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pharmaceutical company advertising literature, the skills examined here (and in the MRCPsych critical appraisal paper) are fundamental to many aspects of clinical practice. Despite there being many sources of 'ready-made' appraisal such as the Cochrane Collaboration and *BMJ Clinical Evidence*, clinicians may still need to appraise individual studies prior to making treatment decisions, undertaking audits, writing reports and business cases. We are pleased such skills appear to develop with training but are concerned that the skills may attenuate if not used frequently.

Implications of the study

In order to draw valid and clinically relevant conclusions from research data, we must retain our critical 'eye'. Psychiatrists need to be able to critically appraise various types of evidence, including that presented by drug companies. This study suggests that the MRCPsych critical appraisal paper may help trainees develop these skills; but we need to maintain them beyond the MRCPsych examination.

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Declaration of interest

None.

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PETER LAWRENCE ZAKI LABIB AND LISA BROWNELL

Factors affecting patient satisfaction with the psychiatric ward round: retrospective cross-sectional study

AIMS AND METHOD

A questionnaire was distributed to patients in a psychiatric hospital in Birmingham, UK, to identify the factors that affect their satisfaction with the ward round.

RESULTS

The questionnaire was completed by 42 patients (53% response

rate). Waiting time was the only variable to be significantly correlated with total score of patient satisfaction. Regression analysis also identified diagnosis and patients meeting their consultant before the first ward round as significant predictors of patient satisfaction.

CLINICAL IMPLICATIONS

Reducing waiting time and ensuring that the consultant meets the patient before the first ward round would make a significant improvement to the in-patient experience, without causing much disruption to standard clinical practice.

The ward round plays an essential role in the review and management of patients in psychiatric hospitals. It has been shown that up to a half of patients report negative experiences relating to the ward round.¹ Patients have found it uninformative and stated that it can provoke anxiety and distress.^{2–4} Several studies have looked at the effects that demographic and ward round variables have on patient satisfaction with the ward round. Most of the factors that have been investigated, including age, gender, ethnicity and diagnosis, have yielded contradictory results.^{1, 4–6} This study was conducted to investigate some variables that had not been previously researched, as well as the aforementioned variables. Our main focus was to identify factors that affect patient satisfaction

with the ward round. By identifying these factors, changes to standard practice could be implemented to improve the in-patient experience.

Method

Patients

Patients were purposively sampled from five wards (four general adult wards and one mother and baby unit) of a psychiatric hospital in Birmingham over 1 month. Patients were excluded if they lacked capacity to consent to the study, their consultant practised novel ward round

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procedures, or if they were on specialist wards that had significantly different ward rounds to those conducted on the general adult wards. Capacity was assessed by sending each consultant a list of their patients and asking them to state which patients lacked capacity. Patients were individually approached on the ward and given the questionnaire within 1 week of the consultant's assessment to minimise the likelihood of patients no longer having capacity when they were given the questionnaire.

In total, there were 105 in-patients on the five wards; 25 were excluded because they either lacked capacity or did not fulfil the inclusion criteria. Of the 80 patients who met the inclusion criteria, 42 (53%) chose to participate in the study (40% of the total ward population).

Study questionnaire

A questionnaire asking about different aspects of the ward round was distributed to patients. It contained sections on patient characteristics (gender, ethnicity, diagnosis, admission status and whether the patient met the consultant before the first ward round); aspects of the ward round (waiting time, number of people present and length of ward round); patients' opinions of the ward round; and a fourth section for additional comments. The third section comprised 12 statements about the ward round (Box 1), with responses presented on a five-point Likert scale (0–4; strongly agree, agree, neither agree nor disagree, disagree, strongly disagree). This generated a total score between 0 and 48 based on the Likert responses. The statements chosen were based on previous research studies investigating ward round satisfaction and on unpublished data from the Birmingham mental health service user group, User Voice (draft user questionnaire on ward rounds). By including a section for

additional comments, we were able to observe any recurring themes that patients felt affected their satisfaction with the ward round that had not been covered by the questions in the other sections of the questionnaire, although no formal theme analysis was performed. To assess the validity and the reliability of the questionnaire, it was distributed to the consultants who were responsible for the care of the patients.

