

Caroline is a qualified nurse who worked at SLaM before starting this research.....

The overall aim of this PhD is to produce a measure of staff perceptions of barriers to change.

The scale is constructed using 6 answer options, in a Likert format.

1 = Strongly agree
2 = Agree
3 = Slightly agree
4 = Slightly disagree
5 = Disagree
6 = Strongly disagree

The scores from each question are added together to produce a single total score.

The measure has been developed by interviewing 32 staff from acute in-patient wards in SLaM. The interviews were analysed and staff views were converted into items on the questionnaire.



BARRIERS TO CHANGE: Developing a staff led measure of perceptions of barriers to change on acute in-patient wards.

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FEASIBILITY STUDY:

40 questionnaires comprising 23 items and two feasibility questions were completed. 20 PICU and Forensic wards and 20 Acute and National Services participated.

The H.T.A. criteria for feasibility (Fitzpatrick 1998), refers to whether any excessive burden is caused to the population under study by administering and processing the measure.

The aim was to ensure that the questionnaire is acceptable, understandable and easy to complete by self-report.

DEMOGRAPHICS:

Band	Gender	Age Range	Ethnicity
HCA: 13	M: 19	20'S—60'S	White British = 16
Band 5: 14	F: 21		BME = 24
Band 6: 9			
Band 7: 3			
MISSING: 1		MISSING: 5	

Generally the feasibility study showed that:

- Staff were able to complete the measure by self-report.
- All staff felt that the questionnaire was an appropriate length.
- 94% of staff agreed that the items in the questionnaire were easy to understand.
- 100% of staff agreed that the questionnaire was easy to complete.
- Minimal explanation about the questionnaire was required and instructions were included on questionnaire for participants which were easy to understand.
- Minimal researcher training was required.

ISSUES FROM THE FEASIBILITY STUDY:

Some of the questions were worded in such a way that it was difficult to form any other response than positive e.g. "When the whole team is consulted about new ideas for ward practices it increases our motivation to try to implement them". These questions needed rewording.

Some of the responses that participants gave did not match the interview data.

Missing data occurred on 7 out of 23 of the questionnaire items. This might indicate that staff were less confident in answering these questions or just that they became distracted!!

There were few differences in perceptions of barriers to change between bands, with all bands expressing similar perceptions.

Main topics in the questionnaire:

COMMUNICATION

GENERATION OF IDEAS

OUTCOMES

RESISTANCE TO CHANGE

PLANNING, STRATEGY

SUPPORT & MONITORING

TEAM DYNAMIC

UNFREEZING, MOVING
PAST RESISTANCE

Although qualitative methods are suitable in developing measures to capture individual perceptions in given situations, using these measures in RCT's to produce scientifically sound and quantifiable results requires the more traditional approach of psychometric testing.

Psychometric testing is currently being undertaken using the recommended Health Technology Assessment (H.T.A) criteria which include feasibility, reliability, validity, responsiveness, precision, interpretability, acceptability, and appropriateness (Fitzpatrick et al, 1998).

Assessing reliability is important because high scores imply that the questionnaire is measuring staff perceptions of barriers to change consistently.

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Test Retest Study (reliability):

Reliability Analysis:

Sample: 17 staff (all bands) from acute in-patient wards, 26 from Forensic wards.

Method and analysis: Staff were asked to complete the measure. The internal consistency of the measure was tested using Cronbach's alpha (a statistical test). This was calculated using a statistical package called STATA.

A test retest exercise was undertaken, whereby staff were asked to complete the measure twice, separated by 6-10 days, because this is a measure of perceptions which are likely to change over short periods of time. Test retest reliability analysis was conducted using Lin's concordance coefficient (a statistical test) to see whether staff have the same views a week later.

Results:

At phase 1 (feasibility study) Cronbach's alpha was 0.35. At phase 2 (test retest) on the reworded measure Cronbach's alpha was 0.77 (test), and 0.80 (retest).

The concordance coefficient was calculated using the total score with a value at 0.6 or above generally considered acceptable.

Total score, rho = 0.636

Discussion:

A high Cronbach's alpha score shows that the items in the barriers to change measure all contribute to the same latent construct (i.e. staff perceptions of barriers to change). A score of 0.6 or above suggests that all items are contributing to the total score which means that the total score is a good indicator of staff perceptions of barriers to change. As you can see staff did achieve a high score so a **BIG THANK YOU** to all involved!!

Test retest reliability analysis was conducted using Lin's concordance coefficient (1989). The concordance coefficient measures the agreement between the score at time 1 and the score at time 2. This establishes whether individuals produce the same answer over 6-10 days and shows that the measure is likely to produce similar scores for each individual each time it is used. Again, staff did very well with this so **THANK YOU!!**

Thank you to all participants!! These results look very promising!!

What's next...

The questionnaire is now being given to staff as part of a larger project looking at improving the triage system and the therapeutic environment in acute wards.

Psychometric Testing:

Further testing is required to assess validity (high reliability does not guarantee validity. Validity is concerned with proving that the questionnaire does measure it is supposed to be measuring).

Full information about the findings will be published in due course.

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