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Assessment of the Quality of Life in Home Caregivers of the Martyr's Older Parents with Chronic Diseases in Iran

Marzieh Raee, Seddiqheh Rastaqhi, Mostafa Rad*

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Abstract

Introduction**:** Most of the martyr's older parents are elderly people. With the beginning of elderly phase, they encounter a lot of physical and mental complications. Home caregivers are one of the significant components of health services. This study aims to assess the quality of life in home caregivers of martyr's parents with chronic disease in Iran.Materials and Methods**:** In a cross sectional study, 335 home caregivers of martyr's older parents with chronic disease in Khorasan Razavi province at 2017 were selected randomly and with the use of interviews. The study tools are demographic questionnaires, ADL tools, and SF-36 quality of life (QOL) questionnaires. All the data are analyzed with R software (Version 3.3.1), descriptive statistics, correlation coefficient, and linear regression.Findings**:** 68.7% of the caregivers were women, 81.2% of them were married, and 65.1% of the of martyr's older parents caregivers were their children. 53.1% of caregivers had chronic disease. The mean age of caregivers of martyr's parents is 45.75 ±14.27. In the evaluation of caregivers' quality of life dimensions, the physical function dimension had highest mean (71.83 ± 25.97), and the lowest mean was emotional function dimension (50.54 ± 41.81).Conclusion**:** The results of the study indicated that caregivers of martyr's parents had a desirable quality of life. According to the low score of emotional function dimension, It seems that paying attention to the emotional complications of caring for martyrs' elderly parents with chronic disease and offering efficient educations and services to them can increase their life quality.

Keywords: Quality of Life, Home Caregivers, Martyr's Older Parents, Chronic disease.

Introduction

Iran-Iraq 8 year war was one of the longest wars of twentieth century which left a lot of martyrs and disables (Moradi et al., 2015). Death of loved ones (martyrdom of children) is considered to be one of the biggest pains which one can endure in life. This crisis is a severe tension which can happen through life (Boelen & Prigerson, 2007). According to wender et al, the most difficult and painful experience in life is the loss of a child (Wender et al., 2012). Moreover, losing a child is one of the major risk factors for complicated or pathological mourning (Shear et al., 216). Complicated or pathological mourning is a prolonged and distressed form of mourning which is caused by the complexity of cognitive, behavioral, and socioeconomic factors (Maccallum & Bryant , 2013). Pathological mourning causes a major disorder in quality of life (QOL); in a person with this syndrome, the risks of chronic disease, substance abuse, and suicide will.

be increased (HeL et al., 2014). Martyr's older parents are a symbol of honor who invested with their bests for the country. Nothing can compensate the cost of human life. Most of these parents are elderly, so they definitely need caring. Since these parents encountered a disaster, the aging process along with its complications and problems will be more highlighted for them; therefore, they are more likely to suffer from aging problems which indicates that they need more caring [1].

With the onset of elderly phase, many physical and mental complications are created. People with chronic disease are in need of

Marzieh Raee
MSc Student of Geriatric Nursing, Student Research Committee, Sabzevar University of Medical Science, Sabzevar, Iran.

Seddiqheh Rastaqhi
Master of Statistics. Department of Biostatistics, School of public health, Sabzevar University of Medical Sciences, Sabzevar, Iran.

Mostafa Rad*
Nursing Department, School of Nursing and Midwifery, Iranian Research Center on Healthy Aging, Sabzevar University of Medical Sciences, Sabzevar, Iran.

***Email:** mostafarad633@yahoo.com

[1] ://www.1100shahid.ir.(persian). svsAaUh

treatments and long term caring. Taking care of patients with chronic disorders creates a lot of stress for the caregivers and their families (Selnes et al., 2012). Many scientists highlighted the role of family in taking care of the elderly; they consider the family as a protector in life. Generally, family plays the important and hidden role of the process of taking care of the elderly people (Blom et al., 2016).

