ORIGINAL RESEARCH

Comparison Of Expectations For Health Services Between Inpatients From Mental Health Department And Endocrinology Department In China

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Background: Patient expectations for health services refer to the anticipation or the belief about what should be encountered in the healthcare system. Understanding patient expectations can improve patient satisfaction and healthcare compliance. It is particularly important for patients with mental disorders, as greater healthcare compliance is required for them due to the chronic and relapsing nature of their diseases. However, little is known about expectations among Chinese patients with mental disorders.

Objective: To examine expectations for healthcare among patients with mental disorders and to compare them with those of patients with chronic physical diseases.

Patients and methods: A cross-sectional survey was conducted among two inpatient groups, consecutively recruited from the Mental Health Department (MHD) and Endocrinology Department (ED) in one tertiary general hospital in Changsha, China. Patient expectations were measured by eight translated and modified vignettes of health system responsiveness. Group differences were compared using Chi-square tests for socio-demographic and clinical characteristics and Z-test for expectation rating. Logistic regression was performed to test whether group differences of expectations remained statistically significant after controlling for socio-demographic and clinical variables.

Results: Most patients from MHD rated scenarios in vignettes on communication, choice of provider, autonomy, and social support as "meeting expectations", and rated scenarios in vignettes on prompt attention, dignity, confidentiality, and quality of basic amenities as "below expectations". In comparison, patients from MHD had similar expectations with their counterparts from ED, for prompt attention, dignity, confidentiality, communication, choice of provider, and social support; however, patients from MHD had significantly lower expectations in quality of basic amenities and higher expectations in autonomy, after adjusting for socio-demographic and clinical factors.

Conclusion: Like their counterparts with physical diseases, patients with mental disorders also expect prompt attention, dignity, confidentiality, communication, choice of provider, and social support in their interaction with the healthcare system. Moreover, extra attention to autonomy is needed for patients with mental disorders to meet their expectations and improve patient satisfaction.

Keywords: patient expectations, responsiveness, mental health, China

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Introduction

As patient-centered approaches have gained an important place in healthcare delivery,[1,2] there is also increasing interest in patient expectations, which refer to the anticipation or the belief about what should be encountered in the healthcare system.[3] Understanding and meeting patient expectations can improve satisfaction,

with a background in public health. Before the formal investigation, all interviewers received 1-week of uniform training to conduct the interviews, which included questionnaire specifications, interview skills, role-play practice of interviewing, and briefing on mental disorders they might come across in the survey.

Measures

Socio-Demographic Characteristics

Socio-demographic characteristics were collected through a self-designed questionnaire, including age, gender (male, female), place of residence (urban, rural), marital status (single, married/cohabiting, divorced/separated/widowed), education (primary school or below, junior high school, high school, college or above), employment (employed, unemployed, retired, student, caring for family) and health insurance coverage (yes/no).

Clinical Information

Clinical information included diagnosis, time from diagnosis, and duration of treatment. Time from diagnosis and duration of treatment were categorized into: i) 5 years or less; and ii) more than 5 years. We also collected information on whether participants received inpatient treatment in multiple hospitals in the past 3 years (yes/no).

Patient Expectations

Measurement of patient expectations was based on the concept of responsiveness, which was proposed by the WHO as one of the three intrinsic goals of the health system.[23] The core of responsiveness is responding to the population's universally legitimate expectations regarding non-medical aspects of health services. According to responsiveness, patients' expectations can be assessed in eight domains: prompt attention, dignity, confidentiality, communication, quality of basic amenities, choice of provider, autonomy, and social support.[24]

In this study, patient expectations for health services were measured by eight vignettes, which were selected from vignettes of health system responsiveness used in the World Health Survey and the WHO Study on Global Ageing and Adult Health (SAGE) (2007–2008).[24,25] The original purpose of WHO's introducing responsiveness vignette was to control reporting heterogeneity and permit better comparison of self-reported service quality and satisfaction across populations.[24,26] Now the method of

vignette has been used as a measurement to patient expectations in several recent studies.[27,28]

Each selected vignette provided one scenario of people's experience with health services and tested one domain of health system responsiveness. WZ, a researcher with a Ph.D. degree in Public Health and 7-years of research experience of Chinese mental health policy and services, translated the eight vignettes into simplified Chinese. Necessary modifications, like giving common Chinese names and titles to persons presented in the vignette, were made to help the participants feel connected to the presented scenarios. The Chinese version of the vignettes was reviewed and finalized by SYX, who was a senior psychiatrist and a professor of public health. The full texts of the eight modified vignettes are provided in Table 1.

