

Patients' Explanation Models for Their Illness and Help-Seeking Behavior

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Abstract

Objective: The aim of this study was to investigate some variables that affect patients' explanation models for their illness and help-seeking behavior.

Methods: Sampling was done between 2002 and 2003 among psychiatric patients who were admitted to university hospital in Malatya. Diagnoses of schizophrenia and schizoaffective disorder were made according to DSM-IV criteria. A semi-structured interview based on a short questionnaire was conducted for collecting patient demographic data, and patient explanatory model for illness and help-seeking behavior.

Results: The 88 patients that were evaluated included 50 males and 38 females. The mean age of the patients was 31.22 ± 9.29 years (range: 16-57 years). In explaining their disease, 46.6% of the patients cited family trouble, 42% their inner problems, 19.3% economic difficulties, and 10.2% cited the consequences of supernatural forces. Among the patients, help-seeking behavior included visiting traditional and religious healers (51.1%), presenting to medical doctors (19.3%), and visiting a psychiatrist (65.9%).

Conclusion: The study revealed that patients with low-level education were more prone to seek religious solutions and those with high-level education tended to visit a psychiatrist. It has been suggested that psycho-educational programs for patients and families will be very useful in ameliorating the problems created by the disease.

Key Words: Explanatory model, help-seeking behavior, illness experience, psychosis

INTRODUCTION

The reported mean duration between the initiation of psychotic symptoms, and seeking help and starting treatment is 1-2 years (Loebel et al., 1992; Larsen et al., 1996; Craig et al., 2000; Addington et al., 2002; Oosthuizen et al., 2005). This critical time period that is lost to non-medical help-seeking behavior affects the course and treatment of the illness negatively (Waddington et al., 1995; Wyatt et al., 1997; Marshall et al., 2005). It was observed that abnormal experiences are not always considered as serious mental illnesses and are even sometimes evaluated as psychic talents (Coursey et al., 1995; Ritsher et al., 1997). Abnormal behaviors are taken into consideration only when they become dissonant with social beliefs and behavior patterns (Moravcsik, 1998). Sociocultural characteristics of a particular society and

the individual become important in this process (Kleinman 1986; Littlewood 1990; Weiss 1997; Csordas and Lewton, 1998).

Psychotic experiences are explained with structural factors, such as genetic susceptibility and sensitivity to stress, or with psychosocial stress factors; they are also explained by supernatural forces. Studies conducted in India (Banerjee and Roy, 1998) and with Mexican Americans (Urdaneta et al., 1995) showed that psychotic experiences were attributed to supernatural forces in addition to biomedical reasons. Explanatory models of psychotic conditions change in parallel to the changes in society (Dein, 2002; Bhui and Bhugra, 2003). Due to developments in neuroscience, changes in psychiatric treatment services (Iliyasu and Last, 1991; Alem et al., 1999), and global economic transformation, psychiatric illness is increasingly explained based on biology (Kir-

mayer and Minas, 2000; Horwitz, 2002). However, this transformation is not the same everywhere and various explanations continue in different sociocultural climates. There are many studies showing that people can seek biomedical help without abandoning traditional explanations or that they can try different solutions when they are not satisfied with medical treatment (Campion and Bhugra, 1997; Banerjee and Roy 1998; Dein, 2002). The situation is similar in Turkey. It was observed that the Islamic traditions influenced from early shamanistic rituals is reflected in illness explanatory models and sometimes results in patients consulting paranormal methods, such as magic (Ocak, 2002; Göka, 2005).

In addition to explanatory models of illness, sociodemographic variables, such as age, level of education, personality characteristics, socioeconomic level, type and severity of illness, family structure, social environment, and available health services are important in evaluating psychotic symptoms as illness and help-seeking ways (Bhana and Daniels, 1987; Vaglum, 1996; Horwitz, 1996). As the effectiveness of health care increases, the percentage of individuals seeking medical help increases (Fosu, 1995; Aboidun, 1995; Kılıç et al., 1994).

