A study on the feasibility of delivering a psychologically informed ward-based intervention on an acute mental health ward

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Abstract
Acute mental health inpatient wards have been criticized for being nontherapeutic. The study aimed to test the feasibility of delivering a psychologically informed intervention in these settings. This single-arm study evaluated the feasibility of clinical psychologists delivering a ward-based psychological service model over a 6-month period on two acute mental health wards. Data were gathered to assess trial design parameters and the feasibility of gathering patient/staff outcome data. Psychologists were able to deliver key elements of the intervention. Baseline staff and patient participant recruitment targets were met. However, there was significant patient attrition at follow-up, with incorrect contact details on discharge being the primary reason. Implementation of a ward-based psychological intervention appears feasible when implemented flexibly. It is feasible to recruit staff and patient participants and to collect staff outcome measures over a 6-month period. However, greater efforts need to be taken to trace patient movement following discharge.

KEYWORDS
acute mental health ward, feasibility, implementation, inpatient, psychological service model

1 | INTRODUCTION

Inpatient services play a key role in delivering care to those struggling with mental health difficulties during an acute crisis. In England, there were 49,988 new detentions under the Mental Health Act recorded in 2018/2019, an estimated rise of 2% from the previous year (NHS Digital, 2019). Despite extremely high costs of inpatient services, research has found the quality of care in these settings is poor.

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(Mind, 2011), with minimal therapeutic activities and suitable intervention choices (British Psychological Society (BPS), 2015; Janner, 2007). Equally, patient satisfaction with care is moderate (Newman et al., 2015) to low (Csipke et al., 2016), primarily due to the absence of recommended psychological therapies and the reliance on medication (Care Quality Commission, 2016; Wood & Alsawy, 2016). This situation often leaves patients feeling like they have a lack of treatment choice (Gilburt et al., 2008). The Mental Health Task Force (2016) advocates NHS Trusts in England should deliver timely, evidence-based psychological therapies on acute mental health inpatient wards. Additionally, the NHS Long Term Plan (2019) recommends that acute mental health wards should create a therapeutic environment to facilitate patient recovery. It also highlights the importance of the entire multidisciplinary team (MDT) in delivering therapeutic interventions across different mental health care settings.

The effectiveness of these interventions is somewhat unclear, partly because of the challenges conducting trials in inpatient settings (Paterson et al., 2018). A recent review by Jacobsen et al. (2018) highlighted difficulties evaluating therapies within inpatient settings because of the inability to control all other elements of patient treatment such as medication, nursing, or occupational therapy. Additionally, as admission duration is often short (Mental Health Institute for Health and Care Excellence, 2014). However, low intensity therapies with fewer sessions have proved beneficial (Hazell et al., 2016). The acute ward culture can also inhibit trials attempting to evaluate the effectiveness of psychological therapy as staff and patients sometimes believe that acutely unwell people are unable to participate in or benefit from psychological interventions (Schizophrenia Commission, 2012).

Some psychological interventions have been adapted for acute inpatient settings, and a meta-analysis has shown that these are associated with reductions in depression, anxiety, and readmissions compared with controls (Paterson et al., 2018). However, this meta-analysis was unable to draw a firm conclusion as to which type of therapy is most effective in this setting due to the small sample size within each of the studies and the limited quality of the evidence (Paterson et al., 2018); additionally, the studies included in the meta-analysis focused on therapies for specific diagnosis. To address this issue, Paterson et al. (2019) explored the feasibility of delivering a cross-diagnostic, cognitive behavioural therapy (CBT)-based intervention on a low-secure acute mental health ward versus treatment-as-usual (no psychological input) on a control ward. However, the study found that although feasible to deliver individual psychological sessions with patients, it was difficult to carry out nurse-led group psychology sessions. Similarly, a recent study by Bullock et al. (2020) found that a single session of the Comprehend, Cope, and Connect intervention delivered on five acute mental health wards was feasible and acceptable by staff and patients. However, to enhance the evidence base on effective therapies within these settings, both Paterson et al. (2019) and Bullock et al. (2020) concluded that larger research trials with feasible interventions and trial designs are needed. The paper outlines a study exploring the feasibility of (i) delivering a psychological service model that involved a number of key components, including formulation, training staff to deliver low-intensity interventions with service users, and a psychologist offering interventions to patients; (ii) the feasibility of recruiting and retaining staff and patient participants; and (iii) the feasibility of collating and amalgamating ward-level serious incidents across the two wards in study. Feasibility of the intervention was determined by clinical psychologists' abilities to deliver all aspects of the service model as reported by the completion of an activity checklist. Feasibility of gathering ward level, staff and patient well-being, and ward atmosphere outcome measures was determined by (a) recruiting to target on both wards demonstrating staff and patient willingness to complete self-report measures; (b) participant retention; and (c) ability to collate and amalgamate serious incidents from two wards into one measurement system. This feasibility study is part of a programme of research to improve access to psychological therapy on acute mental health wards (RP-PG-0216-20009).

