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The mediation role of self-esteem and hope on the relationship of quality of life and unmet needs of elderly with psychiatric disorders

Mariye Jenabi Ghods[1,2], Ladan Fattah Moghaddam[3], Mohammad Javad Hosseinabadi-Farahani[4], Mohammad Pourebrahimi[5]

[1]Student Research Committee, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran, [2]PhD Student, Department of Nursing, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran, [3]Department of Psychiatric Nursing, Faculty of Nursing and Midwifery, Tehran Medical Sciences, Islamic Azad University, Tehran, Iran, [4]Assistant Professor, Department of Nursing, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran, [5]Nursing Faculty, Baqiyatallah University of Medical Sciences, Tehran, Iran

Address for correspondence:
Dr. Mohammad Pourebrahimi, Nursing Faculty, Baqiyatallah University of Medical Sciences, Postal Code: 1-398-918-667, Tehran, Iran.
E-mail: pourebrahimi62@gmail.com

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Abstract:

BACKGROUND: Self-esteem is one of the factors affecting the quality of life. On the other hand, quality of life decreases in people with psychiatric disorders. The aim of the present study was to evaluate the mediating role of self-esteem and hope on the relationship between unmet needs and quality of life of the elderly with psychiatric disorders.

MATERIALS AND METHODS: This descriptive–analytical study was performed on 112 chronic psychiatric patients hospitalized in the geriatric ward of (blinded) 2020. Based on the inclusion criteria, a total of 100 samples were entered into the study by census. The World Health Organization (WHO) quality of life questionnaire, Rosenberg Self-Esteem Scale, Snyder Hope Scale, and Camberwell Assessment of Need Short Appraisal Schedule (CANSAS) were used to collect data. The research model was tested using the path analysis technique. Data was analyzed using Statistical Package for the Social Sciences (SPSS) Ver. 26 and LISREL Ver. 2/9.

RESULTS: Unmet needs were negatively related to the other three variables of the study, namely, self-esteem, hope, and quality of life. There was a significant relationship between unmet needs and quality of life with a mediating role of self-esteem and hope ($P < 0.05$). Quality of life was also negatively related to unmet needs and directly related to self-esteem and hope.

CONCLUSION: Based on the findings of this study, it is essential that health-care providers consider planning to provide programs to improve self-esteem and hope in order to reduce unmet needs and increase the quality of life.

Keywords:

Hope, mental disorder, quality of life, self-esteem, unmet need

Background

The number and proportion of people aged 60 years and older in the population is increasing, and the pace of population aging is much faster than in the past.[1] One of the most common chronic diseases in this age group is psychiatric disorders.[2] Due to the nature of mental illness, unmet needs in this group of patients have been less considered. Unmet needs are the differences between the services needed due to the health problems of individuals and the services they actually receive.[3]

Identifying and addressing the unmet needs of mentally ill patients is important because it is related to individuals' quality of life.[4,5] Although there are studies which focused on the elderly and assessed the relationship between unmet needs and their quality of life,[6-8] most of them focused on elderly patients with one single psychiatric disorder

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such as dementia,[9] depression,[10] and schizophrenia[11] and did not have a more comprehensive view considering several disorders in this age group. It should also be noted that the patient's needs may vary depending on where they receive care, and studies that address the needs of the elderly in long-term care centers are very limited.

Over the past few years, the focus on quality of life in the elderly with mental disorders has been very evident.[12] Quality of life has been used in studies since 1960; its definition is constantly expanding and changing as it is affected by many factors.[13] Now, the focus is on softer factors affecting quality of life, such as the index of hope. According to Snyder, hope is related to life goals and expectations of positive outcomes of one's efforts.[14] Hope can be considered as a symbol of mental health and used as a positive feature to achieve a better quality of life, especially in chronic patients.[15,16] Hope is also mentioned as one of the most basic needs of the elderly to deal with the limitations of old age and illness, and the elderly will continue to function even during chronic illness.[17]