Participants were asked to think about the given scenarios as their own experience and then to rate each scenario based on a five-point Likert scale: very poor (1), poor (2), moderate (3), good (4), very good (5). The score of each vignette reflected expectation for one responsiveness domain, and higher score reflected lower expectation. When "very poor" (1) or "poor" (2) were rated, the scenarios presented in vignettes were considered as being below respondents' expectations (below expectation); when "moderate" (3), "good" (4) or "very good" (5) was rated, the scenarios were considered as meeting respondents' expectations (meeting expectation).

Data Analysis

Descriptive statistics were used to summarize participants' socio-demographic and clinical characteristics, and expectation outcomes. Group differences of socio-demographic and clinical characteristics between patients from MHD and ED were tested using Chi-square tests and the expectation rating of the two inpatient groups were compared using Z-test. For responsiveness domains with statistical significance between patients from MHD and ED, multivariable logistic regressions were performed separately for each domain, to test whether group differences remain statistically significant after controlling for socio-demographic and clinical variables. The detailed procedures were as follows: we first performed univariate logistic regressions separately for each domain. Variables with a P-value≤0.1 in univariate analysis were then selected in the multivariate analysis. All

Table 1 Vignettes Used To Measure Patient Expectations

Domain Of Responsiveness	Vignettes
Prompt attention	[Xiao Wang] broke his leg. It took an hour to be driven to the nearest hospital. He was in pain but had to wait an hour for the surgeon and was arranged for operation on the next day.
Dignity	[Miss Zhang] went to a crowded clinic. No-one greeted her. She waited for 30 minutes when a nurse called to her for an examination behind a screen that separated the waiting area from the examination area.
Confidentiality	[Mr. Jiang] had his consultation in a private room. During the consultation, a nurse occasionally walked in and listened to the conversation. Sometimes she forgot to close the door so people in the waiting room could overhear parts of their conversation.
Communication	[Mr. Li] has been told that he has epilepsy and that he needs to take medication. The doctor has very briefly explained what the condition is. He is very busy and there is a queue of patients waiting to see him. [Mr. Li] would like to know more about what he has, but feels that there is no time to ask questions, so Mr. Li leaves the office.
Quality of basic amenities	[Uncle Ma] shared a hospital room with four other persons. There was a toilet for his ward located along the outside corridor. The room was cleaned once a week, was occasionally dusty, and had only one or two chairs for visitors.
Choice of provider	When the clinic is not busy, [Aunt Liao] can choose which doctor she sees. But most often it is busy and then she gets sent to whoever is free.
Autonomy	[Uncle Lei] had a broken arm. The doctor explained different ways of fixing it and then ordered some blood tests. [Uncle Lei] did not know why he needed blood tests and was worried until the doctor explained what they were for.
Social support	[Ms. Dong] gave birth in hospital. Her husband was permitted to visit her every morning and evening. [Ms. Dong] was able to contact her family and friends once a day.

analyses were performed in SPSS 18.0 and a significant level of 0.05 was applied.

Results

Participant Characteristics

In the survey, we approached 298 patients from MHD and 211 patients from ED. In MHD, 64 patients refused to participate; in ED, 30 patients refused to participate and 21 withdrew during the survey. The responding rates were 78.52% in the MDH and 75.83% in the ED. After excluding eight incomplete ones, we had 228 valid questionnaires from the MHD and 158 from the ED for analysis. For patients from MHD, 44.3% (101) were diagnosed with depression and/or anxiety, 19.74% (45) were psychotic disorders, and 16.67% (38) were bipolar disorder. For patients from ED, 50% (79) were diagnosed with diabetes and 10.2% (16) were metabolic syndrome or thyroid diseases. Most of the participants from both departments lived in urban areas and were covered by health insurance. Both groups had an almost equal distribution in gender (Table 2). However, compared with their counterparts from the ED, patients from MHDs were younger and more likely to be single, have a higher education level, have shorter time

from diagnosis and shorter duration of treatment, and were less likely to be retired, and receive inpatient treatment in multiple hospitals, all with $P<0.05$ (Table 2).

