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Stigma related barriers and facilitators to help seeking for mental health issues in the Armed Forces: A systematic review and thematic synthesis of qualitative literature

Sarah Coleman*, Sharon AM Stevelink** Judith A Denny, Stephani L Hatch*** and Neil Greenberg**

*King's College London, Clinical Psychology, Institute of Psychology, psychiatry and Neuroscience, Addiction Sciences Building, 4 Windsor Walk, London, SE5 8AF

** King's Centre for Military Health Research, King's College London, Weston Education Centre, Cutcombe Road, SE5 9RJ.

*** King's College London, Psychological Medicine, Institute of Psychiatry, 10 Cutcombe Road, London SE5 9RJ, UK

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Abstract

A recent quantitative review in the area of stigma and help seeking in the armed forces has questioned the association between these factors (Sharp *et al.*, 2015). To date, the contribution of qualitative literature in this area has largely been ignored, despite the value this research brings to the understanding of complex social constructs such as stigma. The aim of the current systematic review of qualitative studies was to identify appropriate literature, assess the quality and synthesize findings across studies regarding evidence of stigma related barriers and facilitators to help seeking for mental health issues within the Armed Forces. A multi-database text word search incorporating searches of PsycINFO, MEDLINE, Social Policy and Practice, Social Work Abstracts, EMBASE, ERIC and EBM Review databases between 1980 to April 2015 was conducted. Literature was quality assessed using the Critical Appraisal Skills Programme tool. Thematic synthesis was conducted across the literature. The review identified 8 studies with 1012 participants meeting the inclusion criteria. Five overarching themes were identified across the literature: 1) Non-disclosure, 2) Individual beliefs about mental health, 3) Anticipated and personal experience of stigma, 4) Career concerns and 5) Factors influencing stigma. The findings from the current systematic review found that unlike inconsistent findings in the quantitative literature, there was substantial evidence of a negative relationship between stigma and help seeking for mental health difficulties within the Armed Forces. The study advocates for refinement of measures to accurately capture the complexity of stigma and help seeking in future quantitative studies.

Key words: health-related stigma, help seeking behaviour, mental health, military personnel, qualitative methods, systematic review

Introduction

Despite previous research identifying the significant psychological needs of those serving in the Armed Forces (AF) (Iversen *et al.*, 2009; Fear *et al.*, 2010), only a small proportion of this population who have mental health problems use mental health services (Hoge *et al.*, 2004). A number of large research publications in the AF point to stigma as a significant barrier, greater than reported practical or logistical barriers (Hoge *et al.*, 2004; Iversen *et al.*, 2011). A common definition of stigma used that encompasses its many elements is "an attribute that is deeply discrediting" that acts to reduce an individual "from a whole and usual person to a tainted, discounted one" (Goffman, 1963, p265). There are several types of stigma and these are thought to interact with each other and contribute to barriers to help seeking, the current research will focus on the types of stigma outlined in Table 1. Stigma has been linked with a number of attributes deemed desirable within the AF, such as toughness, self-sufficiency and mission focus to ensure combat readiness (Griffin & Dunt, 2009). It is thought that these attributes are associated with help seeking being a sign of weakness, ideas of being self-reliant and a preference with dealing with difficulties on your own (Dickstein *et al.*, 2010)*.

Insert Table 1: Stigma types and definitions

The most frequently endorsed items of **public stigma** in the AF are concerns regarding differential treatment from unit leaders, being perceived by peers and leaders as 'weak', and losing the confidence of their unit (Hoge *et al.*, 2004; Iversen *et al.*, 2011; Hoerster, 2012). These concerns have been found to be consistent across the US, UK, Australian, New Zealand and Canadian AF (Gould *et al.*, 2010). Organisational and leadership experiences are of particular importance with regards to AF public stigma. High ratings of unit cohesion and the quality of the officer have been associated with lower levels of stigma, whereas, negative behaviours, such as causing embarrassment to a member of the unit have been shown to contribute to mental health related stigma (Wright *et al.*, 2009; Britt, Wright and Moore, 2012). **Internalised stigma** may stand on its own or if the public stigma experienced by the person with mental health difficulties starts to internalise, resulting in impaired self-esteem, self-efficiency and feelings of shame and demoralisation (Corrigan and Watson, 2002*; Vogt, 2011*; Zinzow *et al.*, 2013*). The most frequently reported internalised stigma beliefs held by individuals in the AF are "I am crazy" and "I am weak" (Pury *et al.*, 2014*). **Structural discrimination** is often experienced when rules or regulations (un)intentionally act to disadvantage a group of people, in this case AF personnel with mental health difficulties (Rüsch and Thornicroft, 2014). These rules or

Qualitative studies or studies with a qualitative element referenced in the introduction are indicated with an *, the remaining studies are of quantitative methodology.

regulations are thought to subsequently influence public stigma and then potentially lead to internalised stigma (Evans-Lacko *et al.*, 2012). Examples include the belief that mental health difficulties may impact one's career, being unaware of where to find help and not having access to resources to access help.

