The measurement of patients' expectations for health care: a review and psychometric testing of a measure of patients' expectations

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Executive summary

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Executive summary

Background

There is widespread recognition of the importance of evaluating services from consumer perspectives. What people expect from their health care compared with their experiences may influence their satisfaction with it. There is also some evidence that patients who receive the health care they expect may recover better than patients who do not.

However, there are many definitions of what patients expect from health services, relating, for example, to different types of expectations (e.g. desires, predictions) and health-care structures (e.g. buildings, equipment, staff), processes (e.g. waiting lists, the way that staff and patients interact) and health outcomes (e.g. the effects of the health service on patients' health, including patients' assessments of their health) and different visit types/episodes. There is also no well-tested, multidimensional questionnaire to measure these different expectations.

Objectives

We aimed to examine existing models and definitions of patient expectations in the literature, to explore expectations with patients and to develop and test an expectations questionnaire, informed by both approaches.

The study aimed to address multiple research questions, summarised below:

- How do expectations for different health-care settings compare?
- What are the most common types of met and unmet expectations expressed by patients, and do these vary by health-care setting?
- Are expectations influenced by respondents' characteristics, behaviours and circumstances?
- What are the psychometric properties of the developed expectations questionnaire (in different health-care settings)?
- How does mode of questionnaire administration (face-to-face interview or self-administration) affect the expectations elicited?
- How does pre-visit expectation type affect post-visit met expectations and patient satisfaction?

Methods

The narrative review

A comprehensive search was run on the following databases: AMED (Allied and Complementary Medicine Database), British Nursing Index (BNI), CINAHL (Cumulative Index to Nursing and Allied Health Literature), EMBASE, MEDLINE, PsycINFO, ASSIA (Applied Social Sciences Index and Abstracts), The Cochrane Library, Intute, Sociological Abstracts, Web of Science as part of Web of Knowledge and the HTA (*Health Technology Assessment*) reports. We searched for any type of literature published or written between 2000 and 2009, and for reasons of practicality we searched only for publications in the English language. In the following databases, the term 'patient expectation OR patient expectations' was searched: ASSIA, The Cochrane Library, Intute

(Social Sciences and Medicine), Sociological Abstracts, Web of Knowledge. In the remaining databases a number of terms, synonyms and subject headings for 'patient expectations' and 'health care' were used. The following databases were also searched to retrieve any unpublished or grey literature: Index to Theses, Dissertations & Theses and OpenSIGLE (System for Information on Grey Literature in Europe). A data extraction form was used and the approach was a narrative review.

A total of 211 papers were included in the review from a total of 20,439 titles and 266 abstracts identified. Most research designs were weak with small or selected samples. A theoretical frame of reference was rarely stated. In terms of measurement, the origin of questions about expectations was often absent, questions were frequently untested and those with reported reliability or validity data had generally mixed results. Little attempt was made to examine expectations in detail or present findings in terms of contribution to existing knowledge.

The studies of patients

We first conducted semi-structured interviews with 20 GP patients and 20 cardiology clinic patients in Norwich, UK, to ascertain patterns in expectations. These results, together with the literature review, informed the development of an expectations questionnaire that aimed to measure pre-visit ideal and realistic expectations and post-visit experiences (met expectations). This was piloted on a small number of patients, refined and then field tested on 833 people in Norwich, Essex and Greater London, UK, before and after their consultations in general practice and hospital outpatient departments. The data also provided information on whether expectations between GP and hospital outpatient populations varied, and whether pre-visit ideal and/or realistic expectations predicted post-visit experiences (met expectations) and patient satisfaction. Caution is needed as the samples of patients were not randomly sampled. This is acceptable for the psychometric testing, but the survey distributions may not be generalisable.

Results

The expectations measures met acceptability criteria for reliability (internal consistency); items and subscales also correlated at least moderately with those variables with which they would be expected to be associated with, supporting their validity. The Cronbach's alphas for the 27 items each forming the pre-visit ideal and realistic subscales and the post-visit experiences (expectations met) subscale all exceeded the threshold of 0.70 in each mode of administration and sample type.

The total sample and self-administration samples met the threshold criteria adequately for item–total correlations within the subscales, although a small number of item–total correlations in the smaller pre-visit interview samples failed to reach 0.3. Most item–item correlations reached or exceeded the threshold for acceptability. Overall, patients' pre-visit expectations of what would happen in reality were lower than their ideals or hopes about what would happen. Most of their post-visit experiences (met expectations) fell in-between, indicating some unmet expectations (e.g. on being given advice about health/condition, cause of condition, how to manage condition; benefits/side effects of treatments) and some exceeded expectations. GP patients had higher pre-visit expectations than hospital patients, and they had higher post-visit met expectations. The results indicate higher ideal expectations and support the validity of the measures, as ideals are anticipated to be higher than real life. Post-visit expectations (met) were lower than pre-visit ideals, but similar to, or slightly worse, than pre-visit realistic expectations. Correlations between ideal and met expectations were lower than those between realistic and met expectations, supporting their validity, although patients' pre-visit ideal and realistic expectations were only

modestly associated with their post-visit experiences at best (as might be expected, reflecting the uncertainty inherent in expectations being delivered because of various factors outside of the patients' control).

The highest ideal expectations, particularly among the GP sample, included expectations about cleanliness, information about where to go, having convenient appointments, being seen on time, helpfulness of reception staff, knowledge of the doctor, having a clear and easy to understand doctor, involvement in treatment decisions, and reduction in symptoms/problems. The lowest ideal expectations related to the five clinical procedures (physical examination, tests/investigations, diagnosis, prescription and referral on) and being given the opportunity to discuss problems in life.

