestions to accommodate the issues relating to the mother and family situation that may prevent engagement. For example, by acknowledging conflicting priorities, the constraints of family life, employment and childcare struggles, health visitor (11), when encouraging the mother to return to the clinic, offered an open invitation rather than a fixed instruction. While on the surface this may appear relatively straight forward, to make the decision, health visitor (11) undertook a detailed analysis of the mother's situation. Although, during the 'Think Aloud' event, health visitor (11) outlined the intention to see the child on at least three more occasions, this is not reflected in the language used in her conversation with the mother. By considering the issues from the mother's perspective, health visitor (11) carefully acknowledged the challenges the mother may need to address to attend the next clinic appointment. The provision of options rather than a specific attendance date, could illustrate that the next appointment is not important, because the suggestion is to, 'come when you can'. However, the use of casual, relatively 'low-key', language is another illustration of the strategies adopted by health visitor (11) to increase the likelihood of the mother's return. In so doing, health visitor (11) has more closely aligned her intentions with her perceptions of the mother's behaviour.

Social distance is therefore an important consideration in the health visitors' decision-making processes because of its impact on the level of social interaction. Ultimately, during decision-making activity, the health visitors' aim is to increase interaction and so collect information from the mother because without this they cannot begin the process. The way health visitors talk to mothers as well and the things they say is therefore an important element of their decision-making processes. Warner (1984) recognises this and suggests that talk is the main tool available to health visitors for engaging mothers. To Warner, talk allows the health visitors to illustrate that they understand the mothers and their social position. Used well, talk allows health visitors to sustain interaction with mothers. This is because of the shared belief that mothers will protect children's health and health visitors provide expert advice to enable them to do so (Warner, 1984).

Social interaction therefore helps to explain why the health visitors in the current study did not give instructions as part of the decision-making processes they followed. Ultimately, they used informality and familiarity to give advice because they wanted mothers to accept and use it. This demonstrates what Goffman would call the interaction order (Goffman, 1983). Here, the health visitors act in ways to give themselves a degree of certainty about the mother's intentions and actions, which are largely unpredictable. Although crucial to the way health visitors make decisions, the use of informality and familiarity in a largely social context has, historically, not featured in decision-making research (Cranley et al., 2009). Instead, the focus has concentrated on medical situations where the decision-maker does not need to consider the emotions and intentions of others but merely considers their personal values, preferences, and needs (Jonassen, 2012, Morelli et al., 2022). However, findings from the current study demonstrated that when making decisions health visitors faced situations where the issues challenged their personal views and beliefs. For example, during her consultation with a three year-old child presenting with severe development delay, the mother provided vague information about the child and informed health visitor (1) that she intended to send her second child, a baby, to be cared for by relatives in her home country. During the 'Think Aloud' event, health visitor (1) expressed her concerns and the challenges this information posed to her personal beliefs and how she had to 'calm'

herself down. Although somewhat concerned about the situation, health visitor (1) described how rather than telling the mother that she disagreed with her plans, she adopted a 'calm' approach and continued her decision-making process to access additional information from the mother's perspective about her intentions and understanding of the impact that separation would have on the child.

To behave in such a non-authoritarian manner, is therefore an illustration by health visitors in the current study, of the way they use the social norms of advice and encouragement to carefully manage interaction. In this way, the interaction order provides a degree of certainty in a largely unpredictable social context. This perception of shared control, in the interaction order, means the mothers can lead and health visitors listen. Although the health visitors can retain some control, in terms of setting parameters, the final part of their decision-making process still relies on the mothers. Here the health visitors can merely assume how the mothers are likely to behave. Although Goffman (1983) recognises how, during this type of interaction order, control imbalance continues, in the current study it appears to favour the mother rather than the health visitor. Traditionally, research suggests that the opposite is the case, and the health visitor has greater control (Dingwall, 1982, Peckover, 2002, Peckover & Aston, 2018). The detailed exploration, using ethnomethodology, in the current study has however permitted insights into the way health visitors' behaviours are moderated by the need to encourage mothers to engage and follow their advice. Consideration of social interaction also provides a way to open the discussion into the way health visitors use these behaviours and strategies to interact with mothers during their decision-making processes.

- **How the Lens Model explains health visitors' decision-making processes**

Adopting the Lens Model from the social judgement theory framework recognises a decision-making process that can progress systematically. However, it does not advocate a step-by-step linear process but permits decisions to be made in a curvilinear manner where information is considered more than once and for different periods. In addition, it recognises that the decision maker acts in a way that is intentional and with purpose, rather than by

using impulsive, poorly considered techniques. By acknowledging the importance of social interaction, the Lens Model depicts the symbiotic relationship that exists between the decision maker and subject of the decision. Using this route to decision-making the individual must interact to collect the information they require.

Processes for searching and selecting information are typical features of descriptive decision-making theories (Simon, 1975, Slovic et al., 1977). Research shows that decision-making processes adopted in the real world must be capable of facilitating complex decision-making processes (Jonassen, 2012). This is because they enable the decision-maker to capture information from a range of sources to construct a picture of what is or is likely to be happening in the situation (Cowley & Houston, 2003, Appleton & Cowley, 2008a; Appleton & Cowley, 2008b). Although research shows that health visitors may engage normative (rational) processes to document a decision, the content is unlikely to detail the process taken to reach it (Cowley & Houston, 2003, Appleton & Cowley, 2008a; Appleton & Cowley, 2008b). For example, the ethnographic observations in the current study showed that although health visitors recorded the information and completed the required sections of the Ages and Stages Questionnaire (ASQ) when documenting child development assessments, some tended not to adopt a rational approach during their decision-making process (Squires et al., 1997). Rather, they sought greater clarity by observing the interaction between the mother and child, made possible by preparing the room with a play mat and age-appropriate toys. This permitted the collection of a range and depth of information that would not be available with the use of normative (rational) approaches.

In explanation, in consultations where the health visitor merely completed the ASQ (i.e., the normative, rational decision-making process), while they would have identified the delayed development, they tended not to construct information about the mother-child interaction, and so would not acknowledge the possible causes of the delay. Having adopted more of a descriptive and social type of decision-making process, however, other health visitors in the current study were able to identify the probable causes of the problem. This can be illustrated pictorially using a representation of the Lens Model as illustrated in the diagram

at Figure 19: Health visitor (4) decision-making process using the Lens Model. For this child, the probable causes of the delayed fine motor development may be related to the lack of maternal-child interaction. As highlighted during the consultation, the mother described how she focused more on the older child and thereby tended to offer limited opportunities for the younger child to practice using fine motor skills (see Figure 19: Health visitor (4) Decision-making process using the Lens Model). In this situation, throughout the consultation health visitor (4) made at least seven decisions and shared these during her carefully constructed conversations with the mother. The information within the diagram shows that the decision-making process adopted by health visitor (4) focused on advising the mother about ways to increase her level of interaction with the younger child. By deciding not to make a referral to the paediatrician, health visitor (4) demonstrated how the decision-making process allowed her to consider the issues relating to the problem rather than merely the symptoms.

In contrast, health visitor (2) also undertook a child development assessment. However, as depicted in the diagram at Figure 20: health visitor (2) decision-making process using the Lens Model, rather than focusing on social interaction, observation, and conversation, she concentrated more on completing the ASQ document. Instead, of adapting the physical environment to include age-appropriate toys and a play mat, health visitor (2) asked the questions verbatim and tended not to encourage free-flowing conversation. Like health visitor (4), the process she adopted enabled her to identify delayed child development. However, with merely one source of information, the decision-making process adopted by health visitor (2) and illustrated by the Lens Model, focused only on the symptoms and did not collect information about possible or probable causes. In so doing, health visitor (2) decided that a paediatric referral was required (see Figure 20: health visitor (2) decision-making process using the Lens Model). However, by making sense of the cues (depicted on the right-hand side of the Lens Model diagram), health visitor (4) could collate a range of information with which to make the decisions. As illustrated with the Lens Model, in so doing, she was able to consider the impact of the context for the child's development, alongside the social and family situation (see Figure 19: Health visitor (4) decision-making

process using the Lens Model). The process thereby enabled health visitor (4) to address the problem relating to a lack of maternal interaction and implement a series of activities to resolve the situation. When making decisions, therefore, although information may be imperfect, the Lens Model provides an illustrative route for explaining how the health visitors in the study could adopt a decision-making process that permitted collection of in depth, far reaching information. In so doing, the Lens Model also demonstrates the way these health visitors managed problems associated with situational and contextual issues (Bell et al., 2011).

Figure 19: Health visitor (4) decision-making process using the Lens Model

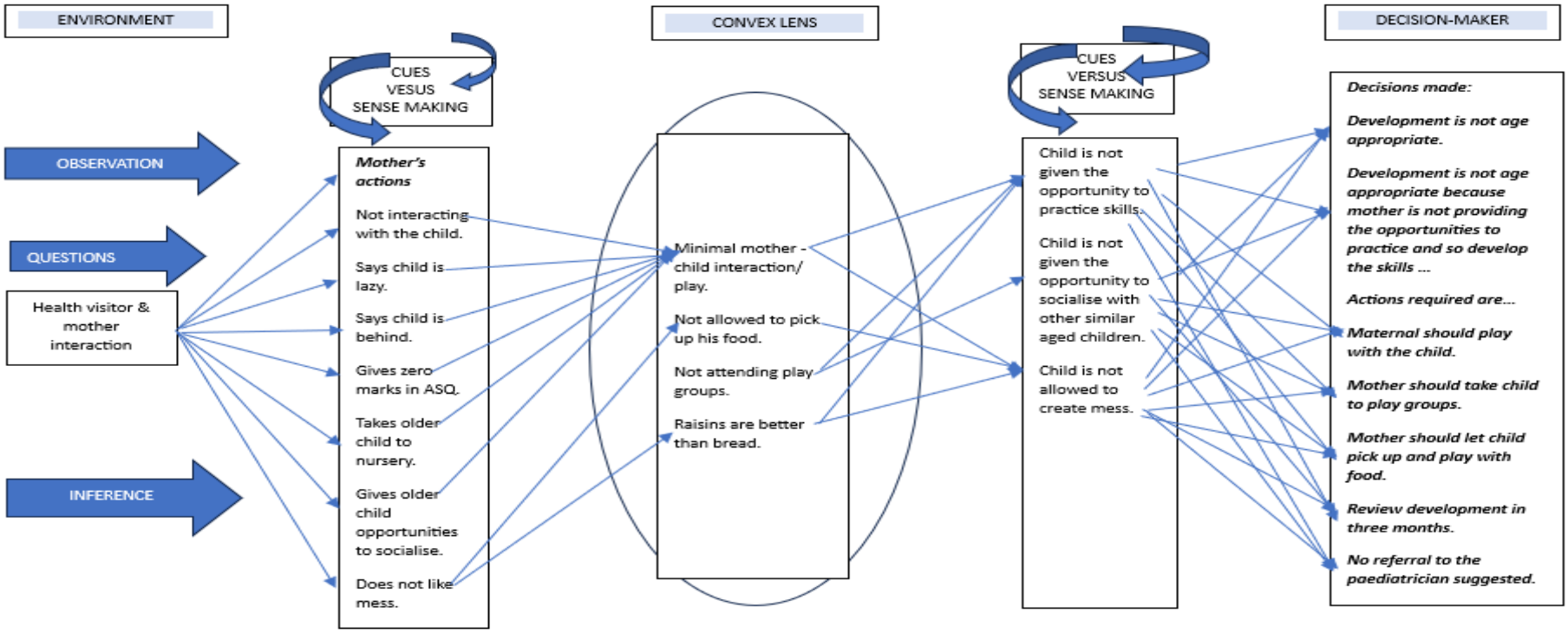
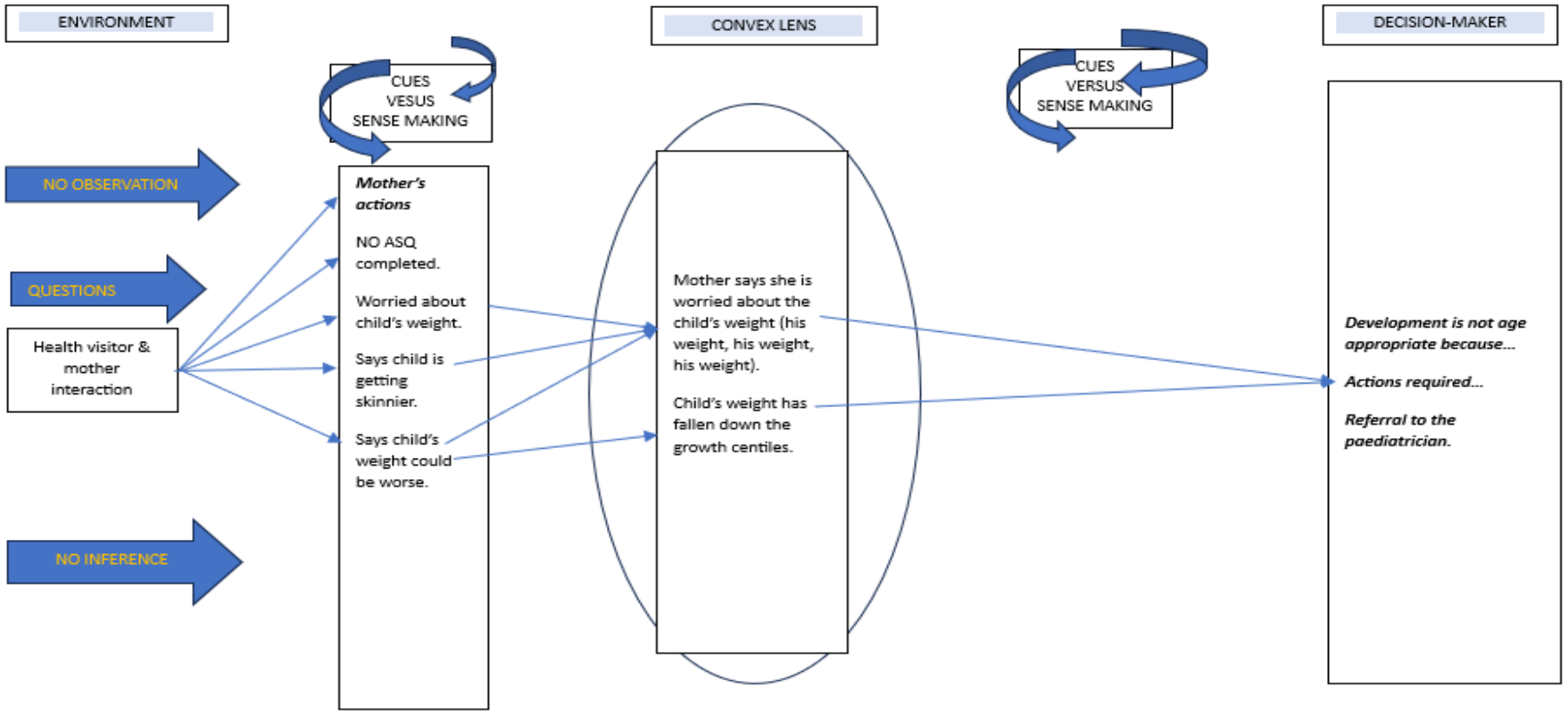


Figure 20: Health visitor (2) decision-making process using the Lens Model



- **How probabilistic functionalism explains health visitors' decision-making processes**

As presented in chapter five of this thesis, health visitors typically faced situations where events happened unexpectedly. For example, in the current study this was associated with situations when mothers brought children, other than those appointed, to the consultation. The unexpected nature of the decision-making situations was also seen when mothers disclosed information that was different from that held by the health visitors. Although a common feature of the health visitors' decision-making processes, uncertainty and unpredictability did not stop decision-making activity. However, acknowledging it meant that the health visitors were prepared to recognise when these situations happened. Recognition of this using the probabilistic functionalism feature of the social judgement theory framework provides a route to explain how data from the findings of the current study illustrate the way health visitors effectively manage unexpected situations so they can continue the decision-making process. While uncertainty tends to be presented as a reason for not being able to explain the health visitors' decision-making processes, use of the social judgement theory framework in the current study makes it possible to recognise its existence and the impact it has on the process. Inclusion of probabilistic functionalism within the framework also provides a route for explaining the processes employed by the health visitors to overcome the barriers created by unexpected events (Carr, 1995, Reynolds, 1996). Indeed, in each situation, rather than allowing these issues to halt decision-making processes, the health visitors appeared to continue. In response, the health visitors described how they amended their original plan in ways that allowed them to persist with their decision-making process.

In line with the social judgement theory framework, the philosophical construct of probabilistic functionalism is important for health visitors' decision-making processes because it recognises the uncertain and unpredictable nature of people-focused decision-making (Hammond et al., 1975). In so doing, it provides a guide for practice. As discussed in chapter three of this thesis, the term 'probabilism' within this construct recognises the inherent uncertain and unpredictable nature of situations where decisions are made. In addition, with the term 'functionalism', Hammond recognises that the decision-maker can

continue to make decisions despite the uncertainty and unpredictability of the available information and overall situation. This is because their behaviours and strategies are inherently intentional and purposeful (Hammond et al., 1975).

During the current study, health visitors showed that they regularly dealt with unexpected issues. For example, when a mother attended with two children rather than merely the one appointed for the consultation the data show that to continue the decision-making processes, the health visitor in this situation had incorporated anticipatory features into her consultation plans. In so doing, the health visitors demonstrated how they recognised the unexpected nature of their decision-making activity and intentionally made provision for the events they could foresee. For example, by having spare documentation for the times when mothers did not bring it to the consultation. In addition, by anticipating that children would be more likely to demonstrate their normal behaviours if permitted to explore the environment, the health visitors' preplanning activities also included the preparation of the physical environment to enable children to engage in spontaneous play. Having plans in place, meant that when faced with events and issues they did not expect, the health visitors could adapt their behaviours and strategies so they could continue their decision-making processes.

The multi-layered situations that health visitors faced during the current study, meant that they had to make decisions about several issues like unexpected events relating to the behaviour of mothers and children before they were able to see the issues requiring the decisions they anticipated having to make. The health visitors' ability to navigate the situation is therefore important. For example, when the mother's spoken English was more limited than expected, or they attended with a sick child requiring a medical intervention, the health visitors had to amend their behaviours, strategies and consultation plans. In addition, mothers were not always good historians and so tended to provide vague information about an issue at different points during the consultation. This meant that the health visitors needed to revisit issues and decisions already considered. This need to revisit

issues demonstrates the health visitors' ability to deal with issues more than once during the decision-making process, even when this was not expected.

In these complex situations, health visitors could get a sense of the whole situation quickly by holding a conversation at the same time as completing a range of activities. By using informality and informal chat styles of conversation, the health visitors also adapted their behaviour to encourage mothers to talk freely and share information. In so doing, they drew on their ability to observe the child at the same time as talking to the mother and completing the documentation. This permitted collection of a range of information in a short period. The health visitors were also seen engaging the child to obtain measurements for height and weight at the same time as talking with the mother. Although not following a script, these integrated activities again permitted collection of a range of information and allowed the health visitors to make decisions about priority issues in a short period of time. Although apparently seamless and effortless, the health visitors described these behaviours and strategies as part of their usual intentional practice, and a skill they developed with experience, so were very much aware of its value. These behaviours and strategies were particularly helpful when trying to collect unexpected information or overcome unexpected challenges and were possible because of the exploratory nature of the descriptive rather than normative (rational) decision-making processes the health visitors adopted. For example, this was illustrated by health visitor (11) when during the consultation she did not expect the mother's spoken English to be as limited, nor did she expect to be assessing the development of a pre-term child. Both issues required health visitor (11) to modify her behaviours, strategies and consultation plans. In addition, these issues presented challenges because they did not come to light until mid-way through the consultation, which meant health visitor (11) had to revisit the issues addressed in the early stages.

Morelli et al., (2022) recognise that the need to deal with unexpected issues and challenges is a common feature of real life decision-making activity that happens in social contexts. Here, they acknowledge that rather than focusing only on personal values, preferences, and needs, the decision-maker must consider the background, personality and intentions of the

others involved (Morelli et al., 2022). To make decisions therefore, health visitor (11) not only considered specific health or development issues, but she was also able to navigate the complexities of the mother's personality and behaviours. For example, while she felt protective of the mother and keen to give additional support, health visitor (11) continued to progress her original intentions during the decision-making process to help the mother understand the severity of the situation for the child and the need to continue accessing the health and medical services offered.

- **How the principle of achievement explains health visitors' decision-making processes**

As discussed in chapters three and five of this thesis, the route to decision-making provided by the principle of achievement in the social judgment theory framework recognises the positive influence of being able to simultaneously understand the environment and the behaviour of people within it (Doherty & Kurtz, 1996).

The data show that the health visitors adapted to the context in which decision-making processes happened. By knowing and understanding the rules of service delivery, human engagement, and social interaction, they sought to accommodate any associated limitations in the decision-making processes adopted and so continue to achieve their intended goals. To do so they framed decision-making processes in positive ways that focused on success, rather than error, and adapted their behaviour in line with the social norms of health visiting service delivery by behaving in ways that were friendly, tactful, and encouraging (Ministry of Health, Department of Health for Scotland, Ministry of Education, 1956, CETHV, 1977, Davies, 1988, Cowley & Houston, 2003).

In addition, the health visitors drew on past experiences to describe a viewpoint when certainty was not possible. During the current study, this meant that when information was vague and unclear the decision-making processes allowed the health visitors to use personal knowledge and understanding to decide what the issues might be and the most appropriate course of action, even when this was not necessarily the best. In this way, the social

judgement theory framework, by focusing on the symbiotic relationship between the decision-maker, mothers, and the environment, provides a route to explain the way the findings of the current study can illustrate how the health visitors make the links to find information during their decision-making processes.

Although relatively unseen, health visitors frequently described being alerted to something about the mother, child, or situation they could not understand. This tended to be associated with a set of baseline expectations that, although not explicitly described, once acknowledged stimulated future actions. In addition, health visitors' decision-making processes were also stimulated by the recognition of things that while expected during the consultation, were left unsaid. Although these processes tend to be undervalued as something that happens naturally, research shows that past experiences can form the building blocks of expertise. Benner describes this as the ability to use experience and knowledge to understand situations and implement appropriate actions (Benner, 1984; Benner et al., 2009). In the current study, health visitors showed how they worked with the mothers to better understand the situation and the person, rather than merely dealing with the problems identified. For example, health visitor (10) described how having listened to the mother, she acknowledged that something other than the breastfeeding challenges was causing her to be upset. Despite not being able to identify the problem, health visitor (10) used her knowledge and experience to consider the mother's information. Knowing, for example, that breastfeeding takes time to establish, requires patience and practice, she used her time to consider other factors like the child's weight and growth trajectory. Furthermore, by listening carefully to what the mother said, and did not say, health visitor (10) also noticed that although the mother described seeing people in the days up to the consultation, information shared about the first four weeks since the birth illustrated that she may have been alone and somewhat socially isolated. Although not traditionally associated with perceptions of 'clinical' information, the material that remained unsaid and not immediately obvious provided the person-specific insights health visitor (10) needed to gain a deeper understanding of what it could mean. Again, the intentional exploratory nature of the health visitor's decision-making processes and ability to align information to

explain its possible meaning, enabled health visitor (10) to see beneath the surface and use material that was not immediately obvious. Such information would have remained hidden, and unexplored had health visitor (10) chosen not to adopt an exploratory approach to her decision-making processes.

6.2.2 Health visitors understood and adapt to environmental stimuli during decision-making processes

As the primary clients, children rely on health visitors to advocate on their behalf to ensure they can access the universal services needed to facilitate their health, wellbeing and to keep them safe from harm. Importantly, with no legal authority to make decisions directly for children, health visitors must negotiate, encourage, and advise the mother or holder of parental responsibility (The Children Act, 1989). Health visitors' decision-making processes therefore require them to carefully navigate complex information, construct and reconstruct a detailed picture of what it might mean. Indeed, data from the current study show that health visitors tend not to have a constant flow of information. In addition, the information is more likely to be sub-optimal and incomplete. This means that health visitors must be constantly alert for new sources and reliant on the simultaneous presence of people willing and able to share the content. Furthermore, health visitors face situations where, rather than presenting one problem and its cause, the information is likely to illustrate a range of problems and indirectly related causes.

