

The Development of a Patient Reported Experience Measure (PREM) for use in NHS ambulance services

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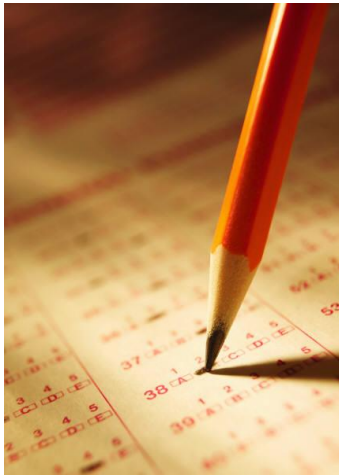
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Presentation outline

- What are Patient Reported Experience Measures (PREMS)?
- Health policy considerations
- The challenge
- Conceptual framework
- Research Methods
- A-PREM
- Potential Impact

Q: What are Patient Reported Experience Measures? (PREMS)



A: Brief questionnaires which are designed to measure the *quality of health care experiences* for patients.

Health policy considerations

Pre-fieldwork:

- High Quality Care for All: NHS next stage review (Darzi, 2008)
- Equity & Excellence: Liberating the NHS (2010)
- NHS Outcomes Framework (2010) **Domain 4: Ensuring that people have a positive experience of care**
- High Quality Care for All, Now and for Future Generations: Transforming Urgent & Emergency Care Services in England (2013)

Post-fieldwork:

- Emergency & Acute Medical Care in Over 16's: Service delivery & organisation (NICE, 2018)
- Ambulance Response Programme Review (NHS England, 2018)
- NHS Long Term Plan (NHS England 2019)

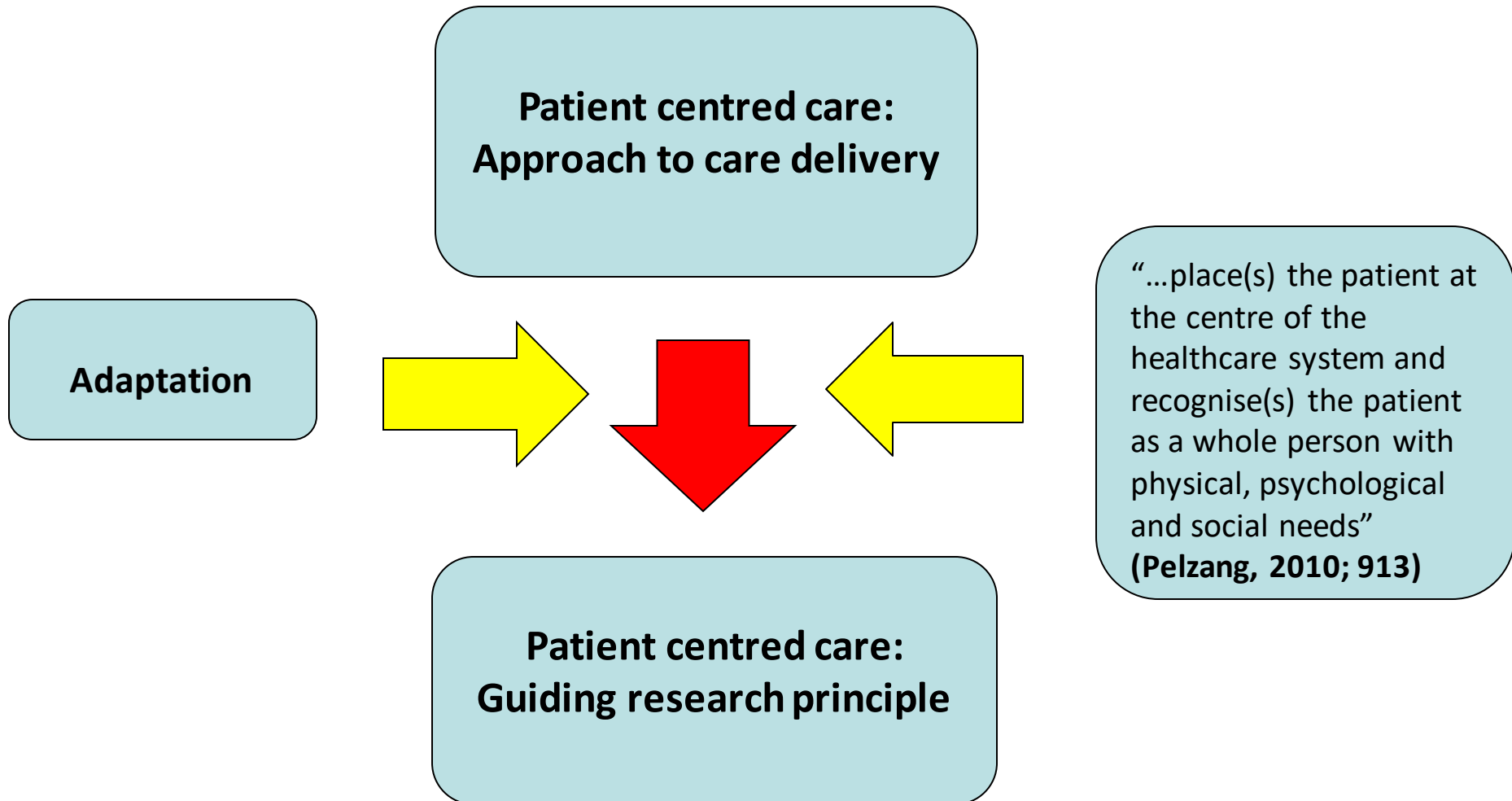
So here I had a challenge...

