The Resilience Hub approach for addressing mental health of health and social care workers during the COVID-19 pandemic: a mixed-methods evaluation

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Scientific summary

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Background

The Resilience Hub model was developed in Greater Manchester to provide large-scale mental health screening and facilitate access to evidence-based mental health support for those affected by the 2017 Manchester Arena bombing. In response to the coronavirus disease 2019 (COVID-19) pandemic, the approach was adapted to provide mental health screening and facilitation of access to psychosocial support for NHS, social care and emergency response keyworkers affected by the pandemic. Since 2020, the model has been replicated in 40 UK regions.

Objectives

While over time the offers of the Hubs expanded to include further team-based support (e.g. well-being workshops for teams), the overarching aim of this mixed-method project was to evaluate and provide key recommendations in relation to two central functions of the individual support of the Resilience Hubs that were either already operational or at an advanced stage of set-up in the early phases of the pandemic that is the provision of mental health screening to in-scope keyworkers from NHS, social care, and emergency response services; and the facilitation of access to psychosocial support. Data were collected from four Resilience Hubs in the North of England to address the following objectives:

- Objective 1: To conduct a quantitative analysis of routine demographic, occupational and mental health screening data, to provide findings to model service demand and guide future adaptations to the Hub approach to suit contextual needs and inform evidence-based commissioning.
- Objective 2: To conduct a health economic analysis to explore the cost and health benefits associated with the set-up, use and management of Resilience Hubs.
- Objective 3: To conduct qualitative interviews with multiple stakeholder groups to identify the barriers and enablers to the implementation/scaling of the Hub model.
- Objective 4: To produce mixed-method case studies, integrating findings from the above qualitative and quantitative components and produce key recommendations.

Methods

To address Objective 1, we analysed data from routine mental health screening data collected by the Hubs on a combined sample of 1973 Hub clients, and service use data from a subsample of 299 Hub clients who completed a follow-up survey deployed 5–8 months after the completion of the Hub screening. Statistical analyses were conducted to examine the demographic and occupational characteristics of Hub clients, the incidence of clinically significant mental health difficulties in the sample, potential predictors of higher mental health needs, and summarise the level of mental health service access and overall satisfaction following Hub support and advice.

To address Objective 2, we (1) analysed costing data provided by the Hub teams to estimate the set-up and ongoing cost of Hub service delivery per keyworker supported; (2) costed health and social care service use data obtained from the abovementioned follow-up survey using nationally published unit costs; (3) calculated EQ-5D values for participants in the follow-up survey using the crosswalk algorithm recommended by the National Institute for Health and Care Excellence at the time of data collection, which were then compared to published population norms and to a pre-pandemic sample of keyworkers. A logic model was also developed to illustrate the potential benefits associated with Hub support.

To address Objective 3, we conducted 63 qualitative interviews with key stakeholder groups at three Hubs, including Hub staff (*n* = 14), Hub clients (*n* = 19), keyworkers eligible for Hub support but who had not accessed these services (*n* = 20), wider stakeholders who had involvement in the provision of staff support within the health and care system (e.g. occupational health leads; HR leads; *n* = 10). Efforts were made to interview keyworkers from under-represented groups (e.g. keyworkers from ethnic minority communities). Topic guides and data analysis were informed by well-established analytic frameworks (normalisation process theory and Sekhon's Acceptability Framework) to explore the barriers and enablers to implementation of the Resilience Hub model.

To address Objective 4, key findings from Objectives 1–3 were integrated via mixed-methods case studies. Hub-level cross-case analyses were used to integrate data at a site level, and subgroup-level cross-case analyses were used to explore low uptake by certain demographic and occupational groups. Data were triangulated across work packages to demonstrate how they supported conclusions.