The findings of a broad systematic review regarding the impact of mental health-related stigma and help seeking across populations highlighted the military as a sub-group that were disproportionately deterred by stigma (Clement *et al.*, 2015*). However, a recent focus on the quantitative literature in the area dealing with military personnel only, revealed questions regarding this association (Sharp *et al.*, 2015). Despite a high and consistent prevalence of public stigma, the majority of the studies examined, found no association between public stigma and mental health service use or intentions to seek help among AF personnel. Many explanations are possible for this discordance such as the use of different measures or perhaps measures of low quality (not validated) to examine stigma, individuals who are experiencing high levels of stigma may not disclose their mental health service usage or they may not even be aware that they experience mental health difficulties and consequently do not seek help (Osório et al. 2013; Fikretoglu. et al. 2008). Further, it is feasible that the measures used did not encompass the complexity of stigma within the AF population. Nonetheless, the contribution of qualitative studies in this area has broadly been ignored and may provide further insight and clarification regarding the experience of stigma, help seeking experiences, intentions and facilitators.

The current review aims to:

- Identify, synthesis and discuss qualitative literature regarding the processes contributing to and counteracting the effect of stigma on help seeking for mental health difficulties within the AF.
- Critically consider the quality of the identified studies.
- Identify future directions in research and interventions regarding stigma in the AF.

Qualitative studies or studies with a qualitative element referenced in the introduction are indicated with an *, the remaining studies are of quantitative methodology.

Method

Search strategy

A multi-database text word search using OVID was employed. The database incorporates searches of PsycINFO, MEDLINE, Social Policy and Practice, Social Work Abstracts, EMBASE, ERIC and EBM Review databases (1980 – April 2015). A variation of the following key search terms was used: mental health, military, army, stigma, attitudes, barriers, discrimination, internalised stigma, public stigma, help-seeking (appendix 2). Reference sections of articles and grey literature were also extensively searched. The date of the last search was April 19th 2015.

Inclusion / exclusion criteria

- Empirically based studies looking into help-seeking and stigma in military or veteran populations, thereby using qualitative or mixed methods with a qualitative component, published between 1980-2015.
- Research that include adults from the age of 18 years old.
- Studies written in English.
- Review articles were excluded as well as conference proceedings and PhD dissertations.

Quality assessment method

Methodological quality of the process studies was assessed using the ten-item Critical Appraisal Skills programme (CASP) tool for qualitative research (CASP, 2014) (appendix 3). CASP has been widely used in a number of similar qualitative reviews. Two researchers independently assessed a subset (4) of the studies against the outlined criteria and resolved discrepancies through discussion (SC and JD). Studies that did not meet the quality criteria on more than one item were deemed fair and any more than 3 items were rated fair/poor. Study quality allowed a sensitivity analyses to be conducted determining the impact of lower quality studies on the reviews findings.

Data extraction

The following data was extracted from the studies: populations studied, country, number of participants, diagnosis of participants, age, ethnicity, recruitment strategy, objective of the study, qualitative method, outcomes measures, data collection, themes identified, most relevant findings and recommendations and implications.

Data synthesis

We used thematic synthesis to summarise and analyse the data from the various studies (Thomas *et al.*, 2008). Thematic synthesis involves identifying key concepts across studies, even when not described using identical wording or explanations. Identified concepts are developed across the studies and pulled together in themes, in an effort to go beyond the content of the original research studies (Thomas *et al.*, 2008).

This includes three stages:

- Stage one: Line by line coding of the findings from primary studies
- Stage two: Development of descriptive themes
- Stage three: Generating analytical themes and 'going beyond' the content of the original studies.

Studies were read repeatedly to ensure that all text relating to barriers and facilitators to help seeking were identified, integrated and grouped into a map of themes. As recommended by Thomas & Harden, (Thomas *et al.*, 2008) all of the study findings from text labelled as results or findings were extracted and any findings discussed in the abstracts. All results were entered verbatim into Nvivo software. Two reviewers independently coded each line of the text labelling the meaning and content (SC and JD). During coding results to previously formed codes were added or a new code was developed where appropriate.

Sensitivity analysis

A sensitivity analysis was used to investigate the effect of methodological quality on the results of the current review. This was conducted by removing the results from the three lowest rated studies (Stecker *et al.*, 2007; Visco, 2009; Gibbs *et al.*, 2011).

Results

A total of eight qualitative studies (five individual interviews, one individual interviews and focus groups and two focus groups) with a total of 1012 participants were included in the review (see figure 1). The studies identified were carried out in the United Kingdom (n=2) and the United states (n=6). Two out of eight studies employed mixed method methodologies. Gibbs (2011) was the only study who did not provide details regarding the gender distribution within their study. The studies varied in their focus. One focused broadly on barriers and facilitators to help-seeking(Zinzow *et al.*, 2013), one on facilitator pathways for help seeking (Murphy *et al.*, 2014), one on distress and reported stigma (V Langston *et al.*, 2010), two focused on stigma related directly to PTSD (Sayer *et al.*, 2009; Mittal *et al.*, 2013), one on beliefs regarding mental health treatment (Stecker *et al.*, 2007) and one on mental health symptoms and help seeking behaviour (Visco, 2009).

Characteristics of study methodology

A summary of the studies is in table 2, whilst table 3 details study's methodology.

Method of analysis

Four studies employed thematic analysis, three used content analysis and one used interpretative phenomenological analysis (Murphy *et al.*, 2014).

Description of research design

Seven studies adequately described their research design, the remaining one failed to justify their study design. Two studies employed mixed-method designs, integrating quantitative aspects such as questionnaires to compliment the qualitative aspects (Visco et al, 2009; Langston *et al.*, 2010). Both of these studies had larger sample sizes, respectively n= 170 and n=374 as they also encompassed a quantitative element. The effect of sample size on the qualitative results was not discussed in the studies. Two studies namely Zinzow et al, (2013) and Gibbs *et al.*, (2011), employed both focus groups and interviews.