This study was conducted in Malatya, Turkey in order to explore illness explanatory models, help-seeking behaviors, and thoughts related to illness in a group of psychotic patients. In addition, sociodemographic factors that might affect these beliefs were also evaluated.

MATERIALS and METHOD

This study was conducted between 2002 and 2003 with psychotic patients that were discharged from the schizophrenia clinic for follow-up on an outpatient basis at İnönü University, Turgut Özal Medical Center, Psychiatry Department. The study included 88 consecutive patients who were diagnosed with schizophrenia or schizoaffective disorder according to DSM-IV criteria by 2 different psychiatrists. Patients with comorbid psychiatric diagnoses were excluded. Sociodemographic variables were recorded using a questionnaire. In order to understand the determinative complaint for seeking health care, each patient's most troublesome complaint was determined. In addition, in order to detect the findings regarding the diagnosis, the physician who made the diagnosis was asked about the 3 most important symptoms that led to the psychosis diagnosis. In order to use the questionnaire developed on the basis of Kleinman's (1980) illness explanatory model, which includes reasons for the illness, help-seeking behavior, expectations from

treatment, and thoughts about the course of the illness, patient consent was obtained. In a pilot study conducted with 30 patients, answers given to open-ended questions were converted into multiple choices. Statistical analysis of the findings was conducted using the SPSS for Windows 10.0 package program. Patients' replies about the cause of illness and help-seeking behaviors were classified. These findings were compared according to the sociodemographic findings and clinical variables. Differences among groups in terms of age, sex, living conditions, and economic status were explored using variance analysis, chi-square test, and Fisher's exact test.

FINDINGS

The study included 88 patients (mean age: 31.2 ± 9.3 years), including 38 women (mean age: 31.4 ± 9.9 years) and 50 men (mean age: 31.1 ± 8.9 years). Other sociodemographic variables are presented in Table I, whereas diagnostic groups, cause for admission, and findings that resulted in the diagnosis are presented in Table II.

The complaints that resulted in seeking help were somatic complaints, delusions, agitation, anxiety, and hallucinations. Fundamental symptoms that lead to the diagnosis were thought and perception disorders, and findings regarding mood and impulsivity, respectively. Problems, such as connotation disorder related to speech, neologism, and changes in the content of speech, were more frequent among women ($P = 0.032$). Impulse control problems were more frequent among patients whose education levels was high school and below ($\chi^2: 5.124, P = 0.024$).

Results of the questionnaire and their distribution according to gender are presented in Table III. In the comparisons according to the level of education, it was found that patients with higher levels of income had higher levels of education (high school and above) ($\chi^2: 6.532, P = 0.038$). Agitation was statistically more frequent in patients with lower levels of education ($\chi^2: 5.12, P = 0.024$). The percentage of admissions due to interpersonal problems was higher among patients with higher levels of education ($\chi^2: 5.46, p = 0.019$).

In terms of residential areas, the majority of the women lived in the city, whereas the majority of men lived in rural area ($\chi^2: 7.44, P = 0.024$). Psychotic patients who lived in towns and villages presented more often to non-medical treatment ($\chi^2: 6.97, P = 0.008$). It was found that expectation from the treatment changed according to rural area; patients who lived in the city more frequently expected to be treated with medication and psychotherapy ($\chi^2: 6.70, P = 0.021$).

Table I. Sociodemographic Findings of the Patients.

	N	%
Marital Status		
Married	25	28.4
Single	55	62.1
Widowed	8	9.1
Level of education		
Illiterate	3	3.4
Literate	3	3.4
Primary school	39	44.3
High school	36	40.9
University	7	7.9
Residential area		
Rural	35	39.8
Urban	53	60.3
Monthly income of the family		
Below 200 YTL	41	46.6
200-600 YTL	30	34.1
Above 600 YTL	17	19.3

The data revealed that the level of income differed significantly according to the rural area and that the monthly income of 72.7% of the patents that lived in villages was less than 200 YTL (χ^2 : 6.53, $P = 0.038$). As the level of income increased, expectations to get better also increased (χ^2 : 6.61, $P = 0.037$). The level of income was higher among men (χ^2 : 11.055, $P = 0.004$) and attributing their illness to economic problems was also higher among male patients (χ^2 : 5.60, $P = 0.018$).