Family is considered to be the first and most important supporting source of the elderly people. Although family members are inclined to share the responsibilities with each other, but usually one person takes most of the caring responsibilities and is referred to as the primary caregiver (Peetoom et al., 2016). Long term caring along with social roles cause the increasing physical and mental risks for the caregivers (Jeong et al., 2015). In a study which was conducted on the QOL of Janbaz (Disabled Iranian Veterans) caregivers – who are their wives – in Iran, it is indicated that the life quality of their wives is significantly lower than life quality of the normal Iranian women society (Mousavi et al., 2010). According to the results of the mentioned study, anxiety and depression in the caregivers of the elderly are as high as stroke; moreover, the caregivers of the stroked elderly have higher physical health than the caregivers of the other elderly people (Tari Moradi & Ahadi, 2014). The studies indicated that the QOL of primary caregivers of chronic patients will be decreased; this decrease will be more significant in those caregivers who have stronger emotional bounds with the patient. The results of the studies indicated that these caregivers need more help and support in order to make themselves more compatible with lifestyle changes (Baghcheqi et al., 2011). Although a lot of studies have been done on the QOL of elderly caregivers, the QOL of those caregivers who take care of martyrs' older parents is not much analyzed; improving the QOL of elderly people will not be possible without paying attention to the QOL and health of their caregivers (Bleijlevens et al., 2015). The caregivers who try to make a balance between their job and their other activities, such as recreation, family, education, etc. cannot focus on the positive aspects of caring and will be encountered with negative reactions most of the times. The amount of hardships in taking care of the elderly patients affect the conditions of this process. When the caregiver is distressed and depressed, his or her mistakes will be increased. He or she may leave the elderly person alone for a long time or may not be able to communicate with them (Buss et al., 207). The positive and negative effects of caring are mostly together. The positive effects are rewards and satisfactions which will cover the negative effects (Bevans et al., 2012). Taking care of martyr's older parents will create a different satisfaction in comparison with taking care of other elderly people. Therefore, paying attention to the QOL of those caregivers who take care of martyr's older parents has a high significance. A drop in QOL of these caregivers will affect the social, mental, physical, and environmental health of martyrs' older parents as well. In the literature review there can be observed no research which has been done on the QOL of caregivers of martyrs' parents. Therefore, this study aims to analyze the QOL of home caregivers of martyrs' older parents with chronic disease in Iran.

Methods

This study is a descriptive cross -sectional study. After receiving the approval of the ethics committee of the Sabzevar University of Medical Sciences (Code: IR.MEDSAB.REC.1396.117), one of the cities of Khorasan Razavi province was chosen randomly as the study sample. All the main caregivers of the martyrs' older parents entered the study. The researcher introduced himself to the Martyr Foundation and Veterans Affairs of Kashmar City and accessed the profiles of martyrs and their parents. 335 individuals were selected for the study who were the martyr's older parents with at least one chronic disease (all of the martyrs' older parents). With the consent of Martyr Foundation and Veterans Affairs, the researcher attended their houses and explained the research objectives for them. After obtaining an informed written consent from the martyrs' older parents, the demographic questionnaire and ADL tool were filled using some interviews with these parents. The aim of using ADL tool is to analyze the amount of disability of the older parent. Then, the main caregivers of the older parents (the one who takes care of the elderly person more than other caregivers) entered the study. The selection method of caregivers was self-reports of the martyrs' older parents. After explaining the main objectives of the study and obtaining an informed written consent from the caregivers, demographic questionnaire and SF-36 QOL questionnaire was filled by the main caregiver. Data collection was carried out by the use of questionnaires from September 13, 2017 until December 20, 2017. The interviews and questionnaires took 20 to 30 minutes to be completed. Data collection was done under the supervision of Martyr Foundation and Veterans Affairs of Kashmar City. The collected data were analyzed after the collection process.

The materials which are used in this study are elderly demographic information questionnaire, ADL tool, caregiver demographic information questionnaire, and SF-36 QOL questionnaire. Elderly demographic information questionnaire includes the necessary information about gender, education, income, type of chronic disease, duration of chronic disease, time since the martyrdom of the child, age of parents in the time of martyrdom, and address. ADL tool include 8 items, such as eating habits, putting on and taking off the clothes, walking, personal hygiene, taking a shower, going into and out of the bed, going to the toilet, and voluntary defecation. According to Taheri Tanjani and et al., Cronbach Alpha and inner group correlation are the Persian versions of ADL which were more than 0.75 (Taheri & Azadbakht, 2015). In the present study, reliability is 0.90 which has been measured by Cronbach Alpha. Care givers demographic information questionnaire includes some questions regarding gender, age, education, income, marital status, employment status, daily care hours, duration of the care, chronic disease and its type, number of children, the relation of caregiver with the elderly person, and the number of caregivers. SF-36 questionnaire includes 36 statements which evaluate QOL in 8 domensions of physical function, physical limitation, physical pain, general health, wellness, social function, mental problems (limitation of emotional function), and mental health. According to Montazeri et al. the Persian statements of SF-36 questionnaire have been validated (its construct validity and reliability was 0.77 and 0.9 respectively) (Montazeri et al., 2005). In the present study, reliability was 0.77 which is measured by

Cronbach Alpha. After collecting the data, the forms are coded and entered the SPSS software. All of the data are processed with R software Version 3.3.1. For describing the characteristics of study units, the descriptive statistics including central tendency, distribution (mean and standard deviation), and frequency indicators were used. For the demographic characteristics, frequency distribution table was used. For analyzing the relationship between variables, Pearson correlation coefficient, linear regression, and Chi-square were used. $P < 0.05$ was considered statistically significant.

