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The relationship between problem-focused coping strategies and quality of life in schizophrenic patients

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Abstract

Background: Schizophrenia is a disorder with psychotic symptoms that severely affects personal performance. Assessing problem- focused strategies and quality of life (QoL) in patients with schizophrenia may help the clinicians to use appropriate interventions. This study was conducted to find the relationship between problem-focused coping strategies and quality of life in schizophrenic patients who referred to the clinic of Iran University of Medical Sciences in 2013.

Methods: Non-random sampling was used in two stages (quota and convenience sampling). Data were collected through Demographic Questionnaire, 5-point Likert-type scale World Health Organization Quality of Life and Problem-Focused Strategies Standard Questionnaire. Four dimensions of QoL which were assessed among schizophrenic patients were as follows: Physical health, mental health, social relationships and environmental factors. Pearson correlation coefficient and regression were used for data analysis.

Results: The highest mean score (Mean= 2.7) belonged to environmental factors and the lowest score to social relationships (Mean= 2.55). Overall, there was a significant direct relationship between the QoL and problem-focused coping strategies (p= 0.024, r= 0.319).

Conclusion: The Schizophrenic patients who used more problem- focused coping strategies had better QoL. Therefore, it is important to take into account problem- focus coping strategies when treating the patients. The application of this research will be crucial to clinicians and healthcare executives.

Keywords: Problem-Focused Strategies, Quality of Life, Schizophrenia.

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Introduction

Schizophrenia is one of the most malignant disorders, with different clinical observations, responses to treatment, and levels of disease (1). Schizophrenia is a debilitating disease that affects the thoughts, language, emotions, social behavior, and the ability of correct understanding of ability (2). As it can be inferred from the meaning of the word schizophrenia, this disorder is a kind of discontinuity that occurs in various areas. Schizophrenia is a progressive chronic disorder and the patients with acute symptoms are repeatedly hospitalized (3).

In many countries where the majority of people with severe mental illnesses return to the society gradually, the quality of life (QoL) becomes a valuable concept to assess the results of the mental health care interventions (4). In recent years, the concept of mental health has become wider and it is not limited only to the improvement of psychotic symptoms, but it also includes improving QoL, management of medication side effects and subjective response to it (5).

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Olive et al. (1996) believe that there is the definition of QoL for all people (6). Lehmann (1983) has stated that QoL is well-being and people's satisfaction of their current situation in life (7). Most authors believe that QoL is a multidimensional, subjective and dynamic concept that changes with time. The dynamic nature of QoL helps researchers conduct researches on strategies that will improve QoL and help them provide appropriate recommendations for a better life (8). France and Powers (1985) also believe that QoL is people's perception of welfare and it seems that their satisfaction or dissatisfaction arises from major areas of life (9).

The quality of life of patients with cognitive disorders must be assessed. (10). Chan and Yu (2004) believe that collecting data on the QoL of chronic psychiatric patients is totally practical and feasible (11).

Some studies have firmly confirmed that the response of schizophrenic patients is quite reliable. Delusions may affect quality of their lives, but it may never make the assessment of their ' QoL invalid (12). Atkinson et al. (1997) stated that evaluating the QoL of schizophrenic patients is similar to other patients who have medical problems (13). Over the past two decades, the concept of QoL has changed from a mere psychological concept to a multidimensional concept (14).

QoL is a multidimensional concept, all linked together. Physical, psychological and social domains are the important aspects of QoL. Physical dimension depends on the patient's energy and on the patient's understanding of physical ability to perform daily activities. Social dimension depends on isolation and dependency, family relationships, and family and other social environments. Finally, mental dimension is related to psychological and emotional concepts in which issues such as depression, fear, anger, happiness, joy and anxiety arise (15).

Assessing QoL is of prime importance in evaluating the outcomes of health services, and its measurement is quite essential for people with mental health problems (16). In order to plan appropriate nursing interventions, promote mental health, and establish relevant policies in the community, the quality of life of schizophrenic patients and its relevant factors should be assessed (11). Also, in order to plan and perform suitable mental-social interventions in schizophrenic patients, information about the relationship between QoL and coping strategies in these patients is required. Implementation of these measures can improve their coping strategies and quality of life (17).

Evaluating problem- focused strategies in schizophrenic patients is of prime importance in using appropriate strategies to decrease the severity of symptoms following the therapeutic interventions (18). In addition, evaluating problem- focused strategies may help the clinicians to understand the main factors affecting the disorders and find preventive strategies (17).

Therefore, this study was conducted to investigate the relationship between problem-focused coping strategies and QoL in schizophrenic patients.

Methods

In this study, problem-focused strategies and QoL were investigated in a sample of schizophrenic patients who referred to one of psychological clinics of Iran University of Medical Sciences.

Sampling was done non-randomly in two stages. In the first stage, we used quota sampling to define the number of patients in the previous year and defined a quota for each psychological clinic. In the second stage, convenience sampling was used to determine eligible samples. Sample size was determined by a panel of experts.