- **How the principle of parallel concepts explains health visitors' decision-making processes**

The route to decision-making recognised by the principle of parallel concepts illustrates the symmetry of equal importance that Hammond created between the environment and the decision-maker in the social judgement theory framework (Hammond, 1955, Hammond et al., 1977, Brehmer & Joyce, 1988). The principle of parallel concepts acknowledges the way information is collected and collated. Although presented as a symmetrical partnership, this route to decision-making is again curvilinear rather than linear and does not necessarily create a process of cause and effect.

Data from the findings of the current study show that during the consultations health visitors explored the presenting issues and situations in ways that meant the search for meaning and understanding during the decision-making processes adopted tended to be curvilinear in nature. Although not sequential, as noted earlier in the chapter, the process was intentional and precise and not haphazard or impulsive. This route to decision-making was seen when the health visitors noticed and incorporated subtle, often difficult to see, information into their decision-making processes. For example, during her consultation with a new mother eight weeks following the birth, although health visitor (13), recognised anxiety she also noticed why it was happening and how the mother was dealing with it. Using careful conversation, health visitor (13) revealed contextual, person specific information that helped her to understand why the mother may be anxious and how it could be resolved. For example, the mother described being alone with no adult company each day since the partner's return to work, limited contact with her mother who lived in another country, and how she sought resolution by socialising through planned exercise activities. Although health visitor (13) completed the prescribed anxiety scoring tool, which indicated a low risk, she prioritised the use of the situation and contextual information during the decision-making process. Like other health visitors in the study, to health visitor (13), this process of careful and precise information alignment and selection was not discussed as a special or expert aspect of the decision-making process, instead, during the 'Think Aloud' event it was included as if an everyday task.

Importantly, Benner too sees these sensing and feeling types of activities as a part of the experts' everyday work but recognises that although unseen they are not an automatic and thoughtless process (Benner, 1984; Benner et al., 2009). Indeed, like health visitor (13), others in the study carefully aligned information and responded in ways that were precise and specific to the situation, but the precision and care taken to do so went unnoticed. Recognition of the principle of parallel concepts makes it possible to explain the data from the findings in ways that acknowledge these skilful, yet hidden elements, of the health visitors' decision-making processes.

Although research recognises the value of intuition when aligning information (Dreyfus & Dreyfus, 1984; Dreyfus & Dreyfus, 1986, Simon, 1987), it also suggests applying it with caution during decision-making processes (Reader et al., 1993). This is because the mystery created with a failure to sufficiently explain processes opens them to bias and risks missing salient information (Munro, 2011). However, as illustrated by the work of Simon, the sensitivity and precision commonly associated with intuitive, gut-feeling strategies mean that they can provide important routes for explaining the decision-making processes adopted by health visitors (Simon, 1987). In support of intuition, Simon shows that it can contribute to the creation of an organised and systematic approach to decision-making. Indeed, Simon (1987) recognises that although not associated with the linearity of rational decision-making approaches, intuition does not create an irrational, impulsive or poorly considered process.

To Benner, intuition is an iterative process which permits the decision-maker to notice, interpret, and respond to changes in the situation as well as the subject of the decision. To do so, the decision-maker relies on their ability to 'know' the subject and understand the situation (Benner, 1984; Benner et al., 2009). In the current study, this sense of knowing appeared to enable the health visitors to search for information that was specific to the subject and their situation. It also formed one of the cornerstones of health visitors' behaviour and strategies during decision-making processes. Interestingly, it tended to be somewhat invisible in the banal, everyday styles of conversation the health visitors used during the consultations. However, rather than merely focusing on the problem mothers wanted to solve, the health visitors simultaneously considered the mother's behaviours and actions. In so doing, they noticed things like anxiety and a lack of confidence that although not included in the mother's statements, could explain the problem**.** For example, health visitor (13) acknowledged the way the mother was talking profusely about the same issues over and again and that although seemingly listening to the health visitor, she did not appear to use the information given. Furthermore, health visitor (10) recognised that the mother's propensity to garner the opinion of several health professionals, could illustrate a

lack of self-confidence and understanding and that this may be contributing to her sense of anxiety.

Although health visitors in the current study completed a precise and well-considered process of information collection, they tended not to recognise the intentional nature of these behaviours and strategies. Rather than considering them as special or expert elements of their practice, the health visitors completed them without noticing and tended to describe them as ordinary or normal elements of their work. Despite this, research by Benner (Benner, 1984; Benner et al., 2009) and Simon (1987), although considering different aspects, both recognise the expertise required to select and align similar information as well as that needed to consider the subject and situation holistically during decision-making processes.

- **How the zone of ambiguity explains health visitors' decision-making processes**

The route to decision-making provided by the zone of ambiguity reflects the inherent ambiguity in real life decision-making situations (Hammond et al., 1977). By accommodating ambiguity, the social judgement theory framework thereby illustrates that decisions can be made when complete certainty is not possible (Hammond et al., 1977, Brehmer & Joyce, 1988).

The findings from the current study show that to make decisions in real life situations, the health visitors' adopted processes where they considered information holistically, rather than as individual parts in isolation. Rather than only focusing on medical issues and physical elements of health to make decisions about diagnosis and treatment options, the health visitors' decision-making processes tended to focus on the person and situation-related elements. In these situations, the health visitors aligned social and clinical issues, creating a socio-clinical perspective. In addition, the health visitors simultaneously considered the behaviours and actions portrayed by the mothers and children and any associated factors. Similar to the process of constructing a jigsaw puzzle, the health visitors used inference,

assumption, and perception to piece possible information together and so created a degree of clarity when the information was vague and unclear. In addition, the health visitors used terms like, 'feeling something was not quite right' or 'alarm bells ringing' when they responded to a sense or feeling that a situation was ambiguous because of vague and incomplete information. Intuitive perceptions like these tended to be vague and somewhat silent, and by using a language of indecision like, '*I just feel that'… 'She seems'…, 'I think maybe'…* the health visitor's actions could easily be dismissed. However, the health visitors indicated that these feelings stimulated decisive action because they alerted them to search for actual or possible meanings within the information available. Research states that this type of response is not atypical of decision-making processes in ambiguous situations because they happen quickly and with minimal effort (Benner, 1984, Chalmers, 1994, Benner et al., 2009). The health visitors in Reynolds (1996) study, for example, illustrate the hidden nature of these decision-making processes. While they did not recognise having completed a decision-making process, the health visitors described using gut-feeling and intuition to find the facts when ambiguity meant they were difficult to see. To the health visitors, fact-finding permitted the piecing together of person and situation-specific information to form a whole picture and establish meaning (Reynolds, 1996).

The ability to design these types of person-centred decision-making processes is considered in the research relating to intuition, particularly by Benner and colleagues (Benner et al., 2009). Exploring the clinical practice of expert nurses, Benner and colleagues recognise that the use of intuition comes with experience, knowledge and understanding. Rather than an impulsive action requiring limited skill, individuals need sufficient competence and expertise to understand the situation and implement appropriate actions (Benner et al., 2009). Indeed, research by Lauri and colleagues highlights the ability of experienced public health nurses to make decisions by focusing on the person, rather than the rules of service delivery. In contrast, this ability was not reflected in their more novice counterparts, who closely aligned their decisions to rules rather than specific information about the person and their situation (Lauri & Salantera, 1995). In line with the research of Benner and Dreyfus and Dreyfus, this illustrates how the health visitors in the current study may draw on intuitive

and dual process thinking behaviours and strategies to manage these situations (Benner, 1984, Dreyfus & Dreyfus., 1984, Benner & Tanner, 1987, Benner et al., 2009). This meant that although they consciously collected information, as shown in Reynolds's research, the health visitors in the current study may have also collected it unconsciously, without thinking (Reynolds, 1996).

Research shows that the hidden, unseen, aspect of intuition informed decision-making processes in situations of ambiguity is not uncommon. In explanation, studies by Dijksterhuis (2004) considering the cognitive aspects of decision-making, aligns the perception of speed to the involvement of the whole brain operating collaboratively. Dual process thinking thereby requires information to be processed and stored using a combination of conscious and unconscious thought processes and allows the individual to manage high volumes of information (Simon, 1987, Dijksterhuis & Nordgren, 2006,). As unconscious thought happens without attention and is responsible for processing greater volumes of information than conscious thought with attention, this is the likely cause for the lack of recognition demonstrated by the health visitors in the current study. Dijksterhuis & Nordgren (2006) suggest that with distinct characteristics, each way of thinking contributes to different decision-making processes. As health visitors in the current study made complex situation-related decisions, they constantly managed large volumes of information from different sources. They simultaneously used the seen, unseen, but often expected information and that which they heard during the consultation. Although the information may not be available at the same time, once it became available the health visitors incorporated it into their decision-making processes. Rather than separating the activity, they completed one process and tended to do it without describing their intentions. In line with research by Dijksterhuis & Nordgren (2006), the health visitors in the current study showed they considered the information at greater depth and could recall it with clarity and precision.

6.2.3 Health visitors select information to inform the decision-making processes

Although for many consultations during the study the challenges to decision-making came with insufficient information, it could also happen in situations where information available was not appropriate or acceptable (Dhami & Mumpower, 2018). Here, the health visitors selected information they deemed relevant and appropriate for the subject, situation, and decision-making process.

- **How the principle of vicarious functioning explains health visitors' decision-making processes**

Using the principle of vicarious functioning Hammond acknowledged that during decision-making, information can be selected for saliency, used interchangeably, and discarded if not required (Hammond, 1955, Hammond, 1988). In so doing, the social judgement theory framework demonstrates that decision-makers can use different information to make the same decision. Importantly for health visitors' decision-making processes, this principle gives recognition to the idiopathic nature of the behaviours and strategies they adopt. In explanation, as health visitors are known to work with people in a range of situations which are inherently unpredictable, their decision-making processes are known to be different. This was seen in the current study when health visitors made decisions about children's development. Although the stages of the development are the same, children are different and have distinct growth and development trajectories which mean that the information selected by the health visitors was different for individual children. The data from the study show that when working with people, the decision-making processes adopted by the health visitors accommodated the different ways people (the subject of the decision) presented and described their information. In this way, the decision-making processes adopted allowed health visitors to make decisions while working with individuals in social situations and using the available information.

While difficult to navigate because of the volume of information, these types of situations did not tend to stop the health visitors making decisions. Data from the findings shows that the decision-making processes adopted enabled the health visitors to consider the issues

and the information at different points. It also allowed them to revisit issues during the decision-making process. In this way, the processes were very much curvilinear rather than being linear. For example, health visitor (10) encountered a mother during the clinic who described experiencing several difficulties. As the mother described the issues, she tended to share information about each one at different stages of the consultation and conflate them into one problem. The convoluted nature of information sharing meant that health visitor (10) had to adopt precise behaviours and strategies involving skilled observation, listening, and questioning to select and align relevant information and formulate cues or hints about what the information could mean. In this way she was able to gain greater insight into the vague, poorly defined issues that the mother described. By recognising that one issue could have several possible solutions health visitor (10) used some, but not all the available information. In so doing, rather than searching for certainty during the consultation, she could anticipate possible meaning and consider a range of associated actions during the decision-making process.

6.3 Creating a coherent way to explain health visitors' decision-making processes

The next section outlines how the features of the social judgement theory framework, outlined above, make it possible to explain health visitors' decision-making processes.

6.3.1 How the health visitors interacted with the mothers and children during decision-making processes

During the study, the data show how the health visitors carefully and intentionally interacted with the mothers and children to create an atmosphere that was friendly, calm, and unrushed. These behaviours and strategies helped them to illustrate ways in which they created social structures that enabled them to engage in reciprocal, free-flowing conversations and thereby collect and exchange information. The health visitors demonstrated how they interacted using informal conversational styles like 'chit-chat' or 'small talk' to collect information from the mothers. In these environments the health visitors interacted simultaneously with the mothers and the children and collected a range

and depth of information. By consciously using informality and behaving in ways that promoted interaction, the health visitors acknowledged this as an important strategy during the decision-making processes they adopted. As a fundamental principle of the health visitors' role, the strategies used to relate with others are crucial to any decision-making process because of the way they influence the recognition of issues that require decision-making activity. In this way, the framework provided by social judgement theory accommodates the founding principles of the health visitors' role. These shared principles and values make it possible to use the framework to explain the behaviours and strategies adopted by health visitors during decision-making processes.

6.3.2 How the health visitors adapted their behaviour to the presenting environment and situation during decision-making processes

The language and structure contained within the social judgement theory framework provides a route for explaining the discrete features of a decision-making process which, like that demonstrated by the health visitors in the current study, enables the decision-makers' to operate as one with the environment. By exploring the decision-making processes adopted in real life situations, it has been possible to map these discrete features and explain how the health visitors adapt their actions and behaviours in different environments and situations. Although during the study, health visitors collected, collated, and managed information to identify the issues, select relevant information and appropriate actions in their decision-making processes, the behaviours and strategies they adopted in each consultation could be different. Therefore, by considering environment and people-related issues the social judgement theory framework makes it possible to explain the way individual health visitors choose the behaviours and strategies to adopt during different decision-making processes. In particular, the framework can illustrate how, rather than using information indiscriminately, health visitors select which to use in each situation (see Figures 19: Health visitor (4) decision-making process using the Lens Model and Figure 20: Health visitor (2) decision-making process using the Lens Model). By accommodating difference, rather than trying to collate several features into one process for all to use, the social judgment theory framework can explain the individual nature of health visitors decision-making processes.

6.3.3 How the health visitors created an environment for information selection during decision-making processes

The social judgement theory framework recognises the symbiotic relationship between the environment and the decision-maker. This thereby helps to explain the priority health visitors in the current study attributed to preparing the environment for the consultation. By aligning their behaviours and strategies with service delivery requirements the health visitors created a sense of calm that encouraged the mothers to talk and children to play. In achieving this balance, they constructed a context for free-flowing information in which they could select appropriate sources to inform their decision-making processes.

The social judgement theory framework thereby provides a route for explaining the way health visitors, as part of the environment, actively contributed to it, to inform their decision-making processes. Rather than merely collecting information, the health visitors also created an environment which made it possible to recognise information that may be subtle and not immediately obvious. In this way, by using the social judgement theory framework it is possible to explain how health visitors in the study worked with the different features of the environment during their decision-making processes.

6.4 Creating a coherent way to map health visitors' decision-making processes

The next section outlines how the structural features of the Lens Model within the social judgement theory framework make it possible to map the health visitors decision-making processes in a way that facilitates explanation and learning.

6.4.1 Can the Lens Model explain health visitors' decision-making processes?

While the health visitors did not use a prescribed structure or framework for mapping the steps taken during their decision-making activity, use of the Lens Model within the social judgement theory framework can permit explanation of the relationship between health

visitors' decision-making environment and the processes adopted to make a decision. The framework allows details of the individual's behaviours and strategies and naturally occurring factors that influence the decision-making processes to be mapped during real life authentic practice. Using the Lens Model in this way alongside ethnographic participant observation, video feedback, and the 'Think Aloud' method, makes it possible to present the decision-making processes adopted by individual health visitors completing a series of consultations.

6.4.2 What does the Lens Model offer health visitors' decision-making processes?

The Lens Model does not stipulate the number of cues that can inform the decision-making processes. Instead, it states that processes can use as many cues as needed. This is important because as shown in the current study the health visitors dealt with a range of cues in different situations. The ability to manage unlimited information means that the Lens Model can provide a route for explaining decision-making processes at each end of the scale, where there are large and small amounts of information. By not seeking to restrict the information that can be used to inform a decision-making process the Lens Model thereby makes it possible to use all available information during decision-making activity.

Furthermore, as the Lens can present situations where the same information may mean various things to each person it can accommodate difference (i.e., to view something through a Lens means that individuals can see different things in the same information). This is important for health visitors because of the individual, unpredictable nature of their decision-making processes. Data from the current study show that the health visitors dealt with people who despite sharing similar issues during the consultations, could present them in a range of ways. In addition, the health visitors used a variety of behaviours and strategies during their decision-making processes. By accommodating these differences, the Lens Model provides a route for explaining the decision-making processes adopted by individual rather than the group of health visitors. In accommodating difference, the Lens Model can also help to explain the decision-making processes adopted by health visitors when using different information for the same problem.

As discussed in chapter three of this thesis, the Lens Model shows, in picture format, that information presents itself in two ways during the decision-making process (see Figure 19: Health visitor (4) decision-making process using the Lens Model & Figure 20: Health visitor (2) decision-making process using the Lens Model). Firstly, it comes together at one point in the environment. The health visitors in the current study described how they grouped and collated information to make sense of it and understand what it meant. By aligning the information collection to the environment the Lens Model shows its importance as a physical and atmospheric structure where the decision-maker and the mother interact. This interaction is important because without it the decision-making process cannot start. Once it begins, the decision-making process allows the information to broaden and create cues, which give an indication or hint about the issues and what they mean. This process does not happen automatically; it requires people to interact with and understand the information. In this way, the decision-maker is the active participant not the observer of the decision-making process. This is reflected in the data from the current study. Here, the health visitors actively engaged with the information to make sense and understand it. They did not merely collect and record it.

The Lens Model thereby provides structural features as listed below, that mean it is well-suited to explaining the decision-making processes adopted by health visitors.

1. The Lens is convex. This means that the centre is thicker than the edges and it can therefore accommodate an unlimited number of cues, (information). This is important for health visitors because as part of their decision-making processes, they may deal with a large volume of information covering a range of issues. This is seen in the way the lines (rays of light) come from one focal point in the environment, broaden out and align to individual cues in the centre (the lens). By collating cues at the focal point, the Lens Model provides an opportunity for the decision-maker to make sense of the information. This is reflected in the data from the current study where the health visitors described the way they grouped information together and tended not to consider it in isolation.

2. The Lens Model provides an opportunity to show how real life decision-making processes are inherently different and curvilinear rather than linear.
3. By emphasising the importance of the environment, the Lens Model provides an opportunity to explain the features of interaction adopted by the health visitors in the current study. The literature states that interaction relies on the ability of health visitors to relate and engage with mothers and children. Data from the findings of this study show that while interactions are nuanced, subtle and not easy to see, they can be explained in fine detail. Here, by using informal conversation, the health visitors could interact with mothers. Considering this in terms of a relationship as is commonly the case in existing research, negates the fine details which underpin the creation of informality and the use of informal conversation styles, like 'chit-chat' and 'small talk'. As well as being able to engage mothers, the health visitors could talk to them in ways that were indirectly related to the reason for the consultation. The Lens Model therefore makes it possible to map these details in ways that promote explanation and understanding.

The social judgement theory framework thereby provides a vocabulary and structure within which to present and explain the behaviours and strategies taken by health visitors during decision-making processes (see Figure 19: Health visitor (4) decision-making process using the Lens Model & Figure 20: Health visitor (2) decision-making process using the Lens Model). Importantly, by recognising the significance of the environment and social interaction, the framework also makes it possible to explain the way health visitors organise their behaviours and strategies during the decision-making processes adopted. By providing a route for mapping the steps taken by individual health visitors the framework does not pursue a one-size fits all approach. In so doing, it provides a way to create the consistency needed to understand and learn about the decision-making processes health visitors adopted during the current study.

6.5 Chapter Summary

This chapter has presented a critical explanation of the decision-making processes adopted by health visitors during their daily practice. Using elements of social judgement theory and the associated framework, the behaviours, and strategies adopted by the health visitors have been explained and consideration given to the ways they contributed to decision-making processes.

The next chapter, in concluding the Thesis, will present a critical discussion of the new knowledge gained during the study. The implications of the new knowledge will be considered and presented as recommendations for future education, practice, policy and research.

Chapter Seven: Conclusion and Recommendations

7.0 Chapter Overview

This chapter brings the thesis to a close. Having introduced the context for health visitors' decision-making practice, earlier chapters have outlined the problems associated with a lack of understanding and recognition of the processes involved. In so doing, the rationale, theoretical and research intentions for the study have been presented in chapters two, three and four. These chapters have set the context for considering the research findings presented in chapter five. The discussion in chapter six explains the findings concerning health visitors' contemporary decision-making processes.

This final chapter will consider the ways in which the ethnographic study has fulfilled its original intentions. Considering the chosen methods and methodological approach, it will examine how they facilitate insight into authentic decision-making activity, and enable recognition and understanding of the distinct, often subtle, nuanced processes that individual health visitors complete when making decisions. Messages from the study will be presented to explain and critically examine the processes health visitors adopt when making decisions in real life situations. Reflecting on the intentions of the study, each objective will be considered to analyse and examine the contribution its achievement makes to new knowledge, and an emerging understanding of the decision-making processes health visitors follow when responding to clients' problems and issues during consultations. To conclude, key implications will be considered and presented as recommendations for future education, practice, policy and research.

7.1 Research question

> *What decision-making processes do health visitors follow when responding to clients' problems and issues during consultations?*

By contextualising the research problem the next section explains the current situation for health visitors' decision-making processes. Using key learning from the scoping study

presented in chapter two of the thesis, this section rationalises the motivation and intentions for the study.

7.2 Tackling the research problem: health visitors' decision-making processes are important but poorly understood

Through the scoping study presented in chapter two of this thesis, the current study shows how health visitors' decision-making processes are poorly understood and difficult to explain because of two key factors. Firstly, poor recognition and understanding is associated with a paucity of research and secondly, although sources associate health visitors' practice with complexity, uncertainty and unpredictability, the impact of these issues on decision-making processes has not been explored or acknowledged.

7.2.1 A lack of research means that health visitors' decision-making processes are poorly recognised and understood

Described as important, health visitors' decision-making processes have far reaching consequences for children. In explanation, as the only health professional to routinely see children during the first five years of life, health visitors make decisions about children's health, wellbeing, safety, and the services needed to achieve optimal outcomes in each aspect (NHSE, 2014, DfE, 2015, NHSE 2016, OHID, 2023). Despite this, the processes adopted by health visitors to make decisions tend only to be considered in retrospect, if a problem arises like the death of a child because of abuse or neglect (DH, 2009a, Haringey LSCB, 2010). This lack of oversight means that there is currently no way to prospectively learn about health visitors' decision-making practice and the processes they use to make decisions continue to be poorly recognised and understood.

Although research and literature pertaining to decision-making exists, as outlined in chapters one and two of this thesis, the current study shows a paucity of discipline specific research. This means that health visitors, in contrast to nurses, who are perhaps their closest

relative, currently do not have the means for recognising and explaining the decision-making processes they adopt (Hamm, 1988, Cader et al., 2005). As discussed in earlier chapters of this thesis, although publications present studies which discuss processes associated with related activity, they have been designed to examine aspects like professional judgement and needs assessment rather than decision-making processes (Appleton & Cowley 2008a; Appleton & Cowley, 2008b). Importantly, by seeking to address this gap in research the current study shows in the narrative review presented in chapter two of this thesis, that aspects of practice like professional judgement and needs assessment tend to provide insufficient detail to explain the often subtle nuances of health visitors' decision-making processes. By exposing the detail of health visitors' decision-making practice, the current study provides increased visibility of processes that are subsumed in other activities and therefore poorly recognised and understood. Although terms like 'intuition' and 'gut-feeling' are regularly used by health visitors to describe their decision-making activities, they are thought to provide insufficient assurance that an organised, well-considered thought process has been adopted. Despite research which supports the simultaneous use of intuitive [unconscious] thought alongside its conscious counterpart, health and care organisations tend to favour using a single [conscious thought] process approach (Dijksterhuis, 2004). The subsequent lack of a shared language and framework to describe and map the decision-making process thereby inhibits learning by making it difficult to examine and analyse the steps involved. Although this impacts on the ability of practicing health visitors to learn from real life decision-making experiences, the lack of a shared language and framework also makes it difficult for student and newly qualified health visitors to prepare for the realities of decision-making processes.

