



The comparison of life quality and mental health of mothers having epileptic child with mothers having normal child

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Background and aim: Epilepsy, as a physiological brain disease, causes many problems for the affected child and his or her families, especially their mothers and their main caregivers. Therefore, the aim of the present study was to compare the quality of life (QOL) and mental health of mothers having epileptic child with mothers having normal child. **Materials and Method:** The present research was carried out using a causal-comparative methodology. All of the mothers having epileptic child with mothers having normal child in Zabol city, a total of 30 subjects were selected using convenience sampling method for each group. Research instruments included the Goldberg's Mental Health Questionnaire and the World Health Organization Quality-of-Life Scale (WHOQOL). In this research, the obtained data were analyzed using MANCOVA in SPSS software. **Findings:** The results showed that there is a significant difference between mothers having epileptic child and mothers of normal child in terms of the mental health variable as well as components of role limitation due to physical health problem, role limitation due to emotional problem, emotional health, bodily pain, and general health of quality of life. **Conclusion:** Considering that mothers of children with special needs need to receive counseling and psychotherapy services in order to overcome their problems, it is essential to involve them in educational programs to expand their awareness about coping strategies to deal with the problems of epileptic children.

INTRODUCTION

Paying attention to the children of a community is one of the most important issues and the best investments that can be made for the future of that community[1]. In this regard, a significant number of Iranian families suffer from the negative effects of having a child with special needs such as epileptic children, as well as high care burden, the psychological, social and financial pressures associated with having such a child, which can destabilize the family situation and lead to the disorganization of the family[2]. Therefore, it is necessary to pay close attention to epileptic children by involving their families and making significant investments by governments. When a family member suffers from epilepsy, his/her presence leads to a change in the systematic dynamics of the family. Studies that have been carried out on the families of epileptic patients indicate high levels of depression and anxiety [3-6]. In this regard, mothers, as the main caregivers of epileptic children in the family, feel more responsible or sometimes feel guilty according to their personality structure, and since mothers play a more major role in maintaining the psychosocial balance of the family on one hand, and they play an important role in the mental health status of family members on the other hand, it is very important to investigate status of mothers[3, 7]. In fact, since mental health is one of the important issues in the growth and prosperity of the family and society and also one of the most important psychological concepts that is

defined by philosophers as a combination of positive emotions (emotional well-being) and positive performance (social and psychological well-being) [8, 9]. Having the belief that researchers have not yet provided a comprehensive understanding of mental health, Keyes provides a comprehensive mental health model that defines mental health as a condition that includes: a) absence of mental disease; and b) the presence of optimum levels of well-being. In such a way, the two dimensions of psychological well-being and psychological disease are combined and complete and incomplete states are considered for the two dimensions[3]. Also, WHO defined mental health as the ability of individuals to maintain harmonized communication with others, the ability to change and improve their social environment and appropriate and logical settlement of their emotional conflicts and desires[10]. Therefore, maternal mental health is of paramount importance in having a healthy family and ultimately its impact on having a healthy and tension-free society, thus, having this capability, requires all single family member to benefit from this health and interconnectedness with others. Hence, in order to acquire this ability, it is essential that each and every (single) member of the family maintains interconnectedness with others[11]. In this regard, considering the correlation between mental health and quality of life of individuals, over the past two decades, the concept of quality of life has been changed from a mere psychological concept to a multidimensional concept[12]. This multi-dimensional conception of quality of life plays a major role in measuring and evaluating the effectiveness of social welfare policies. Today, the

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important issue in the area of social welfare and well-being is the adoption of a view of quality of life that can cover social, economic, psychological and biological dimensions. The WHO generally defines the quality of life as follows; the quality of life is defined as the individual's perception of his life position in relation to his culture and social value system, as well as his goals, expectations, standards and requirements[13]. In recent years, quality of life programs have played a major role in increasing the health status of individuals, especially those in families with children with special needs, including epileptic children. The research on quality of life was first addressed to all people and individuals faced with (disability) problem and then entered the mental health scope of those families with a member suffering from problems such as epileptic individuals[14]. Measuring the quality of life and paying attention to it, in addition to treatment and health care have also highlighted the importance of psychosocial aspects along with physical aspects of health. A review of previous studies indicates that few studies have compared the quality of life and mental health of mothers with epileptic children and those with normal children [15, 16]. Overall, according to previous studies, and considering that there have been no relevant studies in Zabol so far, carrying out such research seems necessary, especially when the results of this research can be used in counseling centers, exceptional schools and healthy schools, Welfare Organization, mental health clinics to deliver more services to the clients. Regarding the subject of the research, the main question of the research is raised as the following: Is there a difference between the mental health status and the quality of life of mothers with epileptic children and mothers with healthy children?

