Physiology Section

The Relationship between Resilience and Quality of Life in Family Caregivers of Patients with Mental Disorders

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ABSTRACT

Introduction: In the past, patients with mental disorders were often isolated, but these patients now-a-days enter the society, as therapeutic interventions have advanced. Family members play an important role in the life of many adults with mental disorders and are under considerable amounts of stress that may affect caregiver's physical health, quality of life and resilience.

Aim: The present study aimed to determine the relationship between the resilience and quality of life in family caregivers of patients with mental disorders.

Materials and Methods: The present cross-sectional, correlational, descriptive study was conducted on 238 family caregivers of patients with mental disorders. The Short Form Health Survey (SF-36) was used to measure the quality of life

and the Connor and Davidson Resilience Scale was used to measure resilience in the participants. The SF-36 consists of two general dimensions and eight domains of health and the resilience scale consists of 25 items. The data obtained through the questionnaires were analysed in SPSS version 16.0 using Pearson's correlation test.

Results: The majority of the family caregivers were the patients' mothers. The results showed a significant direct relationship between resilience and quality of life (p<0.001, r=0.40).

Conclusion: Resilience is a personal resource that affects quality of life directly. Resilience can enhance quality of life. The design and implementation of programs to enhance resilience and improve quality of life in family caregivers in line with the emerging needs of this group are therefore necessary.

INTRODUCTION

Researchers have estimated the number of people with mental disorders to be over 167 million by 2050 and their healthcare costs to be $197 billion per year [1]. In Iran, at least seven million people are estimated to suffer from one or more mental disorders [2]. About 60% of patients discharged from psychiatric hospitals return to their family. Family members and relatives thus play an important role in the life of many adults with mental disorders and provide them with a home, financial support, companionship, emotional support and health services [3,4]. Some studies found that if patients are taken care of at home, the costs of hospitalization would be reduced to 44% [5-7], but, care at home can be challenging for families. The family members of patients with mental disorders may be under considerable amounts of stress, impairing their quality of life and physical health and leading to psychological consequences such as depression, anxiety, low self-esteem and sense of loneliness and isolation [8-11].

Addressing caregiver's problems is therefore essential for providing proper treatment and social support to patients and for ensuring the continuity of care [12]. Quality of life is one of the concepts that are regarded as similar to the concept of health [13]. The definition of quality of life differs depending on the content in question and the cultural values, goals, expectations and standards in place [7,12].

Caregivers can overcome their stresses of caring for a family member with mental disorders and maintain their own and their family's health only when other members of the family are resilient. Resilience refers to the dynamic process of positive adaptation to bitter experiences and is defined as the skills, features and capabilities that enable the individual to adapt to hardships, problems and challenges [14].

Although the concept of resilience is normally considered in relation to personal development, it is also used to discuss entire family [15]. The concept of family resilience is beyond the management of stressful situations and survival in harsh conditions, instead, resilient families are mainly able to face future challenges and their members tend to strengthen their relationships with each other and develop new abilities [16].

Resilience refers to the ability to recuperate after stress and adapt to stressful situations so that no incapacities emerge out of the experience of stress and its resultant psychological pressure [17,18]. Factors such as the pressure of patient care, family dysfunction, feeling stigmatized [19,20] and the patient's dependence negatively affect caregiver's resilience and affect family members relationships and some families experience a reduced quality of life [8,16]. Mechanisms of adaptation, resilience and hope are integral to recover from traumas, better adaptation to them and their overcoming [21]. The results of studies on caregiver's mental health reflect their resilience [22]. In the past three decades, researchers have made great attempts to enhance their understanding of resilience and have identified the factors affecting quality of life. They want to increase individuals flexibility and family's strengths through resilience [23-27].

There is a big gap in concepts such as resilience and quality of life and their relationship in studies conducted to examine caregivers of patients with mental disorders. Hence, this study was conducted to determine the relationship between the resilience and quality of life in family caregivers of patients with mental disorders.

MATERIALS AND METHODS

The present cross-sectional, correlational, descriptive study was conducted during February 2014 to June 2014 in Tehran, among caregivers of patients with psychiatric disorders, in health care centers, affiliated with medical universities of Tehran, Iran, Shahid Beheshti and University of Social Welfare and Rehabilitation Sciences. The formula below was used, to obtain sample size:

$$n = \frac{(Z1 - \alpha/2 + Z1 - \beta)^2}{W^2} + 3$$

$$n = \frac{(1/96 + 0/842)^2}{0/2^2} + 3 = 199$$

Where α=0.05 (confidence interval 0.95), β = 0.02 (test power 80%), and W=0.2 (correlation coefficient between resiliency and QoL).