The percentage of patients referred either by himself/herself ($P = 0.029$) or by another physician ($P = 0.034$) was higher among the male patients. The rate of referral by acquaintances to non-medical treatment ($P = 0.020$) and inpatient treatment expectation was higher among women ($P = 0.028$). Men had higher expectations regarding better adjustment to the environment after treatment than did women (χ^2 : 4.22, $P = 0.040$).

Attributing illness to problems related to friends was more frequent among patients who had at least a high school education (χ^2 : 4.81, $P = 0.028$). Patients with a high school education or below were more prone to seek religious help (χ^2 : 11.80, $P = 0.001$). Patients with higher education levels were more prone to seek psychiatric help. While primary school graduates sought more religious help for themselves, they were prone to seek non-religious, medical help for family members (χ^2 : 4.026, $P = 0.045$). Patients with lower education levels tended to recommend non-medical methods to psychotic patients around them (χ^2 : 7.97, $P = 0.005$).

The most important fear related to the illness was

memory loss (χ^2 : 4.30, $P = 0.038$) among patients who lived in villages versus being insane among patients living in the city. Fear of death in patients living in the city (Fisher's exact test, $p = 0.023$) and fear of violating others among the patients living in villages were found to be at the lowest levels. Patients living in rural area perceived their illness more severe (χ^2 : 7.14, $P = 0.08$).

DISCUSSION

In addition to a biological etiology, psychiatric illnesses are also social occurrences, according to a variety of explanatory models of abnormal behavior (Seremetakis, 1994). Each society has a different explanation about the cause of psychosis, such as psychological/personal, biological/structural, stress/social factors, and supernatural forces (Romney, 1994; Whittle, 1996; Ritsher, Coursey and Farrell, 1997); therefore, it is important to have knowledge about a society's belief system and its illness explanatory models about psychiatric illness (Mechanic, 1982).

The finding that 66% of the patients in our study attributed their illnesses to daily problems is compatible with the medical model that suggests stress leads to

Table II. Diagnosis, Cause of Admission, and Findings That Resulted in the Diagnosis.

DSM-IV diagnosis	n
Schizophrenia	68
Schizoaffective disorder	20
Most important reason for admission	%
Somatic complaints	47.7
Hallucinations	29.5
Agitation	27.3
Anxiety	25.0
Delusion	22.7
Depressive symptoms	15.9
Relational problems	12.5
No complaints	9.1
Deterioration of functionality	3.4
Drug side effect	4.5
Findings that resulted in the diagnosis	
Thought disorder	62.5
Perception disorder	50.0
Affective findings	33.0
Sleep disorders	8.0
Impulse control disorder	27.3
Deterioration of functionality	8.0
Autistic symptoms	9.1

Table III. Distribution of the Responses to the Questionnaire According to Gender.

Questions	Total		Female		Male		r	p
	N=88		N=38		N=50			
	N	%	N	%	N	%		
Most important cause of the illness								
Familial problems	41	46.6	22	57.9	19	38	4.21	0.04
Economic problems	17	19.3	3	7.9	14	28		
Problems in the workplace	10	11.4	3	7.9	7	14		
Peer relationships	13	14.8	4	10.5	9	18		
Related with psychic problems	37	42.2	16	42.1	21	42		
Supernatural forces	9	10.2	2	5.3	7	14		
No reason	3	3.4			3	6		
I am not ill	6	6.8	3	7.9	3	6		
Why now?								
Problems with close relationships	23	26.1	9	23.7	14	28		
Accumulation of problems	39	44.3	18	47.4	21	42		
Treatment nonadjustment	3	3.4	2	5.3	1	2		
No idea	35	37.5	12	31.6	21	42		
Help-seeking ways								
Traditional	11	12.5	7	18.4	4	8		
Religious	41	46.6	21	55.3	20	40		
Refer to a psychiatrist	58	65.9	25	65.8	33	66		
Other	17	19.3	7	18.4	10	20		
Will not seek solution	8	9.1	2	5.3	6	12		
Self suggestion	20	20.5	7	18.4	11	22		
What kind of help would he/she seek if one of the family members had the same problem?								
Traditional	4	4.5	3	7.9	1	2		
Religious	11	12.5	5	13.2	6	12		
Refer to a psychiatrist	70	79.5	29	76.3	41	82		
Other	10	11.4	5	13.2	5	10		
Will not seek solution	3	3.4	1	2.6	2	4		
Self suggestion	10	11.4	3	7.9	7	14		
What would others do?								
Would go to any doctor	16	18.2	8	21.1	8	16		
Would go to a psychiatrist	41	46.6	17	44.7	24	48		
Would go to traditional healer	14	15.9	10	26.3	4	8		
No idea	24	27.3	8	21.1	16	32		

