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Patient evaluation of emotional care during hospitalisation (PEECH)

Validating and extending an existing survey tool in four acute services in NHS Trusts

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Aims

- Is the internal structure(factors) of PEECH similar or different to that found previously by Williams & Kristjanson (2008)?
- How does the internal structure found in this study associate with Picker measure of patient experience (Short Form & Overall impression items)?
- What can we conclude from this comparison?

We are ...

conducting in-depth, NHS-based research in order to improve our understanding both:

- a) of the nature of staff wellbeing and its relationship with patient experience, and
- b) which organisational strategies and practices are likely to have the most impact on staff wellbeing and patients experiences of health care

What we mean by patient experience

- How it feels to be a patient in terms not just physically but emotionally too - particularly the compassion, dignity and respect with which we are treated

What matters most to patients

- ‘transactional’ aspects of care (in which the individual is cared ‘for’), e.g. meets the preferences of the patient as far as timings and locations of appointments are concerned
- ‘relational’ models (where the individual is cared ‘about’), e.g. care that forms part of an ongoing relationship with the patient
- most survey-based approaches to measuring patient experiences have to date focused on the former rather than the latter

Iles V and Vaughan Smith J. (2009) Working in health care could be one of the most satisfying jobs in the world - why doesn't it feel like that? <http://www.reallylearning.com/>

Original instrument and sample

Construct/Internal structure

- Emotional comfort/3 sub-scales hypothesised: levels of security (10 items), knowing (3), personal value (10)

PEECH instrument

- Asks patients:
 - to think about all the staff they have had contact with during their current admission (19 items*)
 - about how they felt during their stay in hospital (4 items*)
 - about personal characteristics (13 questions)
- * 4-point (0-3) scale (none, some staff, most staff, all staff)

Sample (132 responses from 295)

- hospital wide (cardiology, gynaecology, orthopaedics, maternity, neurosurgery, oncology, aged care, general, ENT, plastic & colorectal surgery)

(Williams & Kristjanson, 2008)

PEECH Factors

Level of Security	Level of Knowing	Level of personal value	Level of connection
Q1 nurses help	Q9 nurses explain	Q11 staff eye contact	Q5 staff as people
Q2 nurses contact	Q10 doctors explain	Q12 staff distance	Q6 me as a person
Q4 staff competent	Q22 overall informed	Q13 staff voice	(Q3 doctor contact*)
Q7 staff respond		Q14 staff caring	(Q8 staff 24hrs*)
Q20 overall secure		Q15 staff encouraging	(* Loadings < .4)
Q21 overall supported		Q16 staff listen	
		Q17 staff expectations	
		Q18 staff facial expression	
		Q19 staff conversation	
		Q23 overall valued	

Patient survey (PEECH & Picker)

- fielded in four contrasting (based on performance & profile) acute services in NHS Trusts:
 - emergency admissions unit (low-low, n=159)
 - maternity service (low-high, n=137)
 - department of medicine for the elderly (high-low, n=26)
 - haematology service (high-high, n=101)
- 423 surveys completed
- overall response rate of 28% (range 23-41% across the four services)
- 86%(362) respondents provided answers to all 21 items, 99% to 11+ items

Methodology for identifying and comparing factor structures

- Exploratory factor analysis(EFA) of ordinal data using MPLUS v4.2 (utilises polychoric correlations); promax(oblique) rotation
- Confirmatory factor analysis(CFA) of the existing PEECH instrument and the factor structure emerging from the EFA (as a heuristic)
- Descriptive statistics for factor scores (items weighted equally) across services
- Measures of association between factor scores and Picker (short form and overall impression items)

Exploratory factor analysis – measures of fit

Number of Factors	RMSEA	RMSR	$\chi^2/d.f.$
1	0.171	0.087	13.43
2	0.118	0.054	6.88
3	0.093	0.040	4.63
4	0.069	0.028	3.04
5	0.055	0.021	2.27

RMSEA = Root Mean Square Error of Approximation; <.08 adequate <.05 good

RMSR = Root Mean Square Residual

d.f. = degrees of freedom

New Factors

Feeling informed	Treated as an individual	Personal interactions	Feeling valued
Q1 nurses help	Q5 staff as people	Q4 staff competent	Q9 nurses explain
Q2 nurses contact	Q6 me as a person	Q11 staff eye contact	Q10 doctors explain
	Q19 staff conversation	Q12 staff distance	Q16 staff listen
		Q13 staff voice	Q17 my expectations of staff
		Q14 staff caring	Q20 overall secure
		Q18 staff facial expression	Q21 overall supported
			Q22 overall informed
			Q23 overall valued

Q7 staff respond: all loadings <.4;

Q15 staff encouraging: loaded on 'Treated as an individual' & 'Personal interactions'

Comparison of factors and internal structures

Level of Security	Level of Knowing	Level of personal value	Level of connection
Q1 nurses help	Q9 nurses explain	Q11 staff eye contact	Q5 staff as people
Q2 nurses contact	Q10 doctors explain	Q12 staff distance	Q6 me as a person
Q4 staff competent	Q22 overall informed	Q13 staff voice	
(Q7 staff respond)		Q14 staff caring	
Q20 overall secure		(Q15 staff encouraging)	
Q21 overall supported		Q16 staff listen	
		Q17 my expectations of staff	
		Q18 staff facial expression	
		Q19 staff conversation	
		Q23 overall valued	

Diagnostics

- Both existing & new factor model were similar in terms of fit (RMSEA 0.13 vs. 0.11; CFI 0.93 vs. 0.95; Cronbach's 0.82 to 0.94 vs. 0.77 to 0.94)
- New factors
 - distinguished between high and low performing services within trusts
 - associated with Picker Short-Form index ($r = -0.43$ to -0.77), Picker overall impression items ($\eta = 0.32$ to 0.72)
 - Picker associations:
 - were stronger for certain factors : feeling valued>personal interactions>treatment as an individual>feeling informed
 - on occasions, varied between services

Conclusions

- Different internal structure to the original instrument
 - Larger sample size
 - Different clinical services
- Picker short-form correlates better with 'personal interactions' and 'feeling valued' factors
- 'Feeling' valued' most closely associates with Picker 'overall impression' items
- This analysis emphasises importance of relational aspects of care
- Need to develop more robust measures of these aspects of care, not just focus on transactional aspects, and study their association with patient outcomes

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Department of Health Disclaimer:

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