RESEARCH ARTICLE

Assessment of coping with stress in patients with Schizophrenia in a Community Mental Health Centre, in Turkey

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Abstract

Objective: To assess schizophrenia patients' approach toward coping with stress in terms of demographic variables.
Methods: The cross-sectional descriptive study was conducted at the State Hospital Community Mental Health Centre, Turkey, from November 1, 2013, to April 30, 2014 and comprised patients diagnosed with schizophrenia. Data was collected using Sociodemographic Information Form and the Coping Assessment Questionnaire Inventory. It was analysed using SPSS 18.
Results: Of the 53 patients, 14(26.4%) were females and 39(73.5%) were males. The overall mean age was 38±10.66 years. Highest mean score was recorded for the emotion-focussed coping subscale which was 63.49±10.64. Female patients used emotional social support, focussing on problems and venting emotions techniques ($p<0.05$). Patients who did not use alcohol received higher scores from religious coping subscales, while patients who used alcohol scored higher from substance use and dysfunctional coping subscales ($p<0.05$).
Conclusion: Most schizophrenia patients were found to be using emotion-focussed coping methods.
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Introduction

Schizophrenia is a disorder characterized by positive symptoms, like deliriums and hallucinations, negative symptoms, like blunt affect, memory, attention and social disorders.[1] Schizophrenia is a complex, multidimensional disorder. It affects approximately 1% of the global population. Schizophrenia patients face many failures throughout their lives due to disease symptoms and the course of the disease.[2]

Given that personal and environmental factors considerably affect the emergence of schizophrenia and its prognosis, many models have been developed to examine how those factors affect the disorder. The diathesis-stress model holds that stress plays an important role in the emergence and recurrence of outcomes related to neurobiological structures in schizophrenia. The model emphasises that the schizotypal within an individual's personality structure significantly affects the development of schizophrenia spectrum disorders and that extreme stress increases their clinical symptoms.[3] In particular, the model maintains that repeated negative life experiences especially increase the frequency of psychotic episodes. In support, the integrative model holds that a schizophrenic individual's experiences with and personal reactions to stressful, traumatic incidents, for example, help-seeking and coping strategies, affect his or her daily functioning and well-being.[4]

Coping methods are significant components in managing the cognitive and behavioural symptoms of psychosocial stress and other problems, especially in patients with mental disorders. In fact, some coping mechanisms have been reported to prevent hallucinations and eliminate distress.[4,5] Stress can also be mitigated by appealing to internal and external sources and taking advantage of environment-individual interaction. In general, ways to cope with stress can be classified as either active or passive methods. More specifically, active coping methods are either problem-focussed, like seeking to change the stressful situation, or individual-focussed, like seeking to manage emotions in the case of a stressful situation. Active coping mechanisms can be enacted by way of self-oriented cognitive inspiration, like remaining positive or changing one's outlook, or behavioural techniques, like receiving more information on the subject. Both the coping methods benefit physical and mental health, while emotion-focussed or abstinence-based coping methods significantly reduce psychological judgment and adaptation.[6]

Coping methods used by schizophrenia patients can include dysfunctional and emotion-focussed coping behaviours such as denial, active abstinence, or even interpreting stress factors as positive incidents.[6] According to the integrated model of determinants of functioning and well-being in schizophrenia, psychiatric factors exert a moderate influence on coping responses.[7] By the same

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token, improper coping style is an important factor associated with stress in schizophrenia patients. In fact, patients with schizophrenia who often use maladaptive coping styles subsequently develop profound perceptions of personal failure and distress.[8] Inappropriate coping strategies have also been found to induce negative moods in schizophrenia patients and catastrophic appraisals and problematic coping behaviours may actually bar them from seeking help from professional services. The severity of a patient's symptoms is also affected by the non-adaptive coping style. Schizophrenia patients with higher levels of negative symptoms use emotion-focussed coping strategies more frequently and severe negative symptoms caused by waning cognitive function prevent their use of problem-based coping.[9]

