Title: Australian public hospital inpatient satisfaction related to early patient involvement and shared decision-making in discharge planning.

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Abstract:

Background: Surveys of hospital inpatient satisfaction may help develop actionable plans for quality improvement, and patients have preferred to give feedback during admission at the point of service compared to after discharge. However, patient satisfaction measurement has often been done by questionnaires post-discharge, and without focusing on an Australian General Internal Medicine setting.
**Aims:** To understand patients’ perceptions of their admission experiences in an Australian public teaching hospital’s General Internal Medicine unit, and to understand opportunities for quality improvement.

**Methods:** A prospective study of 50 inpatients of a General Internal Medical unit at an Australian public teaching hospital was carried out using a patient satisfaction questionnaire given to patients on the day of discharge.

**Results:** Patients perceived deficits in early communication about discharge destination planning, and provision of written discharge instructions. Responses highlighted the importance of checking with patients to elicit further information that was not previously captured during initial history-taking, patient-centred communication to enable informed consent and decision making, use of language readily understandable to laypersons, and checking for patients’ understanding of messages as communicated by the treating clinician.

**Conclusions:** In an Australian General Internal Medicine service, early involvement and shared decision-making in discharge planning are valued by patients. Incorporating checking of patients’ understanding of diagnoses, management, discharge instructions, and follow-up plans into ward round routines may benefit patient satisfaction. This study stimulates further research into use of a proforma to capture and check patients’ understanding of discharge diagnoses and plans.

**Key words:**
Patient satisfaction, shared decision-making, discharge planning, public hospitals, inpatients.

**Introduction**
Patient satisfaction has been incorporated in the healthcare mission, including in America\(^1,2\) with emergence of pay-for-performance initiatives centred on patient satisfaction\(^3\) and avoidance of patient complaints\(^4\) and also in the UK.\(^5\) In a study of 202 American hospitals, healthcare process quality was at least as important in predicting patient satisfaction, compared to clinical competence and even treatment outcomes.\(^6\) Patient satisfaction surveys may help develop actionable plans for quality improvement.\(^4,5\) Patients have expressed a preference to give feedback during admission, at the point of service, compared to after discharge.\(^7\) Some patients have preferred to give feedback face-to-face, yet patients may fear reprisal from staff for negative feedback,\(^7\) hence an anonymous written questionnaire may facilitate accuracy.

Patient satisfaction measurement has often been done by questionnaires post-discharge, and without focusing on an Australian General Internal Medicine setting. There was little literature regarding previously validated tools in prevalent use or in a General Internal Medicine setting for measuring patient satisfaction.\(^8\) There has been some development of an inpatient satisfaction survey in rehabilitation settings in Saudi Arabia,\(^9\) and assessment of Italian caregiver satisfaction in cancer palliative care.\(^10\) There has been an attempt to assess the validity of patients’ ratings of physicians by comparing them with physicians’ own perceptions about their performance.\(^11\) Australian patient surveys have used differing methodologies, largely questionnaires post-discharge,\(^12\) and with relative lack of provisions for people who speak little English.\(^13\) Given the lack of a standard nation-wide tool, the Australian Commission on Safety and Quality in Health Care has provided an Australian Hospital Patient Experience Question Set subsequent to the design of the present study, which has significant concordance with this study’s questions.\(^14\) This study used a survey at the point of discharge, to capture patients’ perceptions of their admission experiences in an
Australian public teaching hospital’s General Internal Medicine unit, and to consider opportunities for quality improvement regarding patient satisfaction.

**Materials and Methods**

A prospective study of General Internal Medicine inpatients at an Australian public teaching hospital was carried out between 15 August 2015 and 18 December 2015, using a written questionnaire on the day of discharge. The study population was recruited by convenience sampling, with the questionnaire given by a registrar external to the treating team. Inclusion criteria were admission under General Internal Medicine, care by the same consultant physician throughout hospitalisation, and English-speaking, to enable comprehension of survey questions. Exclusion criteria were an acute confusional state (n=0) or dementia (n=2) that would preclude independent completion of a survey, and for which patient versus carer satisfaction would be difficult to assess. All participants gave informed consent and no patients meeting selection criteria declined to participate. For a representative sample to attain saturation, a sample size of 50 study participants was predetermined. This is consistent with recommended sample sizes for phenomenological studies of at least six or 5-25 participants.

