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ORIGINAL PAPER

Perceived coercion and need for hospital admission among psychiatric in-patients: figures from a Pakistani tertiary care hospital

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In Pakistan, an increasing proportion of psychiatric patients present to community health services as crisis admissions, with their relatives as the main decision makers. Patients are bound to perceive this process as coercive. Farnham & James (2000) report that elements of coercion are found even in voluntary hospital admission, in the form of verbal persuasion, physical force and threats of commitment. Few patients consider hospitalisation justified and most view the process of admission negatively (Swartz *et al*, 2003; Katsakou & Priebe, 2006; Priebe *et al*, 2009).

Perceptions of coercion depend on context and are subject to cultural differences. Unfortunately, there is no study from Pakistan, a low-income country with unregulated mental health services, where sections of Mental Health Act 2001 are loosely followed at best (Gilani *et al*, 2005). Most mental health facilities define 'involuntary admission' as the situation where the family brings a patient against his or her will and a physician takes a decision after assessment without due legal procedures or recourse to appeal.

We explored perceptions of coercion and hospitalisation among patients admitted to a psychiatric unit in Karachi. The unit accepts compulsory admissions advised by courts for assessment (this is uncommon). The Mental Health Act 2001 is not used formally. We looked for associated patient characteristics.

Method

Patients admitted to the psychiatric in-patient unit (a 16-bed adult unit) of Aga Khan University Hospital were sampled. Patients 18 years or older, admitted with any psychiatric diagnosis, were enrolled. Younger patients and those with intellectual disability, cognitive impairment or acute psychotic symptoms were excluded. Patient characteristics were recorded: gender, age, marital status, language, occupation and education, clinical diagnosis, admission type (first *v.* repeat) and nature (voluntary *v.* involuntary).

Each patient was administered the MacArthur Admission Experience Survey (AES; Nicholson *et al*, 1996), which comprises 15 items in a true/false format. This scale was translated into Urdu by bilingual translators and administered to 20 patients before the study. Difficulties were resolved by consensus. The AES has good internal reliability (Gardner *et al*, 1993). It contains four subscales with yes/no responses: the Perceived Coercion Scale (PCS, 5 items), which has an equivalent consistency and test–retest reliability, the Negative Pressures Scale (NPS, 6 items), the Voice/Process Exclusion Scale (PES, 3 items) and the Affective Reactions to Hospitalisation Scale (1 item). Scoring involved summing over the whole scale (except items 9 and 15) as well as the first three subscales, as has been done in other studies (Gardner *et al*, 1993). A cut-off score of 2 on the PCS was used to split

Table 1 Sample characteristics ($n = 87$)

Variables	Frequency (%)
<i>Gender</i>	
Male	46 (53)
Female	41 (47)
<i>Age (years)</i>	
Less than 30	37 (43)
31–50	34 (39)
More than 50	16 (18)
<i>Marital status</i>	
Single	41 (47)
Married	46 (53)
<i>Education</i>	
Illiterate	9 (10)
Undergraduate	42 (48)
Graduate and above	36 (41)
<i>Occupation</i>	
Student	14 (16)
Professional	12 (14)
Retired	7 (8)
Unemployed/housewife	11 (13)
Business	27 (31)
Unskilled or skilled worker	16 (18)
<i>Ethnicity</i>	
Urdu-speaking	41 (47)
Pathan	16 (18)
Sindhi	15 (17)
Punjabi	9 (10)
Balochi	2 (2)
Other	4 (5)
<i>Diagnosis</i>	
Substance misuse	14 (16)
Mood disorders	38 (44)
Anxiety and stress-related disorders	9 (10)
Schizophrenia and other psychotic disorders	26 (30)
<i>Type of admission</i>	
First	57 (66)
Repeat	30 (34)
<i>Nature of admission</i>	
Voluntary	53 (61)
Involuntary	34 (39)

the sample into 'high coercion' and 'low coercion' groups, as in a previous study (Iversen *et al*, 2007). For the NPS and PES, scores above the mean value were considered 'high' and those below 'low'.

Written informed consent was taken. The study was approved by the hospital's ethics committee. An interviewer experienced in psychiatric interviewing was hired to administer the questionnaire within first 24 hours of admission.

Data were analysed using the Statistical Package of Social Sciences (version 16.0). Frequency distributions were determined and data dispersion for each subscale of the AES examined. Chi-square tests of association and regression analysis looked for differences between those scoring high and low on the PCS.

Results

In total, 101 patients were approached; 14 patients declined to participate, giving an 86% response rate. Table 1 details the sample characteristics.

On the PCS, the mean (s.d.) score was 3.06 (2.09). Overall, 70% of the sample had a 'high' PCS score (2 or

Table 2 Comparison of characteristics of patients with low and high coercion scores

Variables	Frequency (%)		P-value
	Low score	High score	
<i>Gender</i>			
Male	18 (39.1)	28 (60.9)	0.807
Female	15 (36.6)	26 (63.4)	
<i>Age (years)</i>			
Less than 30	20 (54.1)	17 (45.9)	0.012*
31–50	11 (32.4)	23 (67.6)	
More than 50	2 (12.5)	14 (87.5)	
<i>Marital status</i>			
Single	22 (53.7)	19 (46.3)	0.004*
Married	11 (23.9)	35 (76.1)	
<i>Education</i>			
Illiterate	3 (33.3)	6 (66.7)	0.953
Undergraduate	16 (38.1)	26 (61.9)	
Graduate and above	14 (38.9)	22 (61.1)	
<i>Diagnosis</i>			
Substance misuse	1 (7.1)	13 (92.9)	0.008*
Mood disorders	12 (31.6)	26 (68.4)	
Anxiety and stress-related disorders	5 (55.6)	4 (44.4)	
Schizophrenia and other psychotic disorders	15 (57.7)	11 (42.3)	
<i>Type of admission</i>			
First	20 (35.1)	37 (64.9)	0.451
Repeat	13 (43.3)	17 (56.7)	
<i>Nature of admission</i>			
Voluntary	6 (11.3)	47 (88.7)	<0.001*
Involuntary	27 (79.4)	7 (20.6)	

*P value significant.