7.2.2 An inability to acknowledge complexity, means that the uncertainty and unpredictability of health visitors' decision-making processes remain unexplored

While no discipline specific framework exists, the current study shows that despite known differences in their role and functions, the processes organisations adopt for health visitors to use when making and recording decisions tend to be conflated with that of other health and care professionals, including the GP and the nurse (Hamm, 1988, Cader et al., 2005).

Here, the aim is to prevent variations in practice and thereby reduce the risk of making mistakes by creating a level of certainty and predictability in decision-making situations (Reader et al., 1993). Although according to Bell and colleagues, this makes it easier for organisations to manage the information all their practitioners can use to make and explain decisions (Bell et al., 2011), these processes tend not to acknowledge the complexity of the situations in which health visitors make decisions (Appleton & Cowley, 2004; Cowley et al., 2013). Here, as shown in the current study when making decisions health visitors must manage inherent variation because they are dealing with people rather than illness and disease and are therefore managing different problems, issues, and life events, as well as distinct behaviours and actions (Simon, 1979, Fischoff, 2011).

As discussed in chapters one and two of this thesis, despite these distinct features health visitors continue to be required to use checklist style approaches which tend to focus on the decision (the outcome) rather than the process adopted to develop it (Appleton & Cowley, 2004). While these checklist style tools provide a mechanism for undertaking a series of prescribed steps and recording an appropriate outcome from a pre-determined list, they tend not to permit recording of authentic decision-making processes. This means that although a choice has been made, the decision-making process adopted to make it remains undisclosed. In addition, the skills, knowledge and understanding associated with undertaking these processes, again continue to remain hidden, poorly recognised and understood.

7.3 Resolving the research problem: increasing the recognition and understanding of health visitors' decision-making processes by observing authentic practice

The study presents new knowledge developed ethnographically to facilitate an understanding of the decision-making processes health visitors follow during consultations with mothers as part of authentic daily practice. Examining the distinct behaviours and strategies that health visitors adopt when making decisions the study provides analytical and detailed insights into the way they behave during authentic decision-making processes.

In so doing, the study contributes three new, important and distinctive components to a body of knowledge that is characteristically hidden and poorly understood.

Firstly, by giving substance to the expression of the distinct processes that health visitors adopt, the study recognises how they can simultaneously use conscious and unconscious thought during decision-making processes.

Secondly, the study identifies that health visitors' decision-making processes are socially constructed. By examining the way they engage in social interaction with boundaries, the study shows how health visitors use informality to create a context of 'professional friendliness' where they listen, and mothers talk and naturally share their information.

Thirdly, the study identifies and examines the subtle, somewhat nuanced details of the decision-making processes health visitors adopt. While systematic, logical, and non-sequential, the processes are individually generated, well-considered, intentional and distinct.

Although inherently hidden and difficult to explain, using ethnographic participant observation to collect authentic data, prospectively, as discussed in chapter one of this thesis, the current study provides an insight to the operational activity rarely seen because of the autonomous, lone worker, nature of the health visitor's role and functions. In this way, as well as gaining insight into the processes adopted, the current study examined the context in which health visitors use different decision-making processes.

The next section presents the subtleties and nuances seen in the processes health visitors follow to make decisions. In so doing it outlines how the conjoined use of ethnography, the

'Think Aloud' method, and the social judgement theory framework can help to reveal these insights and inform a new understanding of the processes health visitors follow during consultations with clients.

7.3.1 Health visitors' decision-making processes incorporate the simultaneous use of conscious and unconscious thought

Rather than relying on conscious thought processes in isolation, the health visitors in the current study show how they simultaneously make use of unconscious and conscious thought. Here, although aware of what they are doing and why, for some aspects during the decision-making process, health visitors complete activities automatically without being conscious of the intention to do so. Although recognised in the research by Simon and Benner for its potential to positively influence people-focused decision-making by increasing the capacity to manage a range of information, unconscious thought tends to lack favour in the field of health and care because of its associations with impulsive, ill-considered behaviours (Simon, 1979, Benner, 1984, Benner et al., 2009, Munro, 2011). Despite this, when explaining their decision-making processes during the study health visitors use intuitive type language like, hearing 'alarm bells' or having a sense or feeling that something is not quite right' and rather than being impulsive and irrational the behaviours and strategies they use when responding are well-considered and purposeful.

By enabling the health visitors to explain and rationalise personal decision-making processes observed during video replay of the ethnographic participant observation, the 'Think Aloud' method enables health visitors to explain the way their actions are both intentional and decisive. In so doing, during the current study health visitors can explain how by knowing the information needed they purposefully search for it during the consultation. This level of clarity is not something that is seen in research where methods for data collection like interviews and surveys encourage health visitors to recount memories of past events rather than explain their current behaviours and strategies.

7.3.2 Health visitors' decision-making processes are socially constructed, informal and founded on 'professional friendliness'

The study shows how health visitors decision-making processes are predicated on the ability to interact and engage with mothers and children. By employing informal strategies during decision-making processes the health visitors can expedite the flow of information. Here, a high level of informality results in more free-flowing information because it allows health visitors to act in a friendly, person-centred way using approaches associated with informal conversations, like 'chit chat' and 'small talk'. Here, the health visitors adopt processes where they listen more than talk. This is important because, although for health visitors, children represent their primary client, to reach the child, and thereby access much-needed information they must sufficiently engage the mother (or primary carer).

Detailed examination of health visitors' decision-making processes using ethnographic participant observation in the current study illustrates how these processes are founded on social constructs. While distinct and individual, social features are frequently included as key elements of the behaviours, and strategies health visitors say they employ when making decisions. Described in terms of being friendly, advisory, encouraging and supportive, rather than seeking friendship, such terms have until now remained ill explained and largely hidden in a series of personality traits that have arisen largely from the origins of the health visitor profession. However, the conjoined use of ethnographic observation and the 'Think Aloud' method make it possible for health visitors to clearly explain the way they intentionally create informality, and the behaviours and strategies they use to embed 'professional friendliness,' into their consultations, and encourage mothers to talk, tell their story and share information. As outlined in chapter one of this thesis, while the health visitors' role and functions have traditionally centred on an aspiration to be friendly, the findings of this study take the concept of friendliness to a dimension which tends not to be explicit in earlier research. In explanation, rather than merely being a 'nice to have,' health visitors clearly explain how they intentionally create 'professional friendliness' using informality and informal styles of communication like 'chit-chat' and 'small talk' to allow them to collect the information they need to make decisions.

As health visitors' decision-making is socially constructed they focus on the person, and through their interactions, get to know them by listening, observing, and conversing. They do not adopt traditional styles of decision-making where the tendency is to collect medically related information, neither do their processes consider medical, illness, or treatment regimens. Instead, the study shows that health visitors adopt socio-clinical decision-making processes. In so doing, their activities involve incorporating information from all aspects of life including housing, employment, family composition, relationships, friendships, diet, and lifestyle.

By acknowledging how health visitors use informal socially derived strategies to engage mothers, detailed examination through ethnographic observation in the current study also highlights the way they intentionally adopt informal social styles of behaviour to manage situations where information collection may be challenging because it is incomplete or difficult to see. These situations include,

- When the volume of available information is high or low.
- When mothers are poor historians or unwilling to share information.
- When mothers' spoken English lacks fluency.
- When mothers' health literacy is poor and there is no shared sense of urgency or understanding of the presenting issues.
- When, because of a lack of authority to make decisions about children, the health visitor seeks to advise and negotiate and thereby support the mother's choices.

In recognising the informal social construction of decision-making processes, the current ethnographic study thereby acknowledges the way these processes differ fundamentally from the ones adopted by health visitors' counterparts in professions like nursing and medicine. Here, rather than being socially constructed the decision-making processes that doctors and nurses adopt tend to be medically focused and somewhat pre-defined using checklist style tools and approaches (Thompson & Dowding, 2009).

7.3.3 Health visitors' decision-making processes are complex and unpredictable because they are subtle, nuanced, and individually generated

The conjoined use of ethnographic observation and the 'Think Aloud' method helps to reveal skills and expertise health visitors use when following their decision-making processes. Importantly, for the current study, combining these methods shows how despite consciously choosing their behaviours and strategies, health visitors were unlikely to recognise the expertise and skills behind their use. In this way these methods show details integral to decision-making processes that would otherwise remain hidden.

Ethnographic observations during the study highlight these skills and the way health visitors use them during the decision-making processes they follow. For example, to act in a friendly informal way health visitors create a relaxed atmosphere by adapting to the situation they face. In so doing, to make the consultation feel like a conversation, they adopt a non-linear approach and may address issues more than once or not at all. In addition, health visitors listen to mothers and children and using similar terminology, can explain information using informal rather than technical language. Furthermore, when explaining information, health visitors tend to normalise issues by presenting them using a calm tone of voice and rather than explaining issues as problems they prioritise the positive elements. Demonstrating a calm, measured approach, health visitors also show how when acting in a friendly way they use terms like, 'we' rather than 'you' to align in solidarity with mothers. In addition, health visitors show professional friendliness in the way they intentionally structure information as advisory suggestions rather than instructions.

While, to the onlooker the resulting informal, friendly conversation in the current study can appear banal, ordinary, and insufficiently professional, during the 'Think Aloud' event, health visitors can explain intentionally using these behaviours and strategies to manage the consultation and thereby elicit large volumes of information. Rather than being banal, ordinary and somewhat unprofessional, the current study shows how health visitors use

informality and 'professional friendliness' during their decision-making processes to collect information which would otherwise remain hidden and unexplored. By making these behaviours and strategies visible ethnographic observation and the 'Think Aloud' method in the current study show how health visitors using socially constructed, informal decision-making processes to collect a quantity and variety of information, can accommodate complexity and unpredictability. This ability to accommodate complexity and unpredictability tends not be possible when using more formal, medically focused processes like checklist and questionnaire style tools. Indeed, ethnographic observation shows how health visitors can collect a large volume of information about the family and daily life events, not just about the presenting problem or reason for attending the consultation. While much of the information may include similarities across different mother-child dyads, health visitors do not predict the issues or problems in advance but recognise the personal nature of information and how individual clients can experience the same issues in distinct ways.

Although often subtle, and not always easy to see, using ethnographic participant observation and the social judgement theory framework the study shows that health visitors' decision-making processes are systematic, logical, and detailed. In addition, the processes health visitors adopt are both situation and person-specific. As noted previously, during the study the health visitors show how they use of several individually constructed processes. Characteristically, the processes are iterative in nature and develop during the consultation (Simon, 1979, Cowley, 1995, Fischoff, 2011). Being more curvilinear than linear, the decision-making processes the health visitors adopt illustrate how they can return to topics and issues over the course of the consultation. In this way, although the processes are logical and systematic they are not sequential, and the health visitors develop distinct routes depending on the situation and the people involved. Importantly, the study shows that during their decision-making processes health visitors demonstrate that they know how best to encourage individual mothers to share information. Therefore, rather than being the same, each health visitor-client consultation is different, even when considering the same topics and issues. To make decisions in these situations, health visitors adopt processes

which allow them to simultaneously consider the person as an individual, their [social] situation and any associated health issues affecting the problems they are facing. In this way, each health visitors' decision-making processes are distinct and directly relate to the situation. Rather than one process the health visitors in the study use a range of behaviours, and strategies and combine them to manage the quality and quantity of information available.

7.4 A new understanding of the decision-making processes health visitors follow when responding to clients' problems and issues during consultations

By examining the three objectives the next section will analyse the contribution each makes to new knowledge, and an emerging understanding of health visitors' decision-making processes.

Adopting qualitative methodology and the methods for data collection and analysis, as outlined in chapter four of this thesis, the aims of the study were realised using the three objectives presented in earlier chapters and listed below.

- **Objective 1**: Explore, using participant ethnographic observation, health visitors undertaking daily practice in real time to identify the decision-making processes they follow.
- **Objective 2**: Explore, using the 'Think Aloud' method, how health visitors, while watching recordings of their client consultations, recognise and describe their decision-making processes.
- **Objective 3**: Examine, using the social judgement theory framework, the discrete behaviours and strategies individual health visitors adopt during decision-making processes.

These objectives permit consideration of health visitors' decision-making processes from a practice, professional and theoretical perspective. In this way, the study captures health visitors' intuitive unconscious thoughts and descriptions alongside their authentic decision-making processes.

7.4.1 Objective 1: How ethnographic participant observation as a methodological approach makes it possible to understand and recognise health visitors' decision-making processes

- **Ethnographic participant observation shows the detail contained within health visitors' authentic decision-making processes.**

The use of ethnographic participant observation during the study permits collection and recording of detailed data. The data provide deep insights into the authentic behaviours and strategies of health visitors as they undertake real life consultations with mothers and children accessing NHS health visiting services. Repeated viewing of the video recorded observations allows the researcher to examine and by seeing beneath the surface, explore the minutiae of the decision-making processes. In so doing, the study shows the social construction of health visitors' decision-making processes.

Ethnographic observation shows how during their decision-making processes, health visitors primarily focus on person-specific social aspects of information relating to the mothers and children, their situation and the issues or problems they experience. Furthermore, as discussed in chapters one and two of this thesis, this is likely to be associated with the founding [social] principles of the health visitors' role and functions, which are allied with health and its achievement rather than illness and its treatment.

Through social construction the study shows that the processes adopted by health visitors tend not to focus on the clinical or medical aspects as would be expected with traditional health and care related decision-making activity (Thompson & Dowding, 2009). As identified

in chapter five and discussed in chapter six of this thesis, the findings highlight that health visitors use socially constructed processes that rely on the quality of their interactions with mothers and children. This is important because as noted throughout the study, health visitors work with people who have different backgrounds, needs, problems, behaviours, and demonstrate diverse attitudes, and motivations. While socially constructed processes permit recognition of such differences medically constructed ones do not (Bell et al., 2011, Morelli et al., 2022).

The study also shows that by using socially constructed processes during authentic decision-making health visitors can collect greater quantities of person and situation specific information. In addition, with these processes health visitors can accommodate the moderated release of information as the mothers talk and tell their story. Indeed ethnographic observation shows that to complete decision-making processes health visitors do not require information to be available at the same time or at the beginning of the consultation. Using socially constructed processes therefore health visitors show how they deal with information as and when it becomes available. By allowing information to emerge using observation, listening and informal styles of conservation, the health visitor can access a greater range, depth and quantity than would be available in situations where interaction is poor because the focus is merely information collection through questioning and talking.

Although, to create a context for predictable, well-considered decisions, contemporary policy (OHID, 2023), advocates the use of rational rather than non-rational, people-centred centred decision-making approaches, the study shows that health visitors' preparation for socially constructed decision-making processes is detailed and intentional. Indeed, although time consuming, the study shows that in preparation for the consultations health visitors manage specific elements of the physical and atmospheric environment, to ensure it is child-friendly, and feels relaxed and informal. By collecting the mothers and children from the waiting area, for example, health visitors intentionally create a relaxed informal atmosphere with free-flowing information early in the consultation event. While also extending the duration of the consultation, the study shows how health visitors who incorporate enquiries

about the family, and use humour and colloquial language, can appear friendly and interested in the mother as a person and by engaging in two-way conversation about informal, socially focused topics they can encourage information to flow.

By making these features explicit, the conjoined use of ethnographic observations and the 'Think Aloud' methods during the study demonstrates that health visitors' decision-making processes are predicated on their social interactions with mothers and children and their ability to engage in informal conversations. Indeed, when the health visitors focus first on the mother and child rather than merely the reason for the consultation, the information tends to flow with ease. By failing to recognise the social construction of health visitors' decision-making processes, its distinct nature remains unexplored. This is important because the current study shows the distinct nature of health visitors' decision-making processes. However, by implication, failing to acknowledge the distinctions, current policy continues to conflate health visitors' decision-making processes with those of other practitioners delivering health and care services. The consequent use of medically rather than socially constructed approaches has thereby become a characteristic feature in much of the research about health visitors' decision-making processes (Appleton & Cowley, 2004; Appleton & Cowley, 2008a; Appleton & Cowley, 2008b). This is an important factor when seeking to understand and recognise health visitors' decision-making processes because research to date shows that authentic details of the processes adopted are unlikely to be included in the data and subsequent findings. Typically, this deficit tends to happen because service requirements are predicated on medically constructed template style documentation which lacks the necessary space and opportunities for including text-based unexpected content. In addition, such documentation tends to prescribe predetermined information and require the outcome of the decision, rather than the process adopted to reach it. While research shows that health visitors act in line with service requirements by recording the outcome, service specifications currently tend not to seek documentation of the process (Appleton & Cowley, 2004; Appleton & Cowley, 2008a; Appleton & Cowley, 2008b).

The study thereby indicates that service design and configuration must acknowledge this deficit, and consider the changes needed to maximise collection and documentation of information. This is because the imperative to use medically constructed approaches fails to permit availability of the range, depth and quantity of information and thereby means health visitors are unable to access distinct content they need to complete their decision-making processes. Although the people accessing health visiting services may also access medical services, their interaction with health visitors prioritises health achievement rather than illness treatment and so the focus of interaction and engagement is different. For health visitors, engagement happens over time (up to five years), and during a series of consultations rather than a single isolated event. The ability to interact and sustain engagement over time as shown in the study is facilitated by the health visitor's ability to be friendly and interested in the mother, child, and family. Failure of service design and delivery mechanisms to meet these distinct features means that the health visitors' ability to recognise and address the safety, health, and well-being needs of children will be limited.

In addition, the study shows how socially constructed decision-making processes take time. They require health visitors to create a person and situation specific physical and atmospheric environment which encourages free-flowing information. However, cost containment priorities for non-NHS elements of national health and care provision means that the time and skill requirements of socially constructed decision-making processes are unlikely to be accommodated within the current financial envelop. In explanation, the focus of contemporary service design and delivery tends to be characterised by a reductionist philosophy of mandated (minimal provision), where the use of skill mix and a team approach to delivery creates a provision which lacks continuity of care and carer and is largely focused on task completion.

To address these deficits service configuration must create opportunities for health visitors to provide continuity of care and carer, where they are permitted as part of their decision-making processes to specify the number and duration of consultations to offer individual children, and their family. Adopting this approach to service design can thereby

accommodate the time, skills and expertise necessary for social interaction. In this way, as the study shows, an environment can be created where it is possible to collect the range, depth and quality of information necessary for situation and person-specific decision-making processes.

Ethnography also shows how during decision-making processes health visitors anticipate the arrival of unexpected information and the behaviours and strategies they adopt to recognise and deal with it. Indeed, the study shows how information health visitors' use during decision-making processes is not scripted. It comes from free-flowing conversation facilitated by social interaction and made possible by the way health visitors use informal styles of conversation like 'chit-chat' and small talk. In this way, rather than seeking to block the arrival of unexpected information, health visitors' socially constructed decision-making processes tend to accommodate its arrival. In so doing, the simultaneous use of social interaction and informality by health visitors enables them to continue their decision-making processes undeterred by the arrival of unexpected information. This ethnographic study thereby shows how with precision and intention health visitors use informality, 'chit-chat' and small talk during authentic processes to accommodate and anticipate the arrival of unexpected information.

However, rather than accommodating the unexpected, national policy uses rational (normative), check list style decision-making tools like the Ages & Stages Questionnaire (ASQ), that are predicated on certainty and predictability and in so doing seek to eradicate it. These decision-making approaches are designed to collect predetermined information. Presented in checklist format they aim to limit the variation in the information available for the individual to use during decision-making processes. Here, the decision-maker must choose one option from those listed. These checklist style tools thereby tend not to accommodate situations where none of the listed items align to the situation. Although earlier research by Appleton and Cowley shows how rational decision-making approaches enable health visitors to record information, (Appleton & Cowley, 2004; Appleton & Cowley, 2008a; Appleton & Cowley, 2008b; Cowley & Houston, 2003) they tend not to accommodate

situation and person-specific information which despite being about the same issue is different. This means that important facts needed to inform health visitors' decision-making processes about a child's safety, health and well-being are not recorded and remain hidden.

Despite research published more than thirty years ago noting how rational (normative) approaches capture limited social factors associated with the situation or the person and negatively influence the safety, health and well-being of the child, (Reader et al., 1993, Bell et al., 2011, Morelli et al., 2022) health policy continues to advocate their use by health visitors in contemporary service delivery (OHID, 2023). Continuing to use these normative, checklist style tools and approaches therefore is unlikely to permit collection of the information health visitors need to make decisions. While organisations continue to advocate using these tools to reduce variations in practice, they tend not to recognise the inherent uncertainty and unpredictability which characterises health visitors' decision-making processes. This means that such processes are unlikely to offer insights into the processes they adopt. Indeed, despite recognition by Cowley nearly thirty years ago that health visitors' work is complex, unpredictable and uncertain (Cowley, 1995), their continuing use illustrates that current policy and service configuration provides insufficient assurance that the processes currently in use can capture the amount, depth and range of information necessary to give assurance of children's safety, health and well-being (Reader et al, 1993).

By focusing on predictability and certainty these tools are thereby unable to accommodate the requirements for the design and delivery of health visitors' decision-making processes. This is because as the study shows, rather than predicating certainty and predictability, health visitors operate in situations that are inherently complex and unpredictable. The decision-making processes they follow are not facilitated by memory, recall and repetition. Rather, the processes adopted require health visitors to understand and respond to distinct environments, people, and their behaviours, attitudes and motivations. In so doing, as Simon explains, through the 'satisficing' principle, health visitors can select the decision best suited to the person, their situation and the way they experience their distinct issues

(Simon, 1979). By implication therefore, while the use of rational (normative) approaches for decision-making may be appropriate for medically focused professions seeking to recognise known signs and symptoms of disease, they are unlikely to facilitate health visitors' decision-making processes. This is because by focusing on people, health visitors work with differences, complexity and unpredictability and the processes they adopt must be capable of acknowledging these features.

7.4.2 Objective 2: How the 'Think Aloud' as a methodological approach makes it possible to understand and recognise health visitors' decision-making processes

- **The 'Think Aloud' method enables health visitors to describe and explain authentic decision-making processes in their own words.**

As outlined in chapter four of this thesis, the addition of the 'Think Aloud' method enables the researcher to learn from health visitors' experiential accounts of decision-making processes they complete in daily practice. By capturing their verbal accounts of the elements seen during the video replay, the 'Think Aloud' method can bridge the gap between health visitors' actions and explanations. In so doing the study uncovers previously hidden and unexplained information about the health visitor's decision-making processes (Chaters 2003, Lundgren-Laine & Salantera, 2010). As discussed in chapter four of this thesis, by encouraging health visitors to talk freely and draw on their so called 'inner speech', rather than respond to questions, the 'Think Aloud' method, captures the range of their thinking, including the thoughts they may not be fully aware of. During the 'Think Aloud' events health visitors show how they can talk out loud uninterrupted about any thoughts they may have when watching the visual images from the video replay of their consultation(s). In so doing the health visitors share action related information, from their perspective, including what they see, and how it makes them feel.

The 'Think Aloud' method in the current study thereby allows recognition and understanding of two important issues about health visitors' decision-making processes.

- Firstly, although the perception is that health visitors cannot explain the decision-making processes they adopt, the current study shows that this is not the case and in fact health visitors clearly and precisely verbalise detailed accounts of the behaviours and strategies involved. This means that it is no longer appropriate to continue using the inability to explain decision-making as a reason for not exposing the individual nature of health visitors' processes. Instead, national policy must explore ways that enable health visitors to make their explanations explicit. Using ethnography, the 'Think Aloud' method and social judgement theory, the current study provides the foundations on which to build future explorations.