### METHODS

#### 2.1 Design

The study was approved by a regional ethics committee (IRAS Number: 237989). The design was a single-arm study to evaluate the feasibility of delivering a psychologically informed ward-based intervention and the feasibility of gathering staff and patient outcome data and ward level data on two acute mental health wards. Following participant completion of a set of measures, two clinical psychologists undertook delivery of the intervention for a period of 6 months on two wards, one psychologist per ward. The first stage of the intervention involved individual mental health ward sessions, discussing with ward staff how the intervention could be delivered, and the stepped model was adapted to take into account ward characteristics. This included a collaborative decision between the ward manager and clinical psychologist regarding which training packages to deliver to ward staff.

Adapting the intervention according to local context was deemed important in terms of promoting successful implementing

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**Key Practitioner Message**

- Conducting research on acute mental health wards is feasible, but researchers need to be proactive and adaptable when gathering staff and patient data.
- Senior clinical and managerial support is essential for successful implementation of ward-based psychologically informed interventions on acute mental health wards.
- Interventions that are flexible in response to varying ward needs facilitate implementation.
(Borge et al., 2013). The measures were repeated between 5 and 6 months after the study started, which coincided with the end of the intervention.

2.2  |  Participants

Staff and patient participants were recruited from two adult acute mental health wards in two different National Health Service (NHS) Trusts in the North West of England. Ward 1 was a mixed gender acute mental health ward with 30 beds in an inner city area, and Ward 2 was a mixed gender acute mental health ward with 22 beds on the outskirts of a city.

Patient participants were eligible if they (i) were over 18 years; (ii) had capacity to provide informed consent; (iii) had at least 1-week experience of being a patient on one of the participating wards at the time of initial data collection; and (iv) were not due to be discharged prior to the end of the 2-week recruitment period. Staff participants were eligible if they (i) were over 18 years; (ii) had direct experience of working with patients with severe mental health difficulties on one of the participating wards; (iii) had a permanent position; and (iv) had worked on the ward for more than 75% of their working week.

2.3  |  Procedure

The study was conducted from January 2019 to July 2019. Following liaison with senior staff, and with ward manager permission, staff members were approached by a researcher during a 2-week recruitment period. Eligible patient participants were identified and introduced to the research team by ward staff. Following identification of eligible staff and patient participants, and initial contact with staff and patients, participants were given a participant information sheet. To ensure participants had at least 24 h to decide whether or not to take part in the research, appointments were booked with staff and patients to complete outcome measures. The researchers phoned the ward to confirm patient participant appointments. Uptake and attrition were monitored throughout.

Staff participants completed measures independently with researchers present to answer questions. Patients were offered the opportunity to complete the measures independently or have the researcher read the questions and write their responses for them.

Follow-up outcome measures were gathered between 5 and 6 months after the study started with consenting participants. Completion of staff follow-up measures was coordinated according to ward staff members’ allocated shifts. Patient participants who were still on the wards were approached by a researcher and asked if they were still happy to complete the follow-up data. For patient participants who were in the community at follow-up, the research team attempted to contact the participants using their last known contact details.

2.4  |  Psychological service model

The psychological service model was developed using results of a literature review (reference removed), qualitative interviews, and an expert consensus conference (reference removed). The model involved clinical psychologists providing psychologically informed interventions at three levels:

Level 1: Implementing a psychologist-led formulation (with the named nurse or as a team) for each patient. Psychologists were given the flexibility to draw on a range of theoretical models dependent on their training, personal preferences, and previous experiences of the ward staff.