“Capturing feedback **regularly**, consistently and accurately then **acting on that information** to **improve patient experience** is expected of **all NHS services**” (NHS England, 2013; 26)

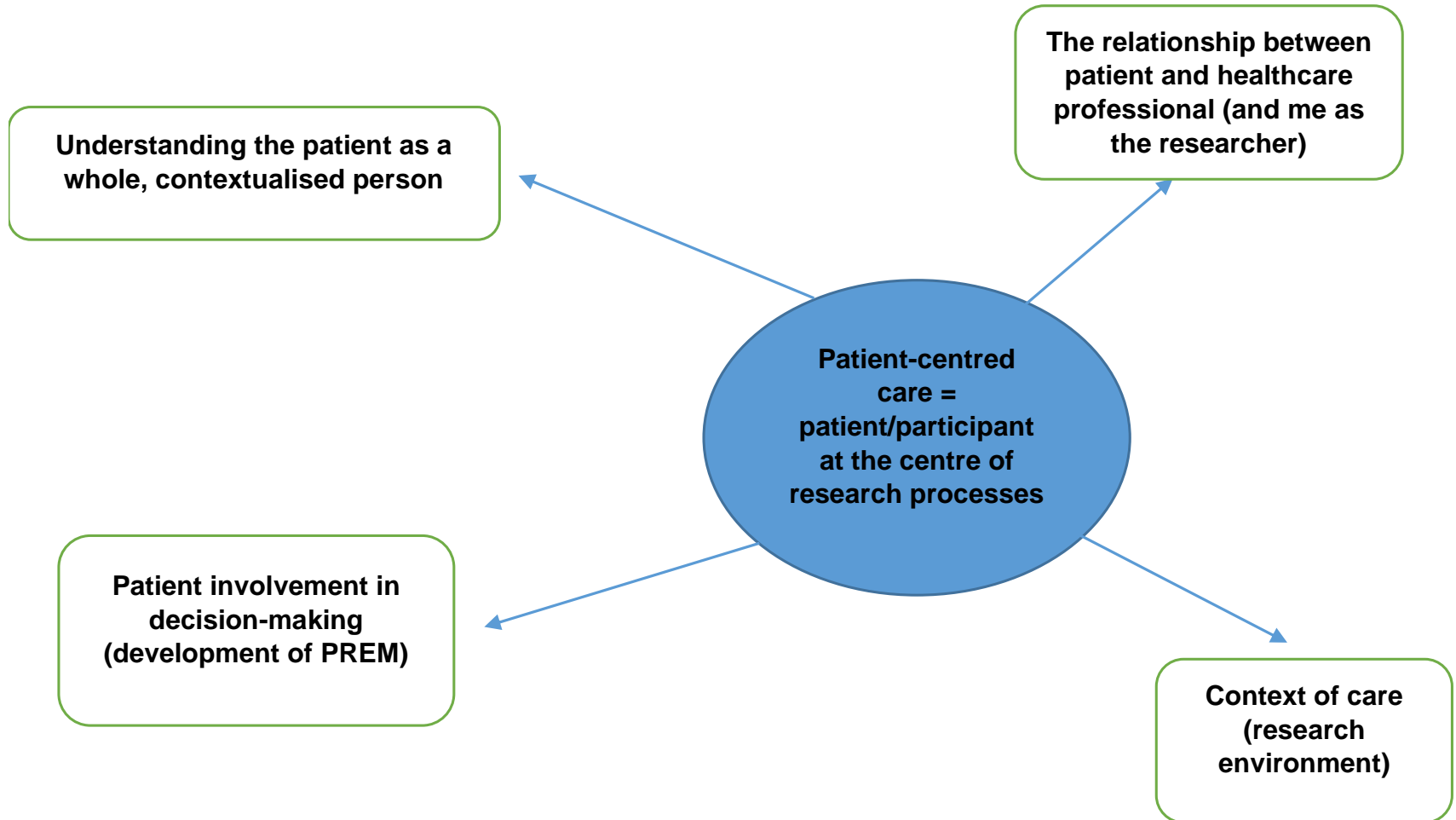
Essence of PhD research

“The strong policy focus on **measuring patient experience** has not been matched by a concerted effort to **develop the science** that should underpin it.” (Coulter et al, 2014)

Conceptual Framework: Adapted model of Patient-centred care



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Conceptual Framework: Adapted model of Patient-centred care

- What are the most valued components of the ambulance service experience from the perspective of patients?
- Which aspects of their care are patients most interested in?
- How do patients think the questionnaire should look (formatting)?
- What do patients think about the wording of the questionnaire items?

Research Methods: Scoping Review

“How are PREMs developed, validated and used in healthcare within Europe, America, Australia and New Zealand?” (2003-2014)

- 1. Development and pilot testing of the questionnaire for use in NHS Trust-based Ambulance Emergency Services Patient Survey (Dunckley et al, 2004)**
2. Development of the Category C Ambulance Service User Survey (Picker Institute, 2009)
3. Patient satisfaction with ambulance care settings: survey from two districts in southern Sweden (Johansson et al, 2011)
4. Postal survey methodology to assess patient satisfaction in a suburban emergency medical services system: an observational study (Bernard et al, 2007)

Research Methods: Scoping Review

“How are PREMs developed, validated and used in healthcare within Europe, America, Australia and New Zealand?” (2003-2014)

- Literature reviews
- Modifying pre-existing surveys
- Seeking advice from experts about topics of importance
- Focus groups (both patient and provider)
- Cognitive interviews

Research Methods: Stakeholder consultation

- **Aim:** To develop clarity around NHS managers current understanding and use of PREMs
- **Sample:** Seven National Ambulance Service Patient Experience Group (NASPEG) members working in NHS ambulance services across England and Wales
- **Method:** Telephone interviews
- **Results:** 1. Content for inclusion in new measure 2. Challenges of administering and collecting patient experience data 3. Use of patient experience questionnaires 4. Views on the use of patient experience questionnaires

Research Methods: Secondary data analysis

Research question: What are the most important components of the ambulance service experience according to service users?

Togher, F.J, Davy, Z and Siriwardena A.N. (2013) Patients' and ambulance service clinicians' experiences of prehospital care for acute myocardial infarction and stroke: a qualitative study. *Emergency Medicine Journal*, 30(11) 942-948.

