

RESEARCH ARTICLE

Comparing the quality of life and psychological well-being in mothers of children with hearing loss and mothers of children with other special needs

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Abstract

Background and Aim: Children with special needs such as those with hearing loss, visual impairment, mental retardation, and physical-motor disability have special conditions, which may adversely affect their parents' mental health. Given the importance of this issue, the present study aimed to investigate and compare the components of quality of life and psychological well-being in mothers of children with hearing loss, visual impairment, mental retardation, and physical-motor disability.

Methods: This was a descriptive, retrospective study. The statistical population included all mothers of children with special needs. The participants of this study were 200 mothers of children with special needs that were divided into four groups of hearing loss, visual impairment, mental retardation, and physical-motor disability in Isfahan. The mothers were selected through stratified random sampling. Data were collected using quality of life and psychological well-being questionnaires.

Results: In terms of quality of life, there was a statistically significant difference between

mothers of children with hearing loss and mothers of children with mental retardation and physical-motor disability ($p < 0.05$). However, no significant difference was observed between mothers of children with hearing loss and mothers of children with visual impairment. No significant difference was also observed among the four groups of mothers in terms of psychological well-being ($p > 0.05$).

Conclusion: Although the quality of life in both groups of mothers of hearing and visually impaired children was higher than that of mothers of children with mental retardation and physical-motor disability, the physical and mental health of these mothers should be taken into consideration.

Keywords: Psychological well-being; hearing loss; children with special needs; quality of life; mothers

Introduction

Every child is special to his or her parents. However, parents of children with special needs commonly face challenges to find the best way to prepare their children to face with and overcome difficulties that may arise in the future [1]. Vicissitudes of life, financial pressures, medical conditions, prescription of special drugs, hospital and special treatments' costs, emotional problems in family, increased family conflicts,

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and problems in family relationships, all in family and social life, are among the stressors that may affect the parents of exceptional children [2]. Greater attention has been paid to the families of children with special needs in recent decades, and several studies have been carried out concerning the child-parent relationships, parents' characteristics, marital relations, and the families' role in the treatment process. The findings of these studies highlight a close relationship between parents' characteristics and children's problems [3].

The review of the empirical studies indicates that cognitive, personality, psychological, and social characteristics of parents of children with special needs can efficiently predict their psychological well-being and quality of life [4-6]. A troubled child may be a source of physical and mental stress for the family, and the parents of these children usually are highly stressed. As a result, the quality of life decreases and the life style changes [7].

Quality of life and psychological well-being are among the psychological structures that have already been investigated in various studies. Many studies have dealt with the issues of parents of hearing impaired children. For example, Looi et al. in a study conducted in Singapore concluded that the quality of life of parents with hearing impaired children is poorer than that of the parents of normal children [8]. Moreover, a study conducted by Karkhaneh et al. indicated that mothers of children with hearing impairment suffer from depression, and encouragement training is effective in reducing their depression [9]. Reyhani et al. study also indicated that the quality of life of the hearing impaired adolescents is moderate compared to others [10]. Ghasempour et al. found out that the psychological well-being and its components were lower in parents of children with hearing impairment, and mothers of these children make less use of cognitive coping style against mental stress [11]. Moreover, Sciberras and Grima concluded that the quality of life of parents with hearing impaired children is lower than that of the parents of hearing children concerning general quality of life and

its components, and there is a relationship between the time of deafness diagnosis and the quality of life of the parents. The later the diagnosis of deafness is, the lower the quality of life will be [12].

Background research on the psychological well-being of parents of exceptional children [13,14] and quality of life [15] suggests that parents of these children show extreme stress, limited social relationships, and higher depression compared to the parents of normal children. The birth of a child with special needs requires a review on the role, activities, and duties of the spouses, the allocation of financial resources, and a wide range of new behaviors to meet his/her needs [16].

Considering the above-mentioned points, investigating the components of quality of life and psychological well-being in mothers of children with hearing loss is crucial in developing long-term and continuous programs to improve their mental health and overall life satisfaction. Therefore, the main question of the present study was whether there is any difference in the components of quality of life and psychological well-being between mothers of children with hearing loss and mothers of children with visual impairment, mental retardation, and physical-motor disability.

