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Journal of Psychiatric Intensive Care

Journal of Psychiatric Intensive Care
doi: 10.20299/jpi.2025.008
Received 7 February 2025 | Accepted 4 June 2025

ORIGINAL RESEARCH ARTICLE

Evaluating the implementation of a ward-based training programme within an psychiatric intensive care unit using Normalisation Process Theory

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Background: Strong staff–patient relationships are essential for the provision of high quality care within psychiatric intensive care units. These relationships can be strengthened through staff training interventions, for example, the Safe & Secure programme. However, interventions delivered in psychiatric intensive care units are difficult to implement and sustain. Normalisation Process Theory offers a framework through which to measure how effectively new interventions are implemented in this setting.
Method: The aim of the study was to assess the implementation of a ward-based team training programme within a psychiatric intensive care unit. Following the delivery of the Safe & Secure ward-based team training programme, staff were interviewed about their experience and completed a quantitative measure of normalisation: the NoMAD. Interviews were analysed using reflexive thematic analysis with codes being grouped under the four constructs of Normalisation Process Theory.
Results: Staff reported being able to recognise the utility of the intervention and, qualitatively, reported seeing it as beneficial for their clinical practice. NoMAD scores were high, indicating the normalisation of the intervention. However, staff found it difficult to quantify how the intervention had improved their practice. They also reported difficulties with applying the intervention in certain circumstances. Staff expressed concerns about intervention sustainability.
Conclusions: The Safe & Secure ward-based team training programme was implemented and normalised into routine practice. The study identified areas

for improvement in future deliveries of the programme. The study also provided useful information to help inform the future implementation of ward-based team trainings in psychiatric intensive care units.

Keywords: implementation; normalisation; psychiatric intensive care; attachment

Financial support: This research received no specific grant from any funding agency, commercial or not-for-profit sectors.
Ethics: Ethical approval was provided by The University of Edinburgh (ID CLPS231).
Declaration of interest: None.

Introduction

An accumulation of studies indicate that good mental healthcare should take place within the context of a warm and collaborative relationship (Gilburt et al. 2008; Flückiger et al. 2018). A range of factors are known to influence the success with which staff and patients are able form therapeutic relationships; for example, the patient's symptoms, staff time, and the setting (Hopkins et al. 2009). Acute psychiatric wards, including psychiatric intensive care units (PICU), represent a particularly challenging environment in which to develop strong therapeutic relationships (Berry et al. 2016). New interventions that can support the development of staff–patient relationships are required (Bucci et al. 2015). A staff training programme, referred to as Safe & Secure, has shown promise in strengthening staff–patient relationships (Duffy et al. 2025). However, implementing interventions in the acute psychiatric care setting can be challenging (Raphael et al. 2021).

Feasibility studies trialling psychosocial interventions in acute psychiatric care settings have reported difficulties with staff motivation (Wainwright et al. 2021), managerial support (Paterson et al. 2019), and staff time (Berry et al. 2016) amongst others. These challenges are consistent with the wider literature on organisational change. Both individual factors, such as change valence (Weiner 2009), and organisational factors, such as the culture of the organisation (Aarons & Sawitzky 2006) influence the success with which new approaches are adopted. Furthermore, new approaches are difficult to sustain in inpatient settings; organisational pressures and high staff turnover lead to a reduction in their use, and therefore impact, across time (Mann-Poll et al. 2020).

Raphael et al. (2021) suggested that the development of good working relationships, strong leadership, and staff accountability are key facilitators to successful implementation in acute psychiatric settings. The inclusion of staff in intervention design and implementation is also recognised as an important strategy to improve uptake of the intervention (Raphael et al. 2021). A review by Man et al. (2022) concluded that future research in this area should also attend to the impact of indirect psychological interventions, such as ward-based team training programmes, on staff-related outcomes, for example, burnout.

The emerging discipline of implementation science has evolved to address the challenges facing those who seek to implement evidence-based practices into routine clinical care (Bauer & Kirchner 2020). A leading theory within the field of implementation science is Normalisation Process Theory (NPT) (May & Finch 2009). Within the NPT framework, the implementation, embedding, and integration of a new intervention occurs through collective action within an organisation. Interventions become normalised into routine practice through four components: coherence, cognitive participation, collective action and reflexive monitoring. These constructs are defined in Table 1. These core constructs, with their focus on both individual and organisational factors, demonstrate a clear overlap with the strategies suggested by Raphael et al. (2021). Despite this overlap, and the focus of NPT on the sustainability of interventions, this framework has yet to be applied to the implementation of a new intervention within a UK-based psychiatric intensive care unit (PICU).

Previous research has demonstrated the feasibility and likely benefits of the Safe & Secure ward-based training programme within a PICU (Duffy et al. 2025). The current paper examines the implementation processes that occurred following the delivery of the Safe & Secure training programme with a view to informing and optimising the sustainability of training.