Findings: (Findings about Elderly Martyr's older parents)

Among 335 parents in Kashmar City, 206 ones were mothers, and 129 were fathers of the martyrs. Average age of these parents is 76.18 ± 10.09. 52.8% of the parents were married, 1.2% were divorced, and 46% were widowed. 56.4% of the parents live in the city, and 43.3% of them live in villages.

The prevalence of chronic disease in the martyrs parents are indicated in the following table (Table 1).

Table 1 – The prevalence of chronic disease in the martyr's parents in Kashmar Based on Frequency Percentage

Chronic disease of the martyr's parents	Frequency (Percent)
Musculoskeletal Pain	211 (63%)
Blood Pressure	163 (48.7%)
Vision Problems	104 (31%)
Heart Disease	93 (27.8%)
General Weakness	84 (25.1%)
Hearing Problems	75 (22.4%)
Diabetes	67 (20%)
Mental Disorder	47 (14%)
Involuntary Defecation	37 (11%)
Brain Stroke	27 (8.1%)
Heart Stroke	21 (6.2%)
Cancer	10 (3.3%)
Autoimmune Dysfunctions	6 (1.8%)

27.2% of the martyr's parents were totally dependent on the caregiver in their daily activities, 27.8% were nearly dependent on the caregiver for their daily activities, and 45.1% were independent of the caregiver in their daily activities.

Findings about the Caregiver

Among 335 main caregivers of the martyrs' parents, 230 ones (68.71%) were female and 105 ones (31.3%) were male. 81.2% of the caregivers were married. 65.1% of the caregivers were the children of the martyr's parents (Table 2).

Table 2 – Analyzing the Frequency distribution of the relation between the caregiver and the elderly person

	Percent	Frequency
Child	65.1	218
Spouse	14.9	50
Other	20	67
Total	100	335

Average age of the martyrs' parents was 45.75 ± 14.27. 15.2% of the caregivers were illiterate, 20.9% had elementary education, 14.3% had intermediate education, 20.6% had diploma, 6% had college education, and 23% had bachelor's degree and higher. Regarding their employment status, 25.7% were employers, 4.2% were workers, 5.7% were retired, 14.3% had self-employment, 2.1% were unemployed, 47.2% were housewives, and 0.9% had other kinds of employment. Regarding their income, 68.1% of the caregivers had sufficient income, 21.5% had insufficient income, and 10.4% of them had more than sufficient income. Regarding the duration of daily caring, 25.7% of the caregivers work less than 3 hours, 28.1% work 3 to 6 hours, 15.8% work 6 to 12 hours, and 30.4% work more than 12 hours.

53.1% of the caregivers had chronic disease, and 46.9% had no chronic disease.

The highest prevalence of chronic disease among caregivers was 36.4% in musculoskeletal pains and the lowest prevalence is 1.5% in urine incontinency (Table 3).

Table 3 – The prevalence of chronic disease in caregivers based on frequency

Chronic disease of caregivers	Frequency (percent)
Musculoskeletal Pain	122 (36.4%)
Blood pressure	63 (18.8%)
Vision weaknesses	41 (12.3%)
General weakness	33 (9.9%)
Heart disease	30 (9%)
Diabetes	30 (9%)
Mental disorder	30 (9%)
Respiratory problems	12 (3.6%)
Hearing problems	9 (2.7%)
urine incontinency	5 (1.5%)
Cancer	4 (1.2%)
Other disease	32 (9.6%)
Heart and brain strokes	0 (0%)

QOL of the caregivers are assessed in 8 dimensions. In this analysis, the highest mean was for the physical function dimension, 71.83 ± 25.97, and the lowest mean was for the emotional function dimension, 50.54 ± 18.65. Among all the different dimensions of life quality, two subscales of physical and mental health were obtained. The score of physical health of caregivers was 63.55 ± 23.51 (considered to be very good). Moreover, the score of mental health of caregivers is 59.71 ± 20.50 (considered to be fairly good) (Table 4).