Adequate recruitment strategy

Seven studies used an adequate recruitment strategy; the remaining study had a senior officer instruct participants to attend the focus groups (Gibbs *et al.*, 2011). Inclusion and exclusion criteria were well documented in all of the studies. Exclusion was usually based on meeting the criteria for probable diagnosis (n=3) (Stecker *et al.*, 2007; Visco, 2009; Langston *et al.*, 2010) or currently in treatment (n=5) (Sayer *et al.*, 2009; Gibbs *et al.*, 2011; Mittal *et al.*, 2013; Zinzow *et al.*, 2013; Murphy *et al.*, 2014). A bias towards recruiting individuals with lower levels of

psychological distress may have occurred by therapists referring to the studies excluding potential participants suffering from high levels of psychological distress.

Data collection

Six studies met the criteria for data collection; the other two did not discuss saturation of data nor did they provide a justification for the sample size (Stecker *et al.*, 2007; Visco, 2009).

Relationship between the researcher and participants

None of the studies examined the relationship between the researcher and the participants primarily because all failed to include any evidence of good reflective practice. Such examples would have included accounts from the researcher regarding their own role and potential bias and how this may have influenced formulation and findings of the study.

Ethical considerations

One study did not detail how ethical approval was sought (Sayer *et al.*, 2009).

Sufficiently rigorous data analysis

Seven of the studies provided adequate details of transcription, reading, and familiarisation. Bias was addressed in five studies through the use of an independent researcher (Stecker *et al.*, 2007; Sayer *et al.*, 2009; Visco, 2009; Mittal *et al.*, 2013; Zinzow *et al.*, 2013), three studies did not make reference to a second rater or discussions of findings with an independent researcher (Langston *et al.*, 2010; Gibbs *et al.*, 2011; Murphy *et al.*, 2014). Three studies failed to clearly document how they selected the results discussed (Stecker *et al.*, 2007; Sayer *et al.*, 2009; Gibbs *et al.*, 2011). In seven of the studies the quotations successfully supported the interpretation or themes documented with the exception of (Langston *et al.*, 2010)

Clear statement of findings

Six studies provided a clear statement of findings, with others not discussing the credibility of their findings or succinctly communicating the key findings (Stecker *et al.*, 2007; Visco, 2009). All findings were discussed in relation to the original research question.

Value of findings

All of the research studies were thought to be valuable, as all of them discussed possible implications for practice and research, as well as identifying new areas of research. However, it was rare for authors to consider alternative explanations in the discussion of their findings.

Sensitivity analysis

We found that removing the poorer studies had relatively little impact on the overall findings of the synthesis. The main methodological limitations in those regarded as poorer studies focused on an absence of reflexive accounts regarding the influence of the researcher, neglecting to use a second rater or clearly documenting how they selected their results.

Insert Figure 1: PRISMA flow diagram of study process

Insert Table 2: Characteristics of the studies

*Insert Table 3: Characteristics of study methodologies and quality assessed with the CASP quality tool (*CASP, 2014*).*

Synthesis

Five themes and 33 subthemes were identified as underlying the relationship between stigma and help seeking for mental health difficulties within the AF (table 3). The five themes were organised under the overarching headings of either stigma-related barriers or facilitators to further organise the results into meaningful and coherent categories. The five themes were: non-disclosure, individual beliefs about mental health, anticipated and personal experience of stigma, career concerns and factors influencing stigma. The data was grouped and re-grouped into a revised set of inter-related themes and sub themes; this formed the final coding framework. Quotations from the literature to support the findings can be found in appendix 5.

Findings: Stigma related barriers

Non-disclosure

The theme 'non-disclosure' illustrates the link between a number of behaviours that delay or reduce help seeking primarily linked to public stigma. This theme was characterised by phrases suggestive of 'carrying on' or 'sucking it up' and is consistent with previous literature regarding usual military culture which encourages individuals to try to solve their own problems and a fear of stigmatisation from others driving this (Greene-Shortridge, Britt and Castro, 2007).

Participants spoke about a difficulty recognising that they had a problem, did not perceive their symptoms to be that severe that treatment was necessary, or indicated to rather seek help for their comorbid somatic symptoms than mental health difficulties; the latter being a well-known issue in the AF (Britt, 2000). There was a tendency to ignore difficulties or to not perceive the need for treatment until a 'crisis point' was reached, such as severe experiences of somatic difficulties or a life-threatening event, and the only option left was to seek help. Waiting until this point reportedly had a larger impact on the individuals working life and potentially their career. Participants across studies felt that accessing services and receiving a diagnosis illustrated to others that they had a problem. This is consistent with civilian literature regarding individuals purposefully avoiding the label that receiving formal care often brings and therefore avoiding public stigma (Corrigan, 2004).

Leadership shaped participants' perceptions of how they would be treated within the unit should they disclose their mental health difficulty. Participants discussed the heightened impact of leaders making positive statements regarding mental health and sharing their own experience of psychological difficulties. Of note, one study reported that leadership may have actively encouraged individuals not to accurately report symptoms on mental health

assessments, due to fears that they would always be associated with that problem (Stecker *et al.*, 2007).