- Secondly, while health and care policy, since the work of Munro more than a decade ago, tends to dismiss the use of intuitive, unconscious thought processes because of the perceived links with poorly considered, impulsive decision-making practices (Munro, 2011), the current study shows that when using intuitive, unconscious, thought health visitors' decision-making processes are organised and decisive. Indeed, as outlined in chapter five of this thesis, the findings show that during the 'Think Aloud' events information emerges when the health visitors talk, without preparation or prompting, about what they see. Used in the current study, therefore, the 'Think Aloud' method helps health visitors to demonstrate how, by using their own words, they can explain with clarity and precision the behaviours and strategies they adopt in their decision-making processes. This is supported in research by Simon (1979) and Dijksterhuis & Nordgren (2006) which advocates the use of so called 'dual process' thinking where individuals consider conscious and unconscious elements simultaneously during decision-making processes.

By continuing to advocate the use of conscious thought in isolation, contemporary health and care policy, as shown by Reader and colleagues, permits decision-making processes that are founded on limited information, and which pose significant risks to the safety, health and well-being of children (Reader et al, 1993). Although Reader and colleagues more than thirty years ago, highlight how the use of conscious thought processes in isolation can curtail

practitioners' information searching activities, give false assurance that all is well, and result in missed information (Reader et al, 1993) the focus of contemporary policy appears unchanged. In light of the wealth of research advocating the potential dual process thinking has to avoid these situations, (Simon, 1979, Benner, 1984, Benner et al, 2009) the findings of the current study provide additional support for the need to review current thinking.

7.4.3 Objective 3: How social judgement theory and the associated framework as a methodological approach develops knowledge and understanding about health visitors' decision-making processes

- **Social judgement theory and the associated framework provides a language and structure capable of recognising the individual (idiographic) features and nature of health visitors' decision-making processes.**

The study shows how the decision-making processes that health visitors follow involve them working with the environment to collect, collate, and manage the information they need. Social judgement theory recognises that the environment includes the health visitor, the atmosphere, and the mothers and children. In addition, the environment in social judgement theory also incorporates social interaction, where, as explained earlier in the chapter, the health visitors and mothers engage about a range of issues not merely those directly relating to the purpose of the consultation. Furthermore, the study shows that the processes health visitors use to make decisions involve more than merely making a choice between two or more options. In this way, as stated earlier in the thesis health visitors tend not to make decisions using the traditional approaches outlined in the literature (Thompson & Dowding, 2009). Instead, the study shows that health visitors actively manage the environment so they can encourage mothers to share information. Here, health visitors adapt the way they speak to the mothers. Rather than giving instructions and using technical terminology they tend to make suggestions and use informal friendly language. Although balance has been highlighted in studies by Dingwall and Peckover in relation to the health visitors' use of power, social judgement theory in the current study permits its exploration in terms of the way health visitors act as one with the environment (Hammond

et al., 1975, Dingwall, 1977; Dingwall, 1982, Peckover, 2002; Peckover & Aston, 2018). Providing a language and framework, social judgement theory is capable of explaining the distinct processes that individual health visitors follow during real life decision-making (Hammond et al., 1975). By accommodating the inherent uncertainty and unpredictability, social judgement theory and the associated framework also makes it possible to chronicle the behaviours, and strategies health visitors adopt during decision-making processes (Hammond, 1955).

As noted previously, while information is key to health visitors' decision-making processes, it is rarely available at the start and individual pieces tend not to emerge at the same time during the consultation. Use of the social judgement theory framework following data analysis thereby permits examination and explanation of information collected during the current study. While it provides a structure, the social judgement theory framework does not prescribe the route the individual must take to make a decision, nor does it propose the information to use during the process. Rather, as a descriptive framework, it allows visibility and understanding of the information collected, collated, and managed during decision-making processes. By tolerating different routes to decision-making, where topics and issues can be revisited at points during the process, the social judgement theory framework can also accommodate complexity. Here, complexity arises through the differences and uncertainties inherent in situations where health visitors make decisions. By revealing the multi-faceted nature of health visitors' decision-making, the social judgment theory framework also provides a route for illustrating the differences that occur in the processes individual health visitors follow. In addition, the clear language and structure of the framework provides a level of consistency which allows examination and explanation of the minutiae of decision-making processes.

As noted in chapter five of this thesis, the findings show that by emphasising the individual nature of health visitors' decision-making processes, social judgment theory permits recognition of subtle nuances that although inherent would otherwise remain hidden. In so doing, the theory and framework permit deep insights into the processes that individual

health visitors follow to make decisions (Hammond et al., 1975). As discussed in earlier chapters of this thesis, social judgement theory and the associated framework thereby makes it possible to use individualised data from the study to explain the distinct nature of health visitors' decision-making processes.

While contemporary policy tends to be predicated on a one-size fits all approach, social judgement theory and the associated framework provides an opportunity to explain using a common language the behaviours and strategies individual health visitors adopt during decision-making processes. In this way, the theoretical framework provides a route for resolving some of the ambiguity surrounding previously hidden explanations of health visitors decision-making processes. By offering the terminology and explicitly outlining the features of specific behaviours and strategies, Hammond provides a route for removing the ambiguity, characteristic of health visitors' decision-making processes. While current thinking is that decision-making processes cannot be explained the current study thereby provides a mechanism which permits clear and precise explanation.

7.5 Recommendations

Having first considered the context and motivation for researching health visitors' decision-making, the chapter outlined how the chosen methodology and approaches have exposed the subtleties and nuances inherent in the processes they follow. Now having synthesised the contribution of new knowledge made by each objective, the next section provides a contemporary account of issues for future consideration in relation to education, practice, policy, and research.

7.5.1 Recommendations for education

For future learning and development relating to health visitors' decision-making processes consideration should be given to the following issues:

1. Interaction strategies need to be developed that can assist health visitors to use dual process thinking.
2. A consistent language and vocabulary that permits recognition of the behaviours and strategies involved in decision-making needs to be agreed. The vocabulary within the features of the social judgement theory framework provides an indication of the issues that should be considered for inclusion.
3. Learning strategies including video-feedback and the 'Think Aloud' techniques to review real life consultations should be considered for inclusion in the curricula of SCPHN education courses. These techniques are well-placed to facilitate analysis of real life decision-making processes.

7.5.2 Recommendations for practice

Because health visitors' decision-making processes are socially constructed, service design should:

4. Permit recording of individual rather than generic decision-making processes.
5. Focus on people (clients) and accommodate differences rather than creating general 'one-size' fits all approaches.

7.5.3 Recommendations for policy

Because health visitors' decision-making processes focus on people, health service policy should:

6. Accommodate person and situation-specific decision-making processes founded on continuity of care and carer.
7. Review the tendency to advocate the use of rational approaches like checklists which prescribe and thereby limit information collection.

7.5.4 Recommendations for research

Future research about health visitors' decision-making processes should:

8. Prioritise observation of authentic practice taking place in real life situations.
9. Use the MeSH thesaurus and adopt decision-making terminology in the title and abstract, to avoid subsuming decision-making into other terms like, 'professional judgement' and 'needs assessment'.

7.6 Strengths and limitations of the study

7.6.1 Strengths of the study

1. The study collected data relating to authentic decision-making processes during real life health visitor client consultations.
2. The range and number of consultations observed during the study permitted in-depth analysis of a range of issues and problems presented by mothers and children during the consultations.
3. The participants were working in a large inner city NHS community trust. This meant that the workload reflected is one which would be expected of other health visiting services in England. The health visitors had access to clients with a range of health and care needs and offered the full range of health visiting services.
4. The health visitors were supportive and enthusiastic participants and provided access to a range of clients and consultations. Although initially reticent to be filmed, many reported the benefits of observing their practice.
5. The health visitors who volunteered to take part in the study had a range of experience. This provided a useful insight into the way experience influenced their decision-making processes and how they drew on their events when making decisions.

7.6.2 Limitations of the study

1. All the participants were female. While not intentional, the addition of male health visitor participants may have provided a different insight into the decision-making processes adopted.

2. Although the clients and situations addressed during the consultations were reflective of the casework for health visitors, there were no cases where health visitors were confronted with situations where they had to make difficult decisions about child maltreatment. While using informal, non-authoritarian, approaches is beneficial in creating free-flowing information exchanges, these approaches are likely to present challenges when difficult decisions need to be made. Although there was evidence during the study of health visitors maintaining professional boundaries when distinctions were blurred, there were no situations where health visitors considered child protection or safeguarding issues during their decision-making processes.

3. Thirteen health visitors participated in the study. Although characteristic of qualitative research, the potential limitations of small scale research cannot be ignored. However, during the current study, the ability to gather data from thirty-nine (39) consultations and eleven (11) 'Think Aloud' events, has provided a dataset to facilitate in depth analysis. Being representative of the field, the dataset thereby contains the breadth of client groups, issues, and problems typical of the health visitors' universal role and function.

4. While social judgement theory is familiar in the fields of nursing, medicine and allied health it is relatively unknown in the health visitor profession. Any use in the future would therefore require strategies to first facilitate learning about the framework.

7.7 Chapter Summary

The chapter has presented a critical examination of the processes health visitors follow when making decisions during authentic client consultations to respond to the problems and issues shared. In bringing the thesis to a close, it has considered the ways in which the study

has fulfilled its original intentions. By reflecting on the intentions, the chapter has examined each objective and critically considered its contribution to the study. In so doing, the distinct elements of the health visitors' decision-making processes have been presented and examined to outline the realities for contemporary practice. Key implications have been considered and presented as recommendations for future education, practice, policy, and research.

Appendix One: Consent Form

13 April 2018

Centre Number:

Study Number: **IRAS ID: 202237**

Participant Identification Number:

CONSENT FORM

Title of Project: What is the contribution of conscious and unconscious thought to health visitors' clinical decision-making?

Client

1. I confirm that I understand and by ticking and initialling each box I am consenting to this element of the study. I understand that it will be assumed that unticked/initialled boxes mean that **I DO NOT** consent to that part of the study. I understand that by not giving consent for any one element I may be deemed ineligible for the study. ☐

2. I confirm that I have read the information sheet (version 1) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

3. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical/health visitor care or legal rights being affected. ☐

4. I understand that during my participation in the research I will be video recorded. ☐

5. I understand that my child(ren) who are with me during my consultation with the health visitor will be captured on the video recording, but they are not the focus of the study. ☐

6. I understand that no part of the video recording will be used in the dissemination of the findings of the study; that only members of the researcher's supervisor team will see the video recordings and they will be destroyed at the end of the study. ☐

7. I give my permission to be video recorded. ☐

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8. I give my permission for my child(ren) who are with me during my consultation with the health visitor to be video recorded during this research. ☐

9. I understand that I will be audio recorded during my participation in the research and that the audio recording will be destroyed at the end of the study. ☐

10. I give my permission for information, including the use of quotations, collected during the interview, to be used in any presentation of the findings. ☐

11. I give my permission to be audio recorded as part of my participation in this research study. ☐

12. I understand that if I withdraw from the study once analysis has commenced it will not be possible to extricate/remove the data from the analysis, but the information from the video and audio files will be deleted. ☐

13. I understand that the information collected about me will be retained for 4 years following completion of the study and that it will be used to support other research in the future, and may be shared anonymously with other researchers. ☐

14. I have discussed my intention to take part in this study with all the people who have parental responsibility for the child(ren) who are attending with me for my consultation(s) with the health visitor. ☐

15. I agree to take part in the above study ☐

_____	_____	_____
Name of Participant	Date	Signature
_____	_____	_____
Name of Person taking consent	Date	Signature

Florence Nightingale Faculty of Nursing & Midwifery

13 April 2018

Centre Number:

Study Number: **IRAS ID: 202237**

Participant Identification Number:

CONSENT FORM

Title of Project: What is the contribution of conscious and unconscious thought to health visitors' clinical decision-making?

Health visitor

1. I confirm that I understand and by ticking and initialling each box I am consenting to this element of the study. I understand that it will be assumed that unticked/initialled boxes mean that **I DO NOT** consent to that part of the study. I understand that by not giving consent for any one element I may be deemed ineligible for the study. ☐

2. I confirm that I have read the information sheet (version 1) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

3. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my position as a health visitor in the trust or employment/ legal rights being affected. ☐

4. I understand that during my participation in the research I will be video recorded. ☐

5. I understand that no part of the video recording will be used in the dissemination of the findings of the study, that only members of the researcher's supervisor team will see the video recordings and that the video recording will be destroyed at the end of the study. ☐

6. I give my permission to be video recorded. ☐

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7. I understand that I will be audio recorded during my participation in the research and that the audio recording will be destroyed at the end of the study. ☐

8. I give my permission for information, including the use of quotations, collected during the interview, to be used in any presentation of the findings. ☐

9. I give my permission to be audio recorded as part of my participation in this research study. ☐

10. I understand that the information collected about me will be retained for 4 years following completion of the study and that it will be used to support other research in the future, and may be shared anonymously with other researchers. ☐

11. I understand that if I withdraw from the study once analysis has commenced it will not be possible to extricate/remove the data from the analysis, but the information from the video and audio files will be deleted. ☐

12. I agree to take part in the above study. ☐

_____	_____	_____
Name of Participant	Date	Signature
_____	_____	_____
Name of Person taking consent	Date	Signature

Appendix Two: Letter stating consent to undertake the study from (HRA Health and Care Research Wales) (HRCW)

Ymchwil Iechyd a Gofal Cymru
Health and Care Research Wales

NHS
Health Research Authority

Dr Mary Malone
Kings College London
SE1 8WA
mary.malone@kcl.ac.uk

Email: hra.approval@nhs.net

26 June 2018

Dear Dr Malone

HRA and Health and Care Research Wales (HCRW) Approval Letter

Study title:	**What is the contribution of conscious and unconscious thought to health visitors' clinical decisions?.**
IRAS project ID:	**202237**
REC reference:	**18/HRA/1722**
Sponsor	**King's College London**

I am pleased to confirm that HRA and Health and Care Research Wales (HCRW) Approval has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications received. You should not expect to receive anything further relating to this application.

How should I continue to work with participating NHS organisations in England and Wales?
You should now provide a copy of this letter to all participating NHS organisations in England and Wales, as well as any documentation that has been updated as a result of the assessment.

Following the arranging of capacity and capability, participating NHS organisations should **formally confirm** their capacity and capability to undertake the study. How this will be confirmed is detailed in the "*summary of assessment*" section towards the end of this letter.

You should provide, if you have not already done so, detailed instructions to each organisation as to how you will notify them that research activities may commence at site following their confirmation of capacity and capability (e.g. provision by you of a 'green light' email, formal notification following a site initiation visit, activities may commence immediately following confirmation by participating organisation, etc.).

It is important that you involve both the research management function (e.g. R&D office) supporting each organisation and the local research team (where there is one) in setting up your study. Contact details of the research management function for each organisation can be accessed here.

IRAS project ID	202237

How should I work with participating NHS/HSC organisations in Northern Ireland and Scotland?
HRA and HCRW Approval does not apply to NHS/HSC organisations within the devolved administrations of Northern Ireland and Scotland.

If you indicated in your IRAS form that you do have participating organisations in either of these devolved administrations, the final document set and the study wide governance report (including this letter) has been sent to the coordinating centre of each participating nation. You should work with the relevant national coordinating functions to ensure any nation specific checks are complete, and with each site so that they are able to give management permission for the study to begin.

Please see IRAS Help for information on working with NHS/HSC organisations in Northern Ireland and Scotland.

How should I work with participating non-NHS organisations?
HRA and HCRW Approval does not apply to non-NHS organisations. You should work with your non-NHS organisations to obtain local agreement in accordance with their procedures.

What are my notification responsibilities during the study?
The document "*After Ethical Review – guidance for sponsors and investigators*", issued with your REC favourable opinion, gives detailed guidance on reporting expectations for studies, including:

- Registration of research
- Notifying amendments
- Notifying the end of the study

The HRA website also provides guidance on these topics, and is updated in the light of changes in reporting expectations or procedures.

I am a participating NHS organisation in England or Wales. What should I do once I receive this letter?
You should work with the applicant and sponsor to complete any outstanding arrangements so you are able to confirm capacity and capability in line with the information provided in this letter.

The sponsor contact for this application is as follows:

Name: Rita Newland
Tel: 07787 575 219
Email: rita_newland@hotmail.co.uk

Who should I contact for further information?
Please do not hesitate to contact me for assistance with this application. My contact details are below.

Your IRAS project ID is **202237**. Please quote this on all correspondence.

IRAS project ID	202237

Yours sincerely
Gemma Oakes
Assessor

Email: hra.approval@nhs.net

Copy to: *Professor Reza Razavi, Kings College London [Sponsor Contact]*
reza.razavi@kcl.ac.uk
Dr Alan Warnes, North West London NHS Trust
alan.warnes@nhs.net

Appendix Three: Socio political influences on the health visitor role and function (1900 – 2023)

	What Happened	Focus of the health visitor's role	Impact on the health visitor's role	Publications (health visiting research).
1904	Interdepartmental committee report on physical deterioration was published. This focused on maternal and child welfare because the birth rate was falling and child health was poor.	The health visitor's role focused on child welfare.	Health visitors had greater national recognition. They were involved in home based surveillance of mothers and children.	
1907	Notification of Births Act was published.	The health visitor's role focused on preventing infant mortality.	Infant welfare gave the health visitor greater credibility.	
1910	The health visitors Bill was published, giving the Local Authority the power to appoint health visitors and decide on the required qualifications.	The health visitor's role focused on women, children, sanitation, and hygiene.		
1918	The Maternity and Child Welfare Act was published.	The health visitor's role focused on mothers and young children.		
1919	The Nurse's Act was published, and for the first time introduced statutory regulation. The Ministry of Health & Education board introduced a university based, two year training course for health visitors.		The profession now had a nationally recognised training program, which would have increased the consistency of preparation for those seekingto become a health visitor.	
1920	The Local Authority provides a universal health visiting service. The service was for everyone and not just for the poor.	The health visitor's role focused on maternal and child welfare.	The health visitor was working with more people, not just those who were poor.	
1934	The free School milk scheme started, demonstrating that state intervention was used to increase the welfare of children.			
1944	The Education Act was published. The Local Authority provided school meals to increase the welfare and health of children.			
1946	The NHS Act was published. The Local Authority was now responsible for providing a health visiting service.			
1948	The Children Act was published, which removed the role in child protection away from the health visitor and gave it to the social worker.	The health visitor's role focused on child welfare.	The health visitor service was provided by the Local Authority and comprised the provision of a home visit to all babies in the first month of life.	

	What Happened	Focus of the health visitor's role	Impact on the health visitor's role	Publications (health visiting research).
1956	The Jameson Report (An enquiry into health visiting), was published. This was based on opinion and not research or objective data. Health visitor education began to be based in universities. Entry was to be predicated on successful completion of nurse education.	The health visitor's role focused on health education and problem identification. They were to look for signs of social dysfunction. The health visitor was to focus on health education rather than child protection.	The use of opinion rather than evidence about the impact or effectiveness of the health visitor's role meant it was poorly understood and therefore lacked credibility. Although, working closely with the GP, health visitors were treated as the subordinate rather than an equal partner. Although university based education may have been attributed increased credibility to the ability of health visitors, the alignment to nurse education, conflated the two professions and meant health visiting was no longer considered distinct from nursing.	

	What Happened	Focus of the health visitor's role	Impact on the health visitor's role	Publications (health visiting research).
1962	The Council for the Training of Health Visitors was established. This coincided with the establishment of the Council for the Training of Social Workers.		The need to complete the nurse education programme prior to health visiting meant that health visitor profession was conflated with nursing, and not considered distinct. The creation of a recognised training programme syllabus, examination and a system of fieldwork teaching and a period of supervised practice, provided greater consistency for those entering the profession.	
1966	The Salmon Report. (Report on senior nursing staff structure in hospital).	The health visitor's role now focused on needs assessment.	The health visitor was now managed by hospital nurses. Operational management was via hospital based nurse management structures. The distinct role of the healthe visitor continues to be lost within the secondary care based, nursing management structures.	
1967	The Council for the Training of Health Visitors published the first definition of the health visitor.		This provided consistency of role recognition.	
1968	The Seebohm Report, review of social services was published.	The health visitor's role focused health promotion and illness prevention.	The health visitor faced inconsistent expectations about their role and function. The health visitor was seen as a generalist whose role was to complement other professionals, including the district nurse, social worker, community health and yet they were also expected to focus on teaching parents to parent their children and to maintain on going responsibility for their ongoing health care.	
1969	The definition of the health visitor was revised and expanded. The Mayston management structure of community bursing services was published.		Community services were seen as inferior to hospital services. This meant that health visitors very little control over their management or resources.	

	What Happened	Focus of the health visitor's role	Impact on the health visitor's role	Publications (health visiting research).
1974	The NHS was reorganised with the Labour Government and Area health authorities created.	The health visitor was a part of nursing.	The transfer of health visitor's employment from Local Authorities to Health Authorities, meant they were aligned to a system which considered an individual's health rather than the public's health.	
1977	Council for the education and training of health visitors (CETHV) published the principles of health visiting.	From the perspective education and training, the focus of the health visitor's role was now on public health and centred on four principles.	The publication of the education and role specification validated the health visitor role and received greater recognition.	Council for the Education and Training of Health Visitors (1977). An investigation into the Principles of Health Visiting. Council for the Education and Training of Health Visitors.

	What Happened	Focus of the health visitor's role	Impact on the health visitor's role	Publications (health visiting research).
1983	The Griffiths on NHS Report.	The health visitor's role focused on monitoring child welfare by advising children and families. They were to be non-authoritarian and work in ways that meant families would accept their services.	Health visitors were managed by a general manager, and not a nurse or health visitor. The role is vague, meaning health visitors activity is led by the needs of the primary care team (PHCT).	Dingwall, R. (1982). Community nursing and civil liberty. Journal of Advanced Nursing, 7, 337-346. Royal College of Nursing in the United Kingdon (1983). Thinking about health visiting. Royal Collecge of Nursing of the United Kingdom.
1986	The Cumberledge Report (Neighbourhood Nursing)			
1989	The Crown Report	The focus of the health visitor now included treating illness.	Health visitor took on the prescribing function.	
1989	Health for all Children Report (a programme of child health surveillance).	The health visitor's role focused on child health surveillance.	Health visitor takes on the surveillance role for child health, looking for problems in child development at specific stages in a child's life.	