Previous studies have shown that hope is associated with indicators such as self-esteem and quality of life.[18,19] Self-esteem is the fourth level of Maslow's needs that gives a person confidence and independence.[20] Self-esteem can be attributed to one's sense of self-worth and attention, how much one loves oneself, how one thinks about oneself, and how one sees oneself.[20] So, it can be said that self-esteem affects the quality of life. On the other hand, one's perception of his/her position in life is defined based on culture, value systems in which lives, goals, expectations, and standards.[20] Due to the limited studies on the relationship between self-esteem and quality of life of the elderly, as well as the cultural differences and characteristics of the elderly in different societies, the relationship between quality of life, self-esteem, and hope among the elderly with psychiatric disorders in the Iranian society is still unanswered.

A better understanding of the relationship between quality of life and unmet needs may improve the design and evaluation of interventions and the development of efficient needs assessment tools used in clinical research and routine procedures.[21] The aim of the present study was to measure the direct and indirect relationships between unmet needs and quality of life of the elderly with psychiatric disorders using two variables of hope and self-esteem that are considered as default mediators. Finally, a model of relationships between variables will be provided.

Materials and Methods

Study design and setting

This descriptive analytical study was conducted (blinded) from September 22, 2020 to January 19, 2021.

Study participants and sampling

The study population was all 112 elderly people admitted to the campus wards of Razi Psychiatric Hospital located in Shahre Rey, Iran, who were hospitalized for at least 2 years. Regarding the type of psychiatric disorder, 88% had schizophrenia, 8% had bipolar disorder, and 4% had schizoaffective disorder. Inclusion criteria included the patient and his/her legal guardian`s consent, sufficient vigilance and ability to answer questions, no mental retardation, and having a history of at least 2 years of hospitalization in a psychiatric center. Based on the inclusion and exclusion criteria, eight men and four women were excluded from the study due to lack of legal guardian, inability to communicate verbally, and unwillingness to participate in the study. Finally, based on the inclusion criteria and census method, 100 elderly people were considered as the research sample.

Data collection tool and technique

The World Health Organization (WHO) quality of life (WHOQOL-BREF) questionnaire, Rosenberg Self-Esteem Scale, Snyder Hope Scale, and Camberwell Assessment of Need Short Appraisal Schedule (CANSAS) were used to collect data.

WHO quality of life questionnaire

This questionnaire was designed by WHO and has been validated in (blinded).[22] It contains 26 items and assesses four quality of life domains: physical health (seven items), psychological health (six items), social relationships (three items), and environmental (eight items). Two other items measure general health. Items are rated on a 5-point Likert scale from a low score of 1 to a high score of 5.

Rosenberg Self-Esteem Scale

The Rosenberg Self-Esteem Scale consists of 10 items answered on a 4-point Likert scale from strongly agree to strongly disagree. Overall, a high score indicates more self-esteem. This scale was first developed by Rosenberg and has also been validated in (blinded).[23]

Snyder Hope Scale

This scale has 12 items rated with an 8-point Likert scale from strongly disagree with a score of 1 to strongly agree with a score of 8. This scale is applicable to all individuals, even the mentally ill people and those over 15 years of age, and its validity and reliability have been confirmed in (blinded).[24]

Camberwell Assessment of Need Short Appraisal Schedule

This questionnaire is a tool which assesses the needs of people with mental health problems comprehensively. It assesses problems during the last 1 month in 22 domains of life. This questionnaire addresses the social, physical, psychological, and environmental needs. In each domain,

the goal is to determine if there is a problem with the services received. If there is a problem, the adequacy of the available help to the patient is determined. Its comprehensive version has been psychometrically evaluated in (blinded).[25] Its short version is more suitable for the elderly and patients with cognitive disorders due to its ease of use and short response time. In this study, with the opinion of eight experts in the field of psychiatry and aging, four items related to the domains of "sexual expression," "looking after the home," "child care," and "alcohol" were omitted due to long-term hospitalization of the elderly in a psychiatric center and also no participants had child need to care. The validity and reliability of the 18-item questionnaire were evaluated and confirmed using face validity, content validity, construct validity, and Cronbach's alpha and combined reliability. The results of confirmatory factor analysis test to check the validity and reliability of this 18-item questionnaire are presented in Table 1.

