Neurotic Disorders of General Medical Outpatients in Xi'an, China: Knowledge, Attitudes, and Help-Seeking Preferences

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Objective: This study assessed knowledge of neurotic disorders, and attitudes and preferences toward professional help and treatment for them, among general medical outpatients in general hospitals in Xi'an, China. Methods: General medical outpatients (N=372) from general hospitals in China were recruited by using a stratified cluster sampling method between June and September 2010. In face-to-face interviews, participants age 16 years or older were assessed for their knowledge, attitudes, and help-seeking preferences in regard to neurotic disorders (obsessive-compulsive disorder, social phobia, and panic disorder). Demographic data were also collected. *Results:* Lack of insight into neurotic disorders was common among medical outpatients in general hospitals of Xi'an, China. Twenty-four percent to 58% of the outpatients had some knowledge of the symptoms and treatment of neurotic disorders. Only 11% of the outpatients would reveal to others that they or a family member suffered from neurotic disorders. When faced with the problem of neurotic disorders, the preference of the respondents was to visit a psychiatrist in a general hospital (44%), and only 17% would visit a physician in a psychiatric hospital. Major ways for the outpatients to obtain knowledge regarding neurotic disorders were via radio and television (36%), and only 18% - 23% of outpatients obtained knowledge about neurotic disorders through printed public health materials and by attending lectures. Conclusions: Study results underscore the need for information campaigns aimed at improving the mental health literacy of general medical outpatients. Such campaigns must consider culturally relevant beliefs to facilitate the development of specific educational programs. (Psychiatric Services 65:1047-1053, 2014; doi: 10.1176/appi. ps.201300071)

n recent years, there have been global efforts to enhance pub-Lic awareness of mental health. There is growing evidence that mental health literacy has increased. Studies from the United States, Australia, and Germany have shown that the public has become more able to recognize mental disorders (1,2) and that willingness to seek help from mental health professionals has increased (1-4). However, the World Health Organization (WHO) Global Burden of Disease study reported that mental disorders continue to grow and are among the most burdensome in the world. Three focused areas recommended by WHO for policy, planning, and service development include deinstitutionalization of mental health care, integration of mental health into general health care, and the development of community mental health services (5).

China has been in step with the rising global awareness of mental disorders. Over the past 20 years, China has seen increased awareness of mental disorders, including neurotic disorders. The country's first national mental health law of 2012 went into effect on May 1, 2013. A major contribution of this new law is its call to expand access to mental health services by shifting services from urban psychiatric hospitals to general hospitals and community health clinics in both urban and rural communities (6).

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Neurotic disorders are a group of common mental disorders that affect health and quality of life, and they place an immense burden on individuals, families, communities, and the public (7,8). For the purposes of this study, the definitions of and criteria for neurotic disorders were based on the International Classification of Diseases (ICD-10-CM) classification of mental and behavioral disorders, which includes social phobia, specific phobias, panic disorder, obsessivecompulsive disorder, generalized anxiety disorder, and agoraphobia. Mental disorder morbidity contributes to 12% of the global disease burden, and that value is projected to increase to 15% by the year 2020 (9). Research over the past few decades has revealed that a lack of knowledge is a major obstacle to the treatment and recovery of patients with mental disorders (10-13). Until now, most studies evaluating patients' perceptions have been conducted in the context of specific mental disorders, especially schizophrenia (14,15) and depression (16,17). However, very few studies have examined the level of knowledge or individual attitudes and perceptions about neurotic disorders.

In China, some measures, such as radio and television announcements, have been used to increase public knowledge about mental disorders, availability of professional help for them, and the need to seek psychiatric treatment (18). However, in reviewing the literature, we found that only a few studies provide insight into Chinese attitudes and behaviors toward depression and schizophrenia (15,17). Little research has dealt with neurotic disorders, and to our knowledge no study has been published that focuses on neurotic disorders among Chinese general medical outpatients.