Patient Expectations Based On Vignettes

Table 3 demonstrated participants' expectation outcomes based on the vignettes. Most participants from both departments found that vignettes on choice of providers, autonomy, and social support presented scenarios were in accordance with or exceeding their expectations for health services (expectation score≥3); almost half of them agreed that healthcare experience provided in vignettes on communication met their expectations (expectation score≥3); most of them rated vignettes on prompt attention, dignity, confidentiality, and quality of basic amenities below their expectations (expectation score<3). In comparison, more patients from the MHD (25%) rated the vignette on basic amenities as "meeting expectations" than ones from the ED (11.4%), with $P<0.05$. A significantly slower proportion of patients from the MHD (79.4%) considered the vignette on autonomy meet their expectations than their counterparts from the ED (88.5%), also with $P<0.05$. The results indicated that patients from the MHD had lower

Table 2 Sample Characteristics

	Patients From MHD (n=228)	Patients From ED n=158	*P*-value
Socio-demographic characteristics			
Age			
18–40	136 (59.6)	28 (17.7)	<0.001
41–60	80 (35.1)	70 (44.3)	
61–85	12 (5.3)	60 (38.0)	
Gender			
Male	105 (46.1)	80 (50.6)	0.376
Female	123 (53.9)	78 (49.4)	
Place of residence*			
Urban	131 (57.5)	97 (61.4)	0.369
Rural	81 (35.5)	49 (31.0)	
Marital status*			
Single	87 (38.2)	17 (10.8)	<0.001
Married/Cohabiting	126 (55.3)	128 (81.0)	
Separated/Divorced/ Widowed	13 (5.7)	13 (8.2)	
Education*			
≤Primary school	19 (8.3)	48 (30.4)	<0.001
Junior high school	60 (26.3)	38 (24.1)	
Senior high school	56 (24.6)	38 (24.1)	
≥University	92 (40.4)	34 (21.5)	
Occupation*			
Employed	86 (37.7)	51 (32.3)	<0.001
Retired	18 (7.9)	45 (28.5)	
Student	31 (13.6)	4 (2.5)	
Caring for family	16 (7.0)	10 (6.3)	
Unemployed	76 (33.3)	45 (28.5)	
Health insurance coverage			
Yes	214 (93.9)	157 (99.4)	0.006
No	14 (6.1)	1 (0.6)	
Clinical characteristics			
Time from diagnosis*			
≤5 years	169 (73.7)	82 (51.9)	<0.001
>5 years	52 (22.8)	68 (43.0)	
Duration of treatment*			
≤5 years	189 (82.9)	86 (54.4)	<0.001
>5 years	31 (13.6)	62 (39.2)	
Admission in multi-hospitals last 3 years			
Yes	71 (31.1)	78 (49.4)	<0.001
No	157 (68.9)	80 (50.6)	

Notes: Data are shown as n (%). All *P*-values in the table were from Chi-squared tests. *There are missing data.

expectations in basic amenities and higher expectations in autonomy than patients from the ED.

Predictors Of Expectation Difference

Both univariate and multivariate logistic regressions were conducted for domains of quality of basic amenities and autonomy. Based on the results of univariate analysis (*P*≤0.10), inpatient department, age, health insurance coverage, time from diagnosis, and duration of treatment were selected as potential explanatory variables in the multivariate logistic model for quality of basic amenities (Table 4). In the final multivariate logistic model, the OR (odds ratio) of the inpatient department was 2.333 (*P*=0.007), which indicated that patients from the MHD had lower expectations in the quality of basic amenities after adjustment for demographic and socio-demographic variables; the OR of time from diagnosis was 0.465 (*P*=0.028), which indicated that a longer time from diagnosis (>5 years) was a risk factor of high expectations in the quality of basic amenities (Table 5).