Data analysis was performed using descriptive and inferential statistics. In descriptive statistics, the main variables were described using frequency, mean, and standard deviation. The normality of the distribution of variables was assessed using skewness and kurtosis. In general, if the skewness and kurtosis are not in the range (2, −2), the data have not a normal distribution. Pearson correlation test was used for the relationship between variables. The research model was tested using the path analysis technique. Bootstraping test was performed to investigate the mediating role of self-esteem and hope. Data was analyzed using Statistical Package for the Social Sciences (SPSS) Ver. 26 and LISREL Ver. 2/9.

Ethical consideration

The principle of confidentiality was observed during the research regarding the information received from the elderly. This study was approved by the ethics committee of the University of Social Welfare and Rehabilitation Sciences under the code IR.USWR.REC.1399.028.

Results

The samples included in this study consisted of 100 eligible patients. The majority of participants (65%) were male, 49% were divorced, and 46% were single. A total of 65% had high school diploma or less, and the highest number of patients belonged to Turk (39%) and Fars (36%) ethnicity. The age range was between 50 and 88 years, and the mean age was 71.18 ± 9.03 years. The majority of participants (64%) also had physical illness, and for 88% of the participants, schizophrenia was reported as the type of mental disorder. History of imprisonment was reported for 55% of participants and the main reason for their conviction was reported as addiction and quarrels.

The study participants' responses to the items of the CANSAS are presented in Table 2, which are sorted by the percentage of unmet needs. The five needs that had the highest percentage of unmet needs were "benefits" (94.6%), "information on condition and treatment" (89.8%), "intimate relationships" (86.1%), "money" (79.5%), and " transport" (78.8%). The most met needs were "drugs" (98.8%), "psychotic symptoms" (92.8%), "safety to self" (85.2%), "safety to others" (81.7%), and "accommodation" (63.2%) [Table 2].

Table 3 describes the mean and standard deviation of the main variables. The normality of the distribution

Table 1: Results of confirmatory factor analysis test, validity, and reliability of the scale of unmet needs

Variables	Items	Standard coefficient (factor loading)	*t*	The average of the extracted variance	Combined reliability	Cronbach's alpha
Unmet needs	1	0.72	9.64			
	2	0.63	8.70	0.57	0.93	0.91
	4	0.83	10.58			
	5	0.84	10.61			
	6	0.70	9.03			
	7	0.60	7.94			
	8	0.82	10.36			
	9	0.63	8.12			
	10	0.77	9.92			
	11	0.85	10.93			
	13	0.69	8.89			
	14	0.87	11.26			
	15	0.79	9.92			
	18	0.75	9.47			
	19	0.82	10.44			
	20	0.81	10.19			
	21	0.70	9.11			
	22	0.67	8.67			

Table 2: Assessing the response of individuals to the items of CANSAS (sorted by percentage of unmet needs)