Neurotic disorders are one of the most common categories of mental disorders. Because of Chinese traditions of viewing the body and mind as unitary rather than dualistic, patients tend to focus more on physical discomforts than on emotional symptoms, which can lead to an overrepresentation of somatic complaints (19). One study found that 90% of patients with neurotic disorders were repeatedly seen by physicians from nonpsychiatric departments in general hospitals over approximately a one-year period. Furthermore, the time until diagnosis was delayed by three to five years for some patients (20). Evidence suggests that mental health-related stigma and lack of knowledge about mental illness may compromise seeking and sustaining adequate treatment and negatively affect clinical outcomes for patients with mental disorders (21). Regretfully, the health literacy concerning neurotic disorders among the Chinese public, as well as that of general medical outpatients, remains undefined. There is a lack of evidencebased mental health literacy programs through which health care providers can implement early targeted interventions. Evidence comparing Chinese mental health literacy with that of other countries is also limited because of a lack of inquiry in China into individuals' knowledge and attitudes regarding mental disorders.

In general hospitals of China, a large number of patients with general medical and mental disorders visit outpatient departments to seek care. It is important for health care providers to learn about this patient population's conceptualizations of mental disorders. Thus the aims of this study were to explore the knowledge, attitudes, and preferences about professional help and treatment for neurotic disorders among Chinese medical outpatients in general hospitals. The study aimed to help health care administrators and providers develop evidence-based strategies to promote mental health in general hospitals to facilitate public awareness of mental health. Ultimately, this will promote optimal mental health and quality of life among the Chinese public.

Methods

Location

Xi'an is one of the oldest cities in China and has a vivid history and rich culture. There are more than 100 general hospitals in this city. In China, general hospitals are divided by care delivery systems and bed capacity into three hospital clusters, defined as primary, secondary, and tertiary hospitals. Generally, primary hospitals have 100 beds or fewer and provide primary prevention, health care, and rehabilitation services to a local community. Secondary hospitals have 100–500 beds and generally provide more comprehensive medical services to several communities and undertake certain academic and scientific research activities. Tertiary hospitals, with ≥500 beds, generally are dedicated to the highest level of medical and health services provided to several large regions and are responsible for higher academic and scientific research activities.

Sampling

A pretrial pilot survey was conducted to assess knowledge concerning neurotic disorders among general medical outpatients in China and to test the reliability of the questionnaire. In May 2010, 30 general medical outpatients were surveyed. Approximately 35% of the outpatients in the pilot survey had some knowledge of neurotic disorders. Considering the prevalence of knowledge of neurotic disorders among general medical outpatients in the pilot study, we estimated the sample size for this study with the formula $N=t^2 \times P \times Q/d^2$, where P=prevalence and Q=1-P, which is commonly used in cross-sectional studies in epidemiology. Evidence suggests that the average prevalence of neurotic disorders in general hospitals is approximately 20% (22-24). If d=.2P and α =.05, the estimated sample would be 350 participants. An additional 20% was added to this sample estimate in anticipation that the final sample would include outpatients who would not consent to participate. Thus the estimated sample for this study was 420.

We used a stratified cluster sampling for this study. First, general public hospitals in Xi'an were divided into clusters for primary, secondary, and tertiary hospitals. Second, one hospital was selected from each hospital cluster. Third, general medical outpatients aged ≥ 16 years in the three selected hospital clusters were randomly recruited according to their order of registration.

Exclusion criteria included unconsciousness caused by brain injury, brain tumor, craniotomy, or dementia; being in the acute phase of a cerebrovascular accident; experiencing a severe illness that obstructs communication; having any obvious cognitive disabilities; and current deafness, aphasia, or other language barriers.

Ethical issues

The study was reviewed and approved by the institutional review board of the Fourth Military Medical University. Prior to interviews, the interviewers explained the survey and the opportunity for participation to each outpatient. A signed informed consent form was obtained from each participant.