illness. The finding that 41% of the patients attributed their illnesses to themselves (personality characteristics, ways of thinking...etc.) is important in terms of explaining the illness with biological and mental factors. That 10% of the patients explained their illness as the result of supernatural forces seems to be related to the society's belief system. We believe that psychological education and group psychotherapy administered to a majority of the patients might have an effect on the results, and increase biological and psychological attributions related to the illness. It was suggested that an educational process that would adjust the illness explanatory models of the

patient to a medical illness model would increase both help-seeking behavior and positive outcome of treatment (Shin and Lukens, 2002; Wei et al., 2005).

It is known that various ethnic and socioeconomic groups present different help-seeking behaviors and different attitudes towards mental health services (Van Os et al., 1997; Bayer et al., 1997). Beckerlag (1994) found that patients in Africa are prone to engage in traditional solutions in addition to medical help related to their complaints. Studies conducted in India showed that the percentage of seeking religion-based help for psychotic

Table III Continues.

Who referred him/her to the psychiatrist?						
Family	68	77.3	32	84.2	36	72
Peers	4	4.5	2	5.3	2	4
Self	16	18.2	3	7.9	13	26
Other physicians	11	12.5	5	13.2	6	12
What kind of treatment is preferred?						
Medication	31	35.2	10	26.3	21	42
Psychotherapy	14	15.9	9	23.7	5	10
Both	36	40.9	17	44.7	19	38
Inpatient	13	14.8	2	5.3	11	22
					5.07	0.02
Expectation from the treatment?						
Get well	54	61.4	19	50.0	35	70
Change	14	15.9	6	15.8	8	16
Become somebody else	6	6.8	1	2.6	5	10
To adjust to the environment	21	23.9	5	13.2	16	32
To become as the old self	34	38.6	15	39.5	19	38
					42.7	0.04
Fear about the illness						
Become needy	27	30.7	9	23.7	18	36
Become insane	31	35.2	14	36.8	17	34
Hurt himself/herself	16	18.2	8	21.1	8	16
Violation	19	21.6	8	21.1	11	22
Loose memory	18	20.5	6	15.8	12	24
Die	11	12.5	2	5.3	9	18
No fear	19	21.6	8	21.1	11	22

experiences varies between 45%-74% (Campion and Bhugra, 1997; Kulhara et al., 2000). In a study conducted in Thailand it was found that one third of the patients present to physicians after the initiation of psychotic symptoms, 28% seek non-medical treatment, and 38% wait for symptoms to disappear (Ratanatikanon et al., 1997).

In our study, we found that some patients sought medical help and some sought traditional/religion-based help, whereas the majority of the patients used both methods. The chronic and destructive nature of psychotic illness may lead families to search for multiple solutions. Helplessness resulting from one solution at the onset and exacerbation or residual periods of the illness may result in orienting towards traditional methods. Increasing availability of psychiatric services in Turkey results in more awareness and orientation toward medical explanations about psychiatric symptoms. Research conducted in recent years in Turkey shows this tendency related to help-seeking behavior (Kılıç et al., 1994).