Aims

The primary aim of this study was to evaluate the implementation of a ward-based training programme within an PICU. Specifically, we were interested in evaluating the degree to which an attachment-focused approach became normalised within clinical practice. The secondary aim was to gather information that could improve the implementation of future ward-based training programmes in the PICU setting.

Table 1. The Constructs of Normalisation Process Theory (May & Finch 2009).

Normalisation Process Theory (NPT) construct	Definition
Coherence	The sense-making work that occurs at an individual and collective level when people are faced with implementing a new practice. Example: *How is the attachment-focused approach understood by participants and differentiated from current ward practice?*
Cognitive Participation	The relational work that occurs to build a community of practice around the new intervention. Example: *How is the attachment-focused training programme driven forward and sustained on the ward?*
Collective Action	The operational work that takes place to enact the new intervention. Example: *How do participants alter their working practices to make use of the attachment-focused training programme?*
Reflexive Monitoring	The way that participants assess and understand the impact that the new intervention has had on themselves and others. Example: *How do participants evaluate the attachment-focused training programme?*

Method

Design

A mixed methods study combining semi-structured interviews with the administration of a quantitative measure of intervention normalisation. Ethical approval for the study was provided by the University of Edinburgh's Research Ethics Committee (ID: CLPS231).

Participants

Staff were recruited from an adult PICU located within a large general hospital in Scotland. The PICU is a locked ward which provides care to those who have been detained under the Mental Health (Care & Treatment) (Scotland) Act (2003). It is a mixed-sex unit with ten beds.

Participants were eligible for inclusion in the study if they: (1) were over 18 years of age; (2) were a permanent member of the ward team and had worked on the PICU for more than one month; (3) had daily clinical contact with patients experiencing acute distress related to a complex mental health disorder; (4) had attended the two-hour Safe & Secure workshop and been working on the ward during the eight-week integration phase.

Safe & Secure training

Attachment theory provides an explanation for the behaviour that people exhibit when they are distressed (Bowlby 1969). Furthermore, it makes links between a person's early relational context and these distress-related behaviours (Mikulincer & Shaver 2007). By providing staff with improved understanding of how the attachment system influences patient behaviour, the goal of Safe & Secure is to strengthen staff–patient relationships which, in turn, should support patient recovery. This eight-week training programme is designed for staff working in inpatient settings, including those with no prior training in psychological approaches. It provides staff with both a knowledge of attachment theory and a formulation model that they can use to identify how to meet the attachment needs of the people they are working with. Further details of the training programme can be found in Appendix S1. The training consists of three core components: pre-implementation, workshop and integration.

Pre-implementation activity. In line with the recommendations of Raphael et al. (2021), the ward Clinical Psychologist (DC) completed a range of pre-implementation activities to support the implementation of the programme. First, senior leaders from all disciplines who provide input into the PICU were provided with information about the programme and the intended aims of the training. The leadership team were then able to advocate for the training, ensuring staff were provided with protected time to attend the workshop sessions. Multiple workshops were required due to staff rotas; these workshops were scheduled to occur as close together as possible thus ensuring that there was only a short duration between the training sessions and the implementation. In addition, staff were informed that Safe & Secure was there to complement their existing practice and was not being delivered due to problems with current practice.

Workshop. The second stage of the programme consisted of a two-hour face-to-face workshop in which participants were first introduced to attachment-based cognitive-behavioural models for psychosis (Newman-Taylor et al. 2022; see Berry et al. 2020 (Part 1) for a broader overview of the relationship between attachment and psychosis) before a discussion about how this model applied to known patients on the ward. The two-hour workshops were co-delivered by the ward Clinical Psychologist (DC) and the lead researcher, a trainee Clinical Psychologist (AD). The workshop was repeated on four occasions within a five week period to ensure as many staff as possible were able to access the training.

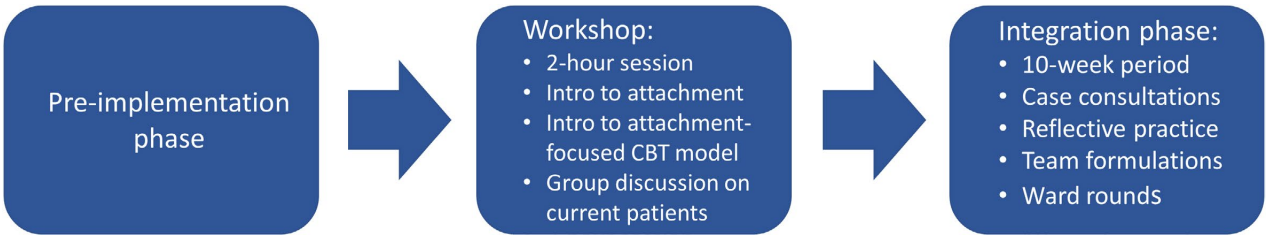

Fig. 1. Stages of Safe & Secure training.

