Scottish Patient Safety Programme/NES

“The role of human factors in restraint.”
A feasibility scoping study.

Key Learnings So Far

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NES - Who are we?

• National health board responsible for leading NHS Scotland workforce development, education and training.

• Involved in variety of Human Factor projects to deliver improvements.

• Health Psychologists – looking at predictors of behaviour change.
Human Factors

A common language

“Enhancing clinical performance through an understanding of the effects of teamwork, tasks, equipment, workspace, culture and organisation on human behaviour and abilities and application of that knowledge in clinical settings” (Catchpole 2010)

“Making it easy to do the right thing” (Bromiley 2011)
What are Human Factors – Non Technical Skills

- **Latent conditions** increase likelihood of ‘active errors’ – errors made whilst delivering patient care.

- Patient safety incident = alignment of latent conditions and **active errors** which breach all levels of a systems defence.

- Often an incident is not caused by one single failure but a **series** of consecutive minor events.
Human Factors models in Patient Safety

Systems
- Policy
- Culture

Organisational
- Organisation
- Leadership
- Teamwork
- Processes
- Environment
- Tools/technology

Individual
- Situational Awareness
- Decision making
- Communication
- Personality & behaviour
- Fatigue/personal resources
- Human cognition

Source: Flynn & Patey (2010)
Example: SPLINTS - Scrub Practitioners' List of Intra-operative Non-Technical Skills

- Situational Awareness
- Communication
- Teamwork
- Task management

OUR PURPOSE
Why human factors might be important in restraint?

Investigate the hypothesis that Human Factors has the potential to...

- Reduce the number of incidents of restraint.
- Reduce harm caused to patient, staff and bystanders during restraint.
- Reduce psychological as well as physical harm.
MRC Framework
Stage 1 - Identifying the evidence base

1. Development

Feasibility and Testing

Implementation

Evaluation

Intervention Design

Adapted Craig et al
*BMJ* 2008; 337:979-983
The process so far has been....
1. ‘Definition’ of restraint is unclear

The Mental Welfare Commission has defined physical restraint as:

...the actual or threatened laying of hands on a person to stop him or her from either embarking on some movement or activity, or following it through.

The grounds for intervention are that the person’s action is likely to lead to hurt or harm to the person or others, or prevent necessary help being given.

2. Lack of a baseline

Incidence of violence

NHS in England & Wales Royal college of psychiatrists audit 2005, between 73% and 86% nurses experienced or witnessed violence whilst working on the ward/unit.

Scottish perspective unknown.

Recorded restraint incidents
Range from 32-798 (2012, data from 7 health boards FOI requests).

Reporting level varies.

Rates of harm (physical, psychological) to patients, staff or witnesses due to restraint incidents in Scotland – no baseline.

No standardised way to measure psychological harm from restraint.
3. Lack of standardisation

No national standardised programme of training in the therapeutic management of violence & aggression.

Lack of parity in the content and philosophy taught across Scotland.
4. Other research challenges

Ethical issues

- Sensitive nature of the topic.
- Emotional /trauma impact.
- Confidentiality & duty of care.
Scoping and feasibility study

KEY AIM

Examine existing evidence relating to the role of HF in minimizing the harm resulting from restraint
Methodology

- Scoping review of literature. Identifying the evidence base
- Meetings with SPSP-MH Restraint and Seclusion Group
- Review data Anonymised staff and patient restraint debrief forms
(A) Identifying the evidence base

- Systematic Review – published literature (UK, USA, Australia)

- NHS and non-NHS mental health policy documents, NGO reports and recommendation papers.

- Grey literature for Freedom of Information (FOI) requests, fatal inquiry (FAI) & significant event analysis reports (SEA).

1600 results
150 docs
Categorical Thematic Analysis
Literature review & Restraint group meeting data

The main Human Factors model headings were utilised to structure the analysis

- **Systems**
  - Policy
  - Culture

- **Organisational**
  - Organisation
  - Leadership
  - Teamwork
  - Processes
  - Environment
  - Tools/technology

- **Individual**
  - Situational Awareness
  - Decision making
  - Communication
  - Personality & behaviour
  - Fatigue/personal resources
  - Human cognition
INITIAL THEMES FROM LITERATURE REVIEW AND MEETINGS WITH SPSP-MH RESTRAINT AND SECLUSION GROUP
### Human Factors involved in Restraint

#### ORGANISATIONAL
- **TEAMWORK**
  - Team structure
  - Responsiveness
  - Commitment

- **ENVIRONMENT**
  - Ward
  - Other patients
  - Access to open space and activities
  - Auditing

#### SYSTEM
- **CULTURE**
  - Model of Care
  - Attitudes to MH
  - Culture of blame v learning

- **POLICY**
  - Training
  - Restraint specific
  - Policy impacting on patient triggers

#### INDIVIDUAL
- **SITUATION AWARENESS**
  - Risk assessment
  - Patient cues
  - Patient triggers
  - Medical emergency

- **HUMAN COGNITION**
  - Knowledge
  - Training in restraint

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**Fig 1. Summary of Key Findings**
System Factors
SYSTEM: Cultural Factors

- Attitudes towards mental health
- Blame culture v. learning culture
- Model of care e.g. recovery or service?
SYSTEM: Policy Factors

- Training policy
- Triggers arising from policy
- Effective implementation of V & A policy
Organisational Factors
ORGANISATIONAL: Process

- Treatment planning and Risk assessment for Restraint
- Auditing, root cause analysis
- Debriefing
ORGANISATIONAL: Environment

Access and Freedom

Other Patients

Ward
ORGANISATIONAL: Teamwork

- Commitment to shared ‘models’
- Agile response
- Team structure
Individual Factors
Situational Awareness

- Risk assessment
- Patient cues and triggers
- Medical emergencies and vital signs
INDIVIDUAL: Communication

- Language
- Information transfer
- Trust
INDIVIDUAL: Human Cognition

Knowledge

Stress

Training

Knowledge

Quality Education for a Healthier Scotland
So far, Human Factors are reported to being important in the practice of restraint within MH settings.

Human factors have also been identified in interventions used to reduce the use of restraint and the harm caused from restraint.
However...

- Significant research gaps exist.

- Few interventions have been tested (RCTs are problematic).

- Lack of research from the patient’s viewpoint.

- Individual factors, including the role of fear, fatigue and anxiety on attentional bias, risk assessment and decision making could warrant further investigation.
Next steps

• Further discussion with SPSP MH Work stream.

• Data analysis from NHS Health Boards.

• Wider consultation with other professional bodies and patients.
Recommendations

System

Evaluating the role of Human Factors in training of the management of violence & aggression/restraint techniques.

Organisational

Debriefing – reporting on human factors as part of the debrief process to enhance awareness of their impact and facilitate learning and change in these areas where possible.

Individual

Detailed synthesis of data from restraint events to further differentiate the relevant human factors and to aid design of interventions.
Thank you

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