Level 2: Training for all ward staff on trauma-informed care and self-compassion, with additional training and supervision for named nurses to deliver guided self-help interventions with patients (one-to-one and group), focused on key problems selected from a list of 10 training packages in collaboration by the ward manager and psychologist to match current staff skills and most prevalent patient presentations based on the ward.

Level 3: Providing up to 16 one-to-one therapy sessions with patients, focussing on difficulties that kept them in hospital or led to readmission, with psychologists given the flexibility to employ a range of different therapeutic models and techniques depending on their own previous training and the needs of patients. We recognized that it would be unrealistic to offer service users in acute settings up to 16 sessions and that a number of briefer but more targeted interventions would be most appropriate. However, there are some patients in acute settings for longer periods of time (e.g., those waiting for suitable community placements to become available). We therefore built in the opportunity to offer longer term therapy should it be required.

The clinical psychologist on Ward 1 was an existing ward staff member and therefore had a prior relationship with the ward. Their hours on the ward were increased from one and a half to two and a half days per week for the purpose of the study. On Ward 2, the clinical psychologist had been newly appointed to the position and had no prior relationship with the ward; they worked two and a half days per week on Ward 2. Clinical psychologists received biweekly 1-h clinical supervision from an experienced clinical psychologist with prior inpatient ward experience (either within the same Trust or external to the Trust), monthly 1-h management supervision from a member of their respective Trust’s management team, and biweekly 1-h supervision from the chief investigator.

As this was a feasibility study, the research team consulted with both clinical psychologists and their respective management to discuss which levels of the stepped model would be feasible to deliver, taking into account each ward’s current circumstances.
2.5 | Outcome measures

2.5.1 | Primary outcomes

Fidelity data—Clinical psychologist activity checklist

The clinical psychologists providing the ward-based intervention on each ward attributed a time allocation to each intervention-related activity using a daily activity checklist. The checklist was completed on a random week each month throughout the 6-month intervention period; random selection of the week took place using an online date generator (https://www.random.org/calendar-dates/). A supervision log was completed after each supervision session the psychologists had with their supervisor, manager, or peers.

Recruitment and retention

The recruitment target was 10 staff and 10 patients per ward. Based on trials of psychological therapy in inpatient settings (Berry et al., 2015; Haddock et al., 2016), it has been conservatively estimated that recruitment rates for the completion of individual level outcome measures at baseline will be 80% of staff and 50% of patients. Based on estimated number of staff per ward (50), and the number of patient beds on Wards 1 (30) and 2 (22), this provides a pool of 20 staff per ward and 15 patients on Ward 1 and 11 patients on Ward 2 to complete baseline and 6-month follow-up outcome measures. Participant retention and reasons for dropout from the research were recorded.

Serious incident data

Serious incident forms are regularly completed by ward staff as per local and national guidelines (NHS England, 2015) and compiled by business intelligence within each Trust. When completing an incident form, staff are asked to describe, categorize, and establish a seriousness rating from Levels 1 (least serious) to 5 (death) for the incident irrespective of the victim of the incidents (patient, staff member, or ward). We requested these data from each ward for three time periods: prior to the intervention (T1: 1 November 2018–31 January 2019) and at two time points during the intervention (T2: 1 February 2019–30 April 2019; T3: 1 May 2019–31 July 2019). The data from each Trust were reviewed for similarities between categories in order to amalgamate data sets and decide which incidents to include based on their relevance to study (whether the stepped model could have an effect by reducing specific incident frequencies). The research team collaborated with a service user and carer reference group (SUCRG) to decide which incidents we hypothesized would be reduced as a result of the intervention. We report the frequencies of incidents across the intervention period.

2.5.2 | Secondary outcomes

Staff and patient measures

Staff completed demographic information, the Maslach Burnout Inventory (MBI; Maslach et al., 1986) and the Views on Therapeutic Environments (VOTE; Laker et al., 2012) which is a measure with assesses staff perceptions of ward atmosphere.