Type of need	*n*	Met needs		Unmet needs		Percentage difference between unmet and met needs
		n	%	*n*	%	
Benefits (Are you getting all the money you are entitled to?)	92	5	5.4	87	94.6	89.2
Information on condition and treatment (Have you been given clear information about your medication?)	88	9	10.2	79	89.8	79.6
Intimate relationships (Do you have a partner?)	79	11	13.9	68	86.1	72.2
Money (How do you find budgeting your money?)	88	18	20.5	70	79.5	59
Transport (How do you find using bus, tube, or train?)	85	18	21.2	67	78.8	57.6
Physical health (How well do you feel physically?)	83	21	25.3	62	74.7	49.4
Daytime activities (How do you spend your day?)	95	30	31.6	65	68.4	36.8
Basic education (Any difficulty in reading, writing, or understanding language)	93	32	34.4	61	65.6	31.2
Telephone (Do you know how to use a telephone?)	92	36	39.1	56	60.9	21.8
Self-care (Do you have problems keeping clean and tidy?)	92	38	41.3	54	58.7	17.4
Psychological distress (Have you recently felt very sad or low?)	93	44	47.3	49	52.7	5.4
Company (Are you happy with your social life?)	98	48	49	50	51	2
Food (Do you get enough to eat?)	90	49	54.4	41	45.6	−8.8
Accommodation (What kind of place do you live in?)	95	60	63.2	35	36.8	−26.4
Safety to others (Do you think you could be a danger to other people`s safety?)	93	76	81.7	17	18.3	−63.4
Safety to self (Do you ever have thoughts of harming yourself?)	81	69	85.2	12	14.8	−70.4
Psychotic symptoms (Do you ever hear voices or have problems with your thoughts?)	97	90	92.8	7	7.2	−85.6
Drugs (Do you take any drugs that are not prescribed?)	86	85	98.8	1	1.2	−97.6

CANSAS=Camberwell Assessment of Need Short Appraisal Schedule

Table 3: Description of the main variables and the normality of the distribution

Variables	Mean	SD	Skewness	Kurtosis
Unmet needs	25.1	2.64	−0.574	0.299
Self-esteem	−1.28	3.15	0.510	0.298
Hope	32.31	6.29	−0.480	0.541
Quality of life	53.09	4.64	0.106	−0.012
Physical health	14.54	2.35	0.389	0.342
Mental health	12.82	2.18	0.200	0.404
Community relations	6.52	1.63	0.232	−0.256
Environmental health	14.67	2.44	−0.363	−0.775

SD=Standard deviation

of variables was assessed by skewness and kurtosis tests.

Testing the normality of the distribution of variables considering the skewness and kurtosis showed that all variables had a normal or near to normal distribution. Due to the normality of the distribution of variables, Pearson correlation parametric tests and path analysis of relationships between variables were used. The correlation results are shown in Table 4.

The results showed that there was a significant relationship between the four main variables (unmet needs, self-esteem, hope, and quality of life) ($P < 0.05$). The relationship between unmet needs and the other three variables of research, namely, self-esteem, hope, and quality of life, was negative. Increased unmet needs are associated with decreased self-esteem, hope, and quality of life. The relationship among the three variables of self-esteem, hope, and quality of life was positive and showed that increasing self-esteem and hope was associated with improvement in quality of life. The intensity of correlations showed that unmet needs had the strongest correlation with hope (coefficient of − 0.54), quality of life (coefficient of − 0.49), and self-esteem (coefficient of − 0.38). The results also showed that unmet needs, self-esteem, and hope were correlated with all the components of quality of life ($P < 0.05$). Also, the intensity of the correlation between self-esteem and quality of life was 0.36 and between hope and quality of life was 0.51.

The hypothesis of multiple non-alignments in relation to variables affecting quality of life was investigated using correlation coefficients presented in Table 4. According to the results, there was no strong correlation (greater than 0.60) between the independent variables of unmet needs and mediators of self-esteem and hope. The correlation among these three variables gave a moderate value, which indicates the absence of a strong correlation between independent variables. Consequently, the assumption of multiple non-alignments between variables affecting quality of life was confirmed.

The conceptual model of the research was tested using the path analysis technique and LISREL software. The default research model value is presented in Figure 1, Figure 2 shows Experimental model of research in a significant state or t value and Figure 3 shows the research model in the case of standard coefficients. The test results of the model are listed in Table 5.