Methods

According to the research topic, the method of research is descriptive and retrospective (casual comparison). For this purpose, among all mothers of children with hearing loss and parents of children with visual impairment, mental retardation, and physical-motor disability in the academic year 2015-2016, 200 mothers were selected through stratified random sampling. To this end, special education centers for children with hearing loss, visual impairment, mental retardation, and physical-motor disability were selected in Isfahan and 50 students from each center were randomly selected. The mothers of the selected children participated in the present study (50 mothers of children with visual impairment, 50 mothers of children with mental retardation, 50 mothers of children with

Table 1. Mean (standard deviation) of the quality of life and psychological well-being of mothers with deaf, blind, mental and physical-motor disabled children

Variable	Group	Number	Mean (SD)
Quality of life	Blind	50	319.88 (28.22)
	Deaf	50	316.34 (28.8)
	Mental disability	50	279.74 (42.24)
	Physical-motor disability	50	278.64 (38.68)
Psychological well-being	Blind	50	324.34 (31.44)
	Deaf	50	317.08 (31.9)
	Mental disability	50	316.66 (28.64)
	Physical-motor disability	50	315.3 (29.52)

physical-motor disability, and 50 mothers of children with hearing loss). The inclusion criteria were: 1) mothers' consent to participate, 2) being the biological mother of the child, 3) having no noticeable disability, 4) having no special problems such as addiction, and 5) having no special disorder or disease. The data were collected using the quality of life questionnaire [17], and the psychological well-being questionnaire [18].

The quality of life questionnaire was designed to directly investigate the quality of life in different domains. The basic assumption of this questionnaire is that the individual's behavior in response to particular aspects of environment can indicate his/her quality of life. Therefore, this questionnaire provides a multidimensional index of the individual's behavior, which ends in a profile of different aspects of either satisfaction or dissatisfaction with life. This questionnaire is composed of subscales that investigate various physical, psychological, independence, social relationships, environment, and personal/religious beliefs aspects. The psychometric properties of this questionnaire have been checked and the researchers reported appropriate validity and reliability for this instrument in Iran. The reliability coefficient,

estimated by Cronbach's alpha, was 0.93 and the CVR was appropriate [19].

To measure the psychological well-being of the participants, the 84-item form of psychological well-being questionnaire [18] was used. This questionnaire includes six components of self-acceptance, positive relations with others, autonomy, goal-oriented life, personal growth, and environmental mastery. Each component includes 14 items. Bayani et al. translated this questionnaire into Persian and provided evidence of its reliability and validity [20]. The questionnaire has a six-point Likert scale (1 for "strongly disagree" to 6 for "strongly agree"). The total score in each subscale ranges between 14 and 84. They reported Cronbach's alpha value of 0.82 and split-half reliability value of 0.89 for this questionnaire. For the purpose of the present study, the Cronbach's alpha and split-half reliability of the six subscales of the scale were estimated, which were 0.80 and 0.81 for self-acceptance, 0.75 and 0.78 for positive relations with others, 0.64 and 0.68 for autonomy, 0.80 and 0.76 for the goal-oriented life, 0.59 and 0.63 for personal growth, 0.72 and 0.78 for environmental mastery, and 0.89 and 0.92 for the total scale, respectively.

Analysis of variance (ANOVA) was used for

data analysis. To check the normality of the scores, prior to ANOVA, the Shapiro-Wilk test was used. The results of this test showed that the null hypothesis of normal distribution of scores of the variables, for all three variables, is confirmed. Moreover, Leven test was used to verify the assumption of normality of the data. The results confirmed the null hypothesis for the equality of the variances. To further ensure the groups' performance on each of the variables of the study, Tukey test was used to make multiple comparisons. It should be mentioned that the data were analyzed using SPSS 21.

Results

The mean and standard deviation of scores of quality of life and psychological well-being are reported in Table 1. As can be seen, the mean scores of quality of life and psychological well-being in mothers of children with hearing loss were lower than the scores of mothers of children with visual impairment and higher than the scores of mothers of children with physical-motor disability and mental retardation.

Comparing the scores of quality of life and psychological well-being in mothers of children with hearing loss, mothers of children with visual impairment, mothers of children with physical-motor disability, and mothers of children with mental retardation, using ANOVA, indicated a significant difference between these four groups of mothers in terms of quality of life ($F=20.668$, $p<0.0001$). However, no significant difference was observed between the four groups of mothers in terms of psychological well-being ($F=0.895$, $p=0.44$).