Patient participants completed demographic information, the Warwick–Edinburgh Mental Well-being Scale (WEMWBS; Tennant et al., 2007), Views on Inpatient Care (VOICE; Evans et al., 2012), a measure that assesses patient perceptions of ward atmosphere, and the Use of Services Inventory (USI). The USI is a health economics measure aimed to capture data through interview to evaluate service use and estimate cost adapted from the Client Socio-Demographic and Service Receipt Inventory (CSRI; Netten & Dennett, 1997). Service use information was recorded to cover a 3-month period prior to completing baseline outcomes and a 3-month period prior to completing follow-up. Cost-effectiveness analyses were estimated by multiplying each item of health and social care service use by its unit cost according to national databases (NHS Reference Costs 2011/2012; Curtis & Burns, 2018).

2.6 | Statistical analysis

Summary statistics are provided for ward level serious incidents and patient outcomes. For staff outcomes, paired samples t tests were computed.

3 | RESULTS

3.1 | Primary outcomes

3.1.1 | Psychologist fidelity

A breakdown of the clinical psychologist’s activities can be found in Table 1. The clinical psychologist on Ward 1 delivered Levels 1 (formulation), 2 (staff training and supervision) and 3 (psychologist one-to-one therapy with patients) of the service model, and focused mainly on delivering Level 2 (staff training and supervision). As Ward 1 had more patient beds (30) than the model had previously considered (24 beds), a decision was made to carry out a formulation for every third newly admitted patient and to take a pragmatic approach for current patients (reference removed). On Ward 2, the clinical psychologist planned to deliver Levels 1 (formulation) and 2 (staff training and supervision) of the service model. Both clinical psychologists delivered a half-day training session to all staff on their respective wards. On Ward 1, the clinical psychologist delivered four additional half-day training sessions to all qualified nurses, focusing on anxiety, depression, anger, and psychosis. On Ward 2, half of the ward staff received an additional half-day training on personality disorders and complex behaviours; the training was delivered to the remainder of ward staff following the completion of the study. The focus of additional training sessions was selected due to ward manager knowledge of existing staff skills and knowledge of main patient presentation across the two wards, which varied due to ward locality (inner city centre and city outskirts).
On Ward 1, although the clinical psychologist made a prior decision to focus primarily on Level 2 (staff training and supervision) of the stepped model, they focused on delivery of Levels 1 (formulation) and 2 (staff training and supervision) by combining individual formulation and supervision sessions with named nurses, having no more than one patient on their case load to deliver one-to-one therapy at any one time. The psychologist was unable to carry out formulations and supervision in a team setting due to challenges they faced organizing team sessions, such as limited staff availability to attend. Additionally, it was difficult to arrange individual sessions with named nurses, and often the sessions would not go ahead. On Ward 2, although the clinical psychologist aimed to deliver Levels 1 (formulation) and 2 (staff training and supervision) of the stepped model only, they ended up carrying out Levels 1 (formulation) and 3 (psychologist one-to-one therapy with patients). The psychologist delivered Level 1 via team formulation sessions rather than individual sessions with named nurses as, in contrast to Ward 1, the psychologist found it easier to arrange weekly team sessions. In addition to facilitating team formulation, the psychologist utilized the weekly session to rotate between formulation and reflective practice. Across both wards, psychologists delivered an average of two formulation sessions with either teams or individual staff each week. These were shared with the wider MDT in clinical notes and through team meetings such as ward rounds and other case discussion meetings. The overall intervention model gave the psychologists the flexibility to draw upon different therapeutic models of formulation and therapy. The most prominent models that were drawn upon were CBT, cognitive analytic therapy, and compassion-focused therapy.

As identified in Table 2, clinical supervision covered a range of topics related to the psychologist’s role both in relation to delivery of the model and personal and professional development. Across both wards, individual patient work, team dynamics, and “other” activities were the main focus of the clinical psychologist’s supervision.