Low coercion score = 0 or 1 on the PCS; high coercion scores = 2 or more on PCS (Perceived Coercion Scale of the MacArthur Admission Experience Survey).

more); strikingly, only 21% involuntary patients scored 'high' on this subscale, compared with 89% of voluntary admissions. All patients with a diagnosis of substance misuse or mood disorder who were voluntarily admitted perceived high coercion.

Table 2 shows the differences between the high and low PCS groups. Participants older than 30 years were twice as likely to report high PCS scores. Similarly, having a diagnosis of substance misuse or mood disorder increased the likelihood seven-fold ($P = 0.014$) and four-fold ($P = 0.04$), respectively, while a diagnosis of psychotic disorder reduced the likelihood by six times ($P = 0.013$). Voluntary admission predicted a high PCS score even after controlling for demographic and clinical characteristics ($P < 0.001$).

The mean (s.d.) score on the NPS was 2.07 (1.03); 41% of involuntary and 21% of voluntary admissions scored 'high'. The mean (s.d.) score on the PES was 1.75 (0.53); 44% of involuntary and 41% of voluntary patients scored 'high'. Both differences were statistically significant.

The affective reactions to hospitalisation reported were as follows: one-third were angry and frightened, whereas 63% were sad; another 46% were confused; only 30% were pleased with the process of hospitalisation; a further 52% felt relieved. These reactions were not significantly different between voluntary and involuntary admissions but, overall, those with high PCS scores were more likely to be angry and relieved than those with a low score.

Discussion

Our sample was from a private tertiary care hospital in Karachi, one of the major cities of Pakistan. The demographic characteristics of the participants were similar to the patient profile of all attenders at the hospital. The majority were experiencing hospitalisation for the first time. Nearly half had a diagnosis of mood disorder; psychotic disorders were the next most common category.

A high proportion reported feeling coerced in the hospitalisation process. A qualitative study from Switzerland (Bonsack & Borgeat, 2005) and another that used the AES on a Norwegian sample (Iversen *et al*, 2007) have reported similar findings. Surprisingly, a greater proportion of voluntary admissions compared with involuntary ones perceived coercion. This was a counter-intuitive finding which could be the result of a small sample size or either sample being atypical, as it was not specific to any diagnosis. It needs to be replicated. Negative pressures were, though, felt more in involuntary admissions and in nearly half of voluntary and involuntary admission patients felt they were excluded from the hospitalisation process. These findings support previous observations (Fu *et al*, 2008), although the present figure is much higher. Most of the voluntary admissions were patients with mood disorder; stigma related to hospitalisation as well as illness perception could have contributed to feelings of coercion. A diagnosis of substance misuse was also associated with higher coercion. Disapproval of any form of substance misuse in the local culture often results in families bringing patients in a pre-contemplative stage. External pressures, especially marital (from spouse or in-laws) and parental, are common. Moreover, many of these patients could have an underlying personality disorder, which might have contributed to this perception.

Having a psychotic illness was not associated with high coercion scores, though this has been reported by others (Hiday *et al*, 1997; Fu *et al*, 2008), but there was a small number of such patients in the present sample.

Being married was associated with higher coercion, similar to previous studies (Bonsack & Borgeat, 2005; Katsakou & Priebe, 2006). Marital pressures in the local culture may have caused this. Participants older than 30 years felt a higher degree of coercion; this may reflect diagnosis, however, since patients with substance misuse or mood disorder usually present at that age. There was no association of gender, education or type of admission (first v. repeat) with feelings of coercion. Hiday *et al* (1997) found an association with female gender and education in 331 individuals; our negative finding could have resulted from our much smaller sample size.

Those with higher coercion scores were also more likely to be both angry and relieved. This suggests that the perception of coercion is independent of the need for hospitalisation. Our study confirms an observation by Bonsack & Borgeat (2005) that this distinction does not depend on duration of hospital stay; our patients showed it within 24 hours of admission.

Limitations of the study include the fact that the sample was not representative of patients across Pakistan, and so, for example, no general comment can be made on the need for mental health legislation. Also, a comparison of participants with those who declined could not be made; this may have introduced selection bias. The MacArthur questionnaire was not validated against the English version or other objective measures of coercion. The yes/no response style of the question is restrictive. Lastly, the source of coercion was not explored.

Conclusions and recommendations

A significant proportion of patients admitted on even a voluntary basis perceived a high degree of coercion in the process of hospitalisation. Patients with a diagnosis of substance misuse or mood disorder perceived significantly more coercion. There is need for larger surveys as well as improved planning and communication between patient, family and hospital staff during hospitalisation. Mental health legislation needs to be revisited with these conclusions in mind and mental health practices across the country need to be standardised.

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