Instrument

We used an interviewer-assisted questionnaire developed by the Institute of Mental Health of Peking University. Interviews were conducted in Chinese. The questions were carefully read aloud to participants by the interviewer, and all items were probed. For the purposes of this report, the questionnaire was translated into English and back-translated by two English teachers.

In our previous study, obsessivecompulsive disorder, social phobia, and panic disorder were found to be the prevalent subtypes of neurotic disorders among outpatients in general hospitals (25). In this study, knowledge about these three subtypes of neurotic disorders was assessed by questionnaire. Ten psychiatrists developed the questionnaire with the assistance of the Delphi method. Through the pretrial pilot survey, the test-retest reliability of the questionnaire was found to be .81.

The questionnaire consists of four sections. In the first section, demographic data are collected. In the second section, 14 questions probe for knowledge about neurotic disorders and the respondent's means of obtaining this knowledge. In the third and fourth sections, six and 12 items, respectively, assess attitudes toward people with neurotic disorders and the respondent's help-seeking preferences. Items about help-seeking preferences and ways of obtaining knowledge allow multiple responses, and the others seek single-choice responses.

Procedures

The survey was conducted between June and September 2010. Face-to-

face interviews were carried out by four lay interviewers with the assistance of a laptop computer. The interviewers were college students recruited from a medical university. Before the survey, the students received standardized study-specific training. The training included general interviewing skills, review of the questionnaire, and in-classroom and out-of-classroom practice. Before the start of interview, the interviewers gave a standardized introduction, including the subtypes of neurotic disorders, to make sure the respondents knew which mental disorders are considered part of the neurotic disorders spectrum under the ICD-10-CM classification of mental and behavioral disorders. The average interview time was 20 minutes.

Statistical analysis

The SPSS 17.0 was used for all data analysis. Descriptive statistics, including frequencies, percentages, and means and standard deviations, were used to examine sample characteristics. The chi square statistic was used to compare the differences in knowledge, attitudes, and treatment preferences among outpatients in each of the three classes of general hospitals. Because the relationship between demographic characteristics and outpatients' attitudes toward neurotic disorders in general hospitals is presented elsewhere (26), these data are not provided here.

Results

Sample demographic characteristics

The original sample contained 453 general medical outpatients. Because of refusals, 382 outpatients were surveyed. After exclusion of ten participants whose questionnaires were not completed, 372 participants constituted our total sample, with an effective rate of 97% (372 of 382). Of the 372 general medical outpatients, 221 were from tertiary, 101 from secondary, and 50 from primary hospitals (Table 1). The sample included 196 males and 176 females, with a mean \pm SD age of 42.0 ± 16.8 (range 16-76). Additional characteristics of the participants are shown in Table 1.

Table 1

Characteristics of 372 general medical outpatients of general hospitals in China

Characteristic	Ν	%
Hospital category		
Primary	50	13
Secondary	101	27
Tertiary	221	60
Gender		
Male	196	53
Female	176	47
Age		
16–39	176	47
≥ 40	196	53
Department visited		
Internal medicine	159	43
Surgical medicine	147	39
Other	66	18
Education completed		
Less than high school	82	22
High school	156	42
College or above	134	36
Marital status		
Married	258	69
Unmarried	103	28
Separated, divorced,	200	_0
or widowed	11	3

Knowledge about neurotic disorders

Table 2 shows what the outpatients knew about neurotic disorders. Awareness of neurotic disorders among outpatients had a tendency to increase with the care delivery and bed capacity of the general hospital. From 40% to 55% of outpatients had some knowledge of neurotic disorders and the common prevalent subtypes, such as obsessive-compulsive disorder, social phobia, and panic disorder. There was a significant difference in knowledge related to social phobia and panic disorder among outpatients of primary, secondary, and tertiary hospitals (p<.05). About 24% of outpatients had some knowledge of the clinical manifestation of neurotic disorders. Very few outpatients had some knowledge about the relationship between neurotic disorders and severe mental health problems and the potential risk of harm associated with neurotic disorders (4% and 2%, respectively).