### 3.1.2 Recruitment and retention

Twenty-two staff members across both wards were eligible for inclusion of which 20 agreed to participate (90.9%). The majority of staff participants were female (85%), White British (75%), and largely consisted of registered mental health nurses (50%) and nursing assistants/support workers (30%). Staff participants included an occupational therapist, a recovery and inclusion worker, and two student mental health nurses. A total of 15 staff members (75%) completed follow-up measures. Of those not followed up, one was on maternity leave, one had left the Trust, one did not consent to follow-up for unknown reasons, and two had finished their student placements and were no longer contactable. Twenty-four patients across both wards were eligible for inclusion during the 2-week recruitment period of which 20 agreed to take part (83.33%). Males and females were equally represented. Patients had a range of primary diagnoses including schizophrenia spectrum/psychosis (25%), affective disorders (25%), personality disorders (20%), anxiety disorders (10%), neurodevelopmental disorders (5%), or currently unknown (15%). The majority were White British (65%), single (80%), and unemployed (75%). Of those who took part, over half (60%) had not received any form of psychological intervention as an inpatient prior to the delivery of the model. Six patients (30%) completed follow-ups all of whom were still inpatients on the intervention wards either as a result of not being discharged or readmission. Of those not followed up, four patients did not consent to follow-up; one declined further participation; four did not answer their telephones when contacted, and we were unable to retrieve additional contact information from other services (care coordinator, general practitioner (GP), and supported living); the contact numbers for four patients were no longer in use, and we were unable to retrieve additional contact information from other services; and one patient provided no contact information, and we were unable to retrieve any from other services.

### 3.1.3 Serious incident data

We were able to collate serious incidents from both wards at three different time points. Following receipt of the serious incidents, we categorized the data to determine which incidents to report on. Given the range of incidents using “level” of seriousness as an inclusion criterion, the research team decided to focus on “category,” that is, the type of incident occurring (e.g., self-harm, illicit substances, and accident). The SUCRG, alongside the research team, decided to focus on serious incidents relating to violence and aggression (definition taken from Taylor et al., 2004) and self-harm (definition taken from Hawton et al., 2012) as it was felt that the stepped model was most likely to affect these categories of incidents.
3.2 | Secondary outcomes

3.2.1 | Staff and patient measures

Between baseline and follow-up, there was a reduction in emotional exhaustion, depersonalisation decreased, and personal accomplishment increased (see Table 3). Analysis of total VOTE scores showed that staff’s views of the ward had improved at follow-up.

Due to the high patient attrition rate, caution should be taken when interpreting patient outcomes as well-being, views on inpatient wards, and costs are only reflective of patients still in services. As a result, in Table 3, we only report number of patient participants, means, and standard deviation.

3.2.2 | Serious incident frequencies

As summarized in Table 4, there was a steady decline of serious incidents across the three time periods on Ward 1. On Ward 2, although there was an overall reduction in serious incidents from T1 to T3, this...
TABLE 4 Number of serious incidents on wards at three time points, 3 months prior to the intervention period (T1) and two time points during the intervention period (T2 and T3)

| Incident                        | T1  | T2  | T3  |
|---------------------------------|-----|-----|-----|
| Ward 1                          |     |     |     |
| Self-harm                       | 68  | 58  | 33  |
| Violence/aggression             | 10  | 3   | 1   |
| Violence/aggression to patients | 47  | 41  | 26  |
| Violence/aggression to staff    | 57  | 46  | 30  |
| Total                           | 182 | 148 | 90  |
| Ward 2                          |     |     |     |
| Self-harm                       | 29  | 31  | 8   |
| Violence/aggression             | 2   | 2   | 6   |
| Violence/aggression to patients | 3   | 10  | 3   |
| Violence/aggression to staff    | 18  | 23  | 25  |
| Total                           | 52  | 66  | 42  |

The decline was not linear as there was an increase in serious incidents between T1 and T2.