Inclusion criteria for determining eligible samples were as follows: Patients with the diagnosis of schizophrenia (based on the fourth statistical guidance and America Psychiatric Association detection), patients with at least one year experience of schizophrenia, patients within the age range of 18 and 65 years, patients with the ability to communicate and respond to the question-

naire and patients with at least primary education.

Exclusion criteria were as follows: Patients who were not living in Tehran, those who were mentally retarded and those with severe injury that may have led to hospitalization.

Finally 50 patients were selected to participate in the study.

In the present study, data were collected through demographic questionnaire, hospital discharge checklist, knowledge assessment questionnaire, and the data available in patients' medical file.

Instruments

To measure QoL, the authors used the 5-point Likert-type scale World Health Organization Quality of Life (WHOQoL – 100) as the research instrument. Items included in the questionnaire were grouped according to the framework proposed by WHO (19). Four dimensions of QoL which were assessed among schizophrenic patients were as follows: Physical health, mental health, social relationships and environmental factors (20). An independent panel of experts confirmed the content validity of the questionnaire, and Cronbach's alpha ensured its internal consistency reliability in previous studies by Nejat in 2006 and Sanei pour in 2014 (21,22).

To measure problem-focused strategies, the authors used coping strategies questionnaire designed by Folkman and Lazarus (23), which had four strategies based on the problem and 4 strategies based on excitement. In this study, we used four strategies based on the problem. The four strategies include seeking social support, accepting responsibility, planful problem solving, and positive reappraisal), it has 23 questions with the range of "did not use it" to "use it a lot". This questionnaire was translated into different languages. In Iran, it was translated into Farsi and was used by different researchers (24-26); also, its validity and reliability were measured by Agha Yousefi in 2001 (26) and Ghadamgahi in 1998 (27). Moreover the content validity of this instrument was 82.5 and Cronbach's alpha was 0.83.

Demographic questions were also used to collect data on age, sex, level of education, and years of disease.

Questionnaires were completed by each patient as a self-report. Also, we used thei participants 'records to obtain some information including medications and diagnosis of schizophrenia. Involvement in the study was 100% voluntary and participants could decide not to participate in this study at any time. Response rate was 100%.

Statistical Analysis

Data were analyzed using SPSS software (version 8). Percentages, frequencies, standard deviation and Pearson correlation coefficient and regression were used. Data were tested at 0.05 confidence level.

Results

Fifty participants filled the questionnaire; of whom, 7% (n= 18) were women and 63.3% (n= 32) were men.

After integrating the questions related to each of the four dimensions of QoL among schizophrenic patients, we found that the highest mean score (Mean= 2.7) belonged to environmental factors and the lowest score to social relationships (Mean= 2.55).

Frequency distribution, mean and dispersion indices of sub-scale scores of problem-focused coping strategies in schizophrenic patients showed that in the thinking sub-scale about 1.99% (SD= 0.61) of schizophrenic patients have used it a lot.

In order to investigate the relationship between QoL components and sub- scales of problem-focused coping strategies in schizophrenic patients, Pearson correlation coefficient was tested at 0.05 confidence level. We used Pearson correlation coefficient because of the normal distribution of the data.

In order to determine the relationship and correlation between QoL and problem-focused coping strategies in the previous sections, Pearson's correlation test was used. However, regression models were

Table 1. Frequency Percentage Distribution, Mean and Dispersion Indices for Responses of QoL in Schizophrenic Patients Referred to the Clinics of Iran University of Medical Sciences in 2012-2013

Quality of Life Dimensions	Mean	Standard Deviation
Physical health	2.66	0.49
Mental Health	2.66	0.82
Social Relationships	2.55	0.97
Environmental Factors	2.7	0.77
QOL	3	1.07
Overall Health	3.09	1.19
Quality of life	2.68	0.7

Table 2. Investigating the Relationship between Problem-Focused Coping Strategies with Quality of Life Components in Schizophrenic Patients Referred to Clinics of Iran University of Medical Sciences in 2012-2013

Variables	Parameters	Thinking	Performance	Problem-Focused Coping Strategies
Physical Health	The Correlation coefficient	0.418	0.424	0.469
	p*	0.003	0.002	0.001
Mental Health	The correlation coefficient	0.281	0.298	0.332
	p	0.048	0.036	0.019
Social Relationships	The correlation coefficient	0.308	0.196	0.29
	p	0.029	0.172	0.041
Environmental Factors	The correlation coefficient	0.347	0.342	0.405
	p	0.014	0.015	0.004
Quality of Life	The correlation coefficient	0.323	0.252	0.319
	p	0.022	0.078	0.024

*= Pearson Correlation Coefficient

used to predict variations. Therefore, multiple regressions and the stepwise data entry method were utilized. In this method, the software puts the highest correlation coefficient (zero-order) variables in the equation and examines the changes.

As demonstrated in Table 3, the amount of R2 and F are statistically significant ($p<0.05$). However, Table 5 and 6 demonstrate that only the thinking sub-scale has entered the regression equation and performance sub- scale has been withdrawn. Therefore, only the thinking sub-scale was effective in predicting QoL in schizophrenic patients in our study. The following simple and linear formula indicates the relationship between thinking and QoL in schizophrenic patients in our study.