	What Happened	Focus of the health visitor's role	Impact on the health visitor's role	Publications (health visiting research).
1990	NHS and the Community Care Act was published	The health visitor's role focused on public health, health promotion and supporting parenting. To be accepted by parents, health visitors worked in ways that would encourage parents (mothers) to like them.	The health visitor is seen as the property of the GP fundholder and offers a universal service. The health visitor adapted their practice so parents will like them and invite them into their family life.	Luker, K., & Chalmers, K. (1990). Gaining access to clients: the case of health visiting. *Journal of Advanced Nursing, 15* , 74-82. Chalmers, K. (1992). Goving and receiving empirically derived theory on health visitng practice. *Journal of Advanced Nursing. 17* , 1317-1323. Chalmers, K. (1993). Searching for health needs. The work of health visiting. *Journal of Advanced Nursing. 18* ,900-911.
1991	The Patient's Charter was published		The health visitor must provide the service within specified time bands	
1992	The Scope of Practice was published.		The health regulator states that the health visitor must complete continuing professional development to function in different roles. The health visitor can no longer do what is needed but must complete training for different roles and functions.	
1992	The Health of the Nation was published.	The health visitor's role focused on accident prevention	Working with parents/families to prevent children having accidents and needing to attend the Accident and Emergency department (A&E).	
1995	The Standing Nursing and Midwifery Advisory Committee published a report about the public health role of health visitors	The health visitor's role focused on specialist public health.	Health visitor now had a career structure and was seen as the person to take on specialist roles in public health, working with specific communities e.g., the homeless.	Cowley, S. (1995). In health visiting, a routine visit is one that has passed. *Journal of Advanced Nursing, 22* , 276-284.
1997	The New NHS: modern, dependable was published.	The health visitor's role focused on community development.	Health visitor involved with developing communities, health needs assessment.	
1998	The Acheson Inquiry report was published.	The health visitor's role focused on reducing health inequalities and enabling parents to care for their children, by providing emotional and social support	Intensive home visiting in the first two years of a child's life to reduce the impact that inequalities have on infant mortality.	
1999	The public health strategy called, Saving Lives, our healthier nation was published.	The health visitor's role focused on health promotion.	The health visitor worked with special needs groups.	Cody, A. (1999). Health visiting as therapy: a phenomenological perspective. *Journal of Advanced Nursing, 29* , 1, 119-127.
1999	Making a difference report outlining the Government's Strategy for nursing, midwifery, and health visiting is published.	The health visitor's role focused on health improvement.	The health visitor worked with communities, leading parenting programmes. The term public health nurse began to be used to denote the health visitor.	
1999	The Crown Report II was published.	The health visitor's role continues to include nurse prescribing.	Includes nurse prescribing as a core element of the role. Health visitors must complete the require training within a specific timescale	

2000	Health for all children, fourth edition was published.	The health visitor's role focused on child health screening and health promotion.	The health visitor must complete six predetermined screenins during the pre- school period.	Cowley, S., & Houston, A. (2003). A structured health needs assessment tool: acceptability and effectiveness for health visiting. *Journal of Advanced Nursing, 43* ,1,82-92.
2004	The Children Act published amendments, following the death of Victoria Climbie	The health visitor's role focused on promoting children's health and safety relating to the five elements within the 'Every child matter's' framework.	The health visitor must work with other agencies to keep the child safe from harm and neglect.	Appleton, J., & Cowley, S. (2004). The guideline contradiction: health visitors' use of formal guidelines for identifying and assessing families in need. *International Journal of Nursing studies 41* , 785-797. Cowley, S., Mitcheson,J.,& Houston, A. (2004). structuring health needs assessments: the medicalisation of health visiting. *Sociology of health and illness, 26* , 5,503-526
2007	Facing the Future report was published.	The health visitor's role focused on early intervention, prevention, and health promotion.	Health visitor is now the leader of a skill mix team and is no longer working alone as case worker.	
2007	The Children's Plan was published.	The health visitor's role focused on identifying vulnerable families and supporting parenting.	Provision of intensive support to vulnerable families through parenting programmes and working with sure start children's centres.	Appleton, J., & Cowley, S. (2008). Health visiting assessment processes under scrutiny: a case study of knowledge use during family health needs assessments. *International Journal of Nursing Studies, 45* , 682-696. Appleton, J., & Cowley, S. (2008). health visiting assessment-unpackingcritical attributes in health visitor needs assessment practice: A case study. *International Journal of Nursing Studies, 45* ,323-345.
2009	The Healthy Child Programme was published.	The health visitor's role focused on health promotion, early intervention, and prevention through the Healthy child programme. The objective was to prepare children for school entry.	The health was identified as the leader of the programme dedicated to promoting child health and wellbeing during the first five years of life.	
2009	Getting it right for children and families: ambition, achievement, and action.	The health visitor's role focused on child and family health.	The health visitor has a recognised role in child protection and provides a named link to each sure start children's centre.	
2009	The Call to Action – health visitor implementation plan was published.		The government decision to reinvest in health visiting means that more people are being recruited to education and training programmes.	
2009	The Laming Inquiry: the protection of children in England was published.	The health visitor's role focused on child protection and safeguarding.	The health visitor again has a recognised role in child protection. They were expected to have professional curiosity but given no legal authority to act.	
2009	Healthy lives, brighter futures. The Government's strategy for child and young people's health, was published.	The health visitor's role focused on child protection.	Child protection is again presented as a priority for the health visitor. The health visitor is agin expected to protect children from harm, with no legal authority they were to operat as case finder and compliment the work of the social worker, case holder.	

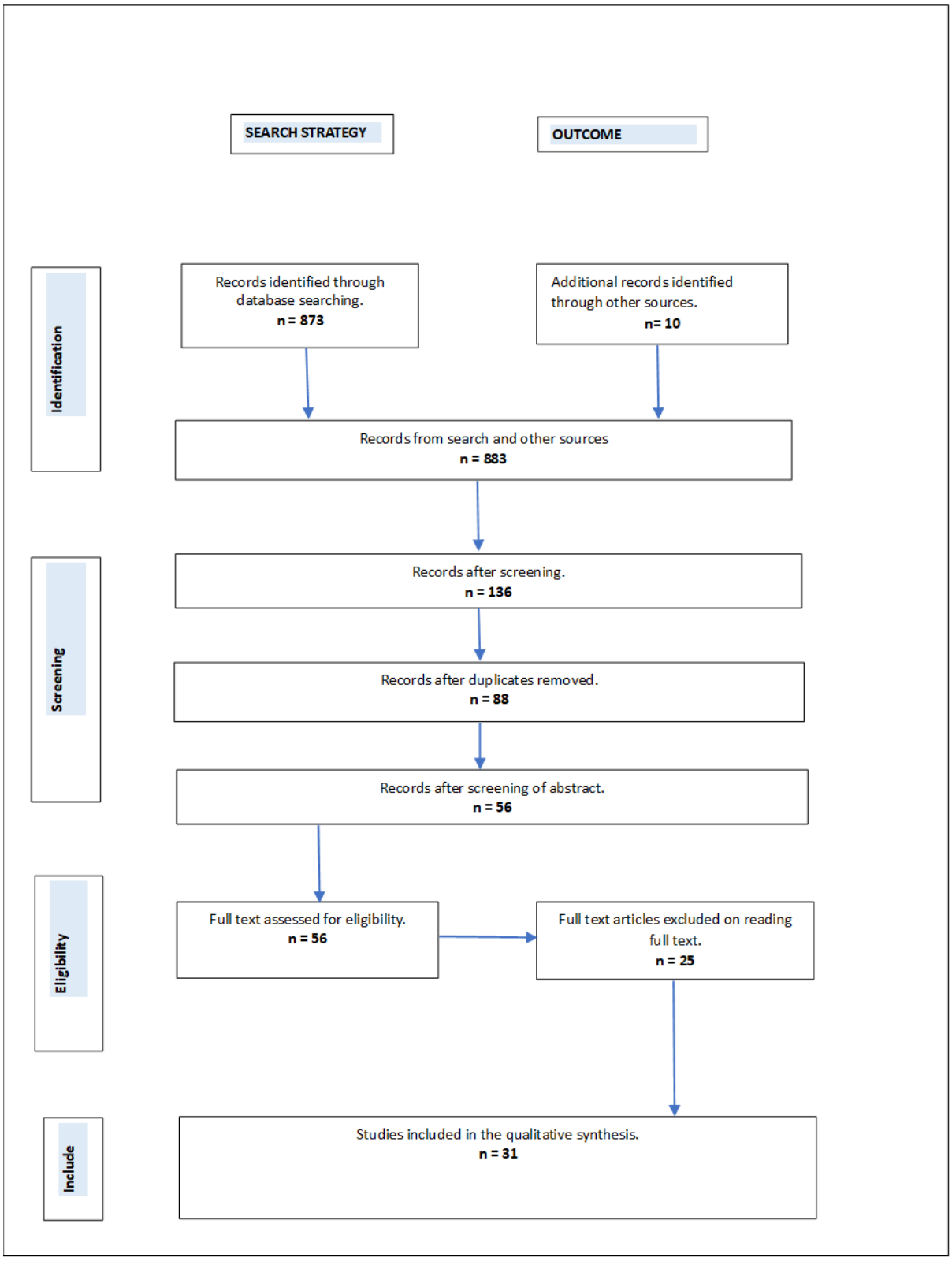
	What Happened	Focus of the health visitor's role	Impact on the health visitor's role	Publications (health visiting research).
2010	The review of early intervention, by Graham Allen, was published. The health visitor implementation plan, the government's commitment to increase the number of health visitors started.	The health visitor's role focused on parenting support and encouraging good parent-child relationship through attachment during the first 3 years.	The focus is on public health, working with communities, and disadvantaged families. The health visitor must work with children's centres, maternity, primary care, and GP services.	
2011	The Munro Review of child protection was published		Although, focused on social work not the health visitor, the report recognises the value of early intervention, professional judgement and the cautious use of gut feeling when making decisions about a child's safety	
2012	The Health and Social Care Act was published. The Wave Trust report, tackling the routes to disadvantage is published presenting the ecominic case for early intervention.	The health visitor's role focused on early intervention during the first two years of life (1001 critical days) and safeguarding children.	National leadership for the profession is provided by a Chief Public Health Nurse, who is also a health visitor. Working with an evidence base and government commitment for early intervention, provides greater legitimacy to the health visitors' role.	
2013	The Why health visiting report, researching health visiting was published, commissioned by the Government as part of the health visitor implementation plan (2010-2015).		A contemporary evidence base for health visiting was produced to justify the role, function, and service specification.	Cowley, et al., (2013). Why Health Visiting? A review of the literature about key health visitor interventions, processes and outcomes for children and families. National Research Unit, Kings College London. Whitaker,K.,et al.(2013).Start and Stay:The recruitment and retention of health visitors. National Research Unit, Kings College London. Donetto, S.,et al.(2013). Health Visiting: The voice of service users. Learnming from service users' experiences to informthe development of UK health visiting practice and services. National Research Unit, Kings College London.

	What Happened	Focus of the health visitor's role	Impact on the health visitor's role	Publications (health visiting research).
2014	The NHS Five Year Forward View was published outlining the financial case for early intervention, health promotion and illness prevention.	The health visitor's role focused on early intervention and prevention.		
2014	Health visitor core service specification was published	The health visitor's role focused on early intervention, prevention and providing support	The health visitor must make decisions about the level of resource to offer individual children and families. The specification was based on four predetermined levels of increasingly targeted intervention.	
2015	The commissioning of health visitor services is transferred to the Local Authority		The need to illustrate outcomes of health visitor activity and intervention to meet the contract requirements.	
2015	The 4-5-6 model of health visitor delivery was published.	The health visitor's role focused on early intervention and prevention.	The model aligned the service model with evidence to justify intervention and presented a graphic presentation of the health visitor's activity.	
2015	The 1001 Critical Days Manifesto was published, by cross party peers, reaffirming the financial benefit of early intervention.	The health visitor's role focused on early intervention.	Health visitors to offer the service from pregnancy before the birth of the child.	Astbury, R., Shepherd, A., & Cheyne, H. (2016). Working in partnership: the application of shared decision-making to health visiting practice. *Journal of Clinical Nursing, 26,* 215-224. King, C. (2016). Sticking to carpets-assessment and judgement in health visiting practice in an era of risk: A qualitative study. *Journal of Clinical Nursing, 25,* 1901-1911. King, L. (2016). Future Citizens: culture and political conceptions of children in Britain 1930-1950. *Twentieth Century British History, 27,* 3, 389,411.

	What Happened	Focus of the health visitor's role	Impact on the health visitor's role	Publications (health visiting research).
2020	The health visiting and school nursing service delivery model was published, superseding the 4-5-6 model, the new model described three levels of service offer, universal, specialist and targeted.	The health visitor's role focused on child and family health, to improve health outcomes and reduce inequalities.	The health visitor now has formal structures and national guidance which describes the requirements for how they practice, in relation to early intervention, the identification of risk and need, safeguarding and child protection. They must direct resources to those in greatest need, deciding the children and families to target and those who will receive a universal service.	
2022	The Nursing and Midwifery Council published the standards of proficiency for specialist community public health nurses.	The health visitor's role focused on public health, for children, families, and communities.	The education and training for health visitors is to change so the health visitor will be an autonomous public health leader.	Morton A., & Adams, C. (2022). Health visiting in England: The impact of the COVID-19 pandemic. *Public Health Nursing. 39* , 820–830.
2023	The NHS Long Term Workforce Plan was published by NHS England.		The 15 year plan will increase the number of training places for people entering the health visitor profession by more than 70%.	King, E., et al. (2023). Health visiting in the UK in light of the COVID-19 pandemic experience (RReHOPE): a realist review protocol. *BMJ Open, 13* : e068544. doi:10.1136/bmjopen-2022-068544.

Appendix Four: PRISMA Flow chart of the literature selection process for the study

PRISMA FLOW CHART



Appendix Five: Charting the data

Rhodes, B., (1985). Occupational ideology and clinical decision-making in British nursing. *International Journal of Nursing Studies*, *22*(3), 241-257.
Research question: What is the health visitor's perception of their decision-making role?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Rhodes, B., (1985). Occupational ideology and clinical decision-making in British nursing. *International Journal of Nursing Studies*, *22*(3), 241-257.	To identify the health visitor's perception of their decision-making role.	UK, a health district in Yorkshire regional health authority	Self-report questionnaires. Normative and perceived decision inventories used to consider the views of health visitors. 51 health visitors in a sample of 300 (nurse) participants. Health visitors in the study were included as one of six groups of nurses. The response rate was 69% from 115 returned questionnaires.	Health visitors' reported that they did not make decisions in relation to the elements listed on the inventory. The elements on the inventory related to physical patient care. The role of the health visitor was described as non-physical, incorporating health promotion, education, and screening.	Health visitors did not report decision-making to be part of their practice. The nursing process was described as a decision-making model.

Lauri, S. (1989). Changes in national child health care policies and their effects on the public health nurse's work in child health care in Finland. *Journal of Advanced Nursing*, *14*, 1034-1037.

Research question: **How do public health nurses make decisions when working in the child health care system in the ten years from 1976-1986?**

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Lauri, S. (1989). Changes in national child health care policies and their effects on the public health nurse's work in child health care in Finland. *Journal of Advanced Nursing*, *14*, 1034-1037.	To determine the public health nurses work and decision-making process in child health care	Finland	Two studies one in 1976 and one in 1986. Postal questionnaire. Measurement by a five-point Likert scale.	Public health nurses. Public health nurses make decisions about a child's physical and psychological health including physical care, developmental stages, socio-economic care.	Decision making practice of public health nurses has developed in the 10 years from 1976 to 1986.

Lauri, S.H. (1990). Public health nurses' knowledge base and decision-making process in child health care methodic experiment. *Scandinavian Journal of Caring Sciences*, *4*(1), 10-13.

Research question: what is the contribution of conscious and unconscious thought to the health visitors' clinical decisions?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Lauri, S.H. (1990). Public health nurses' knowledge base and decision-making process in child health care methodic experiment. *Scandinavian Journal of Caring Sciences*, *4*(1), 10-13.	To examine public health nurses (PHN) knowledge base and decision-making process in child health care.	Community settings (including the client's home and community child health clinics), Finland	Interviews with 20 public health nurses Computer simulation with 61 public health nurses. 'Think Aloud' method where PHN talked about their decision-making during child health clinic consultations and home visits to a newborn baby. Data analysis using ethnographic data analysis computer programme.	Public health nurses make decisions about childrens' health, development, behaviour, and care.	Decision-making happens during client interaction. Decision-making was not always systematic. Public health nurses did not describe how they make decisions. Public health nurses described their decision-making process in relation to the specific situations.

Chalmers, K. (1992). Giving and receiving: an empirically derived theory on health visiting practice. *Journal of Advanced Nursing*, *17,* 1317-1325.

Research question: how do experienced health visitors conceptualise and evaluate their work?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Chalmers, K. (1992). Giving and receiving: an empirically derived theory on health visiting practice. *Journal of Advanced Nursing*, *17,* 1317-1325.	To explore how experienced health visitors conceptualise and evaluate their work.	England	Grounded theory Purposive sample of health visitors. Semi-structured conversation interviews.	Health visitors' decisions relate to children and families.	Health visitors used their past experiences guide their activity. Health visitors described decision-making activity but did not call it decision-making. Health visitors focused on client preferences to maintain their engagement.

Lauri, S. (1992). Using a computer simulation programme to assess the decision-making process in child health care. *Computers in Nursing*, *10*(4), 171-177.

Research question: what process do public health nurses use to make decisions about child health care?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Lauri, S. (1992). Using a computer simulation programme to assess the decision-making process in child health care. *Computers in Nursing*, *10*(4), 171-177.	To assess the decision-making process of public health nurses work in child health care, using a computer simulation decision-making programme.	Finland	Computer simulations based on a home visit to a newborn baby and a clinic consultation between the public health nurse and parents of an 18 month child. The public health nurses worked through the simulations which took 50 to 100 minutes. Comparative analysis of actual process and ideal performance. Used problem solving theory and a 6-point decision-making theory model.	A convenience sample 61 public health nurses. The public health nurses worked in child health care, school health care and home nursing.	The decision-making process comprised assessment, prioritisation of need, and implementing interventions. The decision-making process during home visits was more likely to focus on the family and processes made in clinic situations were closely related to the child. Decision-making processes were not consistent between the nurses.

Chalmers, K. (1993). Searching for health needs: the work of health visiting. *Journal of Advanced Nursing, 18,* 900-911.

Research question: How do health visitors search for client's health needs?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Chalmers, K. (1993). Searching for health needs: the work of health visiting. *Journal of Advanced Nursing, 18,* 900-911.	To describe and analyse health visitors' work when searching for client's health needs.	England	Semi-structured conversational interviews Grounded theory	Convenience sample of 45 health visitors from 13 health authorities.	Health visitors described times and situations when they made decisions, but not call it a decision-making activity. Health visitors did not describe how they made a decision. Health visitors described being alert to cues and using experience to decide if something was 'not quite right'.

Fieldman, C., Olberding, L., Shortridge, L., Toole, K., Zappin, P. (1993). Decision-making in case management of home healthcare clients. *Journal of Nurse Administration*, *23*(1), 33-38.

Research question: What are the common elements in nurses' decision to maintain or terminate client care?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Fieldman, C., Olberding, L., Shortridge, L., Toole, K., Zappin, P. (1993). Decision-making in case management of home healthcare clients. *Journal of Nurse Administration*, *23*(1), 33-38.	Examine how public health nurses make decisions about maintaining of terminating nursing services to clients.	USA	Two phase study Records review of open cases and Postal questionnaire containing situation-based scenarios (33 responses received).	55 Public health nurses.	Public health nurses had different decision-making capabilities. Decision-making is a process of inspection and intuition but not scientific investigation and logical thinking. Public health nurses make decisions based on their values and beliefs relating to 'person, health, environment and nursing'.

Orme, L., & Maggs, C. (1993). Decision-making in clinical practice: how do expert nurses, midwives and health visitors make decisions? *Nurse Education Today*, *13*(4), 270-276.

Research question: Not stated in the paper.

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Orme, L., & Maggs, C. (1993). Decision-making in clinical practice: how do expert nurses, midwives and health visitors make decisions? *Nurse Education Today*, *13*(4), 270-276.	To explore the decision-making process of experienced nurses.	UK	Group discussion and debate to seek opinion. Group interviews.	12 clinicians qualified for approximately five years.	How decisions are made is poorly understood so preparation for decision-making is haphazard and unplanned. The outcome rather than the process of decision-making is the element that is the subject of reflection and evaluation. Knowledge, experience, gut feeling, perception, and intuition are important to decision-making.

Chalmers, K. (1994). Difficult work: health visitors with clients in the community. *International Journal of Nursing Studies*, *31*(2), 168-182.

Research question: How do health visitors work with clients in the community?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Chalmers, K. (1994). Difficult work: health visitors with clients in the community. *International Journal of Nursing Studies*, *31*(2), 168-182.	To discuss how health visitors describe difficult work.	England UK, from community settings.	Grounded theory. Semi-structured conversational interviews about real life cases.	Convenience sample of 45 experienced health visitors. The participants were trainee practice teachers and practising health visitors.	The paper refers to health visitors making choices but is not explicit about decision-making. Rather than decision-making health visitors described responses to difficult work. Relationships with clients influenced the decisions made. Decisions were about how and when to act and needed to happen in a specific timescale of opportunity.

Lauri, S. (1994). Health promotion in child health and family health care: the role of Finnish public health nurses. *Public Health Nursing*, *11*(1), 32-37.

Research question: not stated in the paper.

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Lauri, S. (1994). Health promotion in child health and family health care: the role of Finnish public health nurses. *Public Health Nursing*, *11*(1), 32-37.	To explore the knowledge, skills and decision-making of Finnish public health nurses when maintaining and promoting the health and wellbeing.	Finland	Thematic interviews based on situation-based scenarios relating to a home visit and an 18 month child health clinic consultation.	20 public health nurses, working in child welfare clinics. Public health nurses make decisions about childcare and family health.	Finnish public health nurses only make decisions in partnership, with clients. The model of decision-making comprises knowledge and skills, family, and child health. Information collection uses observation and listening. Decision-making seeks to solve problems, using evidence based guidelines.

Carr, S. (1995). Identifying 'cause for concern' clients: the role of the health visitor. *British Journal of Nursing, 4*(15), 902-906.

Research question: How do health visitors make decisions about children/families who give cause for concern?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Carr, S. (1995). Identifying 'cause for concern' clients: the role of the health visitor. *British Journal of Nursing, 4*(15), 902-906.	To explore health visitors' understanding of practice regarding cause for concern and to describe the decision-making process involved in identifying and classifying cause for concern. To identify the components involved in making a decision about cause for concern.	England, UK	Semi-structured interviews. Self-complete case history, situation-based scenario questionnaires, using a rating scale to illustrate the level of concern. Interviews.	26 health visitors in the sample.	Decision-making processes was inconsistent between health visitors. The assumption is that health visitor aims to stay "powerless" so that they have access to the children. Health visitors could not describe the decision-making process.

Cowley, S. (1995). In health visiting, a routine visit is one that has passed. *Journal of Advanced Nursing*, *22,* 276-284.

Research question: How do health visitors manage uncertainty and ambiguity and how do they decide the approach to use in each situation?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Cowley, S. (1995). In health visiting, a routine visit is one that has passed. *Journal of Advanced Nursing*, 22, 276-284.	Explores how health visitors choose (decide) which approach to use in situations that are uncertain, ambiguous, and complex.	England, UK	Grounded theory. Informal group interviews. Non-participant observation of health visitors and clients in clinic and during home visits. Constant comparison of the emerging data.	53 practising health visitors.	Health visitor activity takes place in situations that are unpredictable, complex, and changing. Health visitors collect information about the person as a whole, the context and the situation in which they live, not just the presenting problem.

Lauri, S., & Salantera, S. (1995). Decision-making models of Finnish nurses and public health nurses. *Journal of Advanced Nursing*, *21,* 520-527.

Research question: 1. What kind of nursing decision-making models exist? 2. What variables are related to nursing decision-making models?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Lauri, S., & Salantera, S. (1995). Decision-making models of Finnish nurses and public health nurses. *Journal of Advanced Nursing*, *21,* 520-527.	To describe Finnish and Public Health Nurses decision-making models and variables related to the decision-making models.	Finland. Registered nurse sample from hospital paediatric, surgery and medical clinics. Public health nurse sample from three major community health centres.	Measuring instrument developed specifically for this study, using skills acquisition and information processing theory.	100 Public health nurses (25 from pre-natal care, 25 from healthcare of infants, 25 from healthcare of school children, 25 from occupational health care). 100 registered nurses. The measuring instrument used in the study adopted the skills acquisition theory. This was also adopted by Benner in the 'Novice to expert model' (Benner, 1984). The information processing theory recognises the value of dual process thinking (combining conscious and unconscious thought processes), (Newell and Simon, 1972).	Public health nurses make decisions systematically using official guidelines. Expertise in decision-making is the ability to accommodate new information, and cope with rapidly changing situations using knowledge and experience. Public health nurses with 6 or more years' experience collect information by focussing on the client, listening, and observing rather than asking questions.

Reynolds, L. (1996). A qualitative evaluation of the post-accident notification system to health visitors. *Journal of Advanced Nursing*, *23*(1), 97-105.

