



## Medical Decision Making

## Shared decision-making in ongoing outpatient psychiatric treatment

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## ABSTRACT

**Objective:** Research on patient involvement in decision-making in psychiatry has focused on first encounters. This study investigated what decisions are made, level of patient involvement and factors influencing patient involvement in ongoing outpatient visits.

**Methods:** 72 visits conducted by 20 psychiatrists were video recorded. Patients had a diagnosis of depression or schizophrenia.

**Results:** On average, there was one medication related and one other decision per visit. Some psychiatrists involved patients more in decisions, as did female psychiatrists. Involvement was lower when patients had more negative symptoms.

**Conclusion:** Involvement in decision-making appears to be influenced by the individual psychiatrist and specific symptoms but not visit length.

**Practice implications:** It is noteworthy that patient involvement is not influenced by length of the visit given that this would be a barrier in busy clinical practice. The next step would be to identify the communication patterns of psychiatrists who involve patients more in decision-making.

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## 1. Introduction

Shared decision-making (SDM) is widely recognised as the preferred approach to patient–clinician interaction in medical encounters and is supported by government policy [1]. The Department of Health paper *'Equity and Excellence: Liberating the NHS'* [1] reflects the importance of SDM by stipulating that SDM should become the 'norm' in clinical practice. The application of SDM requires clinicians and patients to actively collaborate on treatment decisions, share information and to ultimately reach a consensus on treatment decisions [2].

The importance of SDM is well established in the medical literature [3] with a growing evidence base in mental health. Emerging evidence suggests that SDM can help patients feel more informed about their illness and treatment and improve satisfaction with care [4]. Better clinical outcomes have also been reported, in particular improvements in depression [5] and reduced hospitalisation for patients with schizophrenia [6]. While two previous studies have observed SDM in first encounters in outpatient psychiatric settings with non-psychotic patients [7,8], no research has explored SDM in ongoing outpatient psychiatric treatment. Most people with schizophrenia and many with depression will receive treatment in secondary mental health care over many years, sometimes a lifetime. There are high dropout

rates from treatment, which adversely affect patient outcomes [9]. Patients' symptoms fluctuate considerably over time, in response to which treatment is modified frequently. Hence, ongoing collaboration between patient and psychiatrist in decision-making about treatment is important for continued patient engagement in and adherence to treatment to optimise patient outcomes. Moreover very little research has explored what types of decisions are taken in outpatient psychiatric consultations. Within an inpatient setting, Hamann et al. [10] found that social decisions play only a minor role in the decisions that are taken which may suggest an emphasis on the need to address clinical goals.

The aim of this study was to investigate patient involvement in on-going psychiatric visits to identify: what decisions are made; the degree of patient involvement in decision-making; and the factors influencing patient involvement.

## 2. Method

Psychiatric outpatient visits in secondary mental health care in the publicly funded National Health Service in the United Kingdom were video recorded with consent. Patients had a diagnosis of Schizophrenia or Depression (ICD-10) [11]. Symptoms were assessed using the Positive and Negative Syndrome Scale (PANSS) [12] for patients with schizophrenia and the Beck Depression Inventory (BDI) [13] for patients with depression. As the focus of the study was on communication, visits involving an interpreter were excluded. Consecutive attendees at outpatient clinics were approached to participate. The consent rate was 45% of those

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approached. This did not include patients who would have been eligible but did not turn up for their appointments or were considered too unwell by the clinician to be approached.

Each visit was transcribed and examined to identify instances of decision-making by 2 research psychologists trained in using the OPTION scale [14]. A decision was defined as a problem which requires a decision-making process. Each decision topic was coded on who (patient or psychiatrist) raised the issue, i.e. took the lead in raising the problem which requires decision-making. Decision topics were coded into themes using content analysis [15]. Level of patient involvement in each decision was assessed using the OPTION scale (0–100) [14]. In addition, a single score was obtained for each visit, i.e., the decision with the highest level of SDM in that visit. The single visit OPTION score was used in all analyses except that comparing SDM by decision topic. The OPTION scale has demonstrated reliability [14]. To calculate inter-rater reliability, 2 coders rated 20% of the visits.