Schizophrenia patients experience numerous difficulties and stress while coping with schizophrenia. In response, these patients should be well informed and trained, as well as supported, during treatment so that they can better cope with schizophrenia and achieve successful treatment.[10] For psychiatric nurses, who form an integral part of mental health teams, one of the most important functions is providing psychosocial training not only to inform the patients, but also to reduce their stress and to increase their coping skills.[11] Such training should be organised around teams in in-patient units and ambulatory treatment centres. Psychiatric nurses on such teams can also perform those tasks in health centres, such as community mental health centres (CMHCs), which provide psychosocial support services, treatment, follow-up, home care and patient-family training when necessary, as well as generally efficient, accessible services.[10]

The goal of CMHCs, which constitute the core of community-based mental health service models, is to register patients living in a certain geographical region who have serious mental disorders in order to monitor them and reintegrate them into the community via rehabilitation and treatment. Psychiatric professionals working in community mental health centres are responsible for the treatment and care of their patients in their homes. This treatment provides a positive improvement in the prognosis of the disease.[12]

In Turkey, CMHCs are uncommon and efforts dedicated to determine schizophrenia patients' status of coping with stress are limited.

The current study was planned to evaluate patients with schizophrenia at a CMHC in Turkey regarding coping strategies against stress in terms of demographic variables.

Subjects and Methods

The cross-sectional descriptive study was conducted at the State Hospital Community Mental Health Centre (CMHC), Turkey, from November 1, 2013, to April 30, 2014 and comprised patients diagnosed with schizophrenia. After approval from the non-interventional clinical trials ethics committee of University of Pamukkale, Denizli, Turkey, the sample size was calculated with 88.7% power of statistical significance, with power 90% and estimated precision limit from 1% to 50% ±5. Based on literature,[13] the total sample size calculated was 75.

All the patients enrolled with the CMHC were assessed. The CMHC is an efficient, accessible service centre providing psychosocial support services to patients diagnosed with serious mental problems within the framework of the population-based mental health model, performs patient treatments and follow-ups and provides home care, treatment and patient-family training. Patients diagnosed with schizophrenia are regularly admitted to the CMHC.[14]

Those included in the study were patients stable and currently taking psychotropic drugs aged 18 years or more, diagnosed with schizophrenia according to the Diagnostic and Statistical Manual of Mental Disorders IV, Text Revision (DSM-IV-TR)[15,16] and confirmed by two expert clinicians using the Structured Clinical Interview for DSM-IV-TR Disorders (SCID),[17,18] and clinically stable status for at least 6 months, as judged by the treating psychiatrist. Those excluded were patients with psychotic attack, current or past diagnosis of autistic disorder or another pervasive developmental disorder, known organic cause of presentation and known intellectual disability, current or historical DSM-IV-TR diagnosis of alcohol or drug abuse suggesting severe physiological symptoms, like delirium tremens and repeated loss of consciousness, history of significant head trauma, like requiring overnight hospitalisation, or history of neurological disorder.

After taking informed consent from the subjects, data was collected using a predesigned sociodemographic information form (SIF) and the Coping Orientation to Problems Experienced (COPE) inventory.

SIF included items about age, gender, educational status, marital status and family structure, medical history, like age at onset of schizophrenia, length of illness etc.

COPE[19] questionnaire's Turkish version[20] consists of 15 subscales with four questions each for a total of 60. High scores received on subscales reveal which coping attitudes are frequently used by individuals.[19,20] The

reliability of the scale was 0.80 as measured by Cronbach's alpha.[15] All of its subscales were measured for reliability as well.[20]

Data was analysed using SPSS 18. Comparisons of basic demographic and clinical characteristics and coping styles were done using Kruskal-Wallis and Mann-Whitney U test, as appropriate. Significance level was set at $p<0.05$.