Togher, F.J, O'Cathain, A, Phung V, Turner, J and Siriwardena A.N. (2015) Reassurance as a key outcome valued by emergency ambulance service users: a qualitative interview study. *Health Expectations*. pp. 1-10. ISSN: 1369-6513

Thematic Analysis: Braun & Clarke (2006)

- **Phase 1:** Familiarising yourself with the data1 studies
- **Phase 2:** Generating initial codes
- **Phase 3:** Searching for themes
- **Phase 4:** Reviewing themes
- **Phase 5:** Defining and naming themes
- **Phase 6:** Producing the report

Research Methods: Questionnaire design

Processes of importance	Experiential themes
Timeliness Arrival time of help/response time Time spent on scene	Reassurance Not left alone (physically and in terms of verbal communication)
Communication Questioning process Advice and self-management information Explanations of what has happened and what needs to happen next	Clinicians conduct Interpersonal skills (feeling listened too, distracting technique, informal style/use of humour) Feeling of being safe
Professional Efficiency	Patient centred care Involvement in decision-making (or lack of) Whole person approach (care and attention)
Transfer of care between services Knowledge transfer between healthcare professionals	

Research Methods: Semi-structured interviews

Draft PREM (v1. 101114)

Aim: To establish content and face validity and uncover where the first set of modifications needed to concentrate on

Sample: A purposive sample of patients, carers, patient and public involvement representatives (n=6)

Data collection: Participants homes or office space at the University of Lincoln.

Interview Schedule: Designed to facilitate an examination of participants thoughts and feelings about the draft PREM

Draft PREM changes

A-priori themes	Inductive themes
Content (relevance)	Missed content – to be included
Ease of completion	Instructions
Format	Length
Response type/options	Wording of questionnaire items

....Led to Draft PREM v2. 130415



Research Methods: Question Appraisal System (QAS-99)

“The questionnaire appraisal system is designed to assist questionnaire designers in evaluating survey questions, and in finding and fixing problems, before the questions go into the field.” (Willis & Lessler, 1999;1)

- 1.Instructions
- 2.Clarity
- 3.Assumptions
- 4.Sensitivity/Bias
- 5.Response categories

For each questionnaire item that a participant is evaluating they must consider each of the categories in which there could potentially be a problem.

Research methods: Question Appraisal System

STEP 1 - INSTRUCTIONS: Look for problems with any introductions, instructions, or explanations from the <i>respondent's</i> point of view.	
1a. CONFLICTING OR INACCURATE INSTRUCTIONS , introductions, or explanations.	YES NO
1b. COMPLICATED INSTRUCTIONS , introductions, or explanations.	YES NO
STEP 2 - CLARITY: Identify problems related to communicating the <i>intent or meaning</i> of the question to the respondent.	
2a. WORDING : Question is lengthy, awkward, ungrammatical, or contains complicated syntax.	YES NO
2b. TECHNICAL TERM(S) are undefined, unclear, or complex.	YES NO
2c. VAGUE : There are multiple ways to interpret the question or to decide what is to be included or excluded.	YES NO
STEP 3 - ASSUMPTIONS: Determine if there are problems with assumptions made or the underlying logic.	
3a. INAPPROPRIATE ASSUMPTIONS are made about the respondent or about his/her living situation.	YES NO
3b. DOUBLE-BARRELED : Contains more than one implicit question.	YES NO
STEP 4 – SENSITIVITY/BIAS: Assess questions for sensitive nature or wording, and for bias	
4a. SENSITIVE CONTENT (GENERAL) The question asks about a topic that is embarrassing, very private, or that involves illegal behaviour	YES NO
4b. SOCIALLY ACCEPTABLE RESPONSE : is implied by the question	YES NO
STEP 5 – RESPONSE CATEGORIES: Assess the adequacy of the range of responses to be recorded	
5a. MISMATCH between question and response categories	YES NO
5b. VAGUE response categories are subject to multiple interpretations	YES NO

Research Methods: Question Appraisal System

Question 3. The call taker listened to what I had to say

Response options:

- a. Yes, completely
- b. Yes, to some extent
- c. No, I did not feel listened to
- d. Don't know/can't remember