The most important results of extraordinary experiences like delusions and hallucinations for the patients are certain physical reactions, whereas cognitive distortions are accepted as the fundamental problem for the

physician. Findings of this study showed that the psychotic patients or their relatives tended to seek help for physical reactions, such as anxiety or agitation; while on the other hand, the physician directs more attention to the affective findings, and thought and perception disorders.

The needs, background, and expectations of the individual determine which factors are perceived as problems and the kind of the treatment expectation. In our sample we found that patients from rural area and with lower levels of education had a greater tendency to non-medical help-seeking ways. It was found that as the level of education increased, thought disorders and relational problems also increased, and that impulse control disorder was more frequent among patients with lower education levels. While villagers admitted to the physician having depressive symptoms, it was found that they did not pay much attention to impulsive behaviors. Moreover, the willingness of the majority of the patients to seek medical and psychotherapeutic help was related to their positive experiences with these treatments.

Limitations of the Study

One of the limitations of this study is the small num-

ber of patients, which included those who had undergone a hospital treatment. These patients had undergone a standard psychoeducation process; therefore, the study population included patients who used the medical model in explaining their illnesses. A recent comprehensive field study of the attributions, explanations, and help-seeking behaviors of the study group is being prepared for publication.

As the psychotic patient does not have insight related to their illness, it is generally the family who seeks help. Therefore, a family's perception of the illness and fear of stigmatization during medical treatment might hinder orientation towards the medical treatment, and not collecting enough information from the family members is an important limitation of this study.

In addition, we think that the information gathered about each patient's current residential area did not provide enough information for evaluating sociocultural

factors and those factors, such as belief systems, sociocultural background, and social class, are more informative in understanding the processes that affect explanations of the cause of the illness. Not determining the duration of the illness is another important limitation in evaluating our findings as explanations of the cause of illness during the initial phase and chronic phase are expected to be different.

CONCLUSION

There is a positive relationship in psychotic patients between beginning treatment early and the course of the illness; therefore, orienting patients towards the medical model and to medical treatment in the early phases are very important. It has been suggested that psychoeducational programs that would provide the necessary information and development of the abilities of the patient and family will be very useful in overcoming the problems created by the illness.