Table 4: Pearson correlation matrix to investigate the relationship between variables

Variables	Unmet needs	Self-esteem	Hope	Quality of life	Physical health	Mental health	Community relations	Environmental health
Unmet needs	1							
Self-esteem	−0.38**	1						
Hope	−0.54**	0.24*	1					
Quality of life	−0.49**	0.36**	0.51**	1				
Physical health	−0.44**	0.28**	0.35**	0.79**	1			
Mental health	−0.51**	0.29**	0.59**	0.84**	0.69**	1		
Community relations	−0.34**	0.25**	0.57**	0.78**	0.57**	0.71**	1	
Environmental health	−0.38**	0.20*	0.26**	0.79**	0.63**	0.58**	0.55**	1

**$P \leq 0.01$, *$P \leq 0.05$

Table 5: Structural equation modeling test results (coefficient table)

Type of relationship	Standard coefficient	*t*	*P*
The effect of unmet needs on self-esteem	−0.24	3.14	0.002
The effect of unmet needs on hope	−0.47	5.98	<0.001
The effect of unmet needs on quality of life	−0.37	5.14	<0.001
The effect of self-esteem on quality of life	0.21	2.82	0.006
The effect of hope on quality of life	0.51	6.59	<0.001

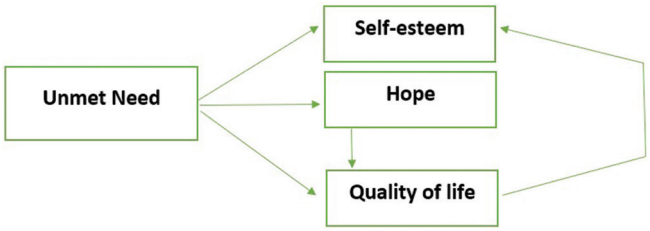

Figure 1: The default research model

The examination of model fit showed that model fit indices indicate model fit. The Root Mean Square Error of Approximation (RMSEA) index was 0.063, Goodness of fit index (GFI) index was 0.92, Comparative Fit Index (CFI) index was 0.93, Normed Fit Index (NFI) index was 0.92, and the Adjusted goodness of fit index (AGFI) and Parsimony Goodness-of-Fit Index (PGFI) indices were 0.74 and 0.69, respectively. The value of Chi-square ratio on the degree of freedom was determined as 2.99. All fit indices had an acceptable value and confirmed the fit of the research model. The results showed that the coefficient of determination (R^2) obtained for the dependent variable of quality of life was 0.42, which showed that the independent and mediating variables of the model were able to explain 42% of the variance of the dependent variable of quality of life.

The results of the model test confirmed the direct effect of unmet needs on the dependent variable of quality of life and mediating variables of self-esteem and hope ($P < 0.05$). The effect direction of unmet needs on all three variables was negative, which showed that increasing unmet needs was associated with reduced quality of life, self-esteem, and hope. A comparison of coefficients showed that unmet needs had the strongest effect on hope with a coefficient of − 0.47 and then on quality of life with a coefficient of − 0.37. Based on the findings, the effect of self-esteem and hope on quality of life was confirmed ($P < 0.05$) and the direction of both relationships was positive. The severity of the effect of self-esteem on quality of life was 0.21, and the severity of the effect of hope on quality of life was 0.51. The results of the bootstrapping test with the aim of examining the mediating role of self-esteem and hope are presented in Table 6.

Based on the results, the mediating role of self-esteem and hope in the relationship between unmet needs and quality of life was confirmed ($P < 0.05$). The severity of the indirect effect of unmet needs on quality of life due to self-esteem was 0.05 and due to hope was − 0.24.

Discussion

The present study investigated the mediating role of self-esteem and hope in unmet needs and quality of life of the elderly with psychiatric disorders. The research results confirm the relationship between quality of life and unmet needs both directly and indirectly (mediated by self-esteem and hope). The relationship between unmet needs and three other variables of the study, namely, self-esteem, hope, and quality of life, is negative and shows that reducing self-esteem, hope, and quality of life is associated with increasing unmet needs. In addition, the quality of life is directly related to self-esteem and hope, and as people's self-esteem and hope increase, their quality of life increases. Also, the highest inverse relationship between the quality of life scales and unmet needs is found for mental health, physical health, environmental health, and community relationships, respectively.

