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WardSonar: a real-time measure of safety for mental health wards

Submission date
07/01/2022

Recruitment status
No longer recruiting

Registration date
10/01/2022

Overall study status
Completed

Last Edited
03/12/2024

Condition category
Mental and Behavioural Disorders

[X] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[X] Results
[ ] Individual participant data

Plain English summary of protocol
Background and study aims
Evidence shows there are large numbers of safety issues on acute mental health wards, frequently involving violence and self-harm, associated with increased costs, physical and psychological harm. Safety data is currently only collected retrospectively and very little is collected from the service user perspective. This study aims to co-design with service users and staff a technological intervention that collects data about the perception of safety from service users, in order to support staff to anticipate and avoid developing incidents.

Stakeholder and lay input has informed the development of this project, specifically through discussions with service users and co-applicant representation. We will link to existing stakeholder groups hosted by Leeds and York Partnership NHS Foundation Trust to support the project via co-app with lived experience. The key outputs of the research will be a new intervention in the form of a licenced product to enable the collection of and response to real-time service user-generated safety data. The research will produce traditional and non-traditional publications in a variety of media. Dissemination will target key stakeholders: mental health service providers, commissioners, regulators, practitioners, policy makers, and academic researchers and make effective use of social media. We will publish in high-impact open access academic journals and present and discuss our findings at conferences to a wide range of practitioners, academics, and service users. We will also devise and host a digitally supported dissemination event and invite representation from all stakeholders. The resulting product has the potential to improve safety and well-being for service users and staff on acute mental health wards, a key concern of the CQC and an NHS priority.

Who can participate?
Service users aged 16 years or above, who are a current inpatient of a mental health ward

What does the study involve?
The project has two phases and uses different methods during each phase. Phase 1 uses a co-design approach to developing the intervention, supported by an ‘environmental scan’ consisting of a scoping review and the collection and qualitative analysis of interview data. Phase 2 will be a mixed-methods process evaluation. A focused ethnography will explore how staff communicate and use safety data supported by interviews with service users and staff to

further understand feasibility and acceptability. We will simultaneously collect routine data including incidents, NHS mental health safety thermometer (if available), workforce and ward occupancy. Measures relating to safety culture and ward atmosphere will be completed pre and post intervention, as well as real-time measures of these concepts on three occasions. The synthesis of these data will assess the impact of the intervention on outcome measures; enhanced understanding of feasibility and acceptability.

What are the possible benefits and risks of participating?
The information participants provide will help us develop our research which might lead to improved safety on wards. We hope participants will find the subject of the interview and sharing your views interesting. Depending on their experiences participants may find talking about them upsetting, if this is the case we will ensure participants are provided with sources of support.

Where is the study run from?
University of Leeds (UK)

When is the study starting and how long is it expected to run for?
January 2020 to December 2022

Who is funding the study?
National Institute for Health Research (NIHR) (UK).

Who is the main contact?
Prof John Baker, J.Baker@leeds.ac.uk

Contact information

Type(s)
Principal investigator

Contact name
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Additional identifiers

Integrated Research Application System (IRAS)
300833

Central Portfolio Management System (CPMS)

50821

Study information

Scientific Title
Developing a service user centred co-designed patient safety intervention for acute mental health wards: A mixed methods process evaluation

Acronym
WardSonar

Study objectives
This project aims to co-design an intervention that improves patient safety on acute mental health wards through the collection of daily data about the perception of safety from service users to support staff in monitoring and improving the safety of the clinical environment. The intervention will be tested, and its' feasibility and acceptability explored.