REFERENCES

- Abiodun O (1995) Pathways to mental health care in Nigeria. *Psychiatr Serv*, 46: 823-826.
- Addington J, van Mastrigt S, Hutchinson J, Addington D (2002) Pathways to care: help seeking behaviour in first episode psychosis. *Acta Psychiatr Scand* 106: 358-364.
- Alem A, Kebede D, Woldeesemiat G, Jacobsson L, Kullgren G (1999) The prevalence and sociodemographic correlates of mental distress in Butajira, Ethiopia. *Acta Psychiatr Scand Suppl*, 397:48-55.
- Banerjee G, Roy S (1998) Determinants of help-seeking behaviour of families of schizophrenic patients attending a teaching hospital in India: An indigenous explanatory model. *Int J Soc Psychiatry*, 44:199-214.
- Bayer JK, Peay MY (1997) Predicting intention to seek help from professional mental health services. *Austral and New Zealand J Psychiatry*, 31: 504-513.
- Beckerleg S (1994) Medical pluralism and islam in Swahili communities in Kenya. *Med Anthropol Quarterly*, 8: 299-313.
- Bhana K, Daniels CS (1987) Generational changes in conceptions of mental illness: a study of a South African sample. *J Cross-Cult Psychol*, 17: 493-505.
- Bhui K, Bhugra D (2003) Correspondence. *Br J Psychiatry*, 183:170.
- Campion J, Bhugra D (1997) Experiences of religious healing in psychiatric patients in South India. *Soc Psychiat and Psychiatric Epidemiol*, 32: 215-221.
- Coursey R D, Keller AB, Farrell EW (1995) Individual psychotherapy and persons with severe mental illness: the client's perspective. *Schizophr Bull*, 21: 102-119.
- Csordas TJ, Lewton E (1998) Practice, performance and experience in ritual healing. *Transcult Psychiatry*, 35: 435-512.
- Craig TJ, Bromet EJ, Fennig S, Tanenberg-Karant M, Lavelle J, Galambos N (2000) Is there an association between duration of untreated psychosis and 24-month clinical outcome in a first-admission series? *Am J Psychiatry*, 157:60-66.
- Dein S (2002) Transcultural psychiatry *Br J Psychiatry*, 181: 535-536.
- Fosu G (1995) Women's orientation toward help-seeking for mental disorders. *Soc Sci and Medicines*, 40:1029-1040.
- Göka E (2005) Türklerde ruh: Türklerin grup davranışına yön veren inançlar. Ed. İ Kırpınar 41. Ulusal Psikiyatri Kongresi Özet Kitabı ve kongre sunumu. Erzurum s. 92-93.
- Horwitz AV (1996) Seeking and receiving mental health care. *Curr Opin in Psychiatry*, 9: 158-161.
- Horwitz AV (2002) Outcomes in the sociology of mental health illness: where have we been and where are we going? *J Health Soc Behav*. 43(2):143-51.
- Iliyasu M, Last M (1991) Mental illness at Goron Dutse Psychiatric hospital. *Kano Studies, Special issue*, 3:41-70.
- Kılıc C, Rezaki M, Ustun T, Gater R (1994) Pathways to psychiatric care in Ankara. *Soc Psychiat and Psychiatric Epidem*, 29: 131-136.
- Kirmayer LJ, Minas H (2000) The Future of Cultural Psychiatry: An International Perspective. *Can J Psychiatry*, 45:438-446.
- Kleinman A (1980) Patients and healers in the context of culture: an exploration of the borderland between anthropology, medicine, psychiatry. Berkeley: University of California Press.
- Kleinman A (1986) Social Origins of Distress and Disease: Depression and Neurasthenia in Modern China. New Haven: Yale University Press.
- Kulhara P, Avasthi A, Sharma A (2000) Magico-religious beliefs in schizophrenia: A study from North India. *Psychopathology*, 33: 62-68.
- Larsen TK, McGlashan TH, Moe LC (1996) First-episode schizophrenia: I. Early course parameters. *Schizophr Bull*, 22: 241-256.
- Littlewood R (1990) From categories to contexts: a decade of the new cross-cultural psychiatry. *Br J Psychiatry*, 156:308-327.
- Loebel AD, Lieberman JA, Alvir MJ et al., (1992) Duration of untreated psychosis and outcome in first episode schizophrenia. *Am J Psychiatry*, 149:1183-1188.
- Marshall M, Lewis S, Lockwood A, Drake R, Jones P, Croudace T (2005) Association between duration of untreated psychosis and outcome in cohorts of first-episode patients: a systematic review. *Arch Gen Psychiatry*, 62(9):975-83.