4 | DISCUSSION

The study found that clinical psychologists were able to deliver elements of the stepped model on acute mental health wards by accessing appropriate support and supervision from senior psychologists and managers, but they encountered different challenges depending on the local context. On Ward 1, the psychologist encountered difficulties organizing team and individual sessions due to limited nursing staff availability and reduced staff motivation to engage in the sessions, barriers previously identified in our literature review described elsewhere (reference removed). Previous research has found that staff availability to undertake tasks outside of usual nursing activities (observations, medication rounds, and facilitating patient leave) can be limited due to low staffing numbers (Curid, 2009; Jenkins & Elliot, 2004). Ward 1 also experienced a particularly high patient turnover during part of the study period from an average of 3–4 patients a week (in keeping with Ward 2) to 8–9, which inevitability would have impacted on staff capacity. To overcome challenges to engagement that were not purely resource-related challenges, and in line with recommendations for successful implementation detailed by the normalization process theory, the psychologist invested time obtaining senior manager buy-in (May & Finch, 2009). Additionally, the psychologist worked with the research and Trust information technology teams to adapt the electronic health record (EHR) so named nurse one-to-one therapy sessions with patients could be documented for senior managers to monitor engagement and address nonengagement where required. The psychologist confirmed anecdotally that management monitoring of supervision sessions did increase staff attendance towards the end of the study; however, a small number of staff still did not consider psychological interventions as part of their role, which may have contributed to lower attendance rates and suggested reduced individual staff acceptability of the model. To address this, we suggest that psychological interventions should be included in nursing job descriptions and training. On Ward 2, although the clinical psychologist aimed to deliver Levels 1 (formulation) and 2 (staff training and supervision) of the stepped model only, they ended up carrying out Levels 1 (formulation) and 3 (psychologist one-to-one patient therapy) instead. This was due to limited nursing time to deliver patient therapy due to high staff absence and recent increased nursing tasks (e.g., bed management and dishwashing), a finding corroborated by other studies (Totman et al., 2011) and ward manager preference. Future studies may wish to overcome limited nursing availability to deliver therapy by seeking to obtain senior buy-in to support utilization of nurse protected time for therapeutic engagement with patients (Edwards et al., 2008).

A limitation of the study is that the psychologists delivered different aspects of the model on each ward. We decided to allow variation between what aspects of the model the two wards delivered to increase ward buy-in and explore which aspects worked best depending on ward circumstances (e.g., staff skill set, patient population, location, and number of beds). This means, for the purpose of developing a psychological service model for a randomized controlled trial, it is not known whether it is possible to deliver all three levels across different acute mental health wards. However, we would argue that this highlights the importance of psychologist ability to flexibly apply the model, in line with prior research, which demonstrates the importance of flexible approaches to working on acute mental health wards to facilitate staff and patient adoption of psychological services (Wood et al., 2019). Another limitation is that the psychologists only recorded their activities across one random week per month as we did not want to overburden the psychologists due to the time it took to complete the checklist. Therefore, psychologist activity may not have been accurately represented by the data, although anecdotally, the psychologists did feel the checklist was representative of the work they carried out. Despite this, Fairburn and Cooper (2011) suggest that fidelity data should compose of competency and adherence data. Future studies should therefore aim to record all psychologist activities across the intervention period and gather competency data by recording the number of offered and completed psychologist one-to-one patient and team formulation sessions. However, based on the psychologists’ feedback that capturing activity using the paper-based checklist was time-consuming, utilizing the same method for future studies would be impractical. Future studies may therefore wish to gather data using a simpler and more accessible tool, such as online forms. Similarly, we initially did not introduce a system for monitoring nurse-led interventions, as we did not want to overburden staff. As indicated above, we did establish a system of recording session on the EHR on one of the wards during the course of the study, but unfortunately, we do have any data on frequency of delivery throughout the study period on both wards. We successfully recruited our prespecified target sample for both staff and patients; however, we encountered a number of challenges. The staff participant pool was smaller than originally anticipated with only 22 staff across both
wards meeting eligibility criteria; this highlights an issue when recruiting for the main trial as if we aim to recruit 80% of the staff pool estimated to be 40 staff members across two wards; based on our findings, this would not be possible. The main reason for reduced number of eligible staff was that on the wards operated on a high number of bank and agency staff. The Carter review (2016) suggested there is a reliance on bank and agency staff in acute hospitals due to low staffing levels because of high staff sickness rates and high staff turnover. A reduced staff participant pool meant that we needed to achieve over 90% uptake; although we were able to achieve this for the current study, the feasibility of maintaining this uptake rate across larger trials is questionable. Insufficient recruitment can cause biased sampling and reduce statistical power to detect effects, both of which can limit transferability to clinical practice (Rengerink et al., 2010). Future trials may therefore wish to consider adapting staff eligibility criteria to include bank staff who have regular shifts on the ward. We suggest including bank staff only due to the future steer towards only utilizing bank agency workers as per NHS Trust guidance to save money (NHS Improvement, 2018). Additionally, only 24 patients were eligible to take part in the study, which was lower than our estimated pool of participants, and suggests for the main trial, we would need to aim to recruit a maximum of 12 patients per ward. Reasons for reduced patient eligibility were due to reduced patient capacity and the large number of patients who were due to be discharged within the 2-week recruitment window. In order to recruit 20 patients, we therefore needed to achieve over 80% uptake, which may also be harder to achieve in a larger trial. Future trials could assess each participant’s eligibility by considering the likelihood of discharge. The researchers could obtain this information by attending handovers with ward manager permission. Additionally, short falls in patient recruitment could be addressed by collecting additional patient outcome data at follow-up. However, this would mean the advantage of adjusting for baseline scores for some participants would be lost.