The association between patient characteristics, psychiatrist gender, duration of decision (from when the topic is initially raised to when a decision is taken or deferred), length of visit and OPTION scores were explored using linear mixed-effects models using SPSS version 19 [16] taking into account psychiatrist clustering. Kruskal–Wallis one-way ANOVA's examined the association between decision topics and individual psychiatrist on OPTION scores. Variables associated with OPTION scores at the 10% significance level were further explored in multivariate analyses using mixed-effects regression.

### 3. Results

The analysis was carried out on 72 visits, with 42 male patients and 30 female. Patients were aged between 19 and 65 (mean = 45 years; SD = 10.7) and were diagnosed with schizophrenia ( $N = 36$ ) or depression ( $N = 36$ ). Over one half (65%) were White/White British, 14% Black/Black British, 13% Asian/Asian British and 8% other ethnic group. Most patients were unemployed (63%), whilst 30% were employed and the remaining 7% were retired or made redundant. Mean length of illness was 13.4 years (range = 0.5–45 years). A total of 20 psychiatrists carried out the visits. The majority were male ( $N = 12$ ) who carried out 56 of the 72 visits, with a mean cluster size of 3.6 visits per psychiatrist (range = 1–16).

Inter-rater reliability was high. The intraclass correlation coefficient for number of decisions in visit was 0.927, for duration of decision 0.987, and for OPTION score 0.81. Cohen's kappa for decision type was 1.0 and who raised the topic was 0.90.

Across all visits, a total of 152 decisions were identified and coded into thirteen categories (Table 1). On average 2 decisions (mean = 2.11, range = 1–6) were made within a visit lasting under 2 min each (mean = 103.32 s, range = 2–528). There were 74 decisions about medication, i.e., typically, there was a medication decision in every visit. Psychiatrists raised the medication decision in approx 60% of the visits and patients in the remaining 40% of visits. The mean length of visits was 19.76 min (range = 6–71).

Almost half of all decisions related to medication (49%): the patient was to continue with their medication (26%), reduce medication (20%), increase medication (18%), stop (3%), change (5%) or consider a change in medication (4%). Psychiatrists were more likely to raise decision topics than patients, i.e., 64% versus 36% ( $t = 41.89$ ,  $p = 0.00$ ).

The mean visit OPTION score was 12.35 (range = 2–45.8). On an individual decision level, highest OPTION scores were found with decisions on support/self help groups (13.54) and medication (11.0).

In univariate analyses, no associations were found between patient age, sex, ethnicity, employment status, diagnosis, length of

illness and patient involvement. Increased negative symptoms were associated with lower OPTION scores ( $r = -0.342$ ,  $p = 0.04$ ) whilst more time discussing a decision was associated with more patient involvement ( $r = 0.002$ ,  $p = 0.04$ ). In multivariate analyses, there were significant differences between psychiatrists in patient involvement in decision-making (Intraclass correlation coefficient = 0.50, 95% CI = 0.20–0.79), i.e., 50% of the variability in OPTION scores was accounted for by variation between psychiatrists. Female psychiatrists' OPTION scores were twice as high compared to their male counterparts ( $p = 0.01$ , CI = 1.20–3.20). Negative symptoms, time spent discussing a decision and the length of visit were not significant in multivariate analyses.

## 4. Discussion and conclusion

### 4.1. Discussion

Decision-making in repeat psychiatric visits was concerned with a wide range of topics covering patients' multi-faceted needs. While approximately half of all decisions were medication related, with a medication decision occurring in almost all visits, half were concerned with issues such as physical health (e.g. weight, blood monitoring), referrals to other services (e.g. alcohol, psychology, day opportunities) and employment. Some psychiatrists consistently involved patients more in decision-making, as did female psychiatrists. While no associations were found with patient sociodemographic characteristics or diagnosis, in the sample with schizophrenia, patients with more negative symptoms were less involved in decision-making.

These findings should be considered in the context of the study's limitations and strengths. There was significant variation in the number of patients per psychiatrist and although the analyses adjusted for the nesting of patients within doctors this may nonetheless bias the results. While the sample size is comparable with previous studies [7,8], the sample size for each diagnostic group was smaller which reduces the statistical power to detect differences. Inter-rater reliability in using the OPTION scale was high although the validity of the OPTION scale for repeat psychiatric visits should be considered as it assesses patient involvement in a single visit. However, it was clear from the discussions that some decisions were made across several visits which is to be expected when psychiatrists and patients have a history and decision-making spans repeated meetings. Rating a single visit may thus lead to a lower OPTION score, which should be taken into account in interpreting these findings. Additionally, diagnosis was confirmed by the psychiatrist and not by independent structured interview. Moreover, information on the length of the psychiatrist–patient relationship, psychiatrist ethnicity and clinical experience was not available. A further limitation is that the scale only assesses skills exhibited by the clinician and ignores the contribution of patients which may be greater when there is an established relationship with the clinician.