- Mechanic D (1982) Mental health and social policy. Englewood Cliffs, NJ: Prentice Hall.
- Moravcsik JME (1998) Meaning, creativity and the partial inscrutability of the human mind. Stanford, California, CSLI Publications.
- Ocak AY (2002) Alevi ve Bektaşî İnançlarının İslam Öncesi Temelleri. İletişim Yayınları, İstanbul, 3. Baskı. p.149-170.
- Oosthuizen P, Emsley RA, Keyter N, Niehaus DJ, Koen L (2005) Duration of untreated psychosis and outcome in first-episode psychosis. Perspective from a developing country. *Acta Psychiatr Scand*, 111:214-9.
- Ratanatikanon C, Assanangkornchai S, Tanchaiswad W (1997) Pattern of help-seeking by relatives of psychotic patients *J Psychiatr Assoc Thailand* 42(4) :226-33.
- Ritsher JE, Coursey RD, Farrell EW (1997) A survey on issues in the lives of women with severe mental illness. *Psychiatr Serv*. 48(10):1273-82.
- Romney DM (1994) Cross-validating a causal model relating attributional style, self-esteem and depression: An heuristic study. *Psychological Reports*, 74:203-207.
- Serematakis C (1994) The Memory of the Senses, Part 1, C. Serematakis (ed), *The Senses Still: Perception and Memory as Material Culture in Modernity*. Boulder: Westview. p.6.
- Shin SK, Lukens EP (2002) Effects of psychoeducation for Korean Americans with chronic mental illness. *Psychiatr Serv*, 53:1125-1131.
- Urdaneta ML, Saldaña DH, Winkler A (1995) Mexican American perceptions of severe mental illness, *Human Organization*, 54 : 70-77.
- Vaglum P (1996) Earlier detection and intervention in schizophrenia: Unsolved questions. *Schizophr Bull*, 22: 347-351.
- Van Os J, Mckenzie K, Jones P (1997) Cultural differences in pathways to care, service use and treated outcomes. *Curr Opin in Psychiatry*, 10: 178-182.
- Waddington JL, Youssef HA, Kinsella A (1995) Sequential cross-sectional and 10-year prospective study of severe negative symptoms in relation to duration of initially untreated psychosis in chronic schizophrenia. *Psychol Med*, 25:849-857.
- Wei C-X, Chen S-X, Jin L-P (2005) Influence of systemic health education on the drug compliance in the patients with schizophrenia. *Chin J Clin Rehabil*, 9: 52-53.
- Weiss M (1997) Explanatory model interview catalogue (EMIC): Framework for comparative study of illness. *Transcult Psychiatry*, 34:235-263.
- Whittle P (1996) Psychiatric disorder and the development of a causal belief questionnaire. *Journal of Mental Health*, 13: 257-266.
- Wyatt RJ, Green MF, Tuma AH (1997) Long-term morbidity associated with delayed treatment of first admission schizophrenic patients: a re-analysis of the Camarillo State Hospital data. *Psychol Med*, 27:261-268.

THE ILLNESS MODEL QUESTIONNAIRE

Sex: a) M b) F

Age:

Education:

- | | | | |
|----------------|---------------|-------------------|------------------|
| a) Illiterate | b) Literate | c) Primary school | d) Middle school |
| e) High school | f) University | | |

Marital Status:

- | | | |
|-----------|------------|------------|
| a) Single | b) Married | c) Widowed |
|-----------|------------|------------|

Family income:

- | | | |
|------------------|----------------|------------------|
| a) Below 200 YTL | b) 200-600 YTL | c) Above 600 YTL |
|------------------|----------------|------------------|

Residential area:

- | | |
|---------------|---------------|
| a) Rural area | b) Urban area |
|---------------|---------------|

DSM- IV Axis-I diagnosis :

First most important complaint:

The first three complaints that resulted in the diagnosis:

What was the most important reason for your illness?

- | | | |
|--|---|---|
| a) Familial problems | Y | N |
| b) Economic problems | Y | N |
| c) Problems in the workplace | Y | N |
| d) Related with oneself (personal characteristics) | Y | N |
| e) Peer relationships | Y | N |
| f) Supernatural forces | Y | N |

Why do you think that your illness occurred at this point in time?

- | | | |
|--------------------------------------|---|---|
| a) Problems with close relationships | Y | N |
| b) Accumulation of problems | Y | N |
| c) No idea | | |

What were the solutions you previously sought for these complaints?

- | | | |
|--|---|---|
| a) Traditional (baths, going on vacation) | Y | N |
| b) Religious (going to a healer, doing spells, etc.) | Y | N |
| c) Going to a psychiatrist | Y | N |
| d) Going to a non-psychiatric physician | Y | N |
| e) Other | Y | N |
| f) Did not seek help | Y | N |
| g) Self suggestion | Y | N |

What would you do if one of your relatives had these complaints?

a) Traditional help	Y	N
b) Religious help	Y	N
c) Refer to a psychiatrist	Y	N
d) Other	Y	N
e) Will not seek help	Y	N
f) I would tell him/her to solve the problem alone	Y	N
g) Refer to a non-psychiatric physician	Y	N

If somebody you know had these complaints what would he/she do?

a) Would go to any doctor	Y	N
b) Would go to a psychiatrist	Y	N
c) Would go to a healer	Y	N
d) No idea	Y	N