Individual beliefs about mental health

The theme 'individual beliefs about mental health' encompasses accounts regarding common internalised stigma. Participants across studies reported internalised stigma beliefs such as 'I am weak', 'I am a danger to others', 'I am crazy' and 'I am unfit for the job'. In addition, participants across a number of studies spoke about worries that they would be perceived as 'malingering'. In terms of gender differences, only one study specifically focused on gender and found that women were more receptive to treatment seeking (Visco, 2009). This finding is consistent with research in both civilian and AF literature (Wang *et al.*, 2005; Cohen *et al.*, 2010).

Experiences of stigma

The theme 'experiences of stigma' was used to encompass individuals' previous experience and individual fears regarding the prospect of help-seeking within the AF. Participants across studies reported experiencing a 'lack of understanding' and 'losing respect from peers' and consequently some adopted feelings of being to blame, ashamed and feelings of guilt. Of those that reported utilisation of mental health services, participants reported fears of experiencing judgement from professionals, particularly those outside of the AF. They anticipated that professionals without any AF experience would not understand the context of their experiences.

Career concerns

The theme 'career concerns' referred to participants' worries that treatment seeking would impact on their career advancement and may lead to discharge from the AF. They feared that disclosure of their mental health difficulty would result in a lack of confidentiality and therefore act as a structural barrier for career progression. Further, they also feared a change in their duties if they were to seek help and potentially were given medication. Across studies participants also spoke of how confidentiality could be lost as a result of their absence from the unit. Participants believed that colleagues would infer they were suffering from a mental health difficulty if they were to attend frequent appointments. Concerns about widespread knowledge of their mental health difficulties differed by rank. High ranked officers expressed concerns that perceptions regarding their leadership abilities and a perceived risk to those that they lead might be affected. Conversely, lower ranked officers predominantly reported fears around becoming non-deployable and unable to progress in their careers. Further, it was expressed that

higher ranking individuals would be able to conceal their engagement more readily due to increased autonomy. Due to limited research, it is unclear whether these anticipated consequences for AF personnel represent the reality of the situation. However, military personnel diagnosed with severe mental health problems have their duties restricted to ensure their safety and the safety of others and may be found to be unfit for deployment until they recover.

Findings: Stigma related facilitators to help seeking

Factors influencing stigma

The theme 'factors influencing stigma' included facilitating factors in reducing stigma and increasing help seeking. Many participants highlighted the role of leaders within the unit as influential in their decisions to seek help. The influence of leadership in both acting as a barrier to help seeking and a facilitator is an important finding. This result is not surprising given the strong leadership structure of the military, particularly in an active duty setting (Britt, Wright and Moore, 2012). The process of overcoming stigma was attributed to the realisation that previously held negative beliefs regarding mental health difficulties conflicted with positive changes in their lives as a result of treatment seeking. Participants cited the value of a psychological understanding in overcoming fears regarding help seeking, including details of where help was available and the symptoms that link to their diagnosis. This understanding assisted participants with their concerns being 'mad', 'crazy' or something wrong with them. On a broader level, a lack of psychological understanding of PTSD at a societal level was an important issue for participants.

Further, participants suggested that the appropriate timing of mental health assessments post-deployment, individual contact with mental health teams prior to incidents and professionals offering the treatment being familiar with military culture (e.g. would understand military related PTSD) were all facilitators of help-seeking. Additionally, knowing other individuals who had experienced and overcome a mental health difficulty was helpful. The value of encouragement and support to seek treatment from peers within the unit and family members highlights the importance of social support in help seeking.

Insert Table 4: Themes across research studies

Discussion

This study was a synthesis of eight primary qualitative studies focusing on stigma related barriers and facilitators to help seeking for mental health difficulties within the AF. Five key themes (non-disclosure, individual beliefs about mental health, anticipated and personal experience of stigma, career concerns and factors influencing stigma) relevant to the research topic were identified. Unlike the inconsistent findings from quantitative literature, this qualitative synthesis found consistent evidence that stigma did in fact present as a substantial and multifaceted barrier to accessing care and support for mental health problems in the military.

Strengths and limitations

The rigour of the review was established by applying a comprehensive search strategy to maximise the likelihood of identifying all relevant studies. Further, the widely applied CASP quality tool was used to rate the studies and the sensitivity analysis ensured that literature of lower quality did not adversely affect the overall findings of the review. One key limitation of this review relates to the process of narrative synthesis and its potential to decontextualize findings (Campbell *et al.*, 2011). The reviewers checked that each transfer of themes and concepts across studies was valid thereby ensuring that the context of the findings was not lost. Further as the current research included studies from both the USA and the UK the differential role of culture on stigma both at an organisational level and country level was not examined in detail. This review does not provide any direct evidence of an association between stigma and help seeking for mental health issues in the AF, but it does provide a rich account of stigma related factors that deter and enable help seeking.

Implications for practice

The reluctance to seek help has been demonstrated in veteran and civilian populations (Woodhead *et al.*, 2011). Therefore, the current findings may be used to inform practice related to the reduction of stigma within the wider society, the AF and more specifically within organisational contexts in which individuals are routinely exposed to trauma e.g. private military security companies and the emergency services.