There is a consensus worldwide that the provision of mental health services should be based on the needs of individuals and with the aim of improving the quality of life. The relationship between quality of life and unmet needs has been evaluated in many studies. In a study conducted by Slade *et al*.[26] to investigate the causal relationship between quality of mental life and needs in 265 patients receiving services from the Association

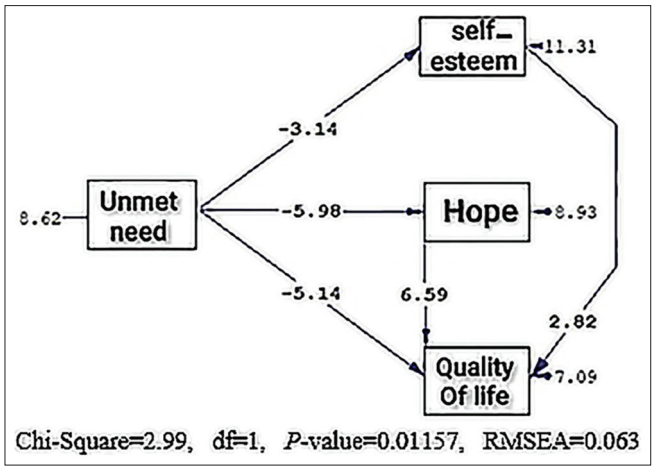

Figure 2: Experimental model of research in a significant state or *t* value

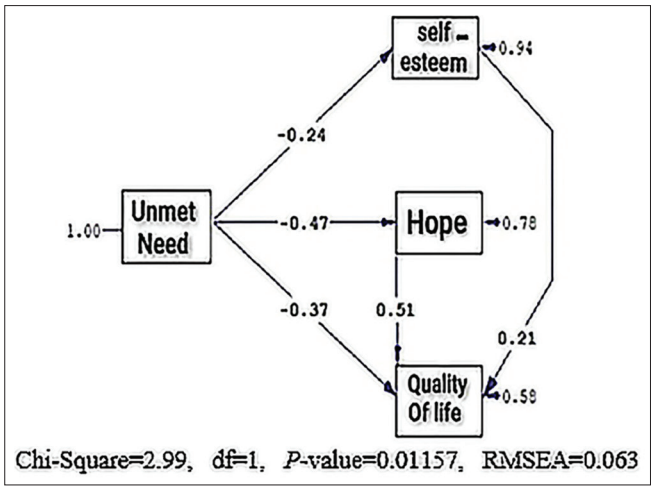

Figure 3: Experimental model of research in the case of standard path coefficients

of Mental Health in Verona, Italy, for 121 patients who received long-term services, the results showed that unmet needs from patients' perspectives are inversely related to their quality of life. This finding is consistent with the results of the present study.

If the needs are met, welfare and quality of life of patients with severe psychiatric illnesses will increase.[27] Therefore, first, evaluation and then elimination of unmet needs is considered as a goal in the process of monitoring, treatment, recovery, and rehabilitation of this group of patients.[28] The results of a study by Esan *et al*.,[29] which was conducted to evaluate the bipolar patients' perceptions of health needs, showed that the total number of unmet needs in this group had a negative correlation with the community relations dimension of quality of life. Also, as people increase their perception of unmet needs, their quality of life decreases in terms of social relationships. The results of the study by Lambri *et al*.[30] showed that the quality of life score was positive and unmet needs were negative. The results of this study are consistent with the results of our study. According to the results of studies, it can be concluded that quality of life has a negative correlation with unmet needs and reducing unmet needs in patients with severe psychiatric diseases is associated with increasing their quality of life. Since in our study, patients with the diagnosis of schizophrenia formed the highest percentage, the results of our study are consistent with the results of the study of Ritsner *et al*.,[31] which was conducted to investigate the factor structure of CANSAS-P and its correlation with disease dimensions, personality, and quality of life in schizophrenic patients.