Table 4 – Descriptive statistics of different dimensions of caregivers' QOL

		Mean	Standard Deviation
8 areas of life quality	Physical Function	71.8373	25.97295
	Physical limitations	64.1075	38.84000
	Emotional limitations	50.5473	41.81748
	Wellness	59.8507	18.49037
	Emotional Function	63.8090	18.65313
	Social function	64.6642	22.18380
	Physical pain	66.3358	23.35187
	General Health	51.9439	21.70347
2 general areas of life quality of caregivers	Physical Health	63/5561	23/51960
	Mental Helath	59/7178	20/50251

In the analysis of the relationship between physical health of caregivers and their emotional bounds with the elderly person Chi-square is used which indicated that there is a significant relationship in this regard (P-VALUE = 0.002). So that those caregivers who take care of independent elderlies had a good physical health, while those caregivers who take care of dependent and semi-dependent elderlies had a bad and very bad physical health (Table 5).

Table 5 – Analyzing the relationship between physical health of caregivers and their emotional bounds with the elderly person

		Physical health of caregiver						total	Chi-Square
		Very bad		bad	good	Very good	best		
Ability of the elderly person in doing daily activities (disability)	Totally dependent	Number	4	24	24	22	17	91	Chi-Square = 561.24 P = 8 Significance = 0.002
		Physical health of caregiver	25 %	46/2 %	38/1 %	23/2 %	15/6 %	27/2 %	
	Nearly dependent	number	7	11	15	24	36	93	
		Physical health of caregiver	43/8 %	21/2 %	23/8 %	25/3 %	33 %	27/8 %	
	independent	number	5	17	24	49	56	151	
		Physical health of	31/3 %	32/7 %	38/1 %	51/6 %	51/4 %	45/1 %	

	caregiver							
Total	number	16	52	63	95	109	335	
	Physical health of caregiver	100 %	100 %	100 %	100 %	100 %	100 %	

The statistical analysis using linear regression method indicated that the aging changes in elderly person (change in disability, education, number of caregivers, blood pressure, respiratory disease, and duration of chronic disease) can affect the predictors of physical health of caregiver up to 14% (R2 = 0.142). Statistical analysis using linear regression method indicated that the aging changes in elderly person (disability, education, number of caregivers, and mental disorders of the elderly person) can affect the predictors of mental health of the caregiver up to 7% (R2 = 0.07). linear regression method indicated that the changes in caregiver (age of caregiver and his or her chronic disease) can affect the predictors of physical health of the caregiver up to 45% (R2 = 0.45).Statistical analysis using linear regression method alsoshowed that the changes in caregiver (mental disorder, blood pressure, cancer, respiratory disease, hearth disease, general weakness, and chronic disease of the caregiver) can affect the predictors of mental health of the caregiver up to 27% (R2 = 0.27) (Table 6).

Table 6 – The correlation between physical and mental health of the caregiver with the elderly person's characteristics using linear regression method

Step by Step linear regression – last step					
Predictor	Predictor factors	Unconventional coefficients	Conventional coefficients	Significance level	Coefficient
		B	β		
Physical health of the caregiver	Constant	65/623		0/0001	0/142
	Elderly person's ability in daily activities	0/833	0/159	0/003	
	Elderly person's educatiob	-4/351	-0/173	0/001	
	Number of caregivers	-1/672	-0/148	0/005	
	Blood pressure of elderly person	7/037	0/150	0/004	
	Duration of chronic disease of the elerly person	-3/193	-0/127	0/015	
	Respiratory disease of the elderly person	-7/130	-0/104	0/046	
Mental health of the caregiver	Constant	60/751		0/0001	0/07
	Elderly person's education	-3/466	-0/158	0/003	
	Eledely person's disability	0/533	0/117	0/032	
	Elederly person's mental disorders	-7/226	-0/118	0/028	
	Number of caregivers	-1/180	-0/120	0/028	
Physical health of the caregiver	Constant	82/853		0/0001	0/045
	Musculoskeletal pains	-9/370	-0/192	0/0001	
	Caregiver's age	-0/363	-0/220	0/0001	
	Caregiver's respiratory disease	-22/940	-0/182	0/0001	
	Caregiver's chronic disease	5/470	0/137	0/008	
	Caregiver's cancer	-33/572	-0/155	0/0001	
	Other disease in caregivers	-12/271	-0/154	0/001	
	Caregiver's gender	6/308	0/125	0/004	
	Caregiver's diabetes	-9/258	-0/113	0/010	
	Caregiver's weakness	-7/165	-0/091	0/044	
Caregiver's mental health	constant	63/411		0/0001	0/279
	Caregiver's chronicdisease	5/612	0/161	0/002	
	Caregiver's mental disorders	-11/536	-0/180	0/0001	
	Caregiver's blood pressure	-10/024	-0/191	0/0001	
	Caregiver's cancer	-31/984	-0/170	0/0001	
	Other disease of caregivers	-11/214	-0/161	0/001	
	Caregiver's general weakness	-10/325	-0/150	0/002	
	Caregiver's respiratory disease	-10/867	-0/099	0/040	
	Caregiver's hearth disease	-6/789	-0/096	0/049	