Wider society

On a wider society level overcoming structural discrimination is an essential aspect of targeting public stigma (Schomerus, Matschinger and Angermeyer, 2006; Jorm, 2012). The use of

interventions such as mass media, have been shown to increase public knowledge and reduce prejudice (Clement *et al.*, 2013). In addition such campaigns may counter stereotypes commonly associated with mental health difficulties, such as 'weakness', 'malingering' , 'unfit for work' and 'crazy'. Education through such campaigns may promote the recognition of psychological difficulties in their early stages through information on prevention and effective treatments for mental health difficulties (Jorm, 2012).

Interventions

Whilst there is little evidence to support the use of screening for vulnerability to mental health problems in organisational settings (Rona, Hyams and Wessely, 2005), if these techniques are used, they should take account of the views of health and welfare professionals involved in any treatment provision (Bull *et al.*, 2015). Recent research in the civilian population has shown self-administered computer based screening tools to screen for mood disorders in primary care setting to be more accurate in recognising difficulties than individual GP interviews (Vohringer *et al.*, 2013). Additionally, US findings suggest that mental health screening may be of use in a primary care setting, particularly within the first few months of returning home (Milliken, Auchterlonie and Hoge, 2007). However, whilst screening procedures might assist individuals to determine if help seeking may be necessary, to be successful it is likely to be necessary to address concerns around perceived levels of confidentiality and consequent difficulties of receiving the label of a diagnosis.

Findings suggest that the individual affected might be unaware, or that they are reluctant to report their mental health difficulties. In these cases, peer-led intervention, such as Trauma risk Management (TRiM), have been demonstrated to be effective (Greenberg, Brooks and Dunn, 2015). This program has been adopted by the UK AF and in an adapted format, by the US AF. The peer led approach of this program may act to address barriers to help seeking such as distrust of mental health professionals. Research suggested that this approach is more acceptable to members of the AF, has a positive effect on organisational functioning and reduces absence rates after the occurrence of traumatic incidents (Whybrow *et al.*, 2016). The aim of such an intervention is not, however, to treat mental health symptoms, instead it provides a degree of psychoeducation, to allow members of the team to identify persistent symptoms and signpost colleagues to treatment when appropriate.

Treatment

The review has important implications for practicing clinicians treating members of the AF. Clinicians may want to integrate strategies into treatment that help to counter stigma

associated with treatment and target internalised stigma. The following recommendations were identified:

- During treatment clinicians should endeavour to proactively tackle stigma during each consultation to reduce drop out e.g. normalisation of symptoms, challenges to stereotypes and labels.
- Framing mental health difficulties in a similar manner to physical health difficulties.
- Providing a psychological understanding of how symptoms developed.
- Given reported participant worries regarding whether treatment would meet their needs, it is essential to identify individual needs early in the course of treatment and ensure that these are met and clinicians continue to check with patients that this continues to be the case.
- It may be preferable to time post-deployment mental health assessments a number of days after individuals have returned home, as many reported not disclosing their persistent difficulties to ensure they returned home in a timely manner.
- Given the value of knowing other individuals who had experienced a mental health it may be of use to offer group therapy where appropriate.
- Providing psycho-education and access to joint sessions where appropriate.

Future Research

These results suggest that future research integrating findings from qualitative studies to inform the design of future quantitative measures is essential to ensure that quantitative research studies in the area of stigma and help seeking are asking the right questions. Further research into the design and ecological validity of questionnaires commonly used in AF stigma research should be priority. Future research should build on some of the highlighted quality shortcomings of the current research included, for example none of the eight studies included a reflective aspect. In addition, research could be directed to evaluating the use of interventions such as providing psycho-education to promote the recognition of mental health difficulties and evaluating stigma specific interventions targeting leadership. The current findings infer that overcoming internalised stigma may be an important process of help seeking, however there is very little research in this area to date.

Conclusions

The current systematic review demonstrated that unlike inconsistent findings from quantitative literature, the qualitative literature provides substantial evidence regarding the relationship between stigma and help seeking for mental health difficulties within the AF.

References

Britt, T. W. (2000) 'The stigma of psychological problems in a work environment: evidence from the screening of service members returning from Bosnia', *Journal of Applied Social Psychology*, 30(8), pp. 1599–1618. doi: 10.1111/j.1559-1816.2000.tb02457.x.

Britt, T. W., Wright, K. M. and Moore, D. (2012) 'Leadership as a predictor of stigma and practical barriers toward receiving mental health treatment: a multilevel approach.', *Psychological services*, 9(1), pp. 26–37. doi: 10.1037/a0026412.

Bull, S., Thandi, G., Keeling, M., Chesnokov, M., Greenberg, N., Jones, N., Rona, R. and Hatch, S. L. (2015) 'Medical and Welfare Officers beliefs about post-deployment screening for mental health disorders in the UK Armed Forces: a qualitative study.', *BMC public health*, 15(1), p. 338. doi: 10.1186/s12889-015-1695-4.

Campbell, R., Pound, P., Morgan, M., Daker-White, G., Britten, N., Pill, R., Yardley, L., Pope, C. and Donovan, J. (2011) 'Evaluating meta-ethnography: systematic analysis and synthesis of qualitative research', *Health Technol Assess*, 15(43), pp. 1–164. doi: 10.3310/hta15430.

Clement, S., Lassman, F., Barley, E., Evans-Lacko, S., Williams, P., Yamaguchi, S., Slade, M., Rusch, N. and Thornicroft, G. (2013) 'Mass media interventions for reducing mental health-related stigma.', *The Cochrane database of systematic reviews*, 7(7), p. CD009453. doi: 10.1002/14651858.CD009453.pub2.