Integration period. The workshops were followed by an eight-week integration period, during which, the attachment-focused approach was integrated into wards rounds, team formulations, reflective practice sessions, and case consultations. The ward Clinical Psychologist (DC) was solely responsible for implementing activities during the integration phase. Figure 1 illustrates the stages of the training programme.

Procedure

Semi-structured interviews, lasting on average 41 minutes (range 32–52 min) were conducted by the lead researcher (AD). Interviews were conducted over a three-month period with the first interview occurring two months after the last training session. Due to the clinical acuity of the ward during the data collection period, the majority of interviews took place online (n = 8). The remaining interviews (n = 3) were conducted in a private space within the PICU. The interviews were digitally recorded and transcribed verbatim. The interview schedule was developed by AD, KG and KS. It focused on the normalisation of the programme within an inpatient setting (e.g. What helped you to use your new knowledge on the ward? Could you tell us about how it felt to fit the training programme in around your other responsibilities?)

The lead researcher (AD) was conscious of his dual role as both a co-facilitator of the training and the person administering the data collection interviews. Pre-empting the impact that this may have on participant responses, during the workshops, participants were advised about the difficulties of implementing training in the PICU setting. Facilitators highlighted that past research suggested that at least some of the training would fall out of use after the implementation phase. This was again mentioned to participants during their interviews with the lead researcher (AD) making clear that the research team were interested in the participant's true perception of the implementation. Throughout interviews, participants did appear to offer both positive and critical perspectives on the implementation of the training.

As part of the interview process, the NoMAD questionnaire (May et al. 2015) was verbally administered.

Measures

The NoMAD (May et al. 2015) is a valid and reliable measure used to establish the degree to which complex interventions are integrated and embedded within healthcare settings. It consists of 23 items each using a 5-point Likert scale to measure agreement with statements about the integration of the new intervention into routine practice. The measure originated from NPT (Murray et al. 2010). The NoMAD measures the degree to which the four domains are achieved by an intervention. The scale has acceptable internal consistency across all four domains (coherence (4 items, $\alpha = 0.71$); collective action (7 items, $\alpha = 0.78$); cognitive participation (4 items, $\alpha = 0.81$); reflexive monitoring (5 items, $\alpha = 0.65$)) (Finch et al. 2018). The overall score generated by the scale has been found to be highly reliable ($\alpha = 0.89$) (Finch et al. 2018). Participant responses to the NoMAD were audio-recorded and scored as part of the data analysis process.

Analysis

Qualitative analysis

Reflexive thematic analysis was used to analyse the interview data. A critical realist epistemological stance was adopted throughout the analysis with participant experience being prioritised. The analysis was inductive and was conducted in accordance with Braun & Clarke's (2006) six step approach (familiarisation, generating initial codes, searching for themes, reviewing themes, naming themes, producing the report). All analysis was carried out by AD. The initial analysis focused on the experience of participants when learning about attachment theory and applying these principles to their practice (reported in Duffy et al. 2025). In line with guidance provided by May et al. (2015), after the initial thematic analysis was complete, codes which related to the normalisation of the training programme were identified and grouped under the appropriate NPT construct.

Quantitative analysis

Means and standard deviations were calculated for each item of the NoMAD. Means and standard deviations

were then calculated for each of the four domains of normalisation.

Results

A total of 20 staff members participated in the Safe & Secure programme (80% of all staff working on the ward). The integration phase comprised: rapid consultations (n = 4); ward rounds (n = 4); reflective practice sessions (n = 4); and team formulations (n = 3). The integration phase required 20 hours of input over 8 weeks from the ward Clinical Psychologist, though these were meetings that are routinely attended by the ward Clinical Psychologist, and therefore not additional to usual hours.

At the point of data collection, 16 of the staff members who had attended the programme continued to work on the ward. A total of 11 (69%) of the available staff members participated in the study. The majority of participants were female (73%) with a mean age of 38.4 years (range 24–61). The mean number of years that participants had been practicing within the NHS was 8.27 (range 1–30). Participants came from a range of disciplines: nursing (n = 4); art therapy (n = 2); psychiatry (n = 2); activities co-ordination (n = 1); clinical support work (n = 1); and occupational therapy (n = 1). Four of the participants held a responsibility for the management and supervision of other staff.

NPT qualitative analysis

Coherence. A component of the Coherence construct is differentiation; the work that staff do to understand how new interventions differ from current practice and knowledge. Ward staff reflected how their previous experience of training on attachment theory was often framed in relation to children. Hearing how attachment theory could relate to adults experiencing psychosis within an PICU was novel to many staff:

> 'Like I'd learned about kind of the basics of it ... I didn't learn about what you could do kind of as a professional to help those people a bit more and to kind of understand maybe why they are presenting the way they are, or why they're behaving the way they are.' (P5

The 2-hour training session concluded with a 30-minute discussion about the hypothesised attachment styles of current patients. Participants found this section of the training useful for crystalising the changes that the attachment-focused approach could make to their clinical practice. Linking theory to actual patients helped participants retain the information they had heard. This process is conceptualised by NPT as individual specification:

> 'I find it very hard to hold things in mind that I've just read on a piece of paper, so discussing it with people you know, there's something much more solid about that, it sits in my head and body much more.' (P4)

Cognitive participation. New ways of working require key participants to drive them forward. Within the NPT framework this is described as the process of initiation. The role of the ward psychologist in initiating the attachment-focused approach was highlighted by nearly all participants:

> 'I would go to the ward rounds … and the psychologist would always be asking 'what attachment style does this patient have?' … And I think that allowed us to kind of, as a team, have a wider discussion on maybe why that patient was presenting in the way they are because of their background or how they have been brought up.' (P5)

Once initiated, action must be taken within an organisation to maintain new ways of working. Activation, the process of sustaining a new practice, was discussed by participants in relation to the need for a refresher session. Participants cited the high turnover of staff as a mechanism by which new approaches can drop out of practice within the PICU. A refresher was suggested as a strategy to make sure that both new and current staff continued to think in an attachment-focused way:

> 'I think it would be really good, even if it's just like a refresher or something like that, because the team could be completely different in a year's time.' (P8)

Some participants felt that they required refresher training by the time they took part in the research interview approximately four months after the 2-hour training session.

Collective action. The challenge of ensuring that all staff were adopting the attachment-focused approach to care emerged again when participants considered the contextual integration of the training. When reflecting on the barriers to normalising the attachment-focused approach, the challenges presented by temporary staff, who had not attended Safe & Secure, was raised by several participants:

> 'Staff in bank agencies that can help us on the day haven't, I suppose, necessarily been embedded within the MDT. If something has changed, it's not so much the … core group of staff, but

> we've certainly had lots of … staff who work for the bank agency.' (P7)

The presence of senior members of staff at the training session was welcomed by participants. This presence was considered to indicate that training was of high value and was not 'beneath' senior staff. The senior staff who were interviewed reflected this feeling:

> 'I can imagine some Consultant saying I don't need attachment training, but actually just doing it as part of a team training, I think it's a nice thing to do and adds value to it.' (P6)

Seeing colleagues from other disciplines and levels of seniority embrace the attachment-focused approach led staff to develop an increased confidence in the care that others were providing. NPT frames this process as relational integration. Knowing that colleagues were open to reflecting on the interpersonal dynamics of inpatient care opened a new dialogue amongst staff:

> 'It brought an awareness across staff. I think I'd have more confidence to challenge staff assumptions or things that I might consider to be staff assumptions.' (P4)

Reflexive monitoring. Participants were keen to highlight the reflective and relational approach that already guided clinical practice on the ward. This pre-existing approach to care made it difficult for participants to identify the added value that Safe & Secure had brought to the ward. For example, when asked if they thought that patients had noticed a difference in the care they received since the training, P6 responded:

> 'I don't know. And I don't have any evidence to that effect. But I do think it does impact on the interactions between the staff and the patients.' (P6)

A similar sentiment was shared by P4. When asked the same question about the impact of the training on patient experience, they replied:

> 'I can't give you a clinical example of that. It's more just a gut feeling. But yes, I'm sure that would have an impact.' (P4)

At an individual level, participants reported finding the training programme valuable. However, the attachment-focused approach was perceived to be limited in its utility. Participants reported finding it difficult to take the time to consider a patient's attachment style when the patient was acutely unwell or was demonstrating aggression:

> 'Like when you are in fight or flight … your mind is really just thinking about survival in that moment, and then you're not really thinking about attachment styles ... You're just trying to keep yourself safe.' (P3)

NPT quantitative analysis

Previous evaluations have established the NoMAD's reliability and validity, however, specific cut-off scores for interpreting its results are not universally defined (Finch et al. 2018). Underlying NoMad scores is the assumption that more positive ratings represent greater potential for new information or interventions to become normal practice. The mean and standard deviation of participants' NOMAD scores can be found in Table 2.

High scores were also attained in relation to coherence with participants indicating that they were clear why the programme could be valuable to their practice. Lower average scores were reported in relation to participants' belief that they had sufficient resources to continue to use the programme. Participants gave the lowest average score to an item measuring their knowledge of reports about the effects of the programme; this is understandable given that no report had yet been produced as this was a pilot project.

Discussion

This study aimed to evaluate the degree to which an attachment-focused approach to care was normalised within a PICU following an eight-week training programme. The adoption of an NPT framework provided novel findings regarding the barriers to the sustainability of the intervention (Raphael et al. 2021). This information is helpful in supporting the future implementation of ward-based training programmes in the PICU setting.

Relating to the domain of coherence, scores for individual specification and internalisation were high. This is unsurprising given that nurses consider the development of therapeutic relationships to be a core part of their job role (Cleary 2003). Qualitatively, participants described being able to differentiate the attachment-focused approach from current clinical practice. This process was aided by group discussion. However, the NoMAD score for communal specification was the lowest overall indicating that participants may benefit from more information about the organisational-level aims of the programme.