Other challenges the researchers faced when recruiting staff were that due to the busy nature of acute mental health wards, staff members had limited time to take part as they had to prioritize clinical duties; therefore, researchers found it difficult to ensure sufficient recruitment within their daily 2-h window. Future research might explore the possibility of protected time allocation for staff participants organized by senior managers. Another challenge the research team faced was that some staff were reluctant to engage in research due to misconceptions about what it might involve (Howard et al., 2009). To overcome these challenges and increase staff engagement, the research team attended the wards during the 2-week recruitment period on a daily basis to ensure frequent face-to-face communication (Bucci et al., 2015). The results are encouraging in that despite high levels of distress and reduced cognitive capacity, patients were willing and able to complete self-report measures. However, the researchers encountered a number of difficulties collecting patient data. Despite booking appointments with patients and contacting the ward prior to attending, sometimes the patients were on leave when the research team arrived, or the patient did not feel well enough to participate at that time. For future trials, it would be beneficial for researchers to be on the ward full time throughout the recruitment period so they can be more flexible in response to when service users are able to complete the measures. Additionally, given the variability in patient wellness and leave, it would be beneficial for researchers to carry out outcome measures with patients as soon as they agree to take part. Other challenges the research team encountered during patient recruitment were staff as gatekeepers; similar findings are cited in other literature (Howard et al., 2009). The daily presence of the research team on the ward reduced the amount of “gatekeeping” as researchers were on hand to answer any questions or concerns raised by the staff member about certain patients who they may otherwise have not recommended. This also helped staff to feel that they were “partners in research” (Fletcher et al., 2012), which increased staff-efficacy when identifying eligible patients. Similar approaches have been cited as beneficial in other psychological therapy trials (Patterson et al., 2011).

Retention rates for staff members at follow-up were comparable with other studies involving similar staff groups (Berry et al., 2012) and were relatively high particularly when considering the high staff turnover on mental health wards (Nolan & Smoakos, 2003). Future studies could increase staff retention rates at follow-up by excluding staff members on who are due to leave the ward during the intervention period, for example, student nurses or staff with contract end/transfer dates, as they may not be present at follow-up.

Follow-up assessments were not completed for patient participants who had been discharged or transferred. Patients either no longer wished to take part (n = 5) were not deemed suitable to take part due to deterioration in mental health by their care coordinator (n = 1), and some patient contact numbers were no longer in use (n = 5), despite short time periods between baseline and follow-up data collection, given the transient nature of the population, and the fact that some patients (n = 2) were discharged without anywhere to live and without registration to a GP surgery (n = 4). Additionally, despite obtaining alternative contact details for patients through EHRs, contact details were often outdated or inaccurate. These types of systems are known to suffer from a range of limitations, and the presence of incomplete records has been well-documented (Chan et al., 2010; Thiru et al., 2003; Weiskopf & Weng, 2013). The patient attrition rate of 70% observed in this study was twice the rate of other studies with similar population samples (Bullock et al., 2020; Haddock et al., 2009; Heriot-Maitland et al., 2014). These more successful studies indicated regular contact with patients was imperative to participant retention. To reduce attrition rate, the present study could have ensured that care coordinator and GP information on the EHR were accurate for participating patients by contacting care coordinators and GPs to check this information. Additionally, the research team could have maintained frequent contact with patient participants during follow-up and could have adopted a more assertive approach to patient follow-up such as linking in with care coordinators to ask patient participants to complete the data at pre-existing appointments. Future trials might consider gathering follow-up data at the point of discharge to reduce high attrition rates. However, based on (i) our experience of the fast paced nature of discharge; (ii) the
knowledge that often staff involved in the patients care are not aware of the patients discharge until the day of discharge or after discharge; and (iii) the reliance on ward staff, who have limited time for engagement in research activity to pass on discharge information, we determined that this might not always be feasible.