Table 3 lists methods general medical outpatients used to obtain knowledge about neurotic disorders. The major methods identified to obtain knowledge were radio and television

Table 2

Knowledge among 372 Chinese general medical outpatients about neurotic disorders, by hospital type

		Tertiary hospital (N=221)		Secondary hospital (N=101)		Primary hospital (N=50)		Total (N=372)		
Knowledge	Ν	%	Ν	%	Ν	%	N	%	$\chi^{2\mathrm{a}}$	р
I had some knowledge of neurotic disorders	119	54	57	57	30	60	206	55	.69	.71
I had some knowledge of obsessive-compulsive										
disorder	136	62	52	52	28	56	216	58	2.98	.23
I had some knowledge of social phobia	125	57	42	42	20	40	18	50	8.66	.01
I had some knowledge of panic disorder	99	45	39	39	12	24	150	40	7.50	.02
I had some knowledge of the clinical										
manifestation of neurotic disorders	61	28	24	24	5	10	90	24	6.90	.03
Neurotic disorders are related to the										
personal growth experience	91	41	27	27	11	22	129	35	29.93	<.01
Neurotic disorders cannot be diagnosed in										
a laboratory or with medical equipment	7	51	35	35	1	24	126	34	5.45	.24
Neurotic disorders can be treated with										
medications	85	39	22	22	13	26	120	32	47.85	<.01
Neurotic disorders can be treated with										
psychological therapy	79	36	31	31	15	30	125	34	23.56	<.01
Neurotic disorders cannot result in										
severe mental health problems,										
such as schizophrenia	8	4	5	5	2	4	15	4	13.20	.01
People with neurotic disorders will										
not lose control of their behavior										
and put themselves or others in jeopardy	4	2	2	2	1	2	7	2	7.72	.10
Neurotic disorders are not fatal	94	43	46	46	22	44	162	44	4.84	.30

^a df=2

(36%), followed by receiving information from classmates, coworkers, or friends (35%). Only 18%–23% of outpatients obtained knowledge about neurotic disorders from printed public health materials, the Internet, and lectures.

Attitudes toward people with neurotic disorders

Data concerning attitudes toward people with neurotic disorders among general medical outpatients are presented in Table 4. Eighty-three percent of outpatients thought there was no shame for people suffering from neurotic disorders, and 48% thought people with neurotic disorders should seek professional help. Yet only 11% of the respondents would tell any of their friends if they or one of their relatives had a neurotic disorder.

Help-seeking preferences

Table 5 presents general medical outpatients' preferences for professional help and treatment of neurotic disorders. When faced with the problem of neurotic disorders, 44% of respondents were willing to visit a psychiatrist in general hospitals, about 24% would visit an internist in general hospitals, and only 17% of respondents would visit a physician in a psychiatric hospital. Forty-seven percent of respondents would persuade people suffering from neurotic disorders to see a psychiatrist. Of the total sample, 55% reported they did not know how to obtain knowledge about neurotic disorders.

Table 3

Resources used by 372 Chinese general medical outpatients to obtain knowledge about neurotic disorders, by hospital type

	Tertiary hospital (N=221)		Second (N=10]	ary hospital)	Primar (N=50	y hospital)	Total (N=372)			
Source	Ν	%	Ν	%	Ν	%	Ν	%	χ^{2a}	р
Radio and television	86	39	29	29	18	36	133	36	5.53	.24
Newspapers or magazines	55	25	24	24	15	30	94	25	2.77	.60
Internet	55	25	19	19	9	9	83	22	4.37	.36
Classmates, coworkers, or friends	77	35	35	35	19	38	131	35	2.24	.69
Printed public health materials	40	18	18	18	8	16	66	18	1.52	.82
Lectures	64	29	16	16	6	12	86	23	12.43	.01

