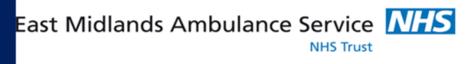
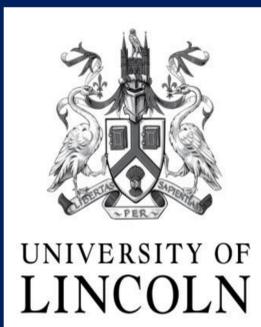


Reliability and validity of an Ambulance Patient Reported Experience Measure (A-PREM): pilot study

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Background

- There are no current prehospital ambulance Patient Reported Experience Measures (A-PREMs) routinely used to support service comparisons and improvement.
- We developed an A-PREM, generating items through secondary analysis of ambulance patient interview data, and refining the instrument using expert assessment and cognitive interviews with service users.

Aim

- We aimed to pilot the A-PREM (comprising 48 experience and 12 attribute items) in one English regional ambulance trust to investigate service user acceptability, reliability and construct validity of the instrument.

Method

- Ambulance users attended by a regional ambulance service within the previous six months, excluding those suffering cardiac arrest, were sent a self-administered A-PREM.
- Returned questionnaires were entered into Microsoft Excel and imported into SPSS v22 for analysis.
- Experience items were recoded to range from 1 (worst recorded experience) to 3 (best recorded experience).
- We conducted descriptive analysis for item frequencies and missing values. Reliability analysis was carried out for potential scales. Tests of correlation and association were conducted where appropriate.

Results

- Overall 111 of 500 (22.2%) A-PREMs were returned.
- Most calls were initially to 999 (65%) rather than NHS 111 (17%), just over half the responders had spoken with a call-taker. Most (63%) had called the ambulance on more than one occasion. Results generally showed positive experiences.
- Four separate experience scales encompassing call taking (AmbCallScore, $\alpha=0.91$), care at scene (AmbCareScore, $\alpha=0.90$), care on leaving the patient (AmbLeaveScore, $\alpha=0.69$), and care on transport (AmbTranScore $\alpha=0.71$), showed satisfactory to high internal consistencies.
- AmbCallScore, AmbCareScore and AmbLeaveScore showed significantly higher scores (ANOVA) with shorter wait to first response.
- There were significant associations with shorter wait for first response for four items measuring overall experience of call-taking (χ , $p=0.05$), ambulance staff ($p<0.001$), ambulance overall ($p=0.001$) and A&E ($p=0.023$).
- No significant differences for overall measures or scales by sex or age of responder, whether transported to hospital or not and whether it was their first experience of the ambulance service.



Limitations and strengths

- Small sample as part of a pilot study.
- Response rate low but comparable with other surveys.
- High completion rate and low numbers of missing data.
- Similar numbers of male and female respondents and range of age groups.

Conclusion

- The A-PREM showed evidence of acceptability, reliability, validity in this pilot study. Our findings confirm that the instrument should be tested more widely to confirm its psychometric properties and sensitivity to differences in setting and care processes.

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