A positive result of the study was it was feasible to collate and amalgamate serious incident data from two different NHS Trusts. In comparison with potential challenges faced when gathering individual staff and patient outcomes, gathering serious incident data was less arduous given that these data are routinely collected by Trusts (McCord et al., 2018). However, a widely recognized limitation of serious incident data is that the data may be inaccurate for a number of reasons: (i) Not all serious incidents are recorded due to service reasons (Levinson, 2010); (ii) variation in staff interpretation of what constitutes a serious incident (Dixon-Woods, 2010); (iii) variability among staff categorization of the incident; (iv) staff tolerance to incidents due to individual patient frequency of incidents or staff length of service; and (v) staff fear of recrimination may lead staff to not record all incidents (Mahajan, 2010; Noble & Pronovost, 2010). It is likely that there is a discrepancy in the way incidents are categorized by different members of staff, and therefore, the reported serious incidents may not be a true reflection of the number of incidents relating to self-harm and violence and aggression. To explore this limitation of the data, we are currently undertaking an audit of the data in one NHS Trust by comparing serious incident forms with patient clinical notes.

As evidenced by the changes in the MBI scores, there was a reduction in emotional exhaustion and depersonalization and an increase in personal accomplishment among ward staff at follow-up. Whilst this study was not powered to detect significant change, these results are promising, as was the improvement of staff’s views of the ward following the intervention. However, further work is needed to establish a consensus of what is meaningful change and not just statistically significant change in MBI scores (Doulougeri et al., 2016). Additionally, without a control group, we are not able to determine whether trends are as a result of the intervention or are due to extraneous factors.

Only patients who remained on the ward completed follow-up measures introducing a potential bias that may explain the lower well-being scores observed at follow-up through the WEMWBS scores, as extended or persistent mental illness has been widely documented to adversely impact mental well-being (Grinshpoon & Ponizovsky, 2008; Keyes, 2005; Meyer, 2001). Patients who remained on or were readmitted to the ward were likely to either (i) experience more symptoms and/or (ii) their discharge was delayed due to the lack of move-on accommodation in the community. In either case, the patients’ well-being would suffer as a result that would be reflected in lower well-being scores. The increase in service costs between baseline and follow-up is also likely to be a result of the biased sample. The costs identified were higher than those suggested by Andrews et al. (2012) of over £12,000 for the average acute inpatient admission, further highlighting the support needs for those with more severe and enduring conditions who completed follow-up.

An encouraging result on both wards was a decrease in the total number of serious incidents over time. These results appear to support hypotheses by Berry et al. (2015), which suggest that helping staff to deliver more psychologically informed models of care could improve patient–staff interactions and reduce subsequent patient distress and so-called risky behaviours. However, this reduction could be explained by external ward factors; therefore, future trials may endeavour to gather additional ward level data to determine the impact of extraneous variables on the frequency of serious incidents.

5 | CONCLUSION

The results from this feasibility study suggest it is possible for clinical psychologists to deliver a psychologically informed intervention on acute mental health wards where psychologists obtain senior clinical and managerial support and are flexible in intervention delivery in response to varying ward needs. We found it feasible to recruit staff members and patients and learned to overcome several barriers in doing so; however, patient attrition rates were higher than other studies with similar populations. Future studies should ensure EHR has up-to-date contact details and care provider information for patient participants at baseline. They should also make attempts to regularly contact patient participants during follow-up periods in order to maintain engagement and improve retention. We found that it was possible to gather and amalgamate data on serious incidents from two different NHS Trusts and that the number of serious incidents on both wards decreased during the intervention. The possible impact of psychologists on wards in terms of improving safety is an important one. The BPS (2012) recommends a ward-based psychologist per 20 beds, and other professional papers suggest that in order to be effective, team-based psychologists need to be employed a minimum of 0.5 whole time equivalent (WTE). Our findings suggest that the closer you get to the minimum recommended level of psychological input, there are promising signs of improvements in safety.

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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