Research question: What do health visitors decide to do when they receive the notification of a child's attendance at the accident and emergency department?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Reynolds, L. (1996). A qualitative evaluation of the post-accident notification system to health visitors. *Journal of Advanced Nursing*, *23*(1), 97-105.	To examine health visitors' meanings and perceptions of the actions following receipt of a notification slip of childhood accidents from the hospital accident and emergency department.	UK	Grounded theory Unstructured interviews.	Convenience sample of six health visitors working with a GP aligned caseload.	Health visitors find it difficult to explain their decision-making processes. Health visitors use terms like, 'Knowing the family', 'gut feeling' and 'feeling uneasy,' but cannot explain why these influence decision-making processes.

Lauri, S., Salantera, S., Bild, H., Chalmers, K., Duffy, M., Kim, H. S. (1997). Public health nurses' decision making in Canada, Finland, Norway, and the United States. *Journal of Nursing Research*, *19*(2), 143-161.

Research question: How do public health nurses makes decisions?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Lauri, S., Salantera, S., Bild, H., Chalmers, K., Duffy, M., Kim, H. S. (1997). Public health nurses' decision making in Canada, Finland, Norway, and the United States. *Journal of Nursing Research*, *19*(2), 143-161.	To describe how public health nurses in Canada, Finland Norway and USA make decisions and examine any differences between the four countries.	Norway, Canada, Finland, and USA.	This was a self-report questionnaire to identify the 5 most important factors that influenced their actions. 56 item structured questionnaire which used a 5-point Likert scale for the responses (almost never, rarely, sometimes, often, almost always), based on a four stage model of decision-making (data collection, data processing, identification of problems, plans of action, implementation of the plan)	369 Public Health Nurses Public health nurses work with children and families.	Decision-making expertise is the ability to use interpretive and intuitive decision-making approaches which draw on knowledge and experience. Decision-making processes are systematic, combine the use of rule-based decision-making tools and client-focused approaches are used to collect information and identify the problems.

Williams, D. M. (1997). Vulnerable families: a study of health visitors' prioritisation of their work. *Journal of Nursing Management, 5*(1), 19-24.

Research question: what factors influence the health visitor's decision when selecting families for additional intervention?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Williams, D. M. (1997). Vulnerable families: a study of health visitors' prioritisation of their work. *Journal of Nursing Management, 5*(1), 19-24.	To explore ways in which health visitors plan and organise their work in relation to vulnerability.	UK	Qualitative study Focus groups. Semi-structured interviews.	Convenience sample of 10 Health visitors	Check lists are used as an aide memoire at the end of the decision-making process. Contextual factors including poverty, deprivation, social isolation, and mental health issues influence the decision-making process. Terms like, 'gut-feeling', 'intuition' and 'targeting' describe decision-making processes.

Lemmer, B. (1998). Successive surveys of an expert panel: research in decision-making with health visitors. *Journal of Advanced Nursing, 27*(3), 538-545.

Research question: how do health visitors make decisions?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
L**emmer, B. (1998). Successive surveys of an expert panel: research in decision-making with health visitors. *Journal of Advanced Nursing, 27*(3), 538-545.**	To identify decision-making in health visitors' practice.	UK	Self-completion postal questionnaires. Delphi technique.	Does not specify the number of health visitor participants, refers to 66 responses from a panel which included health visitors.	Decision-making may involve intuitive thinking and reasoning. Decisions are likely to be made over time rather than relating to one event.

Ling, M., & Luker, K. (2000). Protecting children: intuition and awareness in the work of health visitors. *Journal of Advanced Nursing*, *32*(3), 572-579.

Research question: How do health visitors make decisions about child protection?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Ling, M., & Luker, K. (2000). Protecting children: intuition and awareness in the work of health visitors. *Journal of Advanced Nursing*, *32*(3), 572-579.	To explore how health visitors use child protection events to help them identify child at risk of harm from abuse.	England	Ethnography. Postal questionnaires. Interviews. Observations of health visitors during home visits, clinic consultations, and case conferences. This was a two year study.	Purposive sample of 16 health visitors, and 6 nursing officers (the health visitors' line manager).	Health visitors' work is personal, individual, distinctive, and eclectic which makes it difficult to describe as a general process. Decision-making involves recognising events that are 'not quite right' and seeking to understand why this is the case. Intuition is used in alongside other knowledge sources during decision-making processes.

Cowley, S., & Houston, A. (2003). A structured health needs assessment tool: acceptability and effectiveness for health visiting. *Journal of Advanced Nursing, 43*(1), 82-92.

Research question: To what extent do health visitors use the health needs assessment tool in their assessment processes?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Cowley, S., & Houston, A. (2003). A structured health needs assessment tool: acceptability and effectiveness for health visiting. *Journal of Advanced Nursing*, *43*(1), 82-92.	To explore the extent to which the use of the health needs assessment tool enhanced the health of families.	UK, England	Case study Formal and informal conversations during group meetings. Semi-structured telephone interviews. Non-participant observation of consultations between health visitor and client. Interviews with clients. 12 months, two phase study.	30 health visitors.	The decision-making tool encourages questioning rather than listening. Questions generated from assessment tools can make clients feel interrogated.

Newland, R., Cowley, S. (2003). Investigating how health visitors define vulnerability. *Community Practitioner*, *76*(12), 464-467.

Research question: How do health visitors define vulnerability?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Newland, R., Cowley, S. (2003). Investigating how health visitors define vulnerability. *Community Practitioner*, *76*(12), 464-467.	To obtain explicit descriptions from health visitors about their interactions with vulnerable families. To identify how health visitors define vulnerability and explore how the definition influenced their interactions with families.	England, London.	Flannagan's Critical incident technique. Semi-structure interviews.	12 health visitors.	Decision-making involves the systematic collection and collation of information. The term 'needs assessment' was used rather than decision-making. Decision-making considers social, contextual, and physical factors.

Appleton, J. V. & Cowley, S. (2008a). Health visiting assessment-unpacking critical attributes in health visitor needs assessment practice: case study. *International Journal of Nursing Studies, 45(2),* 232-245.

Research question: How do health visitors make decisions about family health needs?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Appleton, J. V. & Cowley, S. (2008a). Health visiting assessment-unpacking critical attributes in health visitor needs assessment practice: case study. *International Journal of Nursing Studies, 45(2),* 232-245.	To outline the critical attributes and basic principles of health visitors' assessment process.	UK, England	Case study design. Non-participant observation (56 home visits). Interviews with health visitors. Interviews with clients.	15 health visitors	Terms including, 'prioritisation' 'professional judgement' and 'health visitors' assessment' used rather than decision-making. Health visitors' assessment involves a series of assessments, focuses on the whole situation, and accommodate new information.

Appleton, J. V. & Cowley, S. (2008b). Health visiting assessment processes under scrutiny: a case study of knowledge use during family health needs assessment. *International Journal of Nursing Studies, 45*(5), 682-696.

Research question: how do health visitors make decisions about family health needs?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Appleton, J. V. & Cowley, S. (2008b). Health visiting assessment processes under scrutiny: a case study of knowledge use during family health needs assessment. *International Journal of Nursing Studies, 45*(5), 682-696.	To explore health visitors' professional judgement and health needs assessment processes.	England, UK	Case study design. Non-participant observation (56 home visits). Interviews with health visitors. Interviews with clients.	15 health visitors.	Assessment is a serial activity involving complex interactions. Terms including 'intuitive awareness', a 'sense of unease' used in place of decision-making. Propositional knowledge about the expectations of situations is used to recognise when something is, 'not quite right'.

Wilson, P., Barbour, R.S. Graham, C., Currie, M., Puckering, C., Minnis, H. (2008). Health visitors' assessments of parent-child relationships: a focus group study. *International Journal of Nursing Studies, 45*(8), 1137-1147.

Research Question: Not stated in the paper.

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Wilson, P., Barbour, R.S. Graham, C., Currie, M., Puckering, C., Minnis, H. (2008). Health visitors' assessments of parent-child relationships: a focus group study. *International Journal of Nursing Studies, 45*(8), 1137-1147.	To explore the approaches taken by health visitors to identify problems with parent-child relationship.	Scotland, Glasgow.	Focus group discussions.	Purposive sample of 24 health visitor.	The paper describes opinion and not actual practice. Terms like 'professional judgement', 'assessment' and 'intuition' used in place of decision-making. Problem identification involves searching for information and is recognised when events are not in line with expectations.

Selbie, J. (2009). Health visitors' child protection work: exploratory study of risk assessment. *Community Practitioner, 82*(5), 28-31.

Research question: Not stated in the paper.

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Selbie, J. (2009). Health visitors' child protection work: exploratory study of risk assessment. *Community Practitioner, 82*(5), 28-31.	To explore the role of risk assessment in health visitors' child protection work. Identify the factors that facilitate the identification, analysis, and management of risk.	UK, England.	Grounded theory to collect health visitors' opinions about the factors that enabled them to identify, analyse and manage risk to children. Two focus groups used to collect data (each with 3 participants). One interview (1 participant).	7 health visitors. The paper stated that although the health visitors used analytical skills when deciding if the child was 'at risk', they did not use a formal analysis process.	The paper described opinion not authentic practice. Assessment is the process for information collection. It requires creation of a supportive relationship with parents. Information collection permits recognition of 'alarm bells' when things are not in line with expectations.

Browne, A. J., Hartrick Doane, G., Reimer, J., MacLeod, M.L.P., McLellan, E. (2010). Public health nursing practice with 'high priority' families: the significance of contextualizing 'risk'. *Nursing Inquiry, 17*(1), 26-37.

Research question: What is the nature and character of working relationships of PHN's and high priority families?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Browne, A. J., Hartrick Doane, G., Reimer, J., MacLeod, M.L.P., McLellan, E. (2010). Public health nursing practice with 'high priority' families: the significance of contextualizing 'risk'. *Nursing Inquiry, 17*(1), 26-37.	To describe the way public health nurses used relational approaches when working with high risk families.	Canada Focused on the public health nurses work with rural and northern communities in Canada.	Interviews. Focus groups. Observations. Hermeneutic methodology to examine relationships between public health nurses and high priority families.	Purposive sample of 32 public health nurses.	This study observed public health nurses' authentic everyday practice. Social factors are considered when working with families. Decision-making is complex because contexts and situations are constantly changing. Decision-making considers the situation and not individual problems and requires relationships with families.

Appleton, J. V., Harris, M., Oates, John., Kelly, C. (2012). Evaluating health visitor assessments of mother-infant interactions: A mixed methods study. *International Journal of Nursing Studies, 50*(1), 5-15.

Research question: not stated in the paper.

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Appleton, J. V., Harris, M., Oates, John., Kelly, C. (2012). Evaluating health visitor assessments of mother-infant interactions: A mixed methods study. *International Journal of Nursing Studies, 50*(1), 5-15.	To examine health visitor assessment of mother-child interactions to evaluate the processes the health visitors used to identify problems around infant and maternal mental health.	UK	Mixed methods. Each health visitor watched 9, 3-minute video recordings of the mother -child interaction. Rated interaction using the Global Rating Scales (GRS) tool of mother-infant interaction.	12 health visitors. The paper describes the way health visitors identified problems in the mother-infant relationship.	Terms used in place of decision-making included, 'problem identification', 'assessment' and 'professional judgement'. Decision-making involved observing both the mother and the child.

Hogg, R., Kennedy, C., Gray, C., Hanely, J. (2013). Supporting the case for 'progressive universalism' in health visiting: Scottish mothers and health visitors' perspectives on targeting and rationing health visiting services, with a focus on the Lothian Child Concern Model. *Journal of Clinical Nursing, 22*(1-2), 240-250.

Research question: How do health visitors make decisions about the identification of vulnerability and support needs of families?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Hogg, R., Kennedy, C., Gray, C., Hanely, J. (2013). Supporting the case for 'progressive universalism' in health visiting: Scottish mothers and health visitors' perspectives on targeting and rationing health visiting services, with a focus on the Lothian Child Concern Model. *Journal of Clinical Nursing, 22*(1-2), 240-250.	To explore the health visitor's assessment of family vulnerability and need.	Scotland	Semi-structured interviews. Thematic analysis.	Purposive sample of 12 health visitors.	'Assessment' and 'professional judgement' are the terms used in place of decision-making. Health visitors use intuition to consider the child and family situation.

Smithbattle, L., Lorenz, R., Leander, S. (2013). Listening with care: using narrative methods to cultivate nurses' responsive relationships in a home visiting intervention with teen mothers. *Nursing Inquiry, 20*(3), 188-198.

Research question: how do public health nurses make clinical judgements about their interventions with teenage mothers with signs of depression?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Smithbattle, L., Lorenz, R., Leander, S. (2013). Listening with care: using narrative methods to cultivate nurses' responsive relationships in a home visiting intervention with teen mothers. *Nursing Inquiry, 20,* (3), 188-198.	Explores the impact of relationship development on public health nurses clinical reasoning about the actions they take when working with teenage mothers.	Mid-western America, urban community, USA	Mixed method pilot study. Semi-structured group interviews. Use of the use of the listen with care tool. Thematic analysis.	Purposive sample of 6 public health nurses. The public health nurses were working with mothers and babies.	'Clinical judgement' is the term used in place of decision-making. Public health nurses work in complex social situations where they use tacit, routine, 'taken for granted' knowledge. Information collection methods that are not protocol driven encourage mothers to share information about the situation.

King, C. (2016). 'Sticking to carpets' – assessment and judgement in health visiting practice in an era of risk: a qualitative study. *Journal of clinical nursing, 25,* 1901-1911.

Research question: How do health visitors make assessments and judgements in health visiting practice?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
King, C. (2016). 'Sticking to carpets' – assessment and judgement in health visiting practice in an era of risk: a qualitative study. *Journal of clinical nursing, 25,* 1901-1911.	To explore health visitors accounts of assessment and judgement.	Scotland.	Semi-structured interviews. Thematic analysis and narrative techniques.	Purposive sample of 16 health visitors.	The terms 'judgement', 'assessment', 'sensing', 'risk discourse' and targeting are used in place of decision-making. 'Banter' helps to build a relationship where parents 'tell their story'. Observing and listening deepens understanding of the situation and permits recognition of 'hidden' information.

Astbury, R., Shepherd, A., Cheyne, H. (2017). Working in partnership: the application of shared decision-making to health visitor practice. *Journal of Clinical Nursing, 26(1-2),* 215-224.

Research question: What processes do health visitors use to make shared decisions with clients to improve the well-being of babies and children?

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Astbury, R., Shepherd, A., Cheyne, H. (2017). Working in partnership: the application of shared decision-making to health visitor practice. *Journal of Clinical Nursing, 26(1-2),* 215-224.	To explore the processes which support shared decision-making between the health visitor and the client,	UK	Questionnaire. 1:1 semi-structured interview. Qualitative study. Conversation analysis.	Purposive sample of 9 health visitors.	Choice identification is part of the decision-making process. Information is organised to promote understanding of available choices. Relationship and shared understanding between health visitors and clients facilitate decision-making. Health visitors are working in complex family situations where it is difficult to clearly identify the problem.

Sims, D. J., Fowler, C. (2018). Postnatal psychosocial assessment and clinical decision-making, a descriptive study. *Journal of Clinical Nursing. 27,* (19-20), 3739-3749.

Research question: not stated in the paper.

Reference	Aims of the study	Setting and country	Methods & Methodology	Study population & relevance to the research question	Outcome & results
Sims, D. J., Fowler, C. (2018). Postnatal psychosocial assessment and clinical decision-making, a descriptive study. *Journal of Clinical Nursing. 27,* (19-20), 3739-3749.	To describe the process of clinical decision-making undertaken by experienced child and family nurses when assessing psychosocial needs of women in the postnatal period.	Australia.	Semi-structured interviews. The critical incident technique.	Purposive sample of 12 Child and family nurses. Child and family nurses work with children and families. This paper provides a detailed account of the clinical decision-making process adopted by child and family health nurses in Australia. Although, not the health visitor, the paper describes the way this practitioner works with woman and their newborn child in much the same way as the UK health visitor.	Clinical decision-making is a complex, dynamic process that uses formal and informal thinking to collect information. Decision-making involves a range of thinking strategies, including, pattern recognition, priority setting, drawing conclusion and forming explanations. The process draws information from the physical environment and social situation and moves back and forth to collect new information.

Appendix Six: Papers selected by hand searching methods

	Papers selected by hand searching
1	Lauri, S. (1989). Changes in national child health care policies and their effects on the public health nurse's work in child health care in Finland. *Journal of advanced nursing, 14*, 1034-1037.
2	Lauri, S.H. (1990). Public health nurses' knowledge base and decision-making process in child health care methodic experiment. *Scandinavian Journal of caring sciences, 4*(1),10-13.
3	Chalmers, K. (1992). Giving and receiving: an empirically derived theory on health visiting practice. *Journal of Advanced Nursing, 17,* 1317-1325.
4	Chalmers, K. (1993). Searching for health needs: the work of health visiting. *Journal of Advanced Nursing, 18*, 900-911.
5	Fieldman, C. Olberding, L. Shortridge, L. Toole, K. & Zappin, P. (1993). Decision-making in case management of home healthcare clients. *Journal of Nurse Administration, 23*(1), 33-38.
6	Chalmers, K. (1994). Difficult work: health visitors with clients in the community. *International Journal of Nursing Studies, 31*(2),168-182.
7	Lauri, S. (1994). Health promotion in child health and family health care: the role of Finnish public health nurses. *Public Health Nursing, 11*(1), 32-37.
8	Lauri, S. & Salantera, S. (1995). Decision-making models of Finnish nurses and public health nurses. *Journal of Advanced Nursing, 21*, 520-527.
9	Lauri, S. Salantera, S. Bild, H. Chalmers, K. Duffy, M. & Kim, H.S. (1997) Public health nurses' decision-making in Canada, Finland, Norway, and the United States. *Journal of Nursing Research, 19*(2),143-161.
10	Cowley, S. & Houston, A. (2003). A structured health needs assessment tool: acceptability and effectiveness for health visiting. *Journal of Advanced Nursing, 43*(1), 82-92

Appendix Seven: Participant information sheet

Florence Nightingale Faculty of Nursing & Midwifery

13 April 2018

PARTICIPANT INFORMATION SHEET

Clients from the health visitor's caseload

Research title: What is the contribution of conscious and unconscious thought to health visitors' clinical decision-making?

You are invited to take part in a research study. Before you decide to take part, the researcher would like you to understand why the study is being done and what it will involve for you. Please take the time to read the following information carefully. Please talk to others about the study particularly if they have parental responsibility for your child(ren) who will accompany you on visits to see your health visitor. You are welcome to discuss the study with the researcher (Rita Newland) if you would like to ask questions before making a decision.

Part 1 tells you about the purpose of this study and what will happen to you if you take part.
Part 2 gives you more detailed information about the conduct of the study.

Part 1: What is the purpose of this study?

The study is being completed as part of a PhD research degree and is an investigation into how health visitors make decisions on behalf of families.

What is the research about? Health visitors work with children and families to help parents adapt to parenthood, promote child health, development and safety. In order to do this they must make decisions about client need and the best way to solve problems/difficulties that arise. Health visitors work alone with their clients and their practice is rarely observed by other professionals. This makes it difficult to identify exactly what happens when decisions are made and means that it is difficult for health visitors to prepare for the level of decision making required. By conducting this study the researcher hopes to be able to:

- Explore the components of health visitors' decision making practice by observing what happens when they engage with their clients (parents and carers) during consultations.
- Consider ways to enable health visitors to increase their understanding of decision making.
- Better support future health visitors to make decisions in their practice.

IRAS ID: 202237

Part 2: The conduct of the study.

Why have I been asked to take part in this study? You have been invited to take part in the study because you and your child(ren) are clients of a health visitor working in Guy's and St Thomas' NHS Foundation Trust. Your health visitor has talked to you about the study and you have said that you will consider taking part.

Do I have to take part in this study? No. You can choose whether or not to take part in this study. If you decide not to take part in the study this will not affect the care you receive from your health visitor in any way. You can change your mind at any point by informing the researcher (even if you have already taken part in the study). You will not need to give a reason for your withdrawal from the study. If you decide to withdraw from the study after you have taken part and once analysis has commenced it will not be possible to extricate/remove the data from the analysis, but the information from the video and audio files will be deleted.

What will happen to me if I choose to take part in the study? The study will gather information in the following ways:

1. The researcher will observe the consultation that you have with your health visitor. This may be up-to three of your consultations depending on how frequently you see your health visitor and it may take place in your home or in the child health clinic (baby clinic) depending on the arrangements you have made with your health visitor. The researcher will record your consultation using a video recorder.
2. The researcher will invite you to see the video recording of your consultation and will talk to you about your experience and thoughts about the decisions that your health visitor has made. It can take place at a time and place that is convenient for you. The researcher will record this conversation and will type-up the content word for word so that she can use the information in the study. You will be able to view this document (the transcript) if you would like to.

Although, your child is not the focus of this study and is not part of the study, his/her image may be captured during the recording of the consultation that you have with your health visitor. The images will be stored securely and will only be viewed by the researcher, the supervisor team and your health visitor. They will be

destroyed following completion of the research study and will not be used in any publication or conference presentation about the study.

What do I do if I want to take part in the study? Your health visitor will give you this letter and a copy of the consent form to take home and share with others who have parental responsibility for your child(ren). There will also be posters about the study displayed in the clinic (baby clinic/child health clinic) for you to read. If you decide to take part please let your health visitor know and she will inform the researcher. Your health visitor will then introduce you to the researcher (Rita Newland) when you attend the (baby) clinic.

You will be able to ask the researcher any questions you may have. The researcher will talk to you about the information within the consent form. If you are still happy to take part in the study the researcher will ask you to sign the consent form.

Confidentiality and anonymity: If you decide to take part in this study all information you provide will be treated in complete confidence. It will be allocated an identification number and will not be identified by your name. Electronic information will be stored securely and processed on password protected computers. Paper documents and all written information will be kept in locked cabinets and will be retained for 4 years after the completion of the PhD, in line with the data management policy at Kings College London. The video and audio recordings will be stored on password protected computers and will be destroyed at the end of the study. Only the researcher and her supervisor team will have access to the video, electronic and paper documents.

King's College London is the sponsor for this study based in the United Kingdom. We will be using information from you in order to undertake this study and will act as the data controller for this study. This means that we are responsible for looking after your information and using it properly. King's College London will keep identifiable information about you for 10 years after the study has finished. Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained. To safeguard your rights, we will use the minimum personally-identifiable information possible.

You can find out more about how we use your information at the link below:

https://www.kcl.ac.uk/research/support/research-ethics/kings-college-london-statement-on-use-of-personal-data-in-research.aspx

Guy's and St Thomas' NHS Foundation Trust will collect information from you for this research study in accordance with our instructions. Guy's and St Thomas' NHS Foundation Trust will use your name, and contact details to contact you about the research study and to oversee the quality of the study. Individuals from King's College London and regulatory organisations may look at your medical and research records to check the accuracy of the research study. Guy's and St Thomas' NHS Foundation Trust will pass these details to King's College London along with the information collected from you. The only people in King's College London who will have access to information that identifies you will be people who need to contact you to arrange a suitable viewing time for your consultation recording where you have indicated you would like this to happen or audit the data collection process. The people who analyse the information will not be able to identify you and will not be able to find out your name or contact details. Guy's and St Thomas' NHS Foundation Trust will keep identifiable information about you from this study for 10 years after the study has finished.

What are the benefits of taking part in the study? Taking part in this study is unlikely to be of benefit to you personally. It will however help the researcher to support the development of decision making practice for health visitors in the future.

What are the risks of taking part in the study? The researcher is interested in observing the decision making practice of the health visitor. This means that the study is unlikely to present any risks to you. However, during your conversation/consultation with your health visitor you may be discussing a sensitive issue or circumstances that you may find upsetting and which may cause you to become upset. If this happens you will be able to ask the researcher to stop recording the consultation. If you do not ask the researcher to stop recording the consultation at the time but decide that you do not want the researcher to use the recording as part of the study you should contact the researcher by email: rita.newland@kcl.ac.uk or telephone (07787 575 219) to inform her of your decision.