In order to evaluate the performance of the groups in each of the variables, Tukey test was used for multiple comparisons. The Tukey test results indicated a significant difference between mothers of children with visual impairment and mothers of children with physical-motor disability and mental retardation, and also between mothers of children with hearing loss and mothers of children with physical-motor disability and mental retardation ($p<0.0001$). However, no significant difference was observed among the four groups in terms of

psychological well-being.

Discussion

The findings indicate a significant difference between the four groups of mothers in terms of quality of life while no significant difference was found in terms of psychological well-being. The results of Tukey test indicated a significant difference between the mothers of children with visual impairment and mothers of children with physical-motor disability and mental retardation, and also between mothers of children with hearing loss and mothers of children with physical-motor disability and mental retardation in terms of quality of life. However, no significant difference was observed in the scores of psychological well-being variable.

In general, the findings of the present study indicated that the parents of hearing-impaired children and parents of children with physical-motor disability and mental retardation obtained lower scores in all the subscales of quality of life and psychological well-being compared to the parents of visually-impaired children.

Today, quality of life is considered as one of the indices of development, and its promotion is of special importance. Quality of life is in fact the gap between expectations and experiences of people. Therefore, evaluating the quality of life helps in planning treatment strategies and evaluating the effectiveness of interventions and health care activities. For this purpose, the present study was conducted on mothers of exceptional children (with hearing loss, visual impairment, mental retardation, and physical-motor disability) to evaluate their health status.

In the review of literature, no similar study was found to directly investigate the life quality of mothers of children with special needs in four groups (hearing loss, visual impairment, physical-motor disability, mental retardation). The results of this study revealed a significant difference in quality of life of mothers of exceptional children in the four above-mentioned groups, which are consistent with the findings of other studies [15,21,22]. This difference may be explained from various perspectives. In addition to the psychological pressure and fear

of the future of the troubled children, mothers of exceptional children spend more time with children and sometimes have to spend lots of time to take care, feed, provide hygiene care, provide therapeutic exercises, cope with the behavioral problems of children, and take children to different medical centers. On the other hand, a troubled child in the family imposes additional costs that considering the inadequate funding of rehabilitation services by insurance organizations in our country exerts a huge financial pressure on the family of the troubled child. The mothers of these children are at the center of all these vicissitudes and difficulties; they spend more time with the child and receive the highest negative impact; therefore, their quality of life will be lowered [18]. In other words, considering the long-term problems of children with physical-motor disability and mental retardation (severe, moderate, and profound) and the need for constant care, the mothers of these children will experience high levels of stress and often become depressed and get disappointed at the progress of their child [23].

The other issues are conflicts, changes in daily activities, and impairment in couples' relations that may negatively affect the mental health of mothers. In general, these everyday problems could have negative effects on the subscales of quality of life and emotional health of mothers, as has been mentioned in previous studies [19]. It seems that since the cooperation of children with physical-motor disability and mental retardation is less than that of the other children, mothers feel more pressure in satisfying their needs, which is consistent with the study of Khayat-zade Mahani [22].

As mentioned above, the results indicated that the components of psychological well-being of mothers of children with physical-motor and mental disability and mothers of hearing-impaired children were lower than those of mothers of visually-impaired children. These findings are in consistent with the studies of Benson [24], Mitchell and Hauser-Cram [25], Olsson et al. [26], and Michaeli Manee [14]. All these studies reported the poor mental health status of mothers of exceptional children.

The researchers who work with exceptional children can understand the role of mothers and the adverse effect induced by a disabled child on the family dynamics. Mothers show strong emotional reactions after the birth of a mentally-retarded child [27]. Such issues can affect the psychological well-being of these families.

Due to the need for persistent care and providing special conditions for the growth of children and coping with stressors, including stereotypical behaviors, language problems, quarrel, lack of self-care skills, and social limitations, the normal functioning of the mother will be undermined. That is why the mean score of mental health in mothers of exceptional children, especially mothers of children with mental retardation and physical-motor disability is lower compared to mothers of other children [21]. It can be inferred that mothers of children with special needs (in particular those with mental and physical-motor disabilities) have low tolerance to the stress induced by the mentally-disabled child, and they inappropriately use the defense mechanism of denial due to injuries