^a df=2

Table 4

Attitudes toward people with neurotic disorders among 372 Chinese general medical outpatients, by hospital type

Attitude	Tertiary hospital (N=221)		Secondary hospital (N=101)		Primary hospital (N=50)		Total (N=372)			
	Ν	%	Ν	%	Ν	%	Ν	%	$\chi^{2\mathrm{a}}$	р
There is no shame for people suffering from a neurotic disorder	186	84	82	81	40	80	308	83	3.90	.42
I would tell some of my friends if I had a neurotic disorder	32	15	7	7	2	4	41	11	12.47	.01
I would tell some of my friends if one of my relatives had a neurotic disorder	26	12	10	10	3	6	39	11	2.41	.66
I would not mind if my neighbors, coworkers, or classmates had a neurotic disorder	134	61	53	53	2	50	212	57	6.66	.16
People with neurotic disorders should seek professional help I may have a neurotic disorder	118 99	53 45	42 44	42 44	18 22	36 44	$\begin{array}{c} 178 \\ 165 \end{array}$	48 44	20.83 23.97	<.01 <.01

^a df=2

Discussion

Knowledge about

neurotic disorders

The ability to recognize mental disorders is a central part of mental health literacy (27). There is growing evidence that mental health literacy has increased in recent years (1,2,28–30). Consistent with previous studies, this study showed that nearly half of the outpatients surveyed had no knowledge of neurotic disorders and their subtypes. Better knowledge leads to more favorable attitudes toward neurotic disorders (31). However, only

Table 5

Help-seeking preferences among 372 Chinese general medical outpatients, by hospital type

Item	Tertiary hospital (N=221)		Secondary hospital (N=101)		Primary hospital (N=50)		Total (N=372)			
	Ν	%	N	%	N	%	N	%	$\chi^{2\mathrm{a}}$	р
Behavior										
Worry about bad things happening to myself or										
my relatives; have experienced trembling,										
muscle tightness, sweating, palpitations,										
epigastric discomfort, dizziness, or heart										
attack–like symptoms	17	8	7	7	1	2	25	7	2.12	.35
Worry about getting along with other people;			_	2				_	-	
not willing to encounter a stranger	18	8	5	5	1	2	24	7	3.07	.22
Fear or discomfort in front of people	21	10	11	11	2	4	34	9	2.00	.37
Suddenly feel intense fear, nervousness, or shortness of breath	5	7	4	4	0	4	21	52	1.33	F 1
	10	7 5	$\frac{4}{4}$	$\frac{4}{4}$	2 1	$\frac{4}{2}$	$\frac{21}{15}$	52 4	1.55 .67	.51 .71
Fear I am dying, out of control, or going mad Frequent worry about germs and cleanliness	9	4	$\frac{4}{5}$	$\frac{4}{5}$	$\frac{1}{2}$	$\frac{2}{4}$	15	$\frac{4}{4}$.13	.71
Do the same thing repeatedly	11	$\frac{1}{5}$	4	4	1	2	16	4	.92	.63
Where will you seek help if you have the above	11	0	т	4	1	4	10	Ŧ	.52	.00
symptoms?										
Psychiatric hospital	41	19	18	18	3	6	62	17	4.76	.09
Internal medicine department of general hospital	48	22	25	25	15	30	88	24	1.64	.44
Psychiatric department of general hospital	109	49	44	44	12	24	165	44	10.63	.01
Neurology department of general hospital	58	26	27	27	5	10	90	24	6.35	.04
I want to learn about neurotic disorders	53	24	23	23	5	10	81	22	4.76	.09
I do not know how to obtain knowledge about										
neurotic disorders	111	50	41	59	16	68	168	55	6.64	.04
I want related departments to examine whether I										
have a neurotic disorder	81	37	25	25	6	12	112	30	7.93	.02
I will persuade people suffering from neurotic		~~	10	10					10.05	
disorders to see a psychiatrist	115	52	42	42	16	32	173	47	13.67	<.01