Results

Most keyworkers who completed the screening offer of the Hubs were NHS employees (44–87%), identified as women (83–86%), and from a White British background (89–92%). Considerably smaller proportions identified as men (13–16%), members of minority ethnic groups (5–7%), social care staff (4–8%). Likewise, emergency services staff were a smaller group accessing the Hubs (1–12%), although not all emergency services were in scope at all Hubs. Most keyworkers had considerable and often co-occurring mental health needs across all domains assessed (anxiety as assessed by the generalised anxiety disorder 7-item questionnaire; depression, patient health questionnaire 9-item questionnaire; post-traumatic stress, post-traumatic stress disorder checklist for DSM-5 or ITQ; problematic alcohol use, alcohol use disorders identification test; and impaired functioning as assessed by the work and social adjustment scale), with 60% meeting criteria for clinically significant difficulties on at least three different screening measures. Approximately 80% of Hub clients reported clinically significant impairments in functioning. Only 10% of clients had subclinical scores across all measures. Regression analyses to identify candidate predictors of higher mental health need in this sample found that several demographic characteristics (e.g. having a disability; identifying as any sexual orientation excluding heterosexual) were associated with higher likelihood for clinically significant mental health concerns. Several work-related circumstances during the pandemic were associated with higher need on specific mental health domains, including working in intensive care units or emergency care environments, moving to new work locations and undertaking new tasks during the pandemic. Experiencing stressful life circumstances brought about by the pandemic (e.g. being ill or hospitalised with COVID, bereavements during the pandemic) was similarly associated with higher need. The two most consistent predictors of higher need were suffering a household financial loss during the pandemic and having a history of mental health/emotional well-being concerns prior to the pandemic.

Service use data for the 299 Hub clients who completed the follow-up survey indicated that most respondents (73%) had some form of contact with Hub staff following screening. Fifty-seven per cent reported receiving some form of mental health support since screening, and 11% were on a waiting list for mental health support. Approximately 75% of respondents accessed support that was provided directly by Hub staff or other services that were first accessed as a result of Hub support and advice. Participants reported high levels of satisfaction with the support they received from the Hubs. The median rating of perceived helpfulness of the support provided by the Hubs was 92 (on a 0–100 scale). A large proportion of participants (46%) reported that the Hubs fully met their needs, with only a small minority reporting that the support provided did not meet their needs (4%). Approximately a third of participants reported they did not require support from services other than the Hubs, either because they received all the support they needed from their local Hub or because no further mental health support was required from the Hubs or other services. A further 28% reported that the Hubs helped

them to access other beneficial services. Only 5% of participants reported they did not receive help to access the support they believed they needed.

The results of the health economic analyses indicated that set-up and ongoing annual costs were variable across Hubs, depending on design. Staff costs accounted for the majority of ongoing costs. Analysis of service use data demonstrated that mental health support was the greatest contributor to total NHS and social care cost, with a mean cost of £376 [95% confidence interval (CI) £294 to £459] versus a mean cost of £138 (95% CI £73 to £202) for wider health and social care use. Services delivered or accessed as a result of Hub support made up over half of the total health and social care service costs. This demonstrates an important component of service costs resulting from Hub support, in a group with minimal contact from other services. Mental health care costs were associated with the Hub accessed and concerns about mental health prior to the pandemic. Hub clients' mean EQ-5D value was 0.755 (95% CI 0.731 to 0.779), indicating a lower health status compared with population norms and a pre-pandemic sample of health and social care workers. Being from an ethnic minority group was found to be associated with lower health status, as was having higher need at screening, a disability, a bereavement or having had a COVID-related hospitalisation. An economic evaluation was determined not to be possible with the current evidence base and subsequently conclusions around cost-effectiveness could not be made. Work to inform the logic model to guide future evaluations identified a number of potential benefits associated with Hub support, including improved mental health and well-being, reduced risk of burnout and potential economic benefits not only keyworkers but wider groups (services, colleagues, family members, patients).