The personal qualities of the individuals who are implementing interventions in inpatient settings has been found to influence uptake (O'Donovan 2007). Acknowledging this, during the Safe & Secure training, the ward Clinical Psychologist used self-disclosure to reflect on their own

Table 2. NoMAD scores.

Item	Mean	SD
Coherence (total)	**4.58**	**0.43**
I can distinguish Safe & Secure from usual ways of working	4.55	0.52
Staff in this organisation have shared understanding of the purpose of Safe & Secure	4	0.63
I understand how Safe & Secure affects the nature of my own work	4.9	0.30
I can see the value of Safe & Secure for my work	4.9	0.30
Cognitive participation (total)	**4.86**	**0.22**
There are key people who drive Safe & Secure forward and get others involved	4.54	0.69
I believe that participating in Safe & Secure is a legitimate part of my role	4.9	0.30
I am open to working with colleagues in new ways to use Safe & Secure	5	0
I will continue to support Safe & Secure	5	0
Collective action (total)	**4.15**	**0.37**
I can easily integrate Safe & Secure into my existing work	4.36	0.67
Safe & Secure disrupts working relationships*	4.72	0.64
I have confidence in other people's ability to use Safe & Secure	3.63	0.92
Work is assigned to those with skills appropriate to use Safe & Secure	4.27	0.64
Sufficient training is provided to enable staff to implement Safe & Secure	4.18	0.87
Sufficient resources are available to support Safe & Secure	3.72	1.42
Management adequately supports Safe & Secure	4.18	0.87
Reflexive monitoring (total)	**4.43**	**0.71**
I am aware of reports about the effects of Safe & Secure	3.18	1.60
Staff agree that Safe & Secure is worthwhile	4.54	0.69
I value the effects that Safe & Secure has had on my work	4.81	0.40
Feedback about Safe & Secure can be used to improve it in the future	4.9	0.30
I can modify how I work with Safe & Secure	4.73	0.46

*Item reverse scored

attachment orientation. Again, consistent with the advice of Raphael et al. (2021), the ward Clinical Psychologist also took a personal responsibility for driving the intervention forward. Both of these aspects of the programme were linked to increased cognitive participation. However, the reliance on a single individual for integrating the intervention creates a risk that the intervention will drop out of use should that individual leave the service. Clinical Psychologists in acute settings can facilitate leadership behaviours in team members (Tackett et al. 2021). There may be value in providing senior ward staff with additional training which allows them to support the ward Clinical Psychologist during the integration phase, for example, providing staff who have supervisory responsibility with the tools to integrate the Safe & Secure approach into their supervision sessions.

Raphael et al. (2021) described hierarchical models as a barrier to the implementation of psychosocial interventions in PICUs. In response, Safe & Secure was delivered to multidisciplinary groups of mixed seniority. Participants reported that this was helpful. In line with previous research, staff reported feeling able to offer their reflections regardless of their staff grade (Kramarz et al. 2023). The multidisciplinary nature of the training was also highlighted as being valuable. Staff in inpatient settings can perceive colleagues from other disciplines as holding competing perspectives on patient care (Wyder et al. 2017). Through Safe & Secure, participants reported being able to see that colleagues from other disciplines held similar values and opinions.

Participants reported that it was difficult to quantify the impact of the intervention on their clinical practice but that it had had a positive impact. This may be related to the fact that this was a pilot intervention and the research team did not outline specific quantifiable outcomes for the staff who took part. Following the pilot, and the identification of outcomes that can be quantitatively measured (see Duffy et al. 2025), this element of the programme can be given greater attention in future training sessions. In addition, participants evaluated the attachment-focused approach as having little utility when patients were acutely unwell. Psychology is viewed by most PICU staff as a second-line treatment option after psychiatry (Wood et al. 2019). Clinicians delivering Safe & Secure should ensure that the case discussion section of the workshop demonstrates to staff that the attachment-focused models can be applied to patients who are in the acute phase of their illness.

Broader learning regarding the implementation of ward-based training programmes can be taken from the current study. Table 3 contains recommendations for those seeking to normalise new ward-based training programmes within the PICU setting.

Limitations

With regards to the study setting, the approach to care that was already present on the ward prior to the training may have positively influenced implementation and uptake. Six months before the delivery of the training, the

Table 3. Recommendations to support the normalisation of training programmes within an PICU.