Discussion

In the assessment of QOL of caregivers, the highest mean score was for physical health, and the lowest mean score was for emotional limitations. Mousavi et al analyzed the life quality of Janbaz wives with lower limb extremity amputation. They concluded that the lowest mean score was for physical pain and highest mean score was for physical function (Mousavi et al., 2010). In the present study, the highest mean score was for physical function which was consistent with the results of Mousavi et al. Since in the present study most of the caregivers were the children of martyrs' parents, it seems that caregivers act weakly in controlling and managing their emotions in hard conditions (chronic disease of the elderly person), compatibility with the changes, understanding their emotions and the elderly person in chronic disease, and an efficient relationship with the elderly person who has a chronic disease. The low score of emotional function can be indicative of this fact.

The results of Baghcheqi et al studies, which were carried out on the relationship between the QOL of caregivers and the ability of elderly person in daily activities, indicated that there was a significant relationship in this regard (Baghcheqi et al., 2011). The results of the present study indicated that there was a significant relationship between age, gender, type of disease, elderly person's ability in daily activities, number of caregivers, elderly person's education and mental disorders with the caregiver's QOL (physical and mental health).

The results of a descriptive-cross sectional study by Bastani et al – titling "General health of female caregivers of elderly people with Alzheimer" – indicated that a significant percentage of the female caregivers of people with Alzheimer had not a good general health condition; but the home caregivers of martyrs' parents with chronic disease, regardless of the hard conditions of caring, have a high QOL. Although there were a lot of negative aspects in this regard, caregivers report some positive aspects such as a happiness and peace which exists in taking care of martyrs' older parents and cause their QOL to increase significantly (Bastan et al., 2013).

The studies of Taheri Tanjani et al indicated that the older person's age affects the physical health of the caregiver. Moreover, the caregiver's gender affects the anxiety of the older person and, consequently, brain stroke; this effect was higher in women (Tari Moradi & Ahadi, 2014). The results of the present study indicated that there was a significant relationship between the elderly person's age and the physical health of caregivers. Furthermore, it was indicated that there was a significant relationship between the caregivers' gender and their mental health.

Limitations of the study: one of the advantages of this study is the in-person referrals for filling the questionnaires which makes it distinct from email and phone referrals. One of the limitations of this study is that the samples are collected from one city of Khorasan Razavi province and cannot be generalized to other provinces of the country.

Conclusion

Home caregivers of martyrs' older parents who had chronic disease had a high QOL regardless of hard conditions and their own disease. Although there were some negative aspects in this area, many caregivers reported its positive aspects including the pride, joyful, relaxing, and comforting feeling which results from fulfilling the duties of a spouse or a child, and a sense of satisfaction from playing a significant role and a sense of closeness with the caretaker. The results indicated that most of the home caregivers were housewife women. Most of them were married women who feel a kind of economic safety and responsibility in this job; therefore, they fulfilled their duties better than the single caregivers. The chronic disease of martyrs' older parents affect the way of thinking, emotions, energy level, sleep, and concentration of the caregivers which, consequently, cause them a lot of chronic physical and mental disease. Since the caregiver spends most of his or her time with the elderly person, he or she may suffer from a social isolation which affects the elderly person's QOL negatively. The emotional bounds between the main caregiver and the elderly person cause the caregiver not to show a managed and proper reaction toward the elderly person's behaviors which are resulted from martyrdom of their children, aging changes, and their chronic disease. Consequently, QOL of home caregivers of the martyr's older parents with chronic disease has the lowest score regarding emotional functions.

This study was done on the main caregiver. Since the understanding of each family member about QOL is different, it is recommended that a similar study should be done on each of them. Also, it is recommended that a study on the health, treatment, and welfare services to martyrs' older parents and their caregivers should be conducted in order to assess the effects of these services on their QOL.

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Conflicts of interest

There are no conflicts of interest.

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