To achieve these aims, we have the following objectives:
1. To co-design with service users and staff an intervention that will allow real-time monitoring of safety on acute mental health wards
2. To explore the feasibility and acceptability of capturing real-time feedback from service users about safety
3. To explore how staff use this information when reported during daily handovers (or other mechanisms)
4. To explore how the resulting data is related to existing quality and safety metrics
5. To explore how these data can be used longitudinally to promote safety

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 08/11/2021, East Midlands - Nottingham 2 Research Ethics Committee (Equinox House, City Link, Nottingham, NG2 4LA, UK; +44 203 443 6294; nottingham2.rec@hra.nhs.uk), ref: 21/EM/0247

Primary study design
Observational

Study design
Mixed methods process evaluation

Study type(s)
Prevention

Health condition(s) or problem(s) studied
Safety on mental health wards

Interventions
A mixed-methods process evaluation. A focused ethnography will explore how staff communicate and use safety data supported by interviews with service users and staff to further

understand feasibility and acceptability. We will simultaneously collect routine data including incidents, NHS mental health safety thermometer (if available), workforce and ward occupancy. Measures relating to safety culture and ward atmosphere will be completed pre and post intervention, as well as real-time measures of these concepts on three occasions. The synthesis of these data will assess the impact of the intervention on outcome measures; enhanced understanding of feasibility and acceptability.

The digital intervention consists of up to four discrete 'products':
a service user recording interface to collect data;
healthcare staff dashboard for data analysis;
a ward interface for public consumption;
an Application Program Interface (API).
The primary tool asks services users to answer a series of questions about how safe they feel recorded on a hand held tablet. Data will be recorded in real-time and sent to an API for data processing. The dashboard will be the main interface used by staff to view data submitted by service users. It will primarily be accessed in specific, authorised locations, such as the ward office, and provide real-time snapshot data and greater informational insights through the use of interactive data visualisations. A simple ward interface may be created (subject to co-design) to communicate a subset of outcome measures for public consumption.

Intervention Type
Behavioural

Primary outcome(s)
Quantitative evaluation of the 'effect' of the intervention on patient safety:
1. Continuous routine safety data (incidents, NHS mental health safety thermometer (monthly), workforce data, admissions/discharges, and ward occupancy and acuity)
2. Standard measures of culture and ward atmosphere (measures from the Agency for Healthcare Research and Quality (AHRQ), Hospital Survey on Patient Safety Culture (HSOPC), staff perceptions of 'ward atmosphere' using the EssenCES scale), pre and post intervention for each participating ward

Key secondary outcome(s)
Qualitative evaluation:
Undertake a focused ethnography to explore the use of the intervention across a variety of wards and organisational settings. This combination of data will support an exploration of the intervention in terms of its' use within each context, the challenges of engaging with the intervention, unintended consequences (positive and negative, and how these are mitigated), as well as an understanding of the likely requirements for a future trial design (outcomes, challenges, supporting factors etc). This will be presented as a case study for each ward.

Completion date
30/12/2022

Eligibility

Key inclusion criteria
1. Service user aged over 16 years
2. Current inpatient of a mental health ward
3. Capacity to consent to participate in research
4. Able to communicate in spoken English

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
16 Years

Sex
All

Key exclusion criteria
Does not meet inclusion criteria

Date of first enrolment
10/01/2022

Date of final enrolment
01/10/2022

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
Leeds and York Partnership NHS Foundation Trust
2150 Century Way
Thorpe Park
Leeds
United Kingdom
LS15 8ZB

Study participating centre
Lynfield Mount Hospital
Bradford District Care Foundation Trust
Heights Lane
Bradford
United Kingdom
BD9 6DP

Sponsor information

Organisation
University of Leeds

ROR
https://ror.org/024mrxd33

Funder(s)

Funder type
Government

Funder Name
National Institute for Health Research

Alternative Name(s)
National Institute for Health Research, NIHR Research, NIHRresearch, NIHR - National Institute for Health Research, NIHR (The National Institute for Health and Care Research), NIHR

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan
The data-sharing plans for the current study are unknown and will be made available at a later date.

IPD sharing plan summary
Data sharing statement to be made available at a later date

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?

Results article		01/05/2024	28/05/2024	Yes	No
Results article	Service-user patient safety perceptions, incidents and subsequent contagion	28/11/2024	03/12/2024	Yes	No
HRA research summary			28/06/2023	No	No