Results

Of the 105 patients at the CMHC, 36(34.2%) did not meet the inclusion criteria and 16(15.2%) did not volunteer to

Table-1: Distribution of socio-demographic characteristics of patients (n=53).

Socio-demographic characteristics	n	%
Age (years)		
18-23	7	13.2
24-29	5	9.4
30-35	12	22.6
36-41	9	17.1
42-47	11	20.8
48-53	5	9.4
54 and above	4	7.5
Gender		
Female	14	26.4
Male	39	73.6
Educational status		
Primary school	19	35.8
Elementary school	16	30.2
High school	13	24.5
College-university	5	9.4
Marital status		
Married	4	7.5
Single	37	69.8
Divorced	12	22.6
Having children		
Having children	12	22.6
Not having children	4	7.6
Single	37	69.8
Employment status		
Employed	1	1.9
Unemployed	52	98.1
Living alone		
Living alone	4	7.5
Living with family (such as mother-father-sibling, spouse-children)	49	92.5
Where does patient come in the family		
First-born	24	45.3
Middle	18	34
Last-born	11	20.8
Smoking habit		
Smoker	25	47.2
Non-Smoker	28	52.8
Alcohol use		
YES	6	11.3
NO	47	88.7

Table-2: Distribution of schizophrenia-related features of patients (n=53).

Features related to schizophrenia disorder	n	%
Age of disorder onset		
Between ages 5-14	14	26.4
Between ages 15-25	32	60.4
Between ages 26-35	3	5.7
Between ages 36-45	3	5.7
56 and above	1	1.9
Frequency of treatments received related to this disorder		
1-5 times	36	67.9
6-10 times	15	28.3
16 and above	2	3.8
Be hopeful to life		
Yes, I am hopeful to life	43	81.1
No, I am not hopeful to life	10	18.9
Attempting to commit suicide		
I attempted to commit suicide	20	37.7
I did not attempt to commit suicide	33	62.3
Harming others		
I harmed others	11	20.8
I didn't harm others	42	79.2
History of other psychiatric disorders in the family		
Yes	28	52.8
No	25	47.2

Table-3: Distribution of Coping Orientation to Problems Experienced (COPE) inventory and subscale mean scores of patients.

Problem-focused coping	Min-Max	X ± SD
Seeking social support for instrumental reasons	4-16	12.83±3.38
Active coping	4-16	12.00±3.56
Restraint coping	4-16	11.09±3.05
Suppression of competing activities	4-16	11.49±3.20
Planning	4-16	12.01±3.68
Total	20-80	59.43±12.64
Emotion-focused coping		
Positive reinterpretation and growth	4-16	13.39±2.83
Turning to religion	4-16	14.52±2.86
Humour	4-16	9.26±4.07
Seeking emotional social support	4-16	12.79±3.05
Acceptance	4-16	13.50±2.94
Total	35-80	63.49±10.64
Dysfunctional coping		
Mental disengagement	4-16	11.35±3.07
Focus on and venting of emotions	4-16	11.15±3.56
Denial	4-16	9.43±3.90
Behavioural disengagement	4-16	8.47±3.80
Substance use	4-16	5.26±3.47
Total	23-68	45.69±10.05
General Total of COPE	78-228	168.62±27.99

Table-4: Distribution of Coping Orientation to Problems Experienced (COPE) inventory and subscale mean scores of patients in terms of some independent variables.