The lowest met expectations, particularly among the hospital sample, included being seen on time and the two items requested by the ethics committee: being given a choice of hospitals if referred and doctors to consult (not included in scaling as not applicable to all patients). Other items that had low met expectations were helpfulness of reception staff, doctor being respectful and treating with dignity (hospital sample), doctor knowledgeable about condition (hospital), being given reassurance, advice about health/condition, information about cause of condition and how to manage it, information about benefits/side effects of treatment and an opportunity to discuss problems in life, and the three items on outcome expectancies. Some of these (relatively) unmet expectations are understandable, as they refer to unpredictable outcomes, but others suggest some disappointments regarding information provision and doctor empathy/reassurance.

Overall, GP patients reported higher pre-visit expectations and post-visit met expectations, particularly for items relating to structure of health care and doctor–patient communication style. Spearman's rank-order correlations between subscale domains were strongest overall between the structure and process of health care, doctor–patient communication style and doctor's approach to giving information. These are all common indicators of the quality of health care, supporting the validity of the measures.

About three-quarters of the total sample stated that their ideal hopes were 'very important' to them overall, and over half felt that they deserved these to be realised in reality 'a lot'. The most common influences on expectations were seen to be their previous consultations/experiences of health services and health-care staff/professionals. There were few associations between expectations and other characteristics.

The item means within expectation-type subscales were again generally similar between samples. The item–total correlations all well exceeded the acceptability threshold. Cronbach's alpha was not improved, or more than slightly improved (e.g. item 27 pre-visit realistic expectations), by item removal. None of the item–item correlations approached or exceeded the 0.75 threshold for item redundancy. Cronbach's alphas (internal consistency) were not improved overall by item removal. In summary, the reliability of the expectations measures for GP and hospital patients met criteria of acceptability.

The pre-visit ideal and realistic expectations subscales were not independently associated with single-item summary ratings of overall satisfaction or overall expectations met, although the post-visit experiences (expectations met) subscale was a significant predictor of both (as would be expected). GP rather than hospital patients were also independently predictive of expectations met, which might be due to the greater experience that people have with attending GPs than with attending hospital clinics, and hence a greater ability to calibrate expectations appropriately (i.e. form realistic expectations that are subsequently met). Other predictors were having no/little anxiety/depression and older age (satisfaction) and fewer effects of health on quality of life (met

expectations). Differences due to age deserve future study to ascertain whether these arise from unrealistic expectations (perhaps because of expectations being formed under different health-care or personal environments) or a failure of health-care staff to deliver the particular needs of elderly patients.

Conclusions

A fully integrated model of expectations needs to be dynamic, multidimensional and able to identify its determinants, including sociocognitive components. Furthermore, it needs to be able to model potential causal pathways between expectations, attitudes, behaviours and patient-based health outcomes. Past research has generally failed to propose such a model. It is hoped that the current research, particularly following the further development and utilisation of the expectations instrument developed here, may aid in such model development. However, the initial results of the patient surveys found that there were relatively few independent predictor variables of ideal, realistic or met expectations, indicating the complexity of the topic.

The descriptive findings revealed that most patients ideally expected site cleanliness, information about where to go, convenient appointments, to be seen on time, helpfulness of reception staff and a knowledgeable doctor, a clear and easy to understand doctor, involvement in treatment decisions and a reduction in symptoms/problems. However, the expectations least likely to be met, particularly among the hospital sample, included being seen on time and the two items requested by the ethics committee: being given a choice of hospitals if referred and doctors to consult (not included in scaling as not applicable to all patients). Other items that had low met expectations were helpfulness of reception staff, doctor being respectful and treating with dignity (hospital sample), doctor knowledgeable about condition (hospital), being given reassurance, advice about health/condition, information about cause of condition and how to manage it, information about benefits/side effects of treatment and an opportunity to discuss problems in life, and the three items on outcome expectancies. These all have implications for the quality of health services and their improvement. Awareness of patients' expectations, and unmet expectations, among health service staff should enable staff to understand the patients' perspective and improve communication – and met expectations. This study examined the perspective of the patient only. As there were no observations of consultations in this study, or questioning of health service staff, it is not possible to examine the extent to which any expectations might have been unrealistic, or inappropriate, at that time in a dynamic process (e.g. being given a diagnosis or other procedures).

Recommendations for research

Areas of further research that could inform policy and practice include:

- investigation of patient expectations in other specialities, regions and samples and across different modes of administration (including, potentially, a self-administered questionnaire)
- longer-term follow-up to assess any effects of met or unmet expectations on recovery and on future expectations – as part of longitudinal studies to ascertain the kinds of factors that influence expectation formation and change
- examination of unrealistic expectations and associations with health-care need and demand, and the development of appropriate health-care strategies, whether these involve communication about the health-care process, the better training of NHS staff or the renovation of administrative or logistic health policies.

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Publication

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First is the commissioned route. Suggestions for research are actively sought from people working in the NHS, from the public and consumer groups and from professional bodies such as royal colleges and NHS trusts. These suggestions are carefully prioritised by panels of independent experts (including NHS service users). The HTA programme then commissions the research by competitive tender.

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The research reported in this issue of the journal was commissioned by the National Coordinating Centre for Research Methodology (NCCRM), and was formally transferred to the HTA programme in April 2007 under the newly established NIHR Methodology Panel. The HTA programme project number is 07/58/01. The contractual start date was in November 2007. The draft report began editorial review in March 2011 and was accepted for publication in December 2011. The commissioning brief was devised by the NCCRM who specified the research question and study design. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HTA editors and publisher have tried to ensure the accuracy of the authors' report and would like to thank the referees for their constructive comments on the draft document. However, they do not accept liability for damages or losses arising from material published in this report.

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