Based on the results of univariate analysis (*P*≤0.10), inpatient department, age, and education level were selected in the multivariate logistic model for autonomy (Table 4). In the final multivariate logistic model, the OR of the inpatient department was 0.521 (*P*=0.049), indicating that patients from the MHD had higher expectations in autonomy, after adjusting for demographic and socio-demographic variables; the OR of age between 41–60 years was 0.532 (*P*=0.038) and the OR of age above 60 years was 1.653, but without statistical significance, which indicated that patients aged between 41–60 years had higher expectations in autonomy.

Discussion

To our best knowledge, this is the first study to examine expectations for healthcare among patients with mental disorders and to compare them with those of patients with chronic physical diseases. According to the results, patients from both departments shared similar healthcare expectations for prompt attention, dignity, confidentiality, communication, choice of provider, social support: scenarios in vignettes on communication, choice of provider, autonomy, and social support were rated as "meeting expectations", and scenarios in vignettes on prompt attention, dignity, confidentiality, and quality of basic amenities were rated as "below expectations". Differences were

Table 3 Patient Expectations Based On Vignettes

Domains	Outcomes	Patients From MHD	Patients From ED	Z test	*P*-value
Prompt attention	Meeting expectation Below expectation	70 (30.8) 157 (57.1)	40 (25.3) 118 (42.9)	1.191	0.234
Dignity	Meeting expectation Below expectation	112 (49.1) 116 (50.9)	67 (42.4) 91 (57.6)	1.303	0.193
Confidentiality	Meeting expectation Below expectation	82 (36.0) 146 (64.0)	67 (42.4) 91 (57.6)	1.270	0.205
Communication	Meeting expectation Below expectation	116 (50.9) 112 (49.1)	76 (48.1) 82 (51.9)	0.535	0.593
Quality of basic amenities	Meeting expectation Below expectation	57 (25.0) 171 (75.0)	18 (11.4) 140 (88.6)	3.550	0.000
Choice of provider	Meeting expectation Below expectation	130 (57.0) 98 (43.0)	97 (61.4) 61 (38.6)	0.857	0.392
Autonomy	Meeting expectation Below expectation	181 (79.4) 47 (20.6)	139 (88.5) 18 (11.5)	2.470	0.014
Social support	Meeting expectation Below expectation	185 (81.5) 42 (18.5)	127 (80.9) 30 (19.1)	0.149	0.881

Notes: Data are shown as n (%). All *P*-values in the column were from Z test. Meeting expectation: expectation scores=3, 4, or 5. Below expectation: expectation scores=1 or 2.

detected in domains of quality of basic amenities and autonomy: patients from the MHD had lower expectations in basic amenities and a higher expectation in autonomy.

Unlike many previous expectation studies, we measured patient expectations by vignettes, rather than importance rating on healthcare components[29,30] or patient satisfaction/dissatisfaction.[12,31] Through scenarios presented in vignettes, our results provide descriptions on what good or bad services look like, which will give healthcare providers more concrete suggestions on what they should do or not do in their interaction with patients.

Prompt attention, as one of the four domains below most patients' expectations, evaluates whether care is provided readily or as soon as possible with the measurement of waiting time.[24] One-hour waiting presented in the vignette is not very long, compared with the average waiting time of 57–150 minutes in China's outpatients of tertiary hospitals[32,33] and the recommended standard waiting time of emergency departments (120 minutes) in Canada.[34] As around 70% or more patients of both departments rated the waiting time as "below expectation", it demonstrates a really demanding requirement for short waiting time for health services among Chinese patients. The extraordinarily high demand for quick access to health services could also explain why patients were least satisfied with long

waiting times for consultation in a previous national healthcare survey in China.[35]

Dignity, as another domain below most patients' expectations, refers to receiving care in a respectful, caring, and non-discriminatory setting.[24] In the vignette of this domain, no greeting at all from healthcare presents a poor-quality healthcare, judging from clinician greeting manners in international literature.[36,37] Despite the poor quality of healthcare presented in the dignity vignette, the proportion of patients rated "below expectation" on dignity (50–58%) is lower that that on prompt attention (70%), which implies a relatively lower requirement for dignity than prompt attention among Chinese patients.