Moreover, in order to assess the overall status of problem-focused coping strategies with the QoL in schizophrenic patients, linear regression was used again.

The amount of R^2 and F were statistically significant ($p<0.05$). However, Table 4 demonstrates that problem-focused coping strategies have entered into the regression equation. Due to the significance of the fixed number and coefficient B, the following simple and linear formula indicated a relationship between problem-focused coping strategies and QoL in schizophrenic patients in our study.

Only the thinking sub-scale has entered into the regression equation and the performance sub-scale was removed from the equation. Therefore, only the thinking sub-scale could effectively predict QoL in schizophrenic patients in our study. The following simple and linear formula demonstrates the relationship between thinking and QoL in schizophrenic patients in our study.

QoL (patients with schizophrenia) = 0.325 (the thinking sub-scale) + 2.037

To evaluate different dimensions of QoL and problem-focused coping strategies in schizophrenic patients, we used correlation coefficient test at 0.05 confidence level. Given the tables, the following conclusions can be deduced:

Table 3. Multiple Linear Regression Coefficients along with their Significance Level (patients with schizophrenia)

Model Step	The Criterion	Non-Standardized Coefficients.		Standardized Coefficient	T	Significance Level	95 %Confidence Interval for B	
		B	Deviation error	Beta			Lower	upper
1	Fixed Number	2.037	0.286	---	7.121	0.001≤	1.462	2.613
	Thinking Subscale	0.325	0.138	0.323	2.363	0.022	0.048	0.602

Table 4. Regression Coefficients along with their Significance Level (Patients with Schizophrenia)

Model (step)	The Criterion	Non-standardized Coefficients		Standardized Coefficient	T	Significance Level	95% Confidence Interval for B	
		B	Deviation of the estimated error	Beta			Lower	Upper
	Fixed number	1.919	0.339	---	5.665	0.001≥	1.238	2.601
	Thinking subscale	0.392	0.168	0.319	2.329	0.024	0.054	0.731

There was a significant direct relationship between social relationships and thinking (p= 0.029, r= 0.308) and problem-focused coping strategies (p= 0.041, r= 0.29). However, no significant direct relationship was found between social relationships and performance (p= 0.196, r= 0.172).

There was a significant direct relationship between QoL and thinking (p= 0.022, r=0.323) and problem-focused coping strategies (p= 0.024, r= 0.319). However, no significant direct relationship was observed between QoL and performance (p= 0.078, r= 0.252).

Discussion

Lysakr et al. (2006) conducted a research in India under the title of "Obsessive-Compulsive and Negative Symptom in Schizophrenia: Association with Coping Preference and Hope". Their results showed that coping strategies of isolation and overlook had the highest mean, and coping strategies of performance and positive marketing had the lowest mean of being employed as coping strategies (18).

The present results are partly consistent with Lysakr et al. findings and suggest that schizophrenic patients dealing with life stressors are more likely to use coping strategies such as isolation and self-relief which are considered avoidant coping strategies and emotion-focused coping strategies. Moreover, the use of coping strategies such as thinking and performance, which are parts of problem-focused coping strategies, is very low in these patients (18).

Boyd (2005) has reported that QoL was significantly associated with coping strategies which is used in schizophrenic patients (28). Guggenmoos et al. (1995) reported a significant relationship between QoL and coping strategies used by patients who were under hemodialysis (29). Our results are in line with these two studies and show a direct relationship between QoL and problem-focused coping strategies.

Different studies had been done on the relationship between problem focused coping strategies and QoL in various patients. Ransom et al. conducted a study on early stage breast cancer patients and found a direct relationship between seeking knowledge of illness and better physical QoL (30). Nonetheless, the results of our study revealed no significant direct relationship between QoL and performance in schizophrenic patients. In another study which was done to assess coping strategies, QoL and pain in patients with breast cancer in 2013, no significant correlation was found between problem- focused strategies and QoL (31). Our study results were not in line with this study as we found a direct relationship between QoL and problem-focused coping strategies in schizophrenic patients.

Panthee et al. conducted a study on myo-

cardial infarction patients in Nepal in 2011 and found a significant association between QoL and problem- focused strategies (32). The results of a study conducted by Straus et al. (2005) also revealed a significant relationship between problem-focused coping strategies, emotion-focused coping strategies and avoidant coping strategies with the total score obtained from QoL, confirming the results of the present study (17).

The results of this study could be used by healthcare providers, decision makers and other stockholders to define and design better environments for the patients and promote their quality of life (33,34).

Limitations

In this study, we did not focus on emotion- focused coping strategies, so we recommend that the effects of QoL on coping strategies based on emotions be examined in the future studies. Therapeutic plans may affect QoL, which was not considered in this study. Another limitation of this study was that different types of schizophrenia were not considered.

Conclusion

This study highlights the importance of QoL and problem-focused strategies in schizophrenic patients. Schizophrenic patients who use more problem- focused coping strategies had better QoL. Coping strategies affect treatment. Thus, by educating the patients to use problem- focused coping strategies we can increase the rate of survival. We suggest conducting a study that considers the educational, economic, and social status of the patients, along with the severity of schizophrenia and therapeutic interventions.

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