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A retrospective analysis of patient flow in Mental Health Services for Older Adults in South London during the COVID-19 pandemic

Author's accepted manuscript (published article: <https://www.doi.org/10.1017/S1041610221002775>)

Christoph Mueller^{1,2*}, Gayan Perera^{1*}, Matthew Broadbent², Robert Stewart^{1,2} and Latha Velayudhan^{1,2}

¹King's College London (Institute of Psychiatry, Psychology and Neuroscience), London, United Kingdom.

²South London and Maudsley NHS Foundation Trust, London, UK.

* Shared co-first authors who have worked together and contributed equally

Corresponding author: Christoph Mueller, MD; King's College London, Institute of Psychiatry, Psychology and Neuroscience (IoPPN), De Crespigny Park, London, SE5 8AF, United Kingdom; email: christoph.mueller@kcl.ac.uk; phone: +44 207 848 0626

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While older mental health patients had high mortality (Perera *et al.*, 2021) during the first wave of the COVID-19 pandemic, referrals to mental health services for older people decreased substantially in the UK (Greig *et al.*, 2021). This study aimed to investigate patient flow in and out of community mental health services for older adults during the first and second wave of the COVID-19 pandemic and the period in-between.

We carried out a retrospective analysis of mental health services' caseload, referrals, and discharges from March 2019 to February 2021 using data from the Clinical Record Interactive Search (CRIS) system. CRIS provides researchers access to more than 500,000 the anonymised mental health and dementia care records for patients under the South London and Maudsley NHS Foundation Trust (SLaM) and has full approval for secondary analysis by the Oxford Research Ethics Committee C (reference: 18/SC/0372).

We defined three 'pandemic' 4-month time periods (First wave (March-June 2020), intermediate period (July-October 2020), second wave (November 2020 – February 2021)) and three corresponding pre-pandemic periods. Patient flow data was ascertained from community mental health services for older adults, which in SLaM comprise Community Mental Health Teams, Care Home Intervention Teams and Memory Services. For the six time periods we calculated mean daily caseloads, as well as mean weekly accepted referrals and discharges for all community services combined. We carried out independent unpaired t-test to determine if there is a statistically significant difference between two periods.

The mean daily caseload (95% confidence interval (CI)) for the pre-pandemic period (March 2019-February 2020) was 2,291 (2,286-2,300) and was lower during pandemic period (March 2020 – February 2021) with 1,970 (1,960-1,980; p -value<0.001). In the pre-pandemic period, the mean (95% CI) weekly number of accepted referrals was 89 (85-93) and discharges was 87 (83-91), while in the pandemic period both were significantly lower (p -value<0.001) with 65 (60-70) accepted referrals and 72 (66-78) discharges per week.

Figure 1 shows the mean daily caseload (1a), mean weekly accepted referrals (1b) and mean weekly discharges (1c) with 95% confidence intervals for the six 4-month time periods. The mean daily caseload (Figure 1a) was significantly lower during the first wave (March-June 2020) than in any of the pre-pandemic time periods. During the pandemic no further

statistically significant decline in daily caseload occurred. There was a sharp decline in accepted referrals (Figure 1b) during the first wave compared to any of the pre-pandemic periods, but during July-October 2020 the number of accepted referrals increased again. We detected a significantly higher number of accepted referrals during the second compared to the first wave. Interestingly there was no difference in the mean weekly discharges during the first wave compared to any pre-pandemic period, and no difference across the pandemic time periods. However, fewer patients were discharged in July-October 2020 and during the second wave compared to the respective pre-pandemic episodes.

As previously described (Greig *et al.*, 2021) we saw a drop in cases under specialist mental health services for older people during the first wave of the COVID-19 pandemic. While referrals and caseload did not recover to pre-pandemic levels during the summer of 2020, no further decline was noted during the second wave. This indicates that by the time of the second wave of the COVID-19 pandemic mental health services for older people had adapted to working under pandemic conditions, with for example more protective equipment and adaptations and access to remote consultations (Mok *et al.*, 2020). The reduction in caseload appears largely driven by fewer accepted referrals. The number of discharges from secondary care remained unchanged or fell during the pandemic period, indicating that mental health services continued to support patients already under their care. Those with new onset mental health problems however might have been missed by services. The reasons for this could be fewer referrals by GPs/primary care, and indeed the number of mental health presentations recorded in primary care data during the first wave during the early months of the pandemic was lower (Carr *et al.*, 2021), but also through avoidance by patients/family of consultations due to restrictions or fear of getting COVID-19, or lack of access to technology for virtual assessments (Banerjee, 2020).

In conclusion, the caseload of older people's mental health services remained stable when the second wave of the COVID-19 pandemic hit the UK which shows that it is possible for old age psychiatry services to adapt to working under pandemic circumstances. More proactive preparation and earlier adaptation of new ways of working appears to be key for future pandemics, whereby ensuring safe and low-threshold access to mental health care is crucial.

Figure 1: Old Age Psychiatry service use before and during the COVID-19 pandemic

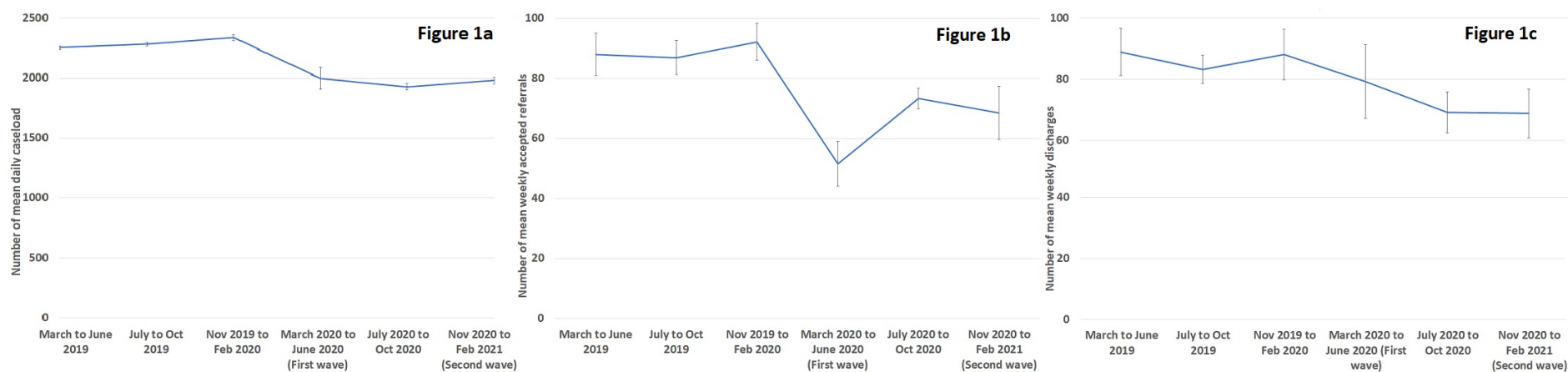


Figure 1a: Mean daily caseload (95% confidence interval)

Figure 1b: Mean weekly accepted referrals (95% confidence interval)

Figure 1c: Mean weekly discharges (95% confidence interval)

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