Statistical methods and data analysis

Descriptive statistics were calculated using patients' data; answers on the questionnaires and the results are shown as mean (s.d.) (range). Dichotomous variables were analysed using independent sample *t*-tests and continuous variables were analysed using Pearson correlations. Stepwise regression was performed to assess whether any of the variables were predictors for total score. Cronbach's α and item-total correlation were performed to assess the questionnaire's reliability. Data were analysed using SPSS version 14.0 for Windows.

Results

Patient characteristics

Of the 42 patients who took part in our study, 29 were men (69%) and 13 were women (31%). The mean age was 41.1 years (s.d. = 13.8, range 20–70). The age and ethnicity of the 42 participants were not significantly different from all hospital patients at the time of the study ($P=0.971$ and $P=0.164$ respectively), but the ratio of males to females was significantly different ($P=0.019$). With regard to diagnosis, 29 patients (69%) were diagnosed with psychoses, 10 (24%) with neuroses and 3 (7%) had not been diagnosed. More than half of the participants ($n=24$; 57%) were detained under the Mental Health Act 2007 and 18 (43%) were informal patients. The majority ($n=28$; 67%) reported that they had met their consultant before the first ward round.

Questionnaire's validity and reliability

The questionnaire was assessed as having good face validity, based on the positive feedback we received from the consultants; its good reliability was demonstrated by Cronbach's $\alpha = 0.845$. Item-total correlation gave Pearson correlations ranging from $P=0.434$ to $P=0.831$, showing moderate to strong correlations between individual questions and the total score.

Satisfaction with the ward round

The mean waiting time was 32.0 min (s.d. = 52.9, range 0–240). The mean number of people present in the ward round was 5.0 (s.d. = 1.6, range 2–10) and the mean length of ward round was 13.0 min (s.d. = 7.2, range 3–30).

The total score of the 12 Likert-scale responses was normally distributed (Kolmogorov–Smirnov with Lilliefors significance correction: $Z=0.126$, $P=0.09$). Of the

Box 1. The statements in section 3 of the ward round satisfaction questionnaire used in our study.¹

1. Before my first ward round, I felt prepared for what to expect.
2. Before my first ward round, I felt that I had been given enough information about how the ward round works.
3. I feel anxious when I'm waiting outside before the ward round.
4. I feel fine about the number of people who are in the ward round.
5. I feel that the people in the ward round are introduced to me to a satisfactory level.
6. I like the layout of the room.
7. I find the ward round a helpful experience.
8. I feel fine during the ward round.
9. I have concerns about confidentiality in the ward round.
10. I am happy with the level of input I have in any decision-making that happens in the ward round.
11. I feel that the things that are talked about in the ward round are explained to me fully so that I understand what has been discussed.
12. Overall, I have a positive opinion of the ward round.

1. Based on questions and findings in previous research.^{1,3}



variables assessed, waiting time was the only statistically significant variable affecting patient satisfaction with the ward round ($P = 0.009$) (Table 1). Other variables assessed (age, number of people present and length of ward round) were not significant (Table 2). Stepwise regression showed that 32% ($R^2 = 0.323$) of the variability of the total score can be explained by the waiting time, the diagnosis and whether or not the patient had met their consultant before their first ward round. A higher total score is therefore associated with shorter waiting times, psychotic rather than neurotic diagnoses, and meeting the consultant before the first ward round.

Additional comments

Additional comments were included in 23 (55%) of the returned questionnaires: 5 comments were positive, 4 neutral and 24 negative. Of the five positive comments, three patients stated that they liked their doctor, one patient enjoyed the ward round experience and one appreciated that 'the doctor was comprehensive'. No recurring themes were noted in the neutral comments which all referred to personal one-off experiences such as one ward round being delayed until the next day. Of the 24 negative comments, 6 (25%) related to the patients' perception that information was being withheld from them, 3 (12.5%) were made about there being too many people in the ward round, 3 (12.5%) related to patient anxiety and 3 (12.5%) stated that the patient felt that the doctor had not listened to them during the ward

round. The remaining nine comments (37.5%) were non-specific and related to personal experiences.