This is the first study to observe patient involvement in decision-making in ongoing psychiatric visits in the UK, to identify decisions made, include patients with schizophrenia and compare two diagnostic groups. Videotaped recordings of visits were analysed whereas previous studies have used audiotapes. Using verbal and nonverbal information to rate the OPTION scale increases the validity of rating how communication facilitates patient involvement [17–19].

Levels of patient involvement were lower in this study compared to previous studies [7,8]. However, GPs in the UK were found to have a similar OPTION score of 14.6 [20]. Perhaps the main reason is that this study focused on repeat visits, where the psychiatrist and patient know each other and may not explicitly display all of the behaviours measured by the OPTION scale every

**Table 1**  
Decision topics and who raises the topic.

Decision topic	Number of decisions Freq (%)	OPTION score Mean (SD)	Time taken (s) Mean (SD)	Psychiatrist raises Freq (%)	Patient raises Freq (%)
Medication	74 (49%)	11.0 (9.0)	120.9 (107.1)	45 (61%)	29 (39%)
Physical health	13 (9%)	9.9 (6.25)	101.2 (80.8)	8 (62%)	5 (38%)
Access to psychology	12 (8%)	7.1 (4.4)	63.7 (43.9)	9 (75%)	3 (25%)
Day centres/community groups/rehab	10 (7%)	11.0 (7.9)	95.3 (54.5)	8 (80%)	2 (20%)
Service contacts	9 (6%)	5.8 (2.9)	44.1 (32.4)	5 (56%)	4 (44%)
Contact GP/referral	9 (6%)	6.5 (3.0)	54.7 (48.4)	6 (67%)	3 (33%)
Referrals to alcohol/substance abuse services	7 (5%)	6.0 (2.8)	71.0 (36.4)	6 (86%)	1 (14%)
Employment/volunteering	5 (3%)	10.0 (6.8)	104.8 (49.5)	4 (80%)	1 (20%)
Other	4 (2%)	6.3 (4.5)	170.5 (191.4)	3 (75%)	1 (25%)
Housing and benefits	3 (2%)	4.2 (0)	158.3 (197.2)	1 (33%)	2 (67%)
Support/self help groups	2 (1%)	13.5 (4.4)	136.5 (0.7)	1 (50%)	1 (50%)
Life stressors	2 (1%)	6.3 (0)	178.0 (35.4)	0 (0%)	2 (100%)
Consent to access information	2 (1%)	5.2 (1.5)	11.0 (7.0)	1 (50%)	1 (50%)
Total	152 (100%)	<sup>a</sup>	103.3 (94.8)	97 (64%)	55 (36%)

<sup>a</sup> The mean OPTION score using all the decisions was not calculated as this was not used in the analysis. Individual OPTION scores for each decision were only used to explore levels of SDM across decision types.

time they meet. Both Goss et al. [7] (OPTION score 26.7) and Goossensen et al. [8] (OPTION score 43) focused on new intakes or returning patients seeing a psychiatrist for the first time. As found in other studies, female clinicians tend to involve patients more in decisions overall, in psychiatry [7] and a physical health setting [21,22].

#### 4.2. Conclusion

In conclusion, this study found that, on average, one medication related and one non-medication related decision was made per psychiatric outpatient visit. Patient involvement in decision-making in this setting appears to be influenced by the individual psychiatrist and specific symptoms.

#### 4.3. Practice implications

It is interesting that patient involvement is not influenced by visit length given the barriers this would create in busy clinical practice. Furthermore, the findings indicate that psychiatrists may find it more challenging to involve patients with specific symptoms, in particular those with negative symptoms. As individual variation seems to be more important than structural factors in explaining patient involvement, the next steps would be to identify what psychiatrist factors explain their wide variation in patient involvement and, for training, to identify the specific types of phrasing that are more and less successful at involving patients. For example, there are different ways of offering patients opportunities to ask questions, which have different consequences for involvement: “any questions” is less likely to lead to a patient actually asking questions than “some questions” [23].

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