Clement, S., Schauman, O., Graham, T., Maggioni, F., Evans-Lacko, S., Bezborodovs, N., Morgan, C., Rüsch, N., Brown, J. S. L. and Thornicroft, G. (2015) 'What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies.', *Psychological medicine*, 45(1), pp. 11–27. doi: 10.1017/S0033291714000129.

Cohen, B. E., Gima, K., Bertenthal, D., Kim, S., Marmar, C. R. and Seal, K. H. (2010) 'Mental health diagnoses and utilization of VA non-mental health medical services among returning Iraq and Afghanistan veterans', *Journal of General Internal Medicine*, 25(1), pp. 18–24. doi: 10.1007/s11606-009-1117-3.

Corrigan, P. W. (2004) 'Don't call me nuts: An international perspective on the stigma of mental illness', *Acta Psychiatrica Scandinavica*, pp. 403–404. doi: 10.1111/j.1600-0047.2004.00316.x.

Corrigan, P. W. and Watson, A. C. (2002) 'The paradox of self-stigma and mental illness',

Clinical Psychology: Science and Practice, pp. 35–53. doi: 10.1093/clipsy/9.1.35.

D., F., S., G., D., P. and A., B. (2008) 'Twelve month use of mental health services in a nationally representative, active military sample', *Medical Care*, 46(2), pp. 217–223. doi: 10.1097/MLR.0b013e31815b979a.

Dickstein, B. D., Vogt, D. S., Handa, S. and Litz, B. T. (2010) 'Targeting Self-Stigma in Returning Military Personnel and Veterans: A Review of Intervention Strategies', *Military Psychology*, 22(February 2015), pp. 224–236. doi: 10.1080/08995600903417399.

Evans-Lacko, S., Brohan, E., Mojtabai, R. and Thornicroft, G. (2012) 'Association between public views of mental illness and self-stigma among individuals with mental illness in 14 European countries.', *Psychological medicine*, 42(8), pp. 1741–52. doi: 10.1017/S0033291711002558.

Fear, N. T., Jones, M., Murphy, D., Hull, L., Iversen, A. C., Coker, B., Machell, L., Sundin, J., Woodhead, C., Jones, N., Greenberg, N., Landau, S., Dandeker, C., Rona, R. J., Hotopf, M. and Wessely, S. (2010) 'What are the consequences of deployment to Iraq and Afghanistan on the mental health of the UK armed forces? A cohort study', *The Lancet*, 375(9728), pp. 1783–1797. doi: 10.1016/S0140-6736(10)60672-1.

Gibbs, D. A., Rae Olmsted, K. L., Brown, J. M. and Clinton-Sherrod, A. M. (2011) 'Dynamics of stigma for alcohol and mental health treatment among Army soldiers', *Military Psychology*, 23(1), pp. 36–51. doi: 10.1080/08995605.2011.534409.

Gould, M., Adler, A., Zamorski, M., Castro, C., Hanily, N., Steele, N., Kearney, S. and Greenberg, N. (2010) 'Do stigma and other perceived barriers to mental health care differ across Armed Forces?', *Journal of the Royal Society of Medicine*, 103(4), pp. 148–156. doi: 10.1258/jrsm.2010.090426.

Greenberg, N., Brooks, S. and Dunn, R. (2015) 'Latest developments in post-traumatic stress disorder: Diagnosis and treatment', *British Medical Bulletin*, 114(1), pp. 147–155. doi: 10.1093/bmb/ldv014.

Greene-Shortridge, T. M., Britt, T. W. and Castro, C. A. (2007) 'The stigma of mental health problems in the military.', *Military medicine*, 172(February 2007), pp. 157–161. doi: 10.7205/MILMED.172.2.157.

Griffin, A., Prof, M. and Dunt, D. (2009) 'Review of Mental Health Care in the ADF and Transition through Discharge Letter of submission of report to Ministers Acknowledgments'.

Hoerster, K. D. (2012) 'Association of Perceived Barriers With Prospective Use of VA Mental Health Care Among Iraq and Afghanistan Veterans', *Psychiatric Services*, 63(4), p. 380. doi: 10.1176/appi.ps.201100187.

Hoge, C., Castro, C., Messer, S., McGurk, D., Cotting, D. and Koffman, R. (2004) 'Combat Duty in Iraq and Afghanistan, Mental Health Problems, and Barriers to Care', *New England Journal of Medicine*, 351(1), pp. 13–22. doi: 10.1056/NEJMoa040603.

Iversen, A. C., van Staden, L., Hughes, J. H., Browne, T., Hull, L., Hall, J., Greenberg, N., Rona, R. J., Hotopf, M., Wessely, S. and Fear, N. T. (2009) 'The prevalence of common mental disorders and PTSD in the UK military: using data from a clinical interview-based study', *BMC Psychiatry*, 9, p. 68. doi: 10.1186/1471-244X-9-68.

Iversen, A. C., van Staden, L., Hughes, J. H., Greenberg, N., Hotopf, M., Rona, R. J., Thornicroft, G., Wessely, S. and Fear, N. T. (2011) 'The stigma of mental health problems and other barriers to care in the UK Armed Forces.', *BMC health services research*, 11(1), p. 31. doi: 10.1186/1472-6963-11-31.

Jorm, A. F. (2012) 'Mental health literacy: empowering the community to take action for better mental health.', *The American psychologist*, 67(3), pp. 231–43. doi: 10.1037/a0025957.