The vignette of confidentiality, presenting a scenario of overhearing patient-doctor conversations, was also rated as "below expectation" by 64% of patients from the MHD and 58% of patients from the ED. Surveys in the United States and Australia reported that around 40% of patients once overheard other patients' conversations with clinicians.[38,39] Though there is no reporting on overhearing in China, we estimate it is also common, considering the over-crowdedness in Chinese hospitals.[40] When privacy cannot be guaranteed as expected, patients may be reluctant to share personal information or even not seek healthcare.[38,41] Therefore, efforts are needed to protect healthcare confidentiality and reduce overhearing.

Table 4 Univariate Logistic Regression Model For Patients' Expectation Based On Vignettes In Quality Of Basic Amenities And Autonomy

Variables	Basic Amenities		Autonomy	
	OR (95% CI)	*P*-value	OR (95% CI)	*P*-value
Inpatient department				
ED	Ref		Ref	
MHD	2.593 (1.459–4.608)	0.001	0.499 (0.277–0.897)	0.020
Age				
18–40	Ref		Ref	
41–60	0.455 (0.258–0.802)	0.006	0.637 (0.361–1.124)	0.120
61–85	0.331 (0.147–0.744)	0.007	2.525 (0.928–6.867)	0.070
Gender				
Male	Ref		Ref	
Female	0.996 (0.602–1.650)	0.989	1.058 (0.621–1.804)	0.835
Place of residence				
Urban	Ref		Ref	
Rural	1.272 (0.747–2.164)	0.376	0.987 (0.555–1.756)	0.965
Marital status				
Single	Ref		Ref	
Married/Cohabiting	0.492 (0.284–0.855)	0.012	0.739 (0.393–1.390)	0.348
Separated/Divorced/Widowed	1.000 (0.380–2.635)	1.000	1.292 (0.345–4.845)	0.704
Education level				
≤Primary school	Ref		Ref	
Junior high school	1.748 (0.771–3.962)	0.181	0.836 (0.357–1.959)	0.680
Senior high school	1.082(0.454–2.582)	0.859	1.308(0.521–3.284)	0.568
≥University	1.555 (0.702–3.444)	0.277	0.643 (0.290–1.425)	0.277
Occupation				
Employed	Ref		Ref	
Retired	0.845 (0.379–1.887)	0.682	1.581 (0.671–3.723)	0.295
Student	1.551 (0.648–3.714)	0.325	1.815 (0.589–5.594)	0.299
Caring for family	0.815 (0.258–2.573)	0.727	1.796 (0.501–6.437)	0.369
Unemployed	1.287 (0.700–2.366)	0.417	0.947 (0.510–1.756)	0.862
Health insurance coverage				
Yes	Ref		Ref	
No	2.908 (1.002–8.441)	0.050	0.545 (0.168–1.767)	0.312
Time from diagnosis				
≤5 years	Ref		Ref	
>5 years	0.370 (0.190–0.719)	0.003	1.210 (0.666–2.200)	0.531
Duration of treatment				
≤5 years	Ref		Ref	
>5 years	0.451 (0.227–0.899)	0.024	1.583 (0.784–3.195)	0.200
Admission in multi-hospitals last 3 years				
Yes	Ref		Ref	
No	1.540 (0.897–2.644)	0.118	0.667 (0.376–1.181)	0.165

Notes: Outcome 1=meeting expectation, 0=below expectation.

Though most patients from both departments rated the vignette of basic amenities as "below expectation", a significantly lower expectation for this domain was found among patients from the MHD. As expectations are

Table 5 Multivariate Logistic Regression Model For Patients' Expectation Based On Vignettes In Quality Of Basic Amenities And Autonomy

Explanatory Variables	Quality Of Basic Amenities		Autonomy	
	Odds Ratio (95% CI)	*P*-value	Odds Ratio (95% CI)	*P*-value

Inpatient department
  ED
  MHD
	Ref
	2.333 (1.259–4.323)
		0.007	Ref
			0.521 (0.272–0.997)
				0.049

Age
  18–40
  41–60
  61–85
			Ref
			0.532 (0.293–0.964)
			1.653 (0.559–4.885)
				0.038
				0.364