Participant	Question Appraisal codes selected	Supporting quotation	Revision/amendments made
3	Clarity: vague Clarity: wording	<p>“What if the patient feels that the call-taker listened to some of what they said, but not everything?”</p> <p>“Use of passive form is a bit awkward. Consider changing to “No, I did not feel that the call taker listened to what I had to say”.</p>	<p>Changed wording of question stem: “The call taker listened to everything I had to say”.</p> <p>Amended response option C from “No, I did not feel listened to” to “No, I did not feel that the call taker listened to what I had to say”</p>
10	Clarity: vague	<p>“Some patients/callers will dial 999 and expect to be able to tell their story, and when the call-taker stops them and brings them back to a script and a set of defined questions, may feel the call-taker has not listened...”</p>	<p>Changed wording of question stem: “The call taker listened to everything I had to say”.</p>

Research Methods: Question Appraisal System

Analysis technique:

- Input data into individual worksheets for each questionnaire item
- Identify which 'problems' were attributed to each questionnaire item
- Identify any patterns in 'problems' identified by participants
- Analyse the free text responses provided in relation to problems identified
- Assess whether suggestions for improvement could be implemented for further investigation in next work stream (cognitive interviews)
- Provide commentary of decision-making processes for each questionnaire item amendments subsequently made

“The fact that we are better able to identify problems than to formulate solutions underscores the desirability of additional testing after questionnaires have been revised.” (Presser et al, 2004, 125).

Research Methods: Cognitive interviews

“We use cognitive interviewing techniques to study the manner in which targeted audiences understand, mentally process, and respond to the materials we present – with a special emphasis on potential breakdowns in this process” (Willis, 2005;3)

Theoretical lens: Cognitive Aspects of Survey Methodology (CASM) (1983)

“The basic tenet of the CASM is that responses to survey questions require a series of cognitive processes, or information-processing steps, as opposed to a simple stimulus-response sequence in which the question is asked and the response produces an answer.” (Willis, 2005;35)

Research Methods: Cognitive interviews

Think aloud vs. Verbal probing

Think aloud: The researcher asks the participant to talk about the thoughts that go through their head when they read the individual questionnaire items

Disadvantage: Technique can be challenging and burdensome for participants

Solution(?): Back-channelling – “nodding, making encouraging sounds, or offering feedback, such as saying okay” (Bolton & Bronkhorst, 1996;45)

Research Methods: Cognitive interviews

Think aloud vs. Verbal probing

Verbal probing: The researcher follows up the answer to a question with a probe. A probe is used to delve deeper and obtain more specific information.

Examples:

Paraphrasing: Can you repeat the question I just asked you in your own words?

General probes: How did you arrive at that answer?

Comprehension: What does the term 'call taker' mean to you?

Research Methods: Cognitive interviews

- **Aim:** To understand how patients perceive and interpret the questionnaire items in the modified PREM.
- **Sample:** Six previous patients of the ambulance service (aimed to recruit 5-15)
- **Data collection:** Participants homes
- **Interview Schedule:** Probes developed from the Question Appraisal System study findings.
- **Analysis:** Pragmatic comparison and similarities between participant responses to each questionnaire item tested

End Product

Ambulance Patient Reported Experience
Measure (A-PREM)

A-PREM pilot study

- Sample (n=500) Self-administered postal A-PREM service patients
- East Midlands Ambulance Service NHS Trust Patients
- Exclusion criteria: Not at home, cardiac arrest
- Response rate of 21.5% (n=107)
- Data analysis using SPSS v22

A-PREM pilot study

- Significant association with a shorter wait for a first response from the ambulance service for four items measure overall experience of:
 - Call-taking ($p=0.05$)
 - Ambulance staff ($p<0.001$)
 - Ambulance overall ($p=0.001$)
 - A&E transition experience (0.023)

Potential Impact

- Measuring **differences** in patient experience **between** and **within** ambulance services and identifying improvement priorities
- Using the PREM data to **provide feedback** and inform further **education** for ambulance service clinicians resulting in **improved patient outcomes**

Thank you
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