Langston, V., Greenberg, N., Fear, N., Iversen, A., French, C. and Wessely, S. (2010) 'Stigma and mental health in the Royal Navy: a mixed methods paper.', *Journal of Mental Health*, 19(1), pp. 8–16. doi: 10.3109/09638230802522999.

Langston, V., Greenberg, N., Fear, N., Iversen, A., French, C. and Wessely, S. (2010) 'Stigma and mental health in the Royal Navy: a mixed methods paper.', *Journal of mental health (Abingdon, England)*, 19(1), pp. 8–16. doi: 10.3109/09638230802522999.

Milliken, C. S., Auchterlonie, J. L. and Hoge, C. W. (2007) 'Longitudinal assessment of mental health problems among active and reserve component soldiers returning from the Iraq war.', *JAMA : the journal of the American Medical Association*, 298(18), pp. 2141–2148. doi: 10.1001/jama.298.18.2141.

Mittal, D., Drummond, K. L., Blevins, D., Curran, G., Corrigan, P. and Sullivan, G. (2013) 'Stigma Associated With PTSD: Perceptions of Treatment Seeking Combat Veterans', *Psychiatric Rehabilitation Journal*, 36(2), pp. 86–92. doi: 10.1037/h0094976.

Murphy, D., Hunt, E., Luzon, O. and Greenberg, N. (2014) 'Exploring positive pathways to care for members of the UK armed forces receiving treatment for PTSD: A qualitative study', *European Journal of Psychotraumatology*. doi: 10.3402/ejpt.v5.21759.

Osório, C., Jones, N., Fertout, M. and Greenberg, N. (2013) 'Perceptions of stigma and barriers to care among UK military personnel deployed to Afghanistan and Iraq.', *Anxiety,*

stress, and coping, 26(5), pp. 539–57. doi: 10.1080/10615806.2012.725470.

Pury, C. L. S., Britt, T. W., Zinzow, H. M. and Raymond, M. A. (2014) 'Blended courage: Moral and psychological courage elements in mental health treatment seeking by active duty military personnel', *The Journal of Positive Psychology*, 9(1), pp. 30–41. doi: 10.1080/17439760.2013.831466.

Rona, R. J., Hyams, K. C. and Wessely, S. (2005) 'Screening for psychological illness in military personnel', *Jama*, 293(10), pp. 1257–1260. doi: 10.1001/jama.293.10.1257.

Rüsch, N. and Thornicroft, G. (2014) 'Does stigma impair prevention of mental disorders?', *British Journal of Psychiatry*, pp. 249–251. doi: 10.1192/bjp.bp.113.131961.

Sayer, N. A., Spoont, M., Murdoch, M., Friedemann-Sanchez, G., Parker, L. E., Chiros, C. and Rosenheck, R. (2009) 'a Qualitative Study of Determinants of ptSD treatment Initiation in Veterans', *Psychiatry*, 72(3).

Sayer, N. a, Friedemann-Sanchez, G., Spoont, M., Murdoch, M., Parker, L. E., Chiros, C. and Rosenheck, R. (2009) 'A qualitative study of determinants of PTSD treatment initiation in veterans', *Psychiatry*, 72(3), pp. 238–255. doi: 10.1521/psyc.2009.72.3.238.

Schomerus, G., Matschinger, H. and Angermeyer, M. C. (2006) 'Preferences of the public regarding cutbacks in expenditure for patient care: Are there indications of discrimination against those with mental disorders?', *Social Psychiatry and Psychiatric Epidemiology*, 41(5), pp. 369–377. doi: 10.1007/s00127-005-0029-8.

Sharp, M. L., Fear, N. T., Rona, R. J., Wessely, S., Greenberg, N., Jones, N. and Goodwin, L. (2015) 'Stigma as a barrier to seeking health care among military personnel with mental health problems', *Epidemiologic Reviews*, 37(1), pp. 144–162. doi: 10.1093/epirev/mxu012.

Stecker, T., Fortney, J. C., Hamilton, F. and Ajzen, I. (2007) 'An assessment of beliefs about mental health care among veterans who served in Iraq', *Psychiatric Services*, 58(10), pp. 1358–1361. doi: 10.1176/appi.ps.58.10.1358.

Thomas, J., Harden, A., Chalmers, I., Oakley, A., Cooper, H., Hedges, L., Petticrew, M., Roberts, H., Chalmers, I., Hedges, L., Cooper, H., Juni, P., Altman, D., Egger, M., Mulrow, C., White, H., Campbell, R., Pound, P., Pope, C., Britten, N., Pill, R., Morgan, M., Donovan, J., Dixon-Woods, M., Bonas, S., Booth, A., Jones, D. R., Miller, T., Sutton, A. J., Shaw, R. L., Smith, J. A., Young, B., Sandelowski, M., Barroso, J., Thorne, S., Jensen, L., Kearney, M. H., Noblit, G., Sandelowski, M., Harden, A., Garcia, J., Oliver, S., Rees, R., Shepherd, J., Brunton, G., Oakley, A., Harden, A., Brunton, G., Fletcher, A., Oakley, A., Thomas, J., Sutcliffe, K., Harden, A., Oakley, A., Oliver, S., Rees, R., Brunton, G., Kavanagh, J., Thomas, J., Kavanagh, J., Tucker, H., Burchett, H., Tripney, J., Oakley, A., Bryman, A.,