MATERIALS AND METHODS

The present research was carried using a causal-comparative method. The statistical population included all mothers having epileptic children and normal children in Zabol city. According to the statistical population and method of the study, convenience sampling method will be used. Therefore, mothers with an epileptic child will be selected by referring to treatment centers. Then, the mothers with a normal child (without disease and disorder) were selected as a sample after homogenizing them in terms of through age and level of education. The sample size is 30 people in each group, which is adequate according to the type of research that is a comparative study. To increase the external validity of the present study, a total of 50 individuals were considered for each group. The research instrument included: a) General Health Questionnaire[17]: General Health Questionnaire was first introduced by Goldberg (1972) as a self-administered tool for measuring psychiatric disorders in non-clinical populations. This scale measures performance in two main areas: (1) the ability of a person to perform routine health activities; and (2) the recent development of mental syndrome of mental distress. The 28 questions in this questionnaire can together indicate a total score of the mental health. Its reliability coefficients are calculated by Hooman, which is reported to be between 0.84 and 0.92 [17]. B) Quality of Life Questionnaire (SF-36): The Quality of Life Questionnaire (SF-36) consists of 36 questions and 8 subscales with each subscale consisting of 2 to 10 items. The eight subscales of this questionnaire include: physical functioning (PF), role impairment due to physical health (RP), role impairment due to emotional health (RE), energy / fatigue (EF), emotional well-being (EW), social functioning (SF), pain (P) and general health (GH). Also, when sub-scales were integrated two general subscales, namely physical health and mental health were obtained. In this questionnaire, lower scores represent lower quality of life and vice versa[18]. Montazeri, Gashtasbi, and Vahdaniya

evaluated validity and reliability of this scale and reported reliability coefficient range of 77% to 95% for its subscales, with the exception for vitality domain (65%)[19]. The reliability of the questionnaire was obtained 0.87 using Cronbach's alpha, with 0.83 and 0.88 for the physical and mental dimensions, respectively. The possible score range includes 0 to 100. Scores 0 and 100 indicate the worst and best possible conditions in 11 questions of this questionnaire. The same score indicate the best and worst conditions in 25 other questions. Therefore, there is a direct relationship between the order of the measurement scale and the score related to measuring the quality of life in 11 questions; however, an inverse relationship exists between them in 25 other questions. The score of the intended subscale is obtained by summing the scores for each subscale and dividing the resulting number by the number of questions of that subscale, with a mean score of 50 and a SD of 10. A score of ≤ 100 and < 50 show high and low quality of life, respectively (Quoted from Eslami, 2015). Data analysis was carried out using MANOVA in SPSS ver.21. This study approved by ethics committee of Zabol University of medical science (Ethical code: Zbmu.REC.1396.306).

FINDINGS

According to the obtained data, the mean age of the mothers with epileptic child and mother with normal child was 34 and 33 years, respectively. Also, the percentage of participants holding under diploma, diploma, associate degree, bachelor's degree and above was 29.1%, 40%, 21% and 9.9%. Also, the results of Shapiro-Wilk test indicate a normal distribution of data in all variables ($p > 0.05$), and the normal distribution assumption is maintained for MANCOVA. In addition, the results of the Leven test showed that homogeneity assumption of variances establishes for quality of life and mental health components ($P < 0.05$). In the following, the homogeneity of regression line slope and the existence of a linear relationship between the covariance of a variable and the dependent variable was investigated and the results indicated that the assumption of homogeneity of the regression line slope for emotional health ($P = 0.503$, $F = 0.477$), general health ($F = 0.480$, $P = 0.502$), physical functioning ($F = 0.563$, $P = 0.468$), bodily pain ($F = 0.390$, $P = 0.544$), limitation due to physical reasons ($P = 0.702$ and $F = 0.154$), social functioning ($P = 0.664$, $F = 0.198$), limitation for emotional reasons ($F = 0.795$, $P = 0.390$), and fatigue ($P = 0.465$, $F = 0.570$), as well as the linear relationship between covariance of a variable and dependent variables in the of quality of life and mental health components ($P = 0.44$, $F = 0.57$), (Figure 1).

Table 1 shows the mean of the two groups. According to Table 1, the mean of mental health in mothers with an epileptic child and mothers with a normal child is 37.9 and 47.43, respectively. Also, the highest mean in quality of life components in the group of mothers with an epileptic child and mothers with a normal child was related to the "role limitation due to physical problem" component with an average of 63.9 and emotional health component with an average of 10.8, respectively.