Florence Nightingale Faculty of Nursing & Midwifery

What happens at the end of the study? The study will be submitted to Kings College London as part of the PhD programme. Findings from the study will be published in academic journals and presented at conferences. The researcher will make sure that no individuals will be identifiable in any published papers and quotations from the conversations and consultations will be made anonymous. The video recordings will not be used in any presentation or academic publication. The researcher will send you a copy of the summary of the study findings.

Who can I talk to if there is a problem? If you have a concern about any aspect of the study, you should ask to speak to the researcher who will do her best to answer your questions (Principal investigator: Rita Newland) by email: rita.newland@kcl.ac.uk or by telephone (07787 575 219). If you have a complaint you should contact the first supervisor, Dr Mary Malone by email: mmalone@brookes.ac.uk or by telephone (01865 482563). The Patient advice & liaison service is also available by telephone: Tel:0207 1888801 and email: pals@gstt.nhs.uk

In the event that something does go wrong and you are harmed during the research then you may have grounds for legal action for compensation against Kings College London but you may have to pay your legal costs. King's College London maintains adequate insurance to cover any liabilities arising from the study.

Thank you for taking the time to read this information sheet.

Florence Nightingale Faculty of Nursing & Midwifery

13 April 2018

PARTICIPANT INFORMATION SHEET

Health Visitors

Research title: What is the contribution of conscious and unconscious thought to health visitors' clinical decision-making?

You are invited you to take part in a research study. Before you decide to take part, the researcher would like you to understand why the study is being done and what it will involve for you. Please take the time to read the following information carefully. You are welcome to discuss the study with the researcher (Rita Newland) if you would like to ask questions before making a decision.

Part 1 tells you about the purpose of this study and what will happen to you if you take part.
Part 2 gives you more detailed information about the conduct of the study.

Part 1: What is the purpose of this study?

The study is being completed as part of a PhD research degree and is an investigation into how health visitors make decisions on behalf of families.

What is the research about? An important part of the health visitors' role with children and families is the work they do with parents to help them adapt to parenthood, promote child health, development and safety. In order to do this effectively they must make decisions about client need and the best way to solve problems/difficulties that arise. However, the work that health visitors' do is rarely observed by other professionals because they work alone with their clients. This makes it difficult to identify exactly what happens when decisions are made and means that it is difficult for newly qualified health visitors' to prepare for the level of decision making required. By completing this study the researcher hopes to be able to:

- Explore the components of health visitors' decision making practice by observing what happens when they engage with their clients (parents and carers) during consultations.
- Consider ways to enable health visitors to increase their understanding of decision making.
- Better support future health visitors to make decisions in their practice.

IRAS ID: 202237

Part 2: The conduct of the study.

Why have I been asked to take part in this study? You have been invited to take part in the study because you are a health visitor, leading the care for a caseload of children and families and working in Guy's and St Thomas' NHS Foundation Trust.

Do I have to take part in this study? No. You can choose whether or not to take part in this study. If you decide not to take part in the study this will not affect your position as a health visitor in the trust in any way. You can change your mind at any point by informing the researcher (even if you have already taken part in the study). You will not need to give a reason for your withdrawal from the study. If you decide to withdraw from the study after you have taken part and once analysis has commenced it will not be possible to extricate/remove the data from the analysis, but the information from the video and audio files will be deleted.

What will happen to me if I choose to take part in the study? The study will gather information in the following ways:

1. You will be asked to select up to three clients (who meet specific criteria) from your caseload, give them information about the study and invite them to consider taking part in it. You will also be asked to give them a copy of the participant information sheet and a consent form to take home and read prior to making their decision about their participation in the study. For those who agree to take part in the study you are asked to invite the researcher to attend the clinic during the client's next appointment in order to meet the client. You are not being asked to obtain consent from the client. The researcher will gain the clients consent.
2. The researcher will observe the planned consultations (up to three consultations) that you complete with your selected client(s). You may select the same client for each consultation or a different client for each consultation. The researcher will record your consultation using a video recorder. The researcher will not contribute to your consultation with the client.
3. You will also be invited to take part in a face-to-face interview with the researcher where you will observe the video recording of your consultations and discuss the content in relation to your experience, thoughts and feelings about the consultation and any decisions you made during the consultation. This will not take more than one hour and can take place at a time and place that is convenient for you. The researcher will record this interview conversation and will type-up the

content word for word so that she can use the information in the study. You will be able to view this document (the transcript) if you would like to.

What do I do if I want to take part in the study? You should contact the researcher (Rita Newland) via email: rita.newland@kcl.ac.uk or during the presentation event.

You will be able to ask the researcher any questions you may have. The researcher will talk to you about the information within the consent form. If you are still happy to take part in the study the researcher will ask you to sign the consent form.

Confidentiality and anonymity: If you decide to take part in this study all information you provide will be treated in confidence. It will be allocated an identification number and will not be identified by your name. However, if a situation arises which illustrates poor or unsafe practice the researcher will work with you to follow the Trust policy for raising and escalating concerns.

King's College London is the sponsor for this study based in the United Kingdom. We will be using information from you in order to undertake this study and will act as the data controller for this study. This means that we are responsible for looking after your information and using it properly. King's College London will keep identifiable information about you for 10 years after the study has finished. Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained. To safeguard your rights, we will use the minimum personally-identifiable information possible.

You can find out more about how we use your information at the link below:

https://www.kcl.ac.uk/research/support/research-ethics/kings-college-london-statement-on-use-of-personal-data-in-research.aspx

Guy's and St Thomas' NHS Foundation Trust will collect information from you for this research study in accordance with our instructions. Guy's and St Thomas' NHS Foundation Trust will use your name and

contact details to contact you about the research study and to oversee the quality of the study.

Individuals from King's College London and regulatory organisations may look at your medical and research records to check the accuracy of the research study. Guy's and St Thomas' NHS Foundation Trust will pass these details to King's College London along with the information collected from you. The only people in King's College London who will have access to information that identifies you will be people who need to contact you to arrange a suitable viewing time for your consultation recording where you have indicated you would like this to happen or audit the data collection process.

The people who analyse the information will not be able to identify you and will not be able to find out your name or contact details. Guy's and St Thomas' NHS Foundation Trust will keep identifiable information about you from this study for 10 years after the study has finished.

Electronic information will be stored securely and processed on password protected computers. Paper documents and all written information will be kept in locked cabinets. Paper documents (including consent forms) will be retained for 10 years after the completion of the PhD, in line with the data management policy at Kings College London. The video and audio recordings will be stored on password protected computers and will be destroyed once the study is complete. They will not be used in any part of the dissemination of the findings. Only the researcher and her supervisor team will have access to the video, electronic and paper documents.

What are the benefits of taking part in the study? Taking part in this study is unlikely to be of benefit to you personally. It will however help the researcher to support the development of decision making practice for health visitors in the future.

What are the risks of taking part in the study? The researcher is interested in observing your decision making practice as a health visitor with responsibility for a caseload of children and families. This means that the study is unlikely to present any risks to you. However, if issues arise during the consultations that illustrate sub-optimal or unsafe practice the researcher will work with you to follow the Trust policy/

guidance for raising and escalating concerns. The researcher will also help you to find learning and development materials if you identify a personal learning need as a consequence of taking part in the study.

What happens at the end of the study? The study will be submitted to Kings College London as part of the PhD programme. Findings from the study will be published in academic journals and presented at conferences. The researcher will make sure that no individuals will be identifiable in any published papers and quotations from the conversations and consultations will be made anonymous by using an identification number. The video recordings will not be used in any presentation or academic publication. The researcher will send you a copy of the summary of the study findings.

Who can I talk to if there is a problem? If you have a concern about any aspect of the study, you should ask to speak to the researchers who will do their best to answer your questions (Principal investigator: Rita Newland) by email: rita.newland@kcl.ac.uk or by telephone (07787 575 219). If you have a complaint you should contact the Chief Investigator, Dr Mary Malone by email: mmalone@brookes.ac.uk or by telephone (01865 482563).

Thank you for taking the time to read this information sheet.

The health visitors are taking part in a research study

What is the research? The study looks at how health visitors make clinical decisions.

How will I know it is happening? You may see the researcher (Rita Newland) in the clinic area.

What will happen? Your consultation with the health visitor may be video-recorded.

Will it make my appointment take longer? No, the research is exploring the health visitor's usual day-to-day activity.

Will the researcher talk to me during my consultation with my health visitor? No

Can I ask the researcher to stop recording my consultation? Yes, at any time you wish.

How can I get involved? Ask your health visitor for a copy of the participant information sheet.

Do I have to agree to take part? No

IRAS ID:202237

v.1: 2 February 2018

Appendix Eight: Verbatim transcript of one consultation

Transcript of consultation 09_03_01_2020_VD_client1

Mum refers to the mother.

HV refers to the health visitor.

Speaker	Vocal content	Comments
Mum	She loved the cards, more than the paper. It was the cards that were far more interesting. We have got so many pictures of her upside down looking at the cards.	General discussion this consultation is happening after Christmas. Mum and health visitor have met before, and this consultation is a follow up appointment.
HV	And the shiny pictures. Ah hello (*talks to baby*), just look. She's coming for her book (*HV refers to child, furniture walking coming for the Personal Child Health Record, laughs*). She's got a thing about her book, not going to let me have it for too long, so we'll move on then (*HV laughs*). Right so you know I asked you to come back, because when we met for XX (*child's name*) 8-12-month health review, she wasn't able to really move herself forward on her tummy. She was actually dragging her left leg, wasn't she?	(HV is referring to the child, who is furniture walking coming for the PCHR (her red book), HV uses informal language and laugher to break the ice and give a relaxed feeling to the consultation. HV volume of her voice goes down, when she is outlining the reason for the consultation today.
Mum	Yes	
HV	So that was a little bit of a concern and plus her head circumference was a little concern.	HV makes a statement about the current situation. 'Little bit of a concern' – HV articulates the concern as something minor (? Why is this the case).
Mum	Yes	
HV	Because it was the first time, we didn't have a plotting for the six weeks (*HV looks in PCHR*) and so I asked you to come back for a follow-up and you came back, and things were looking for a lot better *(HV looking at mum as well as looking in PCHR)*	HV looks at mum as well as well as looking in PCHR
mum	I was moving her left leg (*mum laughs and HV joins in*)	Laughter
HV	Oh, I see – (*HV looks at the child*), so it's mummy that did it! (*talks to child/ jovial/ informality*)	Both mum and HV are laughing
Mum	No (*laughs*)	Laughter (*mum was joking about moving the child's leg for her at the previous*

		consultation to make things look good)
HV	What I saw was very good.	HV makes a statement about what she has seen
Mum	Yes	
HV	She was actually moving forward with her left leg a lot better (*HV talks to child, yes clever girl!*) and the head circumference was fine and was following, remember it was following (HV shows mum the measurement in the PCHR) and we are going to check it again today	HV makes a statement about what she has seen HV praises child (as clever girl) when her actions meet expectations for growth and development. 'I' becomes 'we' in the HV vocabulary.
Mum	What was the concern about it, that was what XX (child's father's *name*) asked me?	Mum asks a question to get more information about why the HV is concerned.
HV	Ok, alright, (HV shows mum the growth chart), can you see there was a bit of an increase from 95th up to the 98th (*HV is referring to the growth centiles*).	HV shows mum the growth trajectory but does not say why the trajectory caused her to be concerned. HV acknowledges the question from mum but does not answer it. HV gives information but does not answer the question.
Mum	Right, yes	
HV	It wasn't crossing two centiles, but it was a concern for me because I didn't have anything else to go on and that's why I asked you to come back, and we checked it and it was the same and hopefully it will be the same again. And if you can see at the six-week check, it was just below the 91st alright? So, we'll look at that and then it was her, the weight the last time, but she wasn't well, was she?	HV wants additional information to use as a comparison for current information. HV says she is concerned when she doesn't have historical information to compare to new information.
Mum	No, and this time she's (*the child*) been teething, and she has been exerting her control, the food comes straight out.	Mum gives reasons for poor weight gain and explains why her child is not acting in the way she expects her to do.
HV	Ok, yes	HV gives short response and gets more information.
Mum	She doesn't want lumps at all, I've been putting them on the tray and say you eat it then, and she takes what she wants from there.	Mum gives more information even though HV has not asked for it.

Mum	How much she actually takes is questionable, she found her dummy	Mum gives more information even though HV has not asked for it
HV	She's having a dummy as well.	
Mum	Yes, she is but that's mainly to get her to sleep	Mum gives more information Mum changes the topic and moves from the food to sleep.
HV	Ok, I was thinking she was putting it down the side of the chair	HV makes a statement to get more information
Mum	No, that's her food she is putting down the side of the chair. I think she has eaten it then I find it down the side of the chair	
HV	That's your book (*HV talks to child*, *then talks to mum),* she has worked her way all the way round here, I am really pleased, because she wasn't cruising.	HV talks to the child as well as to mum. HV talks about what she sees the child has done. HV tells mum she is pleased with the things she has seen (but she doesn't tell her she was not pleased when she didn't see the things she wanted to see, (why is this?)
Mum	Yes, she is cruising a lot actually	
HV	Yes. (*HV talks to child*) – you're doing very well!	HV talks to the child. HV praises the child when she sees the child doing things that please her
Mum	She's at the danger stage, you know when you just can't take your eyes off them, hence the bump on her head (*mum points to child's forehead*).	Mum changes the topic by making a statement. Mum gives more information (*despite not being asked for it*).
HV	Ah, so it's about home safety, making the place available to her.	HV makes a statement which suggests she is considering the information from a different perspective to mum (***mum – child danger. HV – home danger***). HV doesn't give mum instruction on home safety, doesn't tell mum what to do.

Mum	Yes, even the corner things (for the edges of the table), she just pulls them off	
HV	She just pulls them off. Is there any way you can sort of tape them down a bit? Have you got the foam ones?	HV makes a statement to get more information HV asks questions to get more information
Mum	Oh. I tried the pull noodles, you know putting a mat over sharp things, I have got foam ones, she just pulls them off. I've actually ended up putting chairs and things that she can't move, in the way.	
HV	and then she will see that as an adventure playground	
Mum	Yes (*laughs*)	Laughter
HV	What we are going to do today then, we'll check her weight, head circumference, I won't do her length, when she is two, we will see her standing. So if I can ask you to take her clothes, yeh *(HV speaks to the child*), HV speaks to mother, she's got some more teeth as well!	HV changes the topic of conversation. HV makes a statement about what will happen next during the consultation HV bring the topic back to the consultation away from the conversation, stops the conversation. HV talks about the things she sees in relation to the child i.e. she has teeth.
Mum	She has, so that's the thing with the eating, is that the teeth or is that her exerting control?	Mum asks questions to get more information about specific issues.
HV	A bit of both, I would say, but on your part, just continue to offer her food, the nutritious stuff, just bear in mind her stomach is not that big so don't expect her to be taking the whole lot. But it's good that she's doing the finger foods. What about her milk intake?	HV makes a statement about the information she hears from mum. HV picks up information mum has given earlier in the conversation / consultation (*page2*). HV asks a question to get more information.
Mum	She's still having milk, but I cut that down, especially when she was spitting out the finger foods, so I decided that I would do the, I kept the water going, and I thought let's see how she goes. The last few days, what is she having … she's probably getting 84	
HV	And is that alongside things like cream cheese?	HV asks a question to get more information.

Mum	Yes. Yes.	
HV	Because she will naturally start to cut that down as she takes more solids as well, but just offer the nutritious foods. If it is the teething, then that should change as the teeth erupt. If it becomes a problem where she is just rejecting all the foods, then you need to let us know because she does need her nutrients.	HV is worried she has missed something (important information that may be written in the PCHR) *HV looking at mum and the PHCR while talking to mum)* **(***multi-tasking*). ***HV looking through the PCHR*** says – ***I just want to make sure I have not missed anything).***
Mum	I think that's what it is, I think it's the control, … daddy is by far and away the favourite	Is mum saying the child is in control. What is it about 'the control'? this is second time mum has mentioned this.
HV	Oh dear (*chuckles and looks at mum*) (*laughter*)	HV laughs in response to mums statement about 'the control'
Mum	Which is good, but honestly the fuss when he's in the room it doesn't matter if there's visitors, anybody, she's daddy's girl. Whereas this morning he's at work and she's 'happy as Larry' with me, like happy and smiley but if he's there she just wants him.	
HV	But you're the one that provides the meals. Oh, you're blowing bubbles, is that your new trick? (*HV talks to the child*)	
Mum	Yes! We do that with our food as well.	'I 'becomes 'we'
HV	We talked about introducing an extra snack, were you able to do that?	HV asks a question to get more information
Mum	Yes, yes I have, I keep trying, doing little bits often, especially when she has cut down on the food, I try to do that (*mum puts child on scales*)	
HV	8.42, so you can put her nappy back on	
Mum	Shall I put her clothes on	
HV	Yes, pop her clothes back on and then I will do her head circumference.	
HV	She's on the same centile (*HV shows mum the growth chart*) – she was just above the 25th centile and now she is staying on the curve.	
Mum	That's not so bad considering this mood she's in.	
HV	She's probably taking in more than you think, as long as you are offering her those three meals and then snacks, yes?	(repetition)
Mum	Snacks yes,	
HV	The nutritious stuff, (repetition) continue to offer the things you do like fruit and veg	
Mum	She eats fruit normally; I blend it and things	
HV	Good girl (*HV talks to the child*) Look at those santa socks!	

Mum	Mum smiles	
HV	Are you ready (*for the head circumference measurement*), did she get those for Christmas?	
Mum	Yes, so many	
HV	As long as they are the right size	
Mum	Yes, daddy wears Christmas socks throughout the year	
HV	47.7cm good girl (*HV talks to child while measuring the head circumference, child is alert and looking around, does not cry*)	
HV	This is going nicely (*HV plots the head circumference on the growth chart and shows the chart to mum*), brilliant!	**(**positivity**)**
Mum	That's good	
HV	That's remaining on the 98th centile	
Mum	Good, that's good	
HV	Did you mention that dad has similar shaped head?	
Mum	Yes, yes, he has	
HV	She looks like she is in proportion though. So, I just needed to check again, and this is lovely, good girl (*HV talks to child*). So, this is all good and she has cruised right around the table to me	HV talks about the things she sees in relation to the child i.e. '***she has cruised right around the table to me'.*** Multi-tasking – HV sees what goes on around her while doing other things. HV needs to check again (the information she has collected)
Mum	Yes	
HV	What about the crawling, if you put her on her tummy? Let's see what she does on her tummy, I should have brought the mat, let's put her on here (*the tabletop, Mum puts child on the table and she crawls towards the HV at the other side*), that's lovely, the fact that she is pushing up on that side to get up is good as well. You will be coming to clinic, so we can keep an eye on her. And she is standing now so when she is actually weight bearing, we will be able to have a good idea	
Mum	Yes, she's fine	
HV	Yes, good girl, ok (*HV talks to child*)	
HV	(*HV sits back down on the chair, facing mum*) … have you got any concerns apart from...	
Mum	Yes, it was just to do with the food, when she does spit it all out, do I just ignore her, because I was saying, no, no?	Mum asks specific question when invited to do so by the HV
HV	Was it like a game? Because they like attention, children love attention, don't they, so you've got to decide if it is something you are going to do, offer the	HV gives mum some parameters for checking the child is eating enough food.

	food, monitor, is she passing urine, bowel movements, is she waking up in the night for food?	
Mum	No, she is pretty good, she sleeps	
HV	Because mealtime, bedtime is quite closely linked, if she's not waking up for food and the weight is fine	HV explains the reason her question
Mum	Good	
HV	I'd say come back again in 6 weeks or so and we can weigh her again and see how she is doing. And you've got our number if you are worried you can call. But she is doing very well.	HV makes a decision (come back again in 6 weeks, she is doing very well)
Mum	Good	
HV	You've asked about the brushing teeth already	
Mum	Oh yes, she loves having her teeth brushed, which is a good thing. For the car seat, she has to be backwards facing, doesn't she until 15 months?	Mum asks a specific question to get more information (it is not about the reason for the consultation).
HV	Yes, XX (*name of a shop*) have been very good at offering a service in terms of advice, fitting the car seats. Have you had it fitted professionally?	
Mum	Um, we bought the ISOFIT, you know the ISOFIT and the lights come on every time it is incorrectly fitted and every time you put her in it beeps, because I knew I would be worried about that	
HV	Good, where was that from?	
Mum	It was XX (*name of a shop*) actually	
HV	Ok	
Mum	It's just that she is still in her baby carry thing, and…	
HV	It's to do with her height as well so have a look at her height, not just her age.	
Mum	yes	
HV	There's a leaflet with it, and if you need help, I know that XX (*name of the shop*) has help and there's various places with customer service.	
Mum	Fine, yes because weight wise, she is quite light, that's why I was interested to see today, it's the height but she is not over the top.	
HV	Let me look at this little bump on her head now? When did this happen?	HV describes the bump on the head as something 'little'. HV asks a question to get more information.
Mum	The 30th of December	
HV	Oh woh, and did she cry when it happened, or did she just get up and go?	HV asks a question to get more information (*HV smiling when asking mum the questions, soft tone of voice, even tone, no raised voice/ sense of urgency).*
Mum	Yes, she did cry, I think it was the shock, but she hasn't really learnt, I was just teaching her to turn	

	around, come off the sofa that way round rather than forwards, she's not learning, she just bashes her head	
HV	She just wants to get to places fast.	HV makes a statement about the information she hears.
Mum	Yes. I mean even with the bump on her head I see her bashing it again, she doesn't make a fuss.	
HV	She didn't fall to sleep after that bump?	HV makes a statement to gather more information.
Mum	No.	
HV	So, you have to look out for, if they bang their head	
Mum	It's sleepiness	
HV	If she falls asleep or becomes very sleepy after the accident or just starts to act strangely in any way, get some medical advice urgently,	*HV gives mum some parameters for checking the child is ok following a bang to the head*
Mum	fine	
HV	Any head injury it is important to seek advice	
Mum	Ok	
HV	So, if it keeps happening …, call the office here because we do have some babies it happens to, it might mean a safety visit, nursery nurses can come and look, see how you go.	
Mum	I'm going to do a first aid course. I have been meaning to do it all year, but after this. It was at nighttime when it happened.	
HV	We used to offer one, we are going to do a support group this side but XX (health centre name) have deferred	
Mum	Ok	
HV	Ok, so what I'll do is write this up and I'll put the next plan. **I'll just make sure I've covered all these**; did you have a booster immunisation?	HV checks to make sure she hasn't missed anything. HV asks a question to get more information.
Mum	She has got one next Tuesday, the Christmas break	
HV	Yes, of course	
HV	Is she starting to say, mama, baba?	HV asks a question to get more information.
Mum	Yes, she says em, da da da, she whispers, shhhhh. I'm not sure she knows, when I say where's daddy, she knows lights, she's got a bit confused because Christmas lights, we've been talking about	
HV	I gave you a book start pack?	HV makes a statement to gather more information
Mum	Yes	
HV	Yes, I'm going to write in your book now (*HV talks to child*), what time does she go to bed?	HV asks a question to get more information
Mum	Between 7 and 7.30pm. We really try to aim for 7, she starts the bedtime routine about 5.30 so…	
HV	That gives you more time, to get on with family life	