Hammersley, M., Harden, A., Thomas, J., Oakley, A., Harden, A., Oakley, A., Oliver, S., Harden, A., Rees, R., Shepherd, J., Brunton, G., Oliver, S., Oakley, A., Rees, R., Harden, A., Shepherd, J., Brunton, G., Oliver, S., Oakley, A., Shepherd, J., Harden, A., Rees, R., Brunton, G., Oliver, S., Oakley, A., Thomas, J., Harden, A., Oakley, A., Oliver, S., Sutcliffe, K., Rees, R., Brunton, G., Kavanagh, J., Davies, P., Newman, M., Thompson, C., Roberts, A. P., Popay, J., Noblit, G. W., Hare, R. D., Britten, N., Campbell, R., Pope, C., Donovan, J., Morgan, M., Pill, R., Paterson, B., Thorne, S., Canam, C., Jillings, C., Dixon-Woods, M., Cavers, D., Agarwal, S., Annandale, E., Arthur, A., Harvey, J., Katbamna, S., Olsen, R., Smith, L., Riley, R., Sutton, A. J., Dixon-Woods, M., Agarwal, S., Jones, D., Young, B., Sutton, A., Boyatzis, R. E., Braun, V., Clarke, V., Doyle, L. H., Barroso, J., Gollop, C., Sandelowski, M., Meynell, J., Pearce, P. F., Collins, L. J., Walters, L. A., Wilczynski, N. L., Haynes, R. B., Hedges, T., Wong, S. S. L., Wilczynski, N. L., Haynes, R. B., Seale, C., Spencer, L., Ritchie, J., Lewis, J., Dillon, L., Boulton, M., Fitzpatrick, R., Swinburn, C., Cobb, A., Hagemaster, J., Mays, N., Pope, C., Alderson, P., Egger, M., Davey-Smith, G., Altman, D., Sandelowski, M., Barroso, J., Sandelowski, M., Thomas, J., Brunton, J., Fisher, M., Qureshi, H., Hardyman, W., Homewood, J., Dixey, R., Sahota, P., Atwal, S., Turner, A., Daly, A., Willis, K., Small, R., Green, J., Welch, N., Kealy, M., Hughes, E., Popay, J., Strike, K., Posner, G., Marston, C. and King, E. (2008) 'Methods for the thematic synthesis of qualitative research in systematic reviews', *BMC Medical Research Methodology*, 8(1), p. 45. doi: 1471-2288-8-45 [pii]\r10.1186/1471-2288-8-45 [doi].

Visco, R. (2009) 'Postdeployment, Self-reporting of mental health problems, and barriers to care', *Perspectives in Psychiatric Care*, 45(4), pp. 240–253. doi: 10.1111/j.1744-6163.2009.00227.x.

Vogt, D. (2011) 'Mental health-related beliefs as a barrier to service use for military personnel and veterans: a review.', *Psychiatric services (Washington, D.C.)*, 62(2), pp. 135–142. doi: 10.1176/appi.ps.62.2.135.

Vohringer, P. A., Jimenez, M. I., Igor, M. A., Fores, G. A., Correa, M. O., Sullivan, M. C., Holtzman, N. S., Whitham, E. A., Barroilhet, S. A., Alvear, K., Logvinenko, T., Kent, D. M. and Ghaemi, N. S. (2013) 'Detecting mood disorder in resource-limited primary care settings: comparison of a self-administered screening tool to general practitioner assessment.', *Journal of medical screening*, 20(3), pp. 118–124. doi: 10.1177/0969141313503954.

Wang, P. S., Lane, M., Olfson, M., Pincus, H. A., Wells, K. B. and Kessler, R. C. (2005) 'Twelve-month use of mental health services in the United States: results from the National Comorbidity Survey Replication.', *Archives of general psychiatry*, 62(6), pp. 629–40. doi:

10.1001/archpsyc.62.6.629.

Whybrow, D., Jones, N., Evans, C., Minshall, D., Smith, D. and Greenberg, N. (2016) 'The mental health of deployed UK maritime forces', *Occupational and Environmental Medicine*, 73(2), pp. 75–82. doi: 10.1136/oemed-2015-102961.

Woodhead, C., Rona, R. J., Iversen, A. C., MacManus, D., Hotopf, M., Dean, K., McManus, S., Meltzer, H., Brugha, T., Jenkins, R., Wessely, S. and Fear, N. T. (2011) 'Health of national service veterans: an analysis of a community-based sample using data from the 2007 Adult Psychiatric Morbidity Survey of England', *Social Psychiatry and Psychiatric Epidemiology*, 46(7), pp. 559–566. doi: 10.1007/s00127-010-0232-0.

Wright, K. M., Cabrera, O. a., Bliese, P. D., Adler, A. B., Hoge, C. W. and Castro, C. a. (2009) 'Stigma and Barriers to Care in Soldiers Postcombat', *Psychological Services*, 6(2), pp. 108–116. doi: 10.1037/a0012620.

Zinzow, H. M., Britt, T. W., S. Pury, C. L., Raymond, M. A., McFadden, A. C. and Burnette, C. M. (2013) 'Barriers and Leaders Facilitators of Mental Health Treatment Seeking Among Active-Duty Army Personnel', *Military Psychology*, 25(5), pp. 514–535. doi: http://dx.doi.org/10.1037/mil0000015.