The written approval from the Ethics Committee of Tehran University of Medical Sciences was obtained and submitted to the authorities and then the research setting was visited with their permission. The data was collected individually by non-random convenience sampling. The participating caregivers were briefed on the study objectives. The study inclusion criteria consisted of not having experienced extreme stress over the past six months, such as the death of beloved ones or divorce, not being responsible for taking care of another patient and having no known chronic mental or physical diseases. The participants then completed informed written consent forms and were ensured of the confidentiality of their data and their anonymity throughout the study. The participants were further ensured about their right to withdraw from the study at any time. Two questionnaires and a demographic information form containing ten items were then distributed among the caregivers.

The data collection tools used included a demographic form, the Connor-Davidson Resilience Scale (CD-RISC) and the Short-Form Health Survey (SF-36) for measuring quality of life. The demographic form contained eleven items, which covered participant's age, gender, kinship with the patient, marital status, level of education, employment status, economic status, family size, the patient's gender, the duration of care for the patient and the patient's diagnosis. The CD-RISC is a 25-item scale designed to measure the ability to cope with pressure and threats. SF36 includes Physical dimension (30 scores), physical performance (8 scores), body pains (2 scores), public health (13 scores), fatigue or pleasure (14 scores), social function (6 scores), emotional performance (6 scores), mental health (20 scores) as scoring items and they evaluate the quality of life. Item 2 has not set in any subscale and it just studies the health state of individuals during the one–year period (1 score). The lowest and highest scores in SF 36 questionnaire are 0, 100, respectively. Score of each dimension is recognized by item scores in that dimension [28]. The SF-36 consists of 36 items for measuring quality of life from a health perspective within a Physical Component Subscales and a Mental Component Subscale (MCS) and has eight health subscales, including Physical Functioning (PF), Role Limitation Physical Problems, Bodily Pain (BP) and General Health (GH) within the physical health component, and Vitality (VT), Social Functioning (SF), Role Limitation Emotional Problems (RE) and Mental Health (MH) within the mental health component [28] [Table/Fig-1].

In the present study, 20 caregivers other than the study participants completed this scale and its reliability was thus confirmed with a Cronbach's alpha of 0.89.

The data obtained in this study were analysed in SPSS version 16.0 using descriptive statistics and Pearson's test. The Kolmogorov-Smirnov test was used for determining the normality of the data. The level of statistical significance was set at 0.05.

Item numbers	Changed original response category *	To recoded value of:
1, 2, 20, 22, 34, 36	1 →	100
	2 →	75
	3 →	50
	4 →	25
	5 →	0
3, 4, 5, 6, 7, 8, 9, 10, 11, 12	1 →	0
	2 →	50
	3 →	100
13, 14, 15, 16, 17, 18, 19	1 →	0
	2 →	100
21, 23, 26, 27, 30	1 →	100
	2 →	80
	3 →	60
	4 →	40
	5 →	20
	6 →	0
24, 25, 28, 29, 31	1 →	0
	2 →	20
	3 →	40
	4 →	60
	5 →	80
	6 →	100
32, 33, 35	1 →	0
	2 →	25
	3 →	50
	4 →	75
	5 →	100

[Table/Fig-1]: Recoding Items (29).

RESULTS

Regarding the demographic characteristics, 53% patient carers were completely dedicated for the care of patients. Mean of the care period was 7.84±7.96. 48.7% patients were suffering from bipolar disorders, 18% depression, 17.2% schizophrenic, 5.6% substance abuse, 3.8% schizoaffective, and 6.7% other mental disorders. According to the [Table/Fig-2], most (72.3%) of the caregivers were female and most of them (58.3%) were housewives. A total of 41.2% of the caregivers were the patient's mother and the rest were an immediate family member. Most of the caregivers were taking care of the patient since 0 to 4 years [Table/Fig-3]. The highest mean of quality of life dimensions was related to physical functioning [Table/Fig-4].

The results showed a significant and direct relationship between resilience and quality of life in the PCS and MCS [Table/Fig-5]. The results also showed a significant relationship between resilience and the eight quality of life subscales [Table/Fig-6].

DISCUSSION

The findings revealed an average positive relationship between quality of life and resilience that is also statistically significant. According to researchers, resilience is a personal resource that affects quality of life directly or indirectly [26]. Factors such as personal and family factors and the social background help develop or impede the processes of resilience. The positive outcomes of having a high resilience enhance the quality of life. Personal risks and the risks associated with the disease can weaken resilience and thus affect the quality of life. The present study found a significant correlation between resilience and quality of life. In their study on adolescents with chronic diseases and Cancer, Chou LN et al., found that resilience is directly linked to quality of life [23].