The chronic, progressive, and incurable nature of psychiatric diseases reduces the quality of life of patients and also causes outcomes such as exacerbation of the disease and reduced functional activities.[32] It has been found that quality of life has a positive relationship with hope and coping strategies, that

Table 6: Testing the mediating role of self-esteem in the relationship between unmet needs and quality of life

The effect	Mediating variable	Direct effect	Indirect effect	Total effect
Unmet needs on quality of life	Self-esteem	−0.37**	−0.05*	−0.42
Unmet needs on quality of life	Hope	−0.37**	−0.24**	−0.61

**$P \leq 0.01$, *$P \leq 0.05$

is, people with high quality of life are determined to achieve their goals and also use more effective strategies to achieve goals and solve problems.[14] Quality of life is affected by hope, which is considered a protective factor.[33] Hope improves and promotes the mental health of individuals and provides a basis for increasing knowledge and awareness and rational treatment of people with the disease.[34] There are studies that have examined the direct relationship between quality of life and hope in different population groups.[35,36] In a study conducted by Nasiri Ziba *et al*.[36] with the aim of evaluating the relationship between quality of life and hope in people with ischemic heart disease, the results showed a positive and significant relationship between quality of life and hope in this group of people. A study conducted by Heidari Sangelaji *et al*.[37] concluded that in teenagers, hope has a positive and significant relationship with their quality of life. Also, other studies conducted in patients admitted to hospitals,[38] primary care centers,[18] and the community[19] are in line with these findings and show that there is a direct and significant relationship between quality of life and hope.

The results of studies indicate that living alone and isolating the elderly from society reduces their self-esteem and quality of life.[39,40] Long-term care centers and the community have some similarities due to the long-term accommodation of the patient. There may be differences in centers with shorter hospital

stays. The results of a study by Ghadampour *et al*.,[41] which evaluated the relationship between self-esteem and quality of life of the elderly living in a home and a resident nursing home, showed that self-esteem is able to predict about 15% of the variance in quality of life. Also, the relationship between these two variables was reported as positive and significant.

Limitation and recommendation

The limitations of this study are the small sample size and its cross-sectional nature. The variety of psychiatric disorders studied is not sufficient due to the limited sample size, and also, the majority of participants were people with schizophrenia. The present study was performed only on chronic psychiatric patients residing in the hospital, which is unique, and the study was not performed on the elderly living in other care centers or at home. It is suggested that in future studies, the elderly with psychiatric disorders living in other centers and even in the community should be entered into the study; thus, in addition to examining the considered variables in different care settings, it is possible to compare these variables in different types of psychiatric disorders.

Regarding the application of the present research findings and the undeniable role of unmet needs in quality of life, it can be said that if the provision of health services in a client-centered system is increasing the quality of life, examining the patients' unmet needs from their perspective and meeting these needs as a priority is necessary. In addition, due to the effect of self-esteem and hope on unmet needs and quality of life, interventions to increase self-confidence and hope can be implemented based on the available evidence in the form of therapeutic interventions for patients with psychiatric disorders. In this way, it reduces patients' perception of unmet needs and increases the quality of life in various dimensions.

Conclusion

The findings of the present study support the mediating role of self-esteem and hope in the relationship between quality of life and unmet needs of chronic mental patients residing in the care wards of Razi Psychiatric Hospital. Two main concepts can be concluded from this research: the first concept is the effects of self-esteem on quality of life and reducing the unmet needs of chronic mental patients, and the second concept refers to the role of hope on this group of people by providing holistic services to increase the quality of life and reduce the perception of their unmet needs.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published, and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Ethics

The principle of confidentiality for the information received from the elderly was observed during the research. This study was approved by the ethics committee of the University of Social Welfare and Rehabilitation Sciences.

Financial support and sponsorship

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Conflicts of interest

There are no conflicts of interest.

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