The results of Table 2 show that there is a significant difference between the research groups in the mental health variable and there is a significant difference between the mothers with an epileptic and normal child in the mental in terms of health component. Among the components of quality of life, there was also a significant difference between the two groups with regard to role limitation due to physical problems, role limitation due to emotional problem, emotional health, bodily pain, general health dimensions. There was no significant

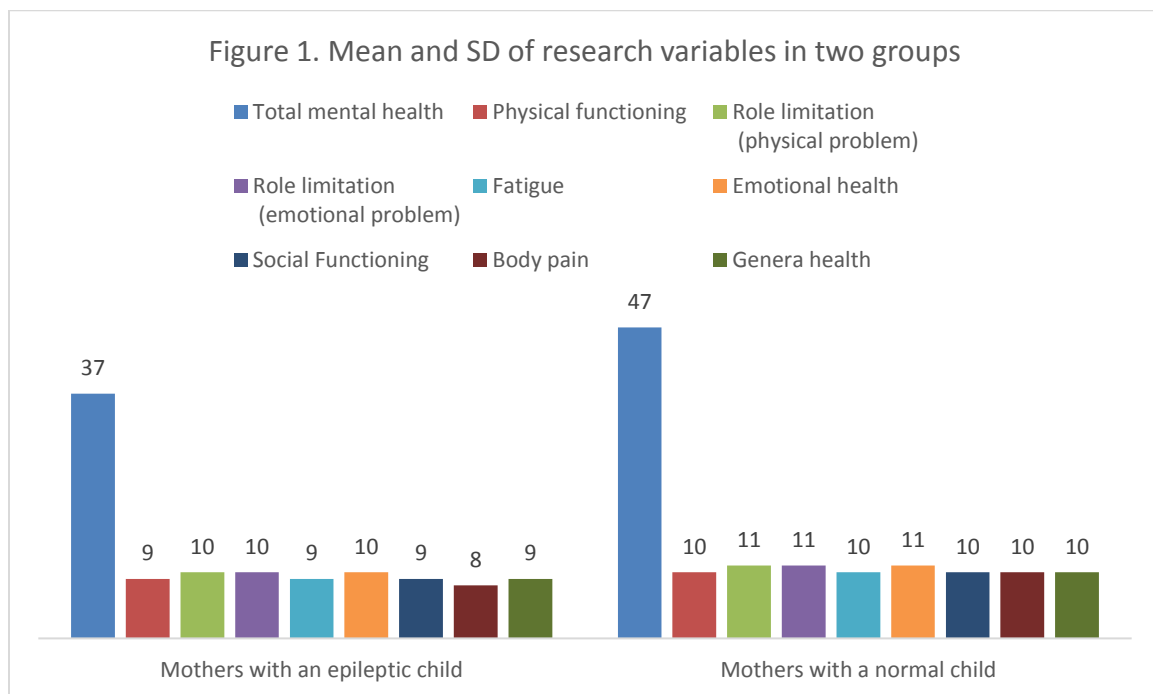


Table 1 Mean and SD of research variables in two groups

Variable	Group of mothers with an epileptic child		Group of mothers with a normal child	
	Mean	SD	Mean	SD
Total mental health	37/9	4/44	47/43	4/7
Physical functioning	8/83	1/76	9/47	1/73
Role limitation of due to physical problem	9/63	1/79	10/6	1/42
Role limitation due to emotional problem	9/43	1/92	10/4	1/45
Fatigue	9/27	1/83	9/8	1/32
Emotional health	9/43	9/65	10/8	1/66
Social functioning	9/33	1/8	10/03	1/29
Bodily pain	8/87	1/3	10/07	1/55
General health	9/13	1/61	10	1/53

Table 2 Results of MANCOVA for quality of life and mental health components in the two groups

Variable	Sum of squares	Degrees of freedom	Mean Square	F	Significant level
Total mental health	1363/2	1	1363/2	85/02	0/0001
Physical functioning	6/01	1	6/01	1/96	0/166
Role limitation of due to physical problem	14/01	1	14/01	5/34	0/024
Role limitation due to emotional problem	14/01	1	14/01	4/82	0/032
Fatigue	4/26	1	4/26	1/66	0/202
Emotional health	28/01	1	28/01	10/14	0/002
Social functioning	7/35	1	7/35	2/96	0/09
Bodily pain	26/6	1	26/6	10/49	0/002
General health	11/26	1	11/26	4/55	0/037

difference between the two groups in terms of physical functioning, fatigue and social functioning of quality of life quality.