Variable		Number	Percent
Less than 31	Age (years)	34	14.3
31-40		44	18.5
41-50		58	24.4
51-60		63	26.4
Above 61		39	16.4
Female	Gender	172	72.3
Male		66	27.7
Single	Marital status	29	12.2
Married		180	75.6
Divorced		11	4.6
Widow		18	7.6
Illiterate	Education	29	12.2
Under high school diploma and diploma		163	68.5
University		46	19.3
Father	Relation with patient	18	7.6
Mother		98	41.2
Spouse		77	32.4
children		26	10.9
Sister		12	5
Brother		7	2.9
Housewife	Employment status	138	58
Employee		24	10
Self-employed		38	16
Unemployed		14	5.9
Retired		24	10.1
Good (higher than 1,000 $ per month)	Economic status	11	4.6
Average (between 500 and 1000 $ per month)		136	57.2
Weak (under 500 $ per month		91	38.2
2-3	Number of family members	92	38.7
4-5		119	50
6 and above		27	11.3
Female	Sex of patient	105	44.1
Male		133	55.9
Schizophrenia	Mental disorder	41	17.2
Bipolar		116	48.7
Depression		43	18
Substance Abuse		13	5.6
Schizoaffective		9	3.8
Other		16	6.7
0-4	Care duration/ (years)	126	53
5-9		59	24.8
10-14		20	8.4
15-19		18	7.5
Above 20		15	6.3

[Table/Fig-2]: Frequency distribution of demographic and background characteristics of family caregivers.

Care period (Year)	Number	Percent
0-4	126	53
5-9	59	24.8
10-14	20	8.4
15-19	17	7.1
More than 20	16	6.7
Total	238	100

[Table/Fig-3]: Distribution of care period for the patient by the caregiver.

Subscales	Mean±SD
Physical functioning	70.44±24.43
Role limitation physical problems	45±36.74
Bodily pain	59.95±30.05
General health	58.31±18.30
Vitality	56.12±21.94
Social functioning	59.82±26.78
Role limitation emotional problems	48.36±37.75
Mental health	56.66±22.80

[Table/Fig-4]: Mean scores of Quality of life subscales in family caregivers.

Variables	Mean±SD	p-value	correlate
Resilience	16.38±69.93		
Quality of life	56.73±19.18	p=0.01	r= 0.40
Physical Component Subscale (PCS)	20.43±58.50	p<0.0001	r= 0.32
Mental Component Subscale	21.73±54.91	p<0.0001	r= 0.41

[Table/Fig-5]: The relationship between resilience and quality of life in family caregivers of patients with mental disorders.

Subscales		Mean±SD	p-value	correlate
Resilience		16.38±69.93		
Physical functioning	Physical Component Subscale (PCS)	85.3±20.8	p= 0.005	r= 0.19
Role limitation physical problems		70±38	p= 0.002	r= 0.2
Bodily pain		79.4±25.1	p= 0.001	r= 0.22
General health		67.5±20.4	p<0.0001	r= 0.4
Vitality	Mental Component Subscale (MCS)	65.8±17.3	p<0.0001	r= 0.4
Social functioning		76±24.4	p<0.0001	r= 0.31
Role limitation emotional problems		65.6±41.4	p<0.0001	r= 0.32
Mental health		67±18	p<0.0001	r= 0.33

[Table/Fig-6]: The relationship between resilience and the eight quality of life subscales in the family caregivers of patients with mental disorders.

The results of a study by Hagh-Ranjbar F et al., showed that the parents of mentally-challenged children show a more positive performance in adverse conditions and can better resist the pain of caring for a mentally-challenged child and experience a higher quality of life when they have a higher resilience [30]. In another study, Mautner E et al., showed that patients with a higher resilience have a significantly better mental health status [24].

The findings of the present study showed a significantly positive relationship between quality of life and resilience. In line with the results obtained by few other authors [23,24,30,31], the different components of quality of life were also found to have a significant positive relationship with resilience. High levels of resilience help individuals take advantage of their positive emotions to survive their adverse experiences and return to a favorable status. Caregivers with higher resilience can improve their quality of life, more resilient and capable manage stressful situations and not only survive the trials and tribulations of life, also, achieve a new level of balance and positive growth. Since resilience is a dynamic process that depends on life and its circumstances, when successfully fostered in an individual, it can be said to strengthen personal capabilities [30].

Based on the results of this research and similar studies on the relationship between resilience and quality of life, it appears that improving resilience in caregivers of patients with mental disorders can also improve their quality of life [17, 21]. Since a high quality of life is associated with a greater satisfaction, the researchers hope that the results of this study can prove helpful in the development of plans for increasing resilience in caregivers of patients with mental disorders and for helping their families improve their quality of life and cope with the adversities of their life with a greater strength.

CONCLUSION

Resilience has significant direct relationship with quality of life in family caregivers of patients with mental disorders. This means that with the increase in resilience, the quality of life of family caregivers' increases consequently. It is suggested to perform an interventional program to increase the resilience and quality of life for family caregivers of patients with mental disorders.

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