A multiple-choice questionnaire was devised specifically for the study, in absence of previously-available well-validated tools. For a public hospital setting in Australia, questions regarding healthcare expenses were not studied, whilst this was the most important reason for patient dissatisfaction with hospital services in China. To focus on opportunities for improvement for the ward clinician rather than broader system factors, questions regarding
access block were not included, although time spent in a waiting room may impact negatively on patient satisfaction.\textsuperscript{19} Whilst technical as well as interpersonal aspects of hospital care are significant for patient satisfaction,\textsuperscript{20} patients may not comment on clinical competence with medical insight. Therefore, the study focused on evaluating trust and control in shared decision-making, comfort and dignity, interpersonal respect, and information provision. These factors are consistent with cultural dimensions described by social psychologist Hofstede\textsuperscript{21} - with Australian culture having been described as being high in individualism (versus collectivism), indulgence, masculinity (defined by Hofstede as prioritising winning and competition) and uncertainty avoidance, and low in power distance (social hierarchy) and long-term orientation (commitment to established norms).\textsuperscript{22} Patient-perceived physician empathy has been shown to influence patient satisfaction,\textsuperscript{23} and questions were used to assess these factors.

To consider effects of demographic factors of age, sex, and ethnicity on patient satisfaction, patients optionally provided these details. Anonymity of participants and confidentiality of their responses was ensured by using numerical codes to uniquely identify questionnaires and disposing questionnaires at the end of data collection. Regarding human research ethics approval, the project was approved as a quality improvement audit of routine care, with no reporting of identifiable individuals. P-values for age-group differences were calculated using Excel. Excel was used to calculate the Pearson correlation coefficient where the relationship between patient satisfaction and a question was not related to clinician-patient dimensions described above, specifically regarding room-sharing between sexes.

\textbf{Results}
The response rate for study patients was 100%. Results are shown in Table 1.

As a marker of satisfaction, an optimal answer was given by 94% of patients regarding overall feelings of having been treated with respect and dignity. Questions received an optimal satisfaction response for at least 70% of responses, except for 62% of responses to question 9 regarding enough notice about expected discharge, and 52% of responses to question 10 about written discharge instructions. All patients had a discharge letter sent out to the patient’s primary healthcare provider.

There were also other opportunities for improvement, regarding: checking for information from patients that had not been elicited by the end of history-taking, patient-centred communication to enable informed decision-making about treatment options, use of language readily understandable to laypersons, and checking of what patients understood from communication by the treating clinician. Suboptimal satisfaction was observed in 10-20% of patients for the following questions: question 1 about information elicited by the treating specialist, question 3 about understandable answers to patients’ questions, question 4 about trust in the treating doctors, question 5 about shared decision-making, and question 8 about informed consent. These responses indicate that some patients felt they lacked sufficient opportunity to contribute to and take ownership in their care, regarding management decisions, and also regarding providing information for clinical assessment. However, not all patients perceived receiving more information to be more satisfying. Whilst 12% of patients said they did not receive enough information in question 6, 4% said they received too much information.
This was a largely monocultural (Caucasian) English-speaking target population; with one patient of Aboriginal heritage; this was representative of the population demographics of the catchment area. Of 22 patients who supplied demographic data, differences observed were: patients aged under 65 years were more likely to say they were not given enough information about their condition or treatment, compared to patients aged at least 65 years (0.18 compared to 0.00, \( P = 0.09 \)). Patients aged under 65 were more likely to say they had been given written information about post-discharge instructions, compared to patients aged at least 65 (0.01 compared to 0.18, \( P = 0.11 \)). No significant sex difference was demonstrated in this study population. The Pearson correlation coefficient between question 12 (perception of overall respect and dignity) and question 2 (room-sharing between sexes) was 0.10.

**Discussion**

The biggest opportunities for improvement identified were about early involvement of patients in discharge planning and provision of written discharge instructions. For discharge letters expressly written for medical professionals, simply giving a copy to patients and their families may not necessarily achieve understanding. Misunderstanding of discharge instructions has been linked to staff use of medical terminology,\(^24\) an issue that might improve with lay terminology, a special discharge nurse, or use of diagnosis-specific written information sheets. Further analysis also suggested generational differences regarding perceptions of lack of written discharge instructions, either because of differences in expectations from patients about needing to be informed, or in the actual care delivered. Younger patients might expect to be informed at a level greater than what was delivered.
Older patients may possibly not have received written instructions before discharge; possibly if carers were informed instead.