Discussion

Our study showed that waiting time was the only significant variable affecting patient satisfaction with the ward round. Age, number of people present and length of ward round did not appear to be significant factors in affecting patient satisfaction. White & Karim⁴ also showed that having an exact appointment time and knowing the approximate time of when the patient would be seen were significant factors in patient satisfaction. However, they also found that the number of people present had an effect on patient satisfaction, whereas in our study this was not a significant factor. Interestingly, our total score correlated with the question that asked patients how they felt about the number of people present ($r = 0.644$, $P < 0.01$). This suggests that patient opinion regarding the number of people present is associated with patient satisfaction with the ward round, even though the actual number of people present is not. This may be due to the fact that the values used for the number of people present were patient estimates, rather than the actual size of the team.

Our findings that patient characteristics were not related to patient satisfaction with the ward round are similar to those of Armond & Armond,⁵ but different from those of Greenwood *et al*⁶ who found admission status to be a factor affecting patient satisfaction.

Conclusions and recommendations

Our study showed that the waiting time, the diagnosis and whether or not the patient had met their consultant before their first ward round were significant predictors of patient satisfaction with the ward round. Although the diagnosis cannot be altered, the other two predictors (waiting time and meeting the consultant beforehand) could easily be altered in a clinical setting. Two systems were being operated in the hospital during this study.

Table 1. Statistical analysis of ward round variables

Pearson correlations	<i>r</i>	<i>P</i>
Age	−0.081	0.608
Waiting time	−0.401	0.009*
Number of people present	0.077	0.629
Length of ward round	0.022	0.890

*Statistically significant.

Table 2. Statistical analysis of patient characteristics

Independent sample <i>t</i> -tests	Score (s.d.)	<i>t</i>	<i>P</i>
Gender			
Male	26.1 (9.6)	0.448	0.657
Female	24.7 (8.1)		
Ethnicity			
White	25.5 (8.9)	−0.093	0.926
Black and ethnic minority	25.8 (9.8)		
Met consultant before first ward round			
Yes	27.2 (7.8)	1.609	0.116
No	22.5 (10.9)		
Diagnosis			
Psychotic	25.7 (8.6)	0.794	0.432
Neurotic	23.0 (10.7)		
Admission status			
Formal	24.0 (8.5)	−1.361	0.181
Informal	27.8 (9.7)		



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Some patients were told the start time of their consultant's ward round but were not given an exact appointment time, whereas some patients were not told when their consultant started and were approached just before they were due to be seen. In the former system, patients felt that they had been waiting since the start of the consultant's ward round, even though they were not necessarily seen until up to 4 h later. In the other system, although the patient may not be seen for the same length of time as in the first system, the patients did not feel that they had been waiting as they attended their appointment within 5 min of being informed that the ward round was taking place. Patient perception of waiting time can therefore be manipulated by changing the way in which patients are told about their appointments. However, it is important to note that our study's estimation of waiting time was based upon patient perception. Patients were asked, 'How long do you usually wait outside the room before you are asked to go in?'. Thus we could clarify what was meant by waiting time, i.e. the patient did not confuse waiting time with the length of time between the start of the ward round and when their consultation occurred. However, our findings may still be influenced by the fact that patient perception was used to calculate waiting time.

As meeting the consultant before the first ward round was found to be a significant predictor of patient satisfaction, we suggest that an introductory meeting between the patient and their consultant should be introduced between admission and the first ward round. This adjustment would make a significant and positive improvement to the in-patient experience, while causing only minimal disruption to standard clinical practice.

Strengths and limitations

One of the main strengths of this study is that the questionnaire was designed using both medical research publications and information from a local service user group. However, the tool has not been psychometrically validated. The study sample was also relatively small compared with previous research in this area, and patient recruitment was limited to only one hospital. Also, as

only 32% of the variability in the patients' scores can be explained by these three variables, it is likely that other factors that have not been formally investigated in this study may affect patient satisfaction with the ward round. The additional comments made by patients highlighted some of the aspects that should be further investigated by performing a qualitative study with appropriate theme analysis to explore these areas in more detail. Psychometric validation of the questionnaire and its distribution to a larger sample of in-patients may also shed more light on the factors that affect satisfaction with the ward round. This should allow us to make further adaptations to current clinical practice in order to make the ward round a better experience for patients.

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Declaration of interest

None.

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