^a df=2

24%-58% of outpatients in this study were found to have knowledge related to the identifying symptoms and treatment of neurotic disorders. Notably, very few outpatients had knowledge about whether neurotic disorders could result in severe mental health problems and serious harm to themselves and others (4% and 2%, respectively). A lack of awareness about neurotic disorders among general medical outpatients might contribute negatively to their attitudes and help-seeking behaviors for mental health. These results suggest that familiarizing the public about neurotic disorders is imperative.

In this study, outpatient awareness about neurotic disorders tended to increase with the bed capacity and care delivery level of hospital. A possible reason is that tertiary hospitals, compared with primary and secondary hospitals, typically provide high-level medical and health services to the public and represent higher academic and more research-intensive environments. In recent years, the central government of China has prioritized the need to provide psychiatric services in tertiary general hospitals. Public health materials and education have been more routinely made available to the staff, outpatients, and inpatients in tertiary hospitals than in primary and secondary hospitals (32).

In addition, Chinese people with neurotic disorders typically first present with somatic distress. More than 50% of outpatients would typically seek help in tertiary general hospitals (33). These results may indicate a positive relationship between increased educational programs and patients' help seeking in tertiary general hospitals, which may create a virtuous cycle. These findings further emphasize the necessity of improving comprehensive mental health education in general hospitals, especially in primary and secondary hospitals. The methods of obtaining knowledge about neurotic disorders among outpatients also illustrated this point. In general hospitals, over half of the outpatients did not know how to obtain knowledge about neurotic disorders, and only about one-fifth of respondents obtained knowledge about neurotic disorders through printed public health materials and by attending lectures. These results indicate that health education related to neurotic disorders should be reinforced to meet the needs of outpatients in general hospitals.

Attitudes and belpseeking preferences

In this study, most outpatients (83%) thought that people should feel no shame in having a neurotic disorder. However, when asked if they would tell any of their friends if they or their relatives suffered from a neurotic disorder, only one in ten outpatients answered affirmatively. The explanation for these conflicted responses might be related to the persistent stigma associated with mental illness (34).

More than 40% outpatients were found to have some knowledge of the common prevalent subtypes of neurotic disorders. However, the percentage that sought help was remarkably small. In China, many people with potential mental illness would prefer not to seek help because they fear stigmatizing attitudes toward them and their families (35). The social stigma toward the patients with mental disorders and the influence of Chinese traditional culture might explain our findings. With respect to treatment preferences related to neurotic disorders, nearly half of the respondents preferred to seek help from psychiatrists in general hospitals, followed by internists. Only 17% of respondents would seek help from a physician in a psychiatric hospital. The major reasons might be public prejudices and the overall lack of knowledge about neurotic disorders as previously described.

Public prejudices and social stigma toward mental disorders have impeded the early treatment and early recovery of psychiatric patients by delaying optimal utilization of mental health services (34,36-38). To some extent, these same prejudices and social stigma have prompted most patients with neurotic disorders to seek care from physicians in general hospitals rather than from mental health specialists. In addition, many Chinese people with neurotic disorders initially present with somatic distress, which might result in their repeatedly seeking care from a nonpsychiatric department physician in a general hospital setting before being receiving a diagnosis of a neurotic disorder (32).

It is well documented that in the outpatient departments of general hospitals in China, there are a large number of patients with both general medical illness and mental disorders. Mental health literacy would greatly improve if measures were taken in outpatient departments in these settings to improve the availability of information regarding mental disorders. In light of the findings indicating that nearly half of the outpatients preferred to seek help from physicians in general hospitals, it is important for hospital administrators in these settings to train medical and nursing practitioners in regard to early mental health screenings, available treatments, and referrals targeted for patients with signs of neurotic disorders.