Independent variables	COPE and subscale mean scores					
	Turning to Religion X±SD	Seeking emotional social support X±SD	Focus on and venting of emotions X±SD	Substance use X±SD	Dysfunctional coping total X±SD	COPE Total X±SD
Gender						
Female(n=14)	15.57±1.08	14.07±2.52	12.78±2.91	5.07±3.24	45.92±10.06	168.21±27.83
Male(n=39)	14.15±3.20	12.33±3.12	10.56±3.62	5.33±3.59	45.61±10.18	168.76±28.41
	MU:209.000	MU: 172.500	MU:170.000	MU:270.500	MU:265.000	MU:252.500
	p:0.112	p:0.038	p:0.035	p:0.932	p:0.872	p:0.679
Alcohol use						
YES (n=6)	12.00±4.42	11.50±3.72	10.33±3.38	10.66±5.46	52.66±6.88	171.33±10.21
NO (n=47)	14.85±2.49	12.95±2.96	11.25±3.60	4.57±2.47	44.80±10.10	168.27±29.55
	MU: 75.000	MU: 100.000	MU:116.500	MU:56.000	MU:67.500	MU:121.000
	p:0.023	p:0.240	p:0.485	p:0.0001	p:0.039	p:0.574
Age of disorder onset						
Ages 5-14(n=14)	14.57±1.94	13.00±2.98	9.28±3.04	5.64±3.71	41.85±9.67	159.85±29.27
Ages 15-25(n=32)	14.75±2.83	12.78±2.84	11.75±3.45	5.37±3.74	47.03±9.98	171.34±26.61
Ages 26-35(n=3)	12.00±6.92	15.00±1.73	15.00±1.73	4.00±0.00	56.00±10.81	194.00±30.04
Ages 36-45(n=3)	14.66±2.30	10.00±6.00	8.00±1.73	4.00±0.00	40.66±4.50	160.00±32.90
56 and above(n=1)	14.00±0.00	12.00±0.00	16.00±0.00	4.00±0.00	41.00±0.00	168.62±27.99
	KW:1.497	KW:2.671	KW:11.291	KW:1.518	KW:6.428	KW:3.741
	p:0.683	p:0.445	p:0.010	p:0.678	p:0.093	p:0.291

SD: Standard deviation. : Mean. MU: Mann-Whitney U. KW: Kruskal Wallis Tests. COPE: Coping Assessment Questionnaire Inventory. Significant when P<0.05.

participate. The final sample, as such, had 53(50.5%) subjects. Of them, 14(26.4%) were females and 39(73.5%) were males. The overall mean age was 38±10.66 years. Overall, 19(35.8%) patients had graduated from primary school, 37(69.8%) were single, 52(98.1%) were unemployed, 49(92.5%) lived with their families, 24(45.3%) were first-born children, 28(52.8%) did not smoke and 47(88.7%) did not use alcohol (Table-1).

Also, 32(60.4%) patients were aged 15-25 years at the time onset of disease, 36(67.9%) reported receiving 1-5 treatment(s) for the disorder (Table-2).

The mean COPE score was 168.62±27.99. The problem-focussed coping subscale mean score was 59.43±12.64, the emotion-focused coping subscale mean score was 63.49 ± 10.64 and the dysfunctional coping subscale mean score was 45.69±10.05 (Table-3).

Female patients used emotional social support, focussing on problems and venting emotions techniques (p<0.05). Patients who did not use alcohol received higher scores from religious coping subscales, while patients who used alcohol scored higher from substance use and dysfunctional coping subscales (p<0.05). As for age of disorder onset, patients aged 56 years or more had a higher problem-focussing and venting of emotions subscale mean score (p<0.05) (Table-4).

There was no significant difference between COPE and subscale mean scores of patients in terms of age, marital status, education, parental status, place in family birth order, employment status, cohabitation status, smoking habit, history of physical and psychiatric disorder in the family, frequency of treatment, history of harm to others or attempted suicide and hopefulness (p >0.05 each).

Discussion

In the current study, coping methods of schizophrenic patients were evaluated in terms of demographic characteristics, such as gender, age, marital status, education, parental status, employment status, alcohol use, age of disorder onset, history of mental disorder in family and attempted suicide. Emotion-focussed coping subscale scores of patients were higher than the other coping strategies which has been reported by previous studies as well.[21] Considering these studies, emotion-focused coping strategies are likely effective in reducing the anxieties of patients with mystic delusions.[21,22] In particular, patients with positive symptoms frequently cope with situations through acceptance, which ranks among emotion-focussed coping methods, whereas those with negative symptoms more frequently opt for dysfunctional coping mechanisms.[23] Rehabilitation centres, such as CMHCs, can ensure that the disorder's nature and symptoms are identified in individual and group studies, as well as raising awareness among patients and families regarding effects

and side effects of medications, identifying precursor indications that may foreshadow exacerbation, encouraging disorder acceptance and the gaining of insight, teaching alternative ways to cope with persistent symptoms, increasing adaptation to treatment and reducing symptoms and outcomes related to the mental disorder.[24]