Qualitative data indicated that Hub staff clearly perceived Hub support as distinct from other forms of staff support, but described some challenges in helping the health and care system to understand the value of Hub support. Wider stakeholders tended to see Hubs as a resource for people with more complex or severe difficulties, a finding that resonates with the quantitative findings above. Keyworkers were more likely to access Hub support when they understood it, differentiated it from other types of support, and felt supported by managers to access it. However, some keyworkers felt overwhelmed by different support offers during the pandemic, creating confusion about how the Hubs could support them. Some keyworkers had wider concerns around accessing mental health support (e.g. beliefs about needing to be strong due to their job role; not wanting to take up a resource from which others may have benefitted more). Other barriers included perceptions that employers did not genuinely support help-seeking, negative workplace culture and wider systemic issues that were perceived as the cause of distress. Some keyworkers who specifically wanted support around the impact of racism and discrimination felt that diverse staff representation within Hub clinical was lacking, which was also acknowledged by some Hub staff. Other barriers for these groups included previous negative experiences of health and social care services, structural inequalities and community stigma. Wider stakeholders shared some concerns around growing waiting times for Hub-provided therapy, and insufficient data on Hub usage and outcomes being presented back to the system. With the exception of the above concerns, appraisal of the Hubs was very positive. The responsiveness of the Hubs to local needs was strongly valued by all groups interviewed. Participants felt that the Hubs should continue to evolve according to local and national needs, including the continuation of staff support, and response to traumatic incidents.

Hub-level integration of data revealed that findings were consistent across the Hubs, despite differences in model implementation. The finding that most keyworkers accessing the Hubs had clinically significant mental health difficulties is potentially explained by the fact that wider stakeholders viewed the Hubs as resource for keyworkers with more severe or complex mental health difficulties, and that keyworkers typically waited until things were very difficult before seeking support. The demographic and occupational groups accessing services were broadly consistent. Low uptake from keyworkers from minority ethnic groups may be explained by interview findings, whereby some participants described wanting Hub teams to have greater diversity, cultural competency training and experience in supporting people with the impact of racism. Service use data demonstrated that some keyworkers from these

communities accessed alternative sources of support, such as faith organisations. Data from other under-represented groups were limited, however stigma was identified frequently as a barrier for keyworkers identifying as men. Wider stakeholders suggested that low uptake of care home staff may have been a consequence of less formalised routes of occupational support, leading to a different culture of help-seeking, which could add to other practical barriers that may not have been experienced within the NHS (e.g. less flexibility of shifts to attend appointments). Interview findings suggested that shift work may also have affected low uptake from emergency services staff. Other barriers for emergency staff included beliefs around job role, such as keyworkers feeling that they should be able to handle stressful or traumatic experiences as a routine part of their job. Keyworkers also described wanting support from someone who understood their job, and so reported often seeking support through work.

Conclusions

The research demonstrates a need for ongoing mental health and well-being support for health and care staff beyond the pandemic, and highlighted the value of the Hub model of outreach, screening, support navigation and provision of direct support. The model has been shown to be sufficiently adaptable to different contexts (e.g. a new target population; different regional settings), and as a potential system to be repurposed for future response to other large-scale crises. Key recommendations for the Hubs include the continued provision of outreach, mental health screening and direct and indirect support to keyworkers; implementation of suggested strategies to maximise Hub promotion; actions to address equality, diversity and inclusion access issues and guide the strategic allocation of the Hubs' specialist resources and team-based support; and information flow between Hubs and partner organisations. Broader recommendations for the primary prevention of mental health difficulties across the health and care system are made, as individual and reactive support offers should be an adjunct to, not a replacement for, resolutions to systemic challenges that might underpin or exacerbate the well-being difficulties of the health and social care workforce.

Recommendations for future research and evaluation of the Hub approach include larger-scale national service mapping exercises of Hub services (to better understand differentiation in how Hub offers and key functions are operationalised across the country), the standardisation and generation of routine screening and outcome data across Hubs for evaluation purposes, and more robust clinical and cost-effectiveness evaluations of the Resilience Hubs using comparative data in the context of natural experiment studies.

Study registration

This study is registered as researchregistry6303.

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