Limitations

The study was performed in Xi'an, one of the old cities in northwest China. This study assessed outpatient knowledge about obsessive-compulsive disorder, social phobia, and panic disorder. Knowledge about generalized anxiety disorder and depression should be probed in future studies in order to develop more comprehensive, evidencebased mental illness prevention and health promotion strategies.

Conclusions

Notwithstanding the limitations of this study, this was the first study of its kind carried out in general hospitals of China. It provides preliminary insights into a neglected area of health literacy regarding neurotic disorders in China. This move toward an increased understanding of neurotic disorders could be a very important step toward enhancing public mental health literacy.

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References

- Goldney RD, Fisher LJ, Dal Grande E, et al: Changes in mental health literacy about depression: South Australia, 1998 to 2004. Medical Journal of Australia 183: 134–137, 2005
- Jorm AF, Christensen H, Griffiths KM: The public's ability to recognize mental disorders and their beliefs about treatment: changes in Australia over 8 years. Australian and New Zealand Journal of Psychiatry 40:36–41, 2006
- Angermeyer MC, Matschinger H: Have there been any changes in the public's attitudes towards psychiatric treatment? Results from representative population surveys in Germany in the years 1990 and 2001. Acta Psychiatrica Scandinavica 111: 68–73, 2005
- Mojtabai R: Americans' attitudes toward mental health treatment seeking: 1990– 2003. Psychiatric Services 58:642–651, 2007
- Mental Health: Mental Health Care Delivery. Geneva, World Health Organization. Available at www.who.int./mental_health/ en. Accessed July 12, 2013
- Phillips MR: Can China's new mental health law substantially reduce the burden of illness attributable to mental disorders? Lancet 381:1964–1966, 2013
- Nilsson E, Bogren M, Mattisson C, et al: Point prevalence of neurosis in the Lundby Study 1947–1997. Nordic Journal of Psychiatry 61:33–39, 2007
- Herrman H, Chopra P: Quality of life and neurotic disorders in general healthcare. Current Opinion in Psychiatry 22:61–68, 2009
- 9. The World Health Report 2001: Mental Health: New Understanding, New Hope. Geneva, World Health Organization, 2001
- Lin IF, Spiga R, Fortsch W: Insight and adherence to medication in chronic schizophrenics. Journal of Clinical Psychiatry 40: 430–432, 1979
- McEvoy JP, Apperson LJ, Appelbaum PS, et al: Insight in schizophrenia: its relationship to acute psychopathology. Journal of Nervous and Mental Disease 177:43–47, 1989
- Schwartz RC, Cohen BN, Grubaugh A: Does insight affect long-term inpatient treatment outcome in chronic schizophrenia? Comprehensive Psychiatry 38:283–288, 1997
- Yen CF, Yeh ML, Chen CS, et al: Predictive value of insight for suicide, violence, hospitalization, and social adjustment for outpatients with schizophrenia: a prospective study. Comprehensive Psychiatry 43:443–447, 2002