Religious coping and acceptance scores were higher in the current study. Religion can be regarded as a source of emotional support for positive re-interpretation and development or as a method for actively coping with stress. Acceptance is another important parameter in terms of raising awareness about mental disorder within the context of schizophrenia. In fact, patients who do not accept their disorder, do not develop insight and isolate themselves from others.[25]

Several studies have suggested that using coping strategies targeting psychopathological aspects of stress differs among young and old patients in terms of its effect on disease prognosis.[25,26] Studies have revealed that the coping strategies used by patients are dysfunctional and adolescent schizophrenia patients frequently use sleeping and dreaming methods, which are among emotion-focussed coping strategies.[27,28] In the current study, emotion-focussed coping methods were often used, but no difference was found in terms of age. That result may be associated with the higher average age of patients in the study.

The nature of stress and ways of perceiving it as a threat vary depending on gender. While females tend to reveal their feelings toward others, exhibit their skills and show empathy, males tend to suppress and control their feelings.[29] In the current study as well, coping mechanisms used by female patients differed from those used by males along similar lines.

Individuals with low self-efficacy and insufficient awareness have been reported to experience difficulties with effective coping. A correlation has also been found between non-functional avoidant coping and alcohol use.[30,31] In the current study, individuals who used alcohol had higher scores of mental and behavioural disengagements among dysfunctional coping strategies than those who did not consume alcohol. Alcohol use is thought to be a coping method in which mental and behavioural disengagements form a whole in order to avoid stress. Behavioural disengagement may emerge disguised in various activities with the purpose of avoiding the idea related to the stressor. Alcohol consumption is the most common activity performed by patients to avoid stress-related situations.[32]

Age of schizophrenia onset is an important parameter affecting the quality of life of patients with schizophrenia and cognitive functions. Studies have reported that early-onset schizophrenia patients more often have brain anomalies, experience more frequent negative symptoms and exhibit greater cognitive deterioration.[33] An individual's coping strategies are clearly affected by his or her cognitive functioning. In the current study, dysfunctional coping scores were higher among early-onset schizophrenia patients.

Determination of coping mechanisms in schizophrenia patients can be considered important sources of information for mental health professionals in determining the quality of life and prognosis of illness. Stressful life events in patients with schizophrenia trigger the active stages of the disease, increase the likelihood of relapse and chronicity and play an important role in extending the length of hospital stay. Especially since the course of the disease is related to the stress level, there is a need to increase the level of coping with stress.[34] It is thought that determining the coping with stress of schizophrenia patients may be useful in guiding nursing care goals and treatment.

The present study has numerous limitations. The sample consisted of outpatients who were referred to the CMHC for treatment, while patients who were hospitalised were excluded. Patients who had received treatment for at least 1 year after being diagnosed with the disorder were included, largely to create a homogeneous group in the sample. However, patients in acute and exacerbation phases of the disorder were not included. As such, the sample does not represent all people diagnosed with schizophrenia. The scales used were self-reporting, which inherently allow participants to report different points of view developed according to their social environments and cultural characteristics. Lastly, evaluations depending on subtype of schizophrenia were not made.

It is recommended that psychiatric nurses, who are members of the team, should organise regular training sessions on coping with the stressors caused by the disease, taking into account the sociodemographic characteristics of these patients. It is also advised to increase the number of rehabilitation centres in Turkey.

Conclusion

Most schizophrenia patients were found to be using emotion-focussed coping methods.

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