Normalisation Process Theory (NPT) construct	Recommendations
Coherence	Provide pre-training reading materials Clearly state organisational-level aims Encourage group discussion during training sessions Clarify use of intervention across levels of acuity Refresher sessions (approx. 6 months post-training)
Cognitive participation	Elicit support from senior staff prior to delivery Educate senior staff in supervision of new approach Mix of staff grades and disciplines at each training Senior charge nurse to co-facilitate training Facilitator self-disclosure
Collective action	Ensure pre-training access to routine outcome data Training to take place away from ward setting Staff to be given protected time to attend training Limited time delay between workshops Provide physical handouts of key information
Reflexive monitoring	Feedback forms immediately following training delivery Use of pre-post quantitative measures

Mental Welfare Commission had visited and highlighted that the ward was impressive in its use of team formulation and reflective practice (Mental Welfare Commission for Scotland 2022). Second, studies that take place within an inpatient setting are known to be vulnerable to social desirability bias (Wainwright et al. 2021). Whilst the lead researcher was not part of the ward team, they were known to staff as a colleague of the ward Clinical Psychologist. Considering this, the verbal administration of the NoMAD, as opposed to delivery of the measure as an anonymised questionnaire, may have impacted participant responses. Indeed, averages scores across the NoMAD domains in this study were nearly at the maximum.

Conclusion

It was possible to implement the attachment-focused approach within a PICU across the course of an eight-week period. PICU staff were able to see the value of the intervention and were able to recognise how it could supplement existing clinical practice. The intervention was largely normalised into everyday practice; however, participants highlighted that a lack of resources and a difficulty in quantifying the impact of the intervention could lead it to fall out of practice across time. Services seeking to implement the Safe & Secure training programme may benefit from ensuring that participants have sufficient time and written resources to be able to sustain the attachment-focused approach. Furthermore, the delivery of outcome measures before and after the training programme may help staff to more easily recognise the impact of the training on the clinical environment. Measures that assess both the clinician–patient relationship (e.g. the Mental Health Nurse-Sensitive Patient Outcome-Scale; Desmet et al. 2021) and the ward-level impact of the training (e.g. the Ward Atmosphere Scale; Moos & Houts 1968) may be helpful in this regard.

Data availability

The datasets generated and/or analysed during the current study are not publicly available due to the risk of participant identification but are available from the corresponding author on reasonable request.

Author contributions

Conceptualisation Aiden Duffy (AD), Karen Goodall (KG), David Carmichael (DC), Sean Harper; Katy Sivyer, Kathy Carnelley, Tess Maguire, Katherine Newman-Taylor; **Formal analysis** AD; **Methodology** KG, DC; **Project administration** AD; **Supervision** KG, DC; **Validation** KG, DC; **Writing – Original Draft Preparation** AD; **Writing – Review & Editing** AD, KG, DC, KN-T.

References

Aarons, G.A. and Sawitzky, A.C. (2006) Organizational culture and climate and mental health provider attitudes toward evidence-based practice. *Psychological Services*, 3(1): 61–72. https://doi.org/10.1037/1541-1559.3.1.61

Bauer, M. S. and Kirchner, J. (2020) Implementation science: what is it and why should I care? *Psychiatry Research*, 283: 112376. https://doi.org/10.1016/j.psychres.2019.04.025

Berry, K., Haddock, G., Kellett, S., Roberts, C., Drake, R. and Barrowclough, C. (2016) Feasibility of a ward-based psychological intervention to improve staff and patient relationships in psychiatric rehabilitation settings. *British Journal of Clinical Psychology*, 55(3): 236–252. https://doi.org/10.1111/bjc.12082

Berry, K., Bucci, S. and Danquah, A.N. (eds.) (2020) *Attachment theory and psychosis: Current perspectives and future directions*. Routledge. https://doi.org/10.4324/9781315665573

Bowlby, J. (1969) *Attachment. Attachment and loss: Vol. 1: Loss*. New York: Basic Books.

Braun, V. and Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2): 77–101. https://doi.org/10.1191/1478088706qp063oa

Bucci, S., Roberts, N.H., Danquah, A.N. and Berry, K. (2015) Using attachment theory to inform the design and delivery of mental health services: a systematic review of the literature. *Psychology & Psychotherapy: Theory, Research & Practice*, 88(1): 1–20. https://doi.org/10.1111/papt.12029

Cleary, M. (2003) The challenges of mental health care reform for contemporary mental health nursing practice: relationships, power and control. *International Journal of Mental Health Nursing*, 12(2): 139–147. https://doi.org/10.1046/j.1440-0979.2003.00280.x

Desmet, K., Duprez, V., Deproost, E., Beeckman, D., Goossens, P. J., Vandewalle, J., Van Hecke, A. and Verhaeghe, S. (2021) The development and psychometric evaluation of the Mental Health Nurse-Sensitive Patient Outcome-Scale (MH-NURSE-POS) for inpatient psychiatric hospital settings. *International Journal of Mental Health Nursing*, 30(4): 988–1000. https://doi.org/10.1111/inm.12853

Duffy, A., Goodall, K., Carmichael, D., Harper, S., Sivyer, K., Carnelley, K., Maguire, T. and Newman-Taylor, K. (2025) Strengthening relationships within intensive psychiatric care: staff perceptions of an attachment training intervention. *Journal of Psychiatric & Mental Health Nursing*, 32(2): 321–331. https://doi.org/10.1111/jpm.13109