- Pescosolido BA, Martin JK, Long JS, et al: "A disease like any other"? A decade of change in public reactions to schizophrenia, depression, and alcohol dependence. American Journal of Psychiatry 167:1321– 1330, 2010
- 15. Wong DF, Xuesong H: Schizophrenia literacy among Chinese in Shanghai, China: a comparison with Chinese-speaking Australians in Melbourne and Chinese in Hong Kong. Australian and New Zealand Journal of Psychiatry 45:524–531, 2011
- Angermeyer MC, Matschinger H: Public attitudes to people with depression: have there been any changes over the last decade? Journal of Affective Disorders 83: 177–182, 2004
- 17. Wong DF, Xuesong H, Poon A, et al: Depression literacy among Chinese in Shanghai, China: a comparison with Chinesespeaking Australians in Melbourne and Chinese in Hong Kong. Social Psychiatry and Psychiatric Epidemiology 47:1235–1242, 2012
- Guo K: Popularizing psychiatric knowledge to improve the level of psychiatric disorders prevention and control [in Chinese]. Journal of Practical Psychiatry 7:43, 2000
- Lin KM, Cheung F: Mental health issues for Asian Americans. Psychiatric Services 50:774–780, 1999
- 20. Wang SY: Survey of help-seeking behavior of patients with mental disorders [in Chinese]. Sichuan Mental Health 15:16, 2002
- Zhang J, Wang WJ, Song Y, et al: Investigation on awareness of mental health related knowledge among ordinary residents in Jining [in Chinese]. Journal of Jining Medical University 32:282–284, 2009
- Nisenson LG, Pepper CM, Schwenk TL, et al: The nature and prevalence of anxiety disorders in primary care. General Hospital Psychiatry 20:21–28, 1998
- Pan J, Ning S: A survey of neurosis symptoms of out-patients in internal medicine clinics of general hospitals [in Chinese]. Chinese Nursing Research 9:1326–1327, 2005
- Somers JM, Goldner EM, Waraich P, et al: Prevalence and incidence studies of anxiety disorders: a systematic review of the literature. Canadian Journal of Psychiatry 51: 100–113, 2006
- Ma LH, Zhang CY, Zhang T, et al: Crosssectional study of neuroses among outpatients in general hospitals [in Chinese]. Journal of Nursing 20:62–65, 2013
- 26. Jorm AF: Mental health literacy: public knowledge and beliefs about mental dis-

orders. British Journal of Psychiatry 177: 396–401, 2000

- 27. Ni CP, Ma LH, Wang B, et al: Neuroses knowledge among outpatients in general hospitals. Presented at the Xi'an International Nursing High-End Forum, Xi'an, China, June 22–23, 2013
- 28. Grausgruber A, Meise U, Katschnig H, et al: Patterns of social distance towards people suffering from schizophrenia in Austria: a comparison between the general public, relatives and mental health staff. Acta Psychiatrica Scandinavica 115:310–319, 2007
- Holzinger A, Dietrich S, Heitmann S, et al: Evaluation of target-group oriented interventions aimed at reducing the stigma surrounding mental illness [in German]. Psychiatrische Praxis 35:376–386, 2008
- 30. Jorm AF, Christensen H, Griffiths KM: Public beliefs about causes and risk factors for mental disorders: changes in Australia over 8 years. Social Psychiatry and Psychiatric Epidemiology 40:764–767, 2005
- Lei WX, Xi HG: Investigation on the medical behavior of neurotic patients [in Chinese]. Nursing Practice and Research 12:142–143, 2013
- 32. Jiang CL, Zhao YX, Zhao XQ, et al: Characteristics of mental health services at 325 general hospitals in Beijing [in Chinese]. Chinese Journal of Preventive Medicine 39:241–244, 2005
- Chen H, Kramer EJ, Chen T: The Bridge Program: a model for reaching Asian Americans. Psychiatric Services 54:1411–1412, 2003
- 34. El-Adi M, El-Mahdy M, Anis M: First Episode Psychosis (FEP): factors associated with delayed access to care in a rural Egyptian setting. European Psychiatry 22: 79–80, 2007
- 35. Lee S, Tsang A, Kwok K: Twelve-month prevalence, correlates, and treatment preference of adults with DSM-IV major depressive episode in Hong Kong. Journal of Affective Disorders 98:129–136, 2007
- 36. Jovanovic D: Duration of untreated psychosis and stigma in psychotic patients: a family view. European Psychiatry 22: 117–118, 2007
- Lehtinen V, Vaeisaenen E: Attitudes towards mental illness and utilization of psychiatric treatment. Social Psychiatry and Psychiatric Epidemiology 13:63–68, 1978
- Kessler RC, Mickelson KD, Williams DR: The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. Journal of Health and Social Behavior 40:208–230, 1999