Time from diagnosis
  ≤5 years
  >5 years
	Ref
	0.465 (0.235–0.921)
		0.028		

Notes: Outcome 1=meeting expectation, 0=below expectation. Method of logistic regression: backward.

formed from patients' previous experience with health services,[42] the group difference of expectations for basic amenities can be a reflection of poorer environment of mental health wards, which patients with mental disorders have to face throughout their healthcare experience. Evaluation studies on responsiveness of mental health services in Germany and Iran also reported the poor quality of basic amenities.[9,10] Poor mental healthcare facilities can be attributed to the universal and constant neglect of mental disorders and insufficient input of resources, especially in developing countries.[43] In China, the median number of psychiatric beds in mental hospitals is 0.215 per 100,000 population,[44] which is far below the median number of 11.3 mental hospital beds per 100,000 population globally.[45] Given that the median length of inpatient stay in Chinese psychiatric hospitals is 45 days,[46] psychiatric wards are always crowded with patients. As mental health beds are unequally distributed in China,[46] remote regions can have even more crowded mental health wards. Because healthcare environment can positively affect patients' well-being,[47] efforts are very much needed to improve the quality of basic amenities in mental healthcare, despite the lower expectation for basic amenities among patients with mental disorders.

Most patients from both departments agreed that vignettes of autonomy met their expectations, but the results of group comparison indicated that patients from the MHD had significantly higher expectation for this domain. This is consistent with previous studies on patient expectations for mental health services, which found that the desire to make decisions for patients themselves was the single

most common request from patients with mental disorders.[12] Unlike physical diseases, symptom examination, rather than biochemical tests, play a more important role when psychiatrists diagnose mental disorders and judge change of patients' conditions.[48] Thus, discussion on patients' medical conditions between patients and clinicians is more routine in the MHD than in other medical departments like the ED. That can be a possible reason why patients from the MHD feel more involved in their healthcare decision-making and hold higher expectations for autonomy.

One study comparing healthcare expectations between patients with and without HIV (human immunodeficiency virus infection) showed that disease-related stigma could influence the level of patient expectation and that statistical differences were found in all eight domains of responsiveness.[27] In China, mental disorders are also associated with stigma, and patients with mental disorders are likely to have negative experiences and discrimination when receiving health services.[49,50] However, statistical differences of expectations between patients from the MHD and ED were only detected in two domains in our study. Potential explanations for that could be that almost half of the patients from the MHD in this study were diagnosed with depression and/or anxiety. Stigma and discrimination for the above mental disorders are much less severe than psychotic illnesses like schizophrenia.[51] During our survey, some patients with anxiety and/or depression told us that their mental disorders are just as common as hypertension or diabetes or even the common cold and that they were not ashamed of their diseases.

However, stigma of HIV is still serious in China[52] and is identified as an explanation for HIV patients' much lower expectations for health services.[27]

Limitations

Due to the consideration of feasibility under a limited project time and funding, we have used a hospital sample in this study, which unavoidably drops off patients who do not seek health services. Furthermore, our samples were recruited from one of the best tertiary hospitals in the middle south part of China. Therefore, patients, particularly ones from the MHD, have a higher socio-economic status than community-based samples used in other mental health research.[53] Because of the selection bias, there is a limitation on the generalization of this research's conclusion, and further study based on a community sample is needed.

Conclusion

Based on the results of comparing patient expectations between patients from the MHD and ED, it is suggested that patients with mental disorders should receive unbiased health services like their counterparts with physical diseases, in terms of prompt attention, dignity, confidentiality, communication, choice of provider, and social support. Furthermore, clinicians should consider more autonomy for patients with mental disorders throughout their clinical practice. More efforts should also be put on improving the quality of basic amenities in mental healthcare.

Like their counterparts with physical diseases, patients with mental disorders also expect prompt attention, dignity, confidentiality, communication, choice of provider, and social support in their interaction with the healthcare system. As patients with mental disorders tend to have higher expectations to autonomy, more efforts to involve patients with mental disorders in the decision-making of their own health and treatment is needed, to meet their expectations and improve patient satisfaction. In addition, more attention should also be paid to the quality of basic amenities in mental healthcare.

Acknowledgments

Disclosure

The authors report no conflicts of interest in this work.

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