Finch, T.L., Girling, M., May, C.R., Mair, F.S., Murray, E., Treweek, S., McColl, E., Steen, I., Cook, C., Vernazza, C., Mackintosh, N., Sharma, S., Gaery, B., Steele, J. and Rapley, T. (2018) Improving the normalization of complex interventions: part 2-validation of the NoMAD instrument for assessing implementation work based on normalization process theory (NPT). *BMC Medical Research Methodology*, 18(1): 1–13. https://doi.org/10.1186/s12874-018-0591-x

Flückiger, C., Del Re, A.C., Wampold, B.E. and Horvath, A.O. (2018) The alliance in adult psychotherapy: a meta-analytic synthesis. *Psychotherapy*, 55(4): 316–340. https://doi.org/10.1037/pst0000172

Gilburt, H., Rose, D. and Slade, M. (2008) The importance of relationships in mental health care: a qualitative study of service users' experiences of psychiatric hospital admission in the UK. *BMC Health Services Research*, 8(1): 1–12. https://doi.org/10.1186/1472-6963-8-92

Hopkins, J.E., Loeb, S.J. and Fick, D.M. (2009) Beyond satisfaction, what service users expect of inpatient mental health care: a literature review. *Journal of Psychiatric & Mental Health Nursing*, 16(10): 927–937. https://doi.org/10.1111/j.1365-2850.2009.01501.x

Kramarz, E., Mok, C.L.M., Westhead, M. and Riches, S. (2023) Staff experience of team case formulation to address challenging behaviour on acute psychiatric wards: a mixed-methods study. *Journal of Mental Health*, 32(2): 412–423. https://doi.org/10.1080/09638237.2021.2022611

Man, H., Wood, L. and Glover, N. (2023) A systematic review and narrative synthesis of indirect psychological intervention in acute mental health inpatient settings. *Clinical Psychology & Psychotherapy*, 30(1): 24–37. https://doi.org/10.1002/cpp.2780

Mann-Poll, P.S., Noorthoorn, E.O., Smit, A. and Hutschemaekers, G.J. (2020) Three pathways of seclusion reduction programs to sustainability: ten years follow up in psychiatry. *Psychiatric Quarterly*, 91: 819–834. https://doi.org/10.1007/s11126-020-09738-1

May, C. and Finch, T. (2009) Implementing, embedding, and integrating practices: an outline of normalization process theory. *Sociology*, 43(3): 535–554. https://doi.org/10.1177/0038038509103208

May, C., Rapley, T., Mair, F.S., Treweek, S., Murray, E., Ballini, L., Macfarlane, A. Girling, M. and Finch, T.L. (2015) Normalization Process Theory: online users manual, toolkit and NoMAD instrument. https://normalization-process-theory.northumbria.ac.uk/

Mental Health (Care & Treatment) (Scotland) Act (2003 asp 13) The Stationery Office. https://www.legislation.gov.uk/asp/2003/13/

Mental Welfare Commission for Scotland (2022) Report on announced visit to: St. John's Hospital, Ward 1. https://www.mwcscot.org.uk/sites/default/files/2022-11/StJohnsHospital-Ward1-IPCU_20220322a.pdf

Mikulincer, M. and Shaver, P.R. (2007) *Attachment in adulthood: Structure, dynamics, and change*. Guilford Press.

Moos, R.H. and Houts, P.S. (1968) Assessment of the social atmospheres of psychiatric wards. *Journal of Abnormal Psychology*, 73: 595–604. https://doi.org/10.1037/h0026600

Murray, E., Treweek, S., Pope, C., MacFarlane, A., Ballini, L., Dowrick, C., Finch, T., Kennedy, A., Mair, F., O'Donnell, C., Ong, B.N. and May, C. (2010) Normalisation process theory: a framework for developing, evaluating and implementing complex interventions. *BMC Medicine*, 8: 1–11. https://doi.org/10.1186/1741-7015-8-63

Newman-Taylor, K., Harper, S., Maguire, T., Sivyer, K., Sapachlari, C. and Carnelley, K.B. (2022) Attachment-based CBT models for psychosis: a PPI-informed approach for acute care settings. *The Cognitive Behaviour Therapist*, 15, e55. https://doi.org/10.1017/S1754470X22000526

O'Donovan, A. (2007) Patient-centred care in acute psychiatric admission units: reality or rhetoric? *Journal of Psychiatric & Mental Health Nursing*, 14(6): 542–548. https://doi.org/10.1111/j.1365-2850.2007.01125.x

Paterson, C., Karatzias, T., Harper, S., Dougall, N., Dickson, A. and Hutton, P. (2019) A feasibility study of a cross-diagnostic, CBT-based psychological intervention for acute mental health inpatients: results, challenges, and methodological implications. *British Journal of Clinical Psychology*, 58(2): 211–230. https://doi.org/10.1111/bjc.12209

Raphael, J., Price, O., Hartley, S., Haddock, G., Bucci, S. and Berry, K. (2021) Overcoming barriers to implementing ward-based psychosocial interventions in acute inpatient mental health settings: a meta-synthesis. *International Journal of Nursing Studies*, 115: 103870. https://doi.org/10.1016/j.ijnurstu.2021.103870