Other identified opportunities for improvement related to clinicians' attentiveness to patients' concerns, clarification of patients' understandings, and communication about treatment options. Dedicated training in these consultation processes has been shown in systematic reviews to improve patient satisfaction. Considering possible ways to further facilitate implementation of these consultation processes, at a system level, considerative checklists may be used to incorporate important steps into routines. Checklists have been used successfully in improving healthcare quality and safety, such as the World Health Organisation surgical safety checklist. However, in studies of barriers to surgical safety checklist implementation in Australia, in Belgium, and in systematic reviews, perceived disruption to workflow and conflicting priorities of stakeholders were barriers to embedding new processes into existing work routines. For a tool akin to a checklist that minimises workflow disruption, it is suggested that using a simple template proforma with headings for writing the diagnoses, treatment, and follow-up plan, in layperson language, may be a feasible strategy to achieve more effective communication. Further research into achieving routine use of this on ward rounds would be valuable.

Strengths of this study include avoidance of selection bias by delivering surveys during a patient's admission rather than by postal mail, and administration by staff external to the treating medical unit. The latter was also an enabling factor for honest feedback, without fear of reprisals. Collecting responses in-hospital avoided recall bias by enabling timely response at the point of care.
Limitations may include no data collection from patients discharged against medical advice - patients who may have been unwilling to stay to complete a survey may have been more likely to give negative survey responses. Multiple-choice questions used categorical answers, rather than Likert scale answers which could have made it possible to assess the degree to which patients’ expectations were unreached, met, or exceeded.²⁹ Cronbach’s alpha could not be used as a measure of internal consistency between questions because questions were not unidimensional. A single-centre study might not reflect the experience of General Internal Medicine patients across all Australian public hospitals. Nevertheless, perceived opportunities for improvement regarding early notice of discharge and written discharge instructions are likely to be relevant across public hospitals. This study provides basis for research into roles of interventions such as a proforma to aid patient-centred discharge communication.

**Conclusion**

Point of care feedback about inpatient satisfaction identified opportunities for improvement, particularly highlighting early communication about discharge destination planning, and provision of written discharge instructions, which a copy of a discharge letter written to a primary healthcare provider may not effectively provide. Patients saw opportunities for improvement regarding clinicians checking for information that patients wished to give, and checking understanding of information received. Incorporating increased use of these processes into existing routines, such as a patient-centred discharge proforma using lay
terminology, may provide benefit for inpatient satisfaction. This provides helpful directions for further research into patient involvement in discharge planning upon admission, and patient-centred written discharge proformas.

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### Table 1

| Question 1: In your opinion, had the specialist you saw in hospital been given all the necessary information about your condition? |
|--------------------------------------------------|
| Yes, definitely                                  | 78% |
| Yes, to some extent                              | 14% |
| No                                               | 0%  |
| Don't know / can't remember                      | 8%  |

| Question 2: When you were first admitted to a bed on a ward, did you share a sleeping area, for example a room or bay, with patients of the opposite sex? |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Yes                                                                                                                                  | 26% |
| No                                                                                                                                  | 74% |

| Question 3: When you had important questions to ask a doctor, did you get answers that you could understand? |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Yes, always                                                                                                                        | 74% |
| Yes, sometimes                                                                                                                     | 18% |
| No                                                                                                                                  | 2%  |
| I had no need to ask                                                                                                               | 6%  |

| Question 4: Did you have confidence and trust in the doctors treating you? |
|---------------------------------------------------------------------------|
Yes, always 82%
Yes, sometimes 16%
No 2%

Question 5: Were you involved as much as you wanted to be in decisions about your care and treatment?
Yes, always 78%
Yes, to some extent 16%
No 6%

Question 6: How much information about your condition or treatment was given to you?
Not enough 12%
The right amount 84%
Too much 4%

Question 7: Were you given enough privacy when discussing your condition or treatment and when being examined or treated?
Yes, always 96%
Yes, sometimes 0%
No 4%

Question 8: Beforehand, did a member of staff explain the risks and benefits of the operation or procedure in a way you could understand?
Question 9: Were you given enough notice about when you were going to be discharged?

- Not applicable / no answer: 16%
- Yes, completely: 70%
- Yes, to some extent: 10%
- No: 4%
- I did not want an explanation: 0%

Question 10: Before you left the hospital, were you given any written or printed information about what you should or should not do after leaving hospital?

- Not applicable / no answer: 26%
- Yes: 52%
- No: 22%

Question 11: Did hospital staff take your family or home situation into account when planning your discharge?

- Not applicable / no answer: 6%
Yes, completely 76%
Yes, to some extent 6%
No 4%
It was not necessary 8%
Don’t know / can’t remember 0%

Question 12: Overall, did you feel you were treated with respect and dignity while you were in the hospital?

Yes, always 94%
Yes, sometimes 4%
No 2%