DISCUSSION

Epilepsy, as a physiological disorder of the brain, causes many problems for the affected child and their families, especially their mothers and main caregivers. Therefore, the aim of the present research was to

compare the quality of life and mental health of mothers with an epileptic child mothers with a normal child. The results showed a significant difference between the research groups in the mental health variable in such way that the mental health of mothers with an epileptic child was less than other mothers. Also, there was a significant difference between two groups with regard to the role limitation due to physical problem, role limitation due to emotional problem, emotional

health, bodily pain, and general health components of quality of life in such way that mothers with an epileptic child had lower quality of life than mothers with a normal child. The results of the present study are consistent with the findings of various studies [20-23]. The results can be explained by arguing that fathers and mothers experience similar concerns in the family that relate to the health and future of their child, while mothers are more deeply affected by the crisis. Studies have shown that mothers are more prone to mental stress than fathers and often need more social-emotional support. Mothers of epileptic children should constantly try to control stressors, because their stress will be transferred to their infected children, which not only predisposes them to epileptic seizures, but also negatively affect their growth and development. On the other hand, it also disrupts the performance of the parents and thereby disrupting the function of the family and the natural growth of its members [24]. In a more general view, the total problems which an epileptic child is suffering from, affects patient's family and leads to social downgrading of the family. Family shame and constant embarrassment due to having an epileptic patient affects the communication patterns between family members, which affect the mental health and quality of life of family members, especially women in the long run. On the other hand, given that epilepsy is a chronic disorder, and the patient is highly dependent on the family member to meet his or her needs, this situation can affect the mental health of the patient's family, especially if they do not use correct stress coping methods. Additionally, families whose children suffer from physical and mental diseases such as epileptic seizures, may experience prolonged disasters and a sense of uncertainty regarding the treatment outcomes, and when there is a mismatch between the nature of the disease and the family system, the ambiguity and complexity of the family cause problems, which in turn leads to limitation in the role of family members [1]. In this regard, the general theory of systems takes into account the fact that the family is an interconnected group; when a crisis cause's imbalance in this system, this group becomes weak. A few parents have abandoned the epileptic child and many of them make themselves involved with their child's problem, and thus forget other important aspects of their lives; so this incident (their child's disease) causes a feeling of guilty and fault, failure and deprivation in mothers, which normally leads to sadness and depression. Overall, these conditions can cause isolation and lack of interest in establishing relationships with the environment, as well as lowering the mental health and self-esteem in the mother, which results in inappropriate quality of life, depression in mothers and jeopardized mental health [25]. Each parents shows different reaction to their child's disease, but it can generally be accepted that almost all of the parents of such children show an adverse reaction in such conditions, and type and amount of these reaction are different depending on their personality aspects, time of the reaction, etc.; so, all parents need some help so that they can first fully understand their problems, and it will not be possible to do this important thing through having awareness and precise knowledge about the issues and problems of the parents with an epileptic child and also examining the parents' psychological condition. Considering that the psychological state of the parents directly and indirectly affects the formation of the children's behaviors and their social relationships, it will be very important to know the personality characteristics and differences belonging to parents of these children so as to provide the most accurate data to use counseling, rehabilitation and treatment methods, and also provide the ground for specific measures in counseling, parent-teacher conference, exceptional children, family education dimensions and etc. The similar studies showed that the basis of the adaptive models adopted by the

family for the epileptic individual include three stages: their knowledge of the family member's epilepsy, recodification of roles and encountering conflicts and social problems, as well as helping him/her rejoin the community[1], which should to be taken into account. Therefore, the results of the present research showed that clinicians can use a therapeutic plan to work with mothers with epileptic children who suffer from frustration and some psychological problems, and low mental health and quality of life, because positive psychology believes that positive psychological structures, such as happiness and hope, can protect individuals from the side effects of life-threatening events. It seems useful to develop preventive programs based on the training of patience and the use of their preventive role.

CONCLUSION

Briefly, the results showed a significant difference between two groups of mother with an epileptic child and those with a normal child in the mental health variable as well as between the components of role limitation due to physical problem, role limitation due to emotional problem, emotional health, bodily pain, and general health of quality of life. Therefore, considering that mothers of special needs children need to receive counseling and psychotherapy services in order to overcome their problems, it is essential to involve mothers in educational programs in order to expand and increase their awareness about coping strategies to deal with the problems of their epileptic children. The results of this study can be inspired by parents, educators and others who are responsible for the education of children in order to focus on the emotions and needs of children and to help enhance the quality of life and mental health of mothers. The results of this research also lead to better understanding of the quality of life of the parents of children with epilepsy. The results of this study will identify the problems of epileptic children and their impact on the quality of life of parents, which can significantly help to improve the quality of life of these children and their families.

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