Tackett, M.J., Chopin, S.M. and Karol, R.L. (2021) Psychologist leadership on inpatient rehabilitation teams: organizational science in practice. *Rehabilitation Psychology*, 66(4): 423–432. https://doi.org/10.1037/rep0000408

Wainright, L.D., Berry, K., Dunster-Page, C. and Haddock, G. (2021) Patient social functioning in acute mental health inpatient wards: the role of emotional regulation, attachment styles and nurse-patient relationships. *British Journal of Mental Health Nursing*, 10(4): e0009. https://doi.org/10.12968/bjmh.2018.0009

Weiner, B.J. (2009) A theory of organizational readiness for change. *Implementation Science*, 4(1): 67. https://doi.org/10.1186/1748-5908-4-67

Wood, L., Williams, C., Billings, J. and Johnson, S. (2019) The therapeutic needs of psychiatric in-patients with psychosis: a qualitative exploration of patient and staff perspectives. *BJPsych Open*, 5(3): e45. https://doi.org/10.1192/bjo.2019.33

Wyder, M., Ehrlich, C., Crompton, D., McArthur, L., Delaforce, C., Dziopa, F., Ramon, S. and Powell, E. (2017) Nurses experiences of delivering care in acute inpatient mental health settings: a narrative synthesis of the literature. *International Journal of Mental Health Nursing*, 26(6): 527–540. https://doi.org/10.1111/inm.12315

Appendix S1: Safe & Secure training overview

Safe & Secure is an eight-week staff training programme designed for staff working in inpatient settings, including those with no prior training in psychological approaches.

Learning objectives:

- To provide inpatient psychiatric care staff across disciplines and bandings with an understanding of attachment theory
- To support inpatient psychiatric care staff in using their knowledge of attachment theory to identify patient attachment styles
- To support inpatient psychiatric care staff in offering attachment-informed interventions tailored to the attachment needs of their patients.

The programme begins with a two-hour workshop hosted by two facilitators. Given their role in supporting psychological thinking and intervention in the inpatient setting, one of the facilitators should be the ward Clinical Psychologist. To support the credibility of the programme, and to be able to support the continued implementation of the training programme, it is preferable that facilitators are already well known to ward staff.

During the first hour of the workshop, participants are introduced to the core concepts through didactic teaching alongside an accompanying PowerPoint presentation (Table S1).

The second hour is a practical workshop during which the facilitators lead participants in applying attachment theory to their work on the ward (Table S2).

The two-hour workshop is followed by an eight-week integration period. The integration period uses routine

Table S1. Core concepts of the training programme

Time (min)	Subject	Materials
0–5	The importance of relationships in mental health care	Slides
5–15	The origins of attachment theory	Slides
15–25	Secure base, safe haven, secure attachment	Slides
25–35	How do caregivers shape our attachment system?	Slides
35–45	Attachment insecurity	Slides
45–60	The relationship between attachment, trauma, and complex mental health issues	Slides

Table S2. Practical workshop programme.

Time (mins)	Focus	Materials
60–75	The facilitators introduce the attachment-based cognitive-behavioural models of staff–patient interactions (Newman-Taylor et al. 2022). Case vignettes are used to demonstrate how the models can help to make sense of patient behaviour in the ward setting. Facilitators use the models to highlight useful strategies for meeting the attachment needs of individuals with different attachment representations.	Attachment-based CBT model templates, case vignettes
75–105	Staff discuss how these models apply to known patients on the ward. Staff work alongside the facilitators to formulate current inpatients and to consider how best to meet their attachment needs.	
105–120	Facilitators recap the core ideas of the training session. Staff are then asked to continue to consider the role of attachment in driving patient behaviour as they return to work on the ward.	Slides

Table S3. Integration period.

Integration activity	Approach	Time, frequency
Ward round	Each patient's care is discussed by the MDT and care plans are updated as appropriate. Attachment is introduced as a relevant factor when adjusting care plans. The ward Clinical Psychologist takes a lead in prompting these discussions.	3.5 hr, one per week
Team formulation	A psychological formulation of a patient's difficulties is co-developed by the MDT, led by the ward Clinical Psychologist. Attachment is considered in the context of their early experiences and current behaviour.	1.5 hr, three weeks per month
Reflective practice groups	Staff are provided with a chance to reflect on the impact of their work on their own wellbeing. Attachment is offered as a useful model for understanding how staff respond to challenging situations.	1.5 hr, once per month
Case consultations	Staff ask the ward Clinical Psychologist for guidance with patient care. Staff are encouraged to consider how attachment is relevant to the patients' behaviour.	30 min, ad-hoc

governance systems to embed the training as 'business as usual'. This period is actively managed by the ward Clinical Psychologist who prompts discussion of the attachment-based cognitive behavioural models to guide clinical reviews within ward rounds, team formulations, reflective practice groups, and case consultations (Table S3).