Mum	Yes	
HV	That's very, good for you	
Mum	Most of the time she sleeps through, and you can just relax a bit, because the rest of the day, it's just…	
HV	Um, lovely (*HV writes the record in the PCHR)* so we can say we will review her again in 4-6 weeks, depending on what you are doing, pop back here and we can… (*informality*)	Plan has changed to 4-6 weeks. HV offers mum flexibility to come back when convenient
Mum	I don't need to ask for you, do I?	
HV	If I'm here it's always nice to see you and I am always around especially on a Thursday, I try to be around on a Thursday, so it's always nice to see you again. (*informality*) We'll check her weight again; I won't do her head circumference because it fine and because it doesn't look too bad.	HV makes a decision about the head circumference, based on the measurement and its appearance.
Mum	She's just got a big head (*mum laughs*).	mum laughs
HV	No, she's going to grow tall. Her weight we will look at and her eating and drinking.	
HV	Are you still using the vitamin D?	
Mum	No, because over Christmas I've stopped breastfeeding.	
Mum	Should we be using the cow's milk now?	
HV	Yes, you've been using it in the cooking?	
Mum	Yes	
HV	You can offer fresh milk now.	
Mum	Fine	
HV	And it via cups not bottles at all…	
Mum	Yes	
HV	How's she getting on with cups?	
Mum	She's not, it's a novelty now, she wants the bottle, when she is tiered, she wants the comfort of a bottle, she will make the effort if she's in… like mornings are better…	
HV	Still try and move away from the bottle because (*HV touches her ears*), and two different cups, one for water and the other for milk.	
Mum	Yes	
HV	Sometimes, she associates, she will know that milk is coming.	
Mum	Yes, fine	
HV	Lovely, ok, (*HV returns to writing in the PCHR book*)	

Appendix Nine: Verbatim transcripts of ‘Think Aloud’ events

Participant number: 05_22_10_2019. Think Aloud Interviews with clients 2, 3 ,4 and 5

	Client 2
HV	He's looking at mum, but I am looking at mum, so he looks away. I need to look at her to hold her attention.
HV	She handles him well; I don't know how long that was.
HV	I am giving her confirmation.
HV	She is a bit worried about him sleeping on his tummy, and parents wake up at night and see them on their tummy and they are worried, so the message is going through about safe sleep.
HV	See how he looks at me, and then looks away sometimes, he really wants me to interact, but I am not doing it. I want to see him interact with his mummy, occasionally I think I do.
HV	There's a person behind that baby and…
HV	I want to see how she is as well; we have a lot of evidence that adults too are lacking in vitamin D.
HV	I am asking about teeth; I am thinking about dental hygiene
HV	I am talking about the clinic now, if she doesn't come again I want her to know the next check is due, I show her in the book as well.
HV	I don't want to say something that my colleague has said differently, you know so I talk about, it's recommended.
	Client 3
HV	Could be colicky, I am thinking of the weight loss.
HV	I am trying to normalise this.
HV	We are going back again about the reflux.
HV	She is talking about her son.
HV	I found out if she was on her own.
HV	If she has got a child, who is feeding, feeding, and feeding then I am getting an insight into what support is she getting.
HV	I want to see what baby is doing, is baby looking, you know. She looks well, she looks, she is engaging, she is alert.
HV	She wants the BCG which… they called her and confirmed that they won't do it.
HV	So, I am relaying to her, the HV did the right thing and the team, and she didn't get a letter, I will follow this up now.
HV	I am thinking she could work on the latch, and I am promoting that one of the hubs feeding, it's really good.
HV	I'm now confirming with her what the weight is. I didn't look at the weight before I don't think.
HV	I am also thinking, I know she has been to the GP, for her check. I will just check with the GP. Particularly with the age, as well.
HV	I'm thinking she is going to the breastfeeding café, so someone has watched her breastfeed.
HV	Possibly colicky
HV	She is also going to the GP.
	Client 4
HV	I apologised I know (*health visitor's name*) is off sick.
HV	I think I read the letter about her (*the child*) shoulder, from the doctor. I immediately started to think, this mum is clearly going to be worried about things and I may need to do a lot more listening. So, I found out what had been happening, I felt I

	needed to go a bit deeper, I heard teething and I wanted to kind of normalise it. They are all linked, the baby's got diarrhoea, the teething and infection, and it's not necessarily the case, everything in the mouth and they are getting infections from different things.
HV	She's talking about the feed a lot, feeding. But with rotavirus sometimes we know that some babies can have loose stools. She's brought up about feed a lot, she's talking about feeds that go on. She's seen the GP already; she's already told me she's medicalised it and she wants more,
HV	I am looking at her facial expressions and I am clarifying with her, in case I am missing again,
HV	I wanted to confirm that wind is a painful thing, and they (*children*) can feel it. She is doing massage as well.
HV	That made the mother feel good. There is something going on with her. That's why I stopped her to show her,
HV	She's back to the feed again. I agreed with her things are much more complicated now.
HV	I put my body back, to try and show her I'm relaxed.
HV	I want to alleviate some of that anxiety in that window that I've got.
HV	She's (*the child*) still waking up, the baby feeding, we further talk about the feeding, the feeds.
HV	I want mum to think about something different
HV	I feel I say that quite a lot, the expectation from people about time.
HV	I tell them about melatonin, and they (*children*) change too, they are hungry. I know the mum wants to sleep.
HV	And I talk to her about herself, and how she is feeling, and she then says ok, but then I come to the point, no she (*the child*) does sleep for four hours, that's a long time and that's a good sleep.
HV	So, I got her to laugh there, we laughed. So, the bottom line, I am trying to give her that message, but also now I am thinking she is all over the place, going for coffee, so the mother not having time.
HV	I am going back now, I am trying to close it the interview, I'm going back about how well she's doing, reiterating, what we have heard already. I want to close it.
HV	I am trying to tell her that it's quieter at that time, like home (*the breastfeeding café*) but she doesn't want that, she wants someone at home,
HV	I am writing because I want to start writing and she is going round and round
HV	Highly intelligent baby
HV	I am carrying on with my writing because I want to stop now, I don't want to give her more time than that, there are more people outside
HV	She is doing a lot; she says she is very busy. So, I start to write again. I am trying to get her to think about staying home for a few days.
HV	She has gone back to the poo, back to the poo and I am thinking ooh, perhaps she wants to be worried.
HV	She goes back to that again. I wanted her to see that she will know, her baby's sick.
HV	I stopped there.
HV	Now about infacol, I didn't want to add another solver thing, another solver, infacol, but she tends to want to see what I say. I think there is something going on, I am going to check.
HV	I know that I am going to put this into the referral so that someone can go and follow her up.
HV	She wants the time at home, and give her that time,

HV	She needs more time to talk about the birth, how significant that is for a mother,
HV	I don't know when someone can go. The options there if she really wanted to go and get the breastfeeding sorted, she can go because it is quiet.
HV	The resources are poor
HV	I am just confirming to her. If I tell her babies can have eleven hours of feed there's no way I am going to do that, I didn't want to go over the five hours at a time, no way she can't cope with that right now.
HV	I spent 21 minutes with her and a lot of that could have been solved if we had done the safety checks, again I went back into her mood, the maternal mood was not muted because I can well imagine what happened at the new birth visit. Lots of time was spent talking about the delivery and coping and stuff. If we don't check this, this will continue. If we don't solve the problem. We are not going to solve it, but we need to give her that platform.
	Client 5
HV	I am thinking she has already started; she is having herbal tea and I ask, how does it work, I wanted to see what her agenda was. She is leaning forward. She seems quite relaxed. I don't think she wanted advice; I think she just wanted me to hear what she's got to say.
HV	Great eye contact between her and me. I am looking back at her body language between her and me.
HV	When I heard the first baby, first child, I am thinking very busy mum.
HV	She didn't have a concern with it, and I am accepting (*about the mixed feeding*). I want her to think of formula feeding very much like responsive feeding, so she doesn't think she has to feed baby every two hours. I want her to be as responsive as with breastfeeding. I think that's the message that parents feel they have to finish that milk at that feed, no they don't have to. I left it then when she said 120.
HV	The formula milk is heavier, and I am explaining that
HV	I still got it in, I still got it in. I wanted to remind her that she's probably going to, and then she's looking at me then as if she…
HV	I wanted to give her the information, then I went back to the question she asked, (laughs)
HV	I am confirming with her, what I see (*health visitors tells mum she looks quite relaxed*)
HV	I tell her she has got a lot going on, she has one baby already. She has got all that in her head and she can't remember.
HV	She is worried about the older son and infection, we can't avoid viruses, but I confirmed that with her
HV	I like to home in on mums as well because how was she feeling, and I am looking for all of that.
HV	I need time to write up, I didn't finish all my notes today.
HV	I thank her for coming.

Appendix Ten: Orientation to the 'Think Aloud' method

Think Aloud Method

Rita Newland

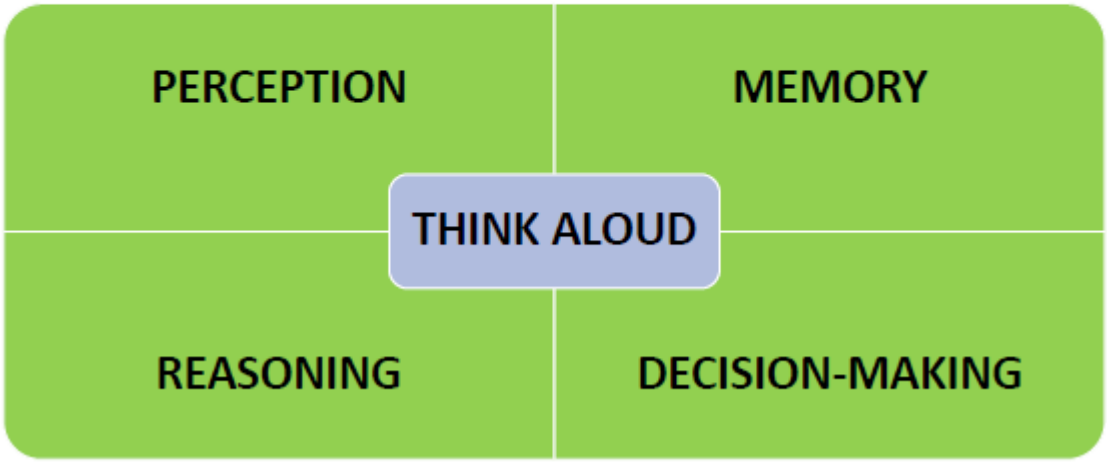
What is the Think Aloud Method?

- It is a way to encourage people to verbalise their thoughts
- It is a method that has been used in research studies to help people to access information, stored in their mind/ memory that is not easy to explain or accurately recall
- This may include things that we put down to 'gut-feeling' or instinct or times when we know something is wrong or not quite right but we do not know what is wrong or not quite right

The Think Aloud method

- Based on Information Processing Theory
- It helps to explain how people:
  - Think
  - Notice things
  - Take things in
  - Store information
  - Combine information
  - Retrieve information

The Principles of 'Think Aloud'



Why use the Think Aloud Method in this study?

- It is used in this study to help health visitors explain their thoughts and actions during 1:1 client consultations in relation to their:

- Perception (insight/ awareness)
- Reasoning (thinking)
- Memory (recall)

Preparing to Think Aloud

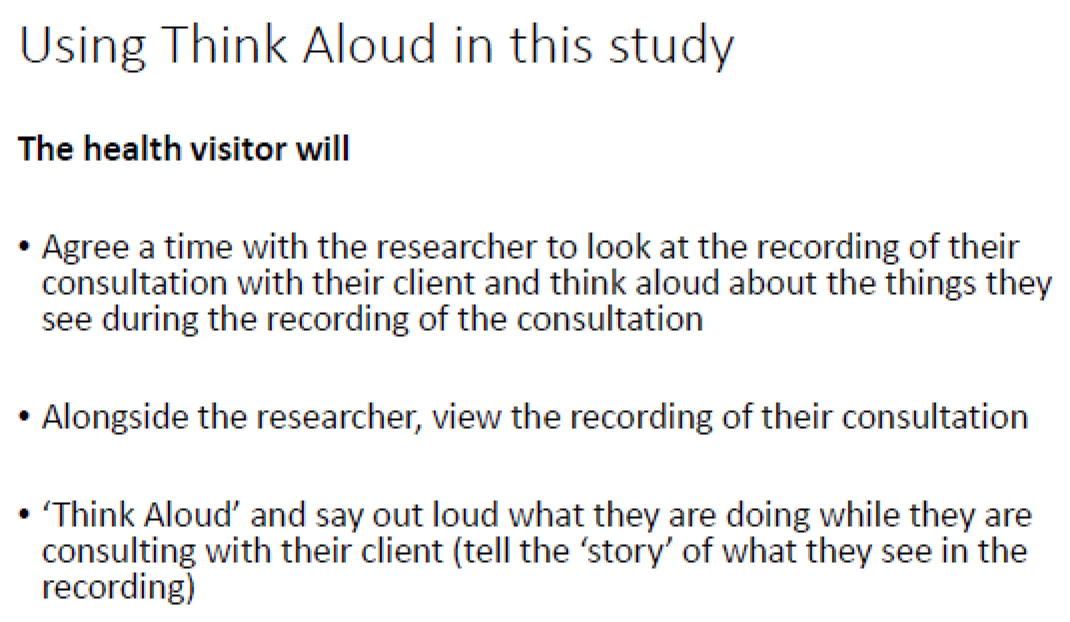
- Find a comfortable room to watch the recording of your consultation (private, no interruptions, no distractions)

- Allow yourself to say out loud the things that come into your head

- Try to say everything that goes through your mind

- Avoid interpreting your thoughts

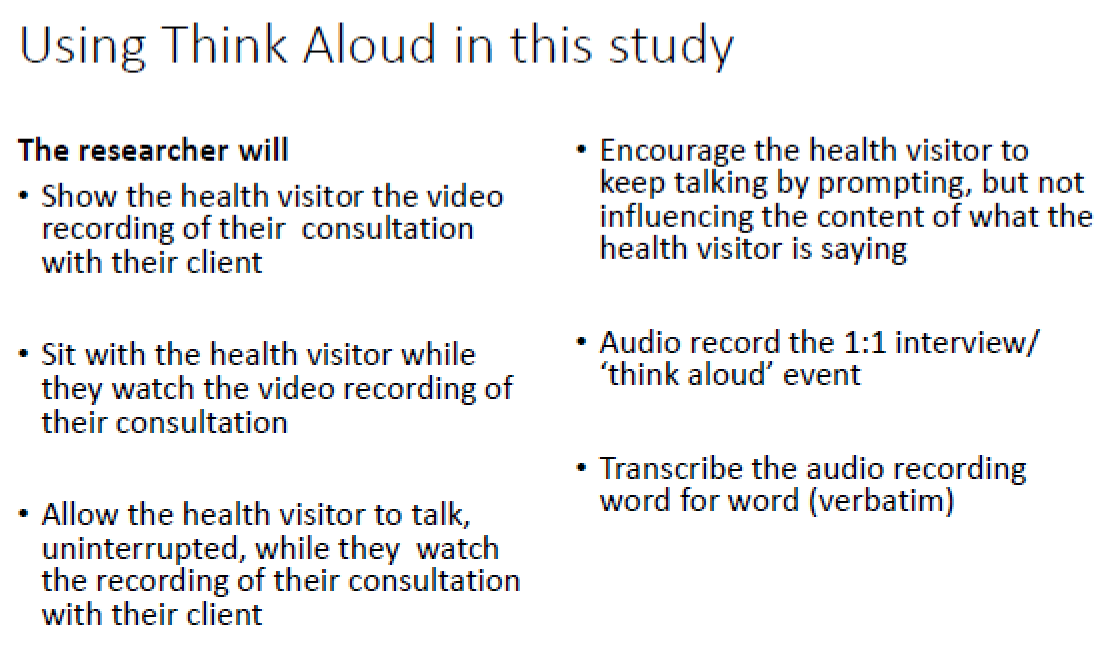
- Say what you see and do not try to explain what you see



Using Think Aloud in this study

The health visitor will

- Agree a time with the researcher to look at the recording of their consultation with their client and think aloud about the things they see during the recording of the consultation
- Alongside the researcher, view the recording of their consultation
- ‘Think Aloud’ and say out loud what they are doing while they are consulting with their client (tell the ‘story’ of what they see in the recording)



Using Think Aloud in this study

The researcher will

- Show the health visitor the video recording of their consultation with their client
- Sit with the health visitor while they watch the video recording of their consultation
- Allow the health visitor to talk, uninterrupted, while they watch the recording of their consultation with their client
- Encourage the health visitor to keep talking by prompting, but not influencing the content of what the health visitor is saying
- Audio record the 1:1 interview/ ‘think aloud’ event
- Transcribe the audio recording word for word (verbatim)

Appendix Eleven: A fieldnote account

Fieldnote: 31.1.2020: consultation and 'Think Aloud' event.

I really enjoyed this observation. I arrived later than I expected but had plenty of time to set up the laptop. I have done several observations in succession now and so I think I have a routine. Doing the home visit earlier this month has helped a lot because when I am in someone's home there is no time to faff about. I now have my stool and the extension cable so feel I am well equipped for most eventualities.

XX (*HV name*) is very precise. She tells me that she is only usually allowed to give 45 minutes to the 6-8-week check. She brings the mum and child into the consulting room from the waiting area and is already talking to the mum on entering the room. The conversation flows and I can tell from the content of the discussions that they have met before. The mum is very relaxed in XX (*HV name*) presence (*and mine*) and immediately starts asking questions and giving XX (*HV name*) a lot of information. XX (*HV name*) sits at the computer and maintains eye contact with the mum, while making notes on the computer. An interesting point is that XX (*HV name*) waits for the mum to stop talking and then asks for clarity about the content. This is important because the mum is telling XX (*HV name*) about the concerns, she has about her baby. The mum talks very quickly. I wondered how confident she was and noted at one point at the end of the consultation when she was having difficulty getting the baby carrier fastened, she just sat down and said to herself, 'now don't rush'. Even though the mum was taking additional time that XX (*HV name*) didn't have for the consultation, XX (*HV name*) did not rush her but allowed her to take her time. She (*HV name*) was very calm and measured in her conversation but also with the speed at which she did things. She had to repeat some of her instructions several times but did not appear to increase the volume or tone of her voice. She kept a calm tone and did not rush.

XX (*HV name*) engaged in the 'Think Aloud' event. XX (*HV name*) tells me that she was nervous letting me observe especially during the first consultation, but that this eased with the second consultation. XX (*HV name*) says that she will talk about her experience with the study at the team meeting and try and encourage others to take part. She has also offered for me to observe her doing more consultations.

Written 31.1.2020.

Appendix Twelve: Summary of the consultations

	Observation (number)	Venue of consultation	Type of consultation (appointment / drop-in)	Duration of consultation	Chat YES	Chat NO
1	01_19_07_2019	GP surgery	Appointment (ASQ)	41 minutes 35 seconds		√
2	01_01_11_2019	GP surgery	Appointment (ASQ) Client 1 of 2	65 minutes 18 seconds		√
3	01_01_11_2019	GP surgery	Appointment (ASQ) Client 2 of 2	69 minutes 43 seconds		√
4	02_24_10_2019	Health centre	Appointment (ASQ)	133 minutes 52 seconds		√
5	04_18_10_2019	Health centre	Appointment (ASQ) Client 1 of 2	41 minutes 40 seconds	√	
6	04_18_10_2019	Health centre	Appointment (ASQ) Client 2 of 2	54 minutes 50 seconds	√	
7	05_22_10_2019	Child health clinic (space within a multi-purpose Trust facility)	Drop-in (client enquiry/concern) Client 1 of 5	11 minutes 58 seconds	√	
8	05_22_10_2019	Child health clinic (space within a multi-purpose Trust facility)	Drop-in (client enquiry/concern) Client 2 of 5	17 minutes 11 seconds		√
9	05_22_10_2019	Child health clinic (space within a multi-purpose Trust facility)	Drop-in (client enquiry/concern) Client 3 of 5	21 minutes 36 seconds		√
10	05_22_10_2019	Child health clinic (space within a multi-purpose Trust facility)	Drop-in (client enquiry/concern) Client 4 of 6	11 minutes 35 seconds	√	

11	05_22_10_2019	Child health clinic (space within a multi-purpose Trust facility)	Drop-in (client enquiry/concern) Client 5 of 6	19 minutes 25 seconds	√	
12	05_22_10_2019	Child health clinic (space within a multi-purpose Trust facility)	Drop-in (client enquiry/concern) Client 6 of 6	8 minutes 37 seconds	√	
13	08_20_12_2019	Client's home	Appointment (NBV)	60 minutes 12 seconds	√	
14	08_30_12_2019	Health centre	Appointment (child development review)	38 minutes 29 seconds	√	
15	08_30_12_2019	Client's home	Appointment (NBV)	74 minutes 13 seconds		√
16	07_07_01_2020	Child health clinic (space within a multi-purpose Trust facility)	Drop-in (client enquiry/concern) Client 1 of 6	11 minutes 45 seconds	√	
17	07_07_01_2020	Child health clinic (space within a multi-purpose Trust facility)	Drop-in (client enquiry/concern) Client 2 of 6	5 minutes 44 seconds		√
18	07_07_01_2020	Child health clinic (space within a multi-purpose Trust facility)	Drop-in (client enquiry/concern) Client 3 of 6	10 minutes 02 seconds	√	
19	07_07_01_2020	Child health clinic (space within a multi-purpose Trust facility)	Drop-in (client enquiry/concern) Client 4 of 6	7 minutes 18 seconds	√	
20	07_07_01_2020	Child health clinic (space within a multi-purpose Trust facility)	Drop-in (client enquiry/concern) Client 5 of 6	10 minutes 50 seconds	√	
21	07_07_01_2020	Child health clinic (space within a multi-purpose Trust facility)	Drop-in (client enquiry/concern) Client 6 of 6	7 minutes 07 seconds	√	

22	07_08_11_2019	GP Surgery	Appointment (child development review)	43 minutes 39 seconds	√	
23	09_03_01_2020	Health centre	Appointment (child development review)	31 minutes 09 seconds	√	
24	10_08_01_2020	Child health clinic (Space within multi-purpose Trust facility)	Drop-in (client enquiry/concern) Client 1 of 7	16 minutes 56 seconds		√
25	10_08_01_2020	Child health clinic (Space within multi-purpose Trust facility)	Drop-in (client enquiry/concern) Client 2 of 7	13 minutes 40 seconds		√
26	10_08_01_2020	Child health clinic (Space within multi-purpose Trust facility)	Drop-in (client enquiry/concern) Client 3 of 7	9 minutes		√
27	10_08_01_2020	Child health clinic (Space within multi-purpose Trust facility)	Drop-in (client enquiry/concern) Client 4 of 7	14 minutes 13 seconds		√
28	10_08_01_2020	Child health clinic (Space within multi-purpose Trust facility)	Drop-in (client enquiry/concern) Client 5 of 7	4 minutes 37 seconds		√
29	10_08_01_2020	Child health clinic (Space within multi-purpose Trust facility)	Drop-in (client enquiry/concern) Client 6 of 7	14 minutes 50 seconds		√
30	10_08_01_2020	Child health clinic (Space within multi-purpose Trust facility)	Drop-in (client enquiry/concern) Client 7 of 7	23 minutes 20 seconds		√
31	11_13_01_2020	Health centre	Appointment (ASQ) Client 1 of 2	47 minutes 30 seconds	√	
32	11_13_01_2020	Health centre	Appointment (ASQ) Client 2 of 2	68 minutes	√	

33	12_17_01_2020	Client's home	Appointment (NBV) 1 of 2	138 minutes 41 seconds		√
34	12_17_01_2020	Client's home	Appointment Client 2 of 2	77 minutes 07 seconds		√
35	13_31_01_2020	Health centre	Appointment (6–8-week review) Client 1 of 2	65 minutes	√	
36	13_31_01_2020	Health centre	Appointment (6–8-week review) Client 2 of 2	39 minutes 03 seconds	√	
37	14_19_02_2020	GP surgery	Appointment (client enquiry / concern / HV follow up) Client 1 of 3	19 minutes 32 seconds	√	
38	14_19_02_2020	GP surgery	Appointment (client enquiry / concern / HV follow up) Client 2 of 3	9 minutes 48 seconds	√	
39	14_19_02_2020	GP surgery	Appointment (client enquiry / concern / HV follow up) Client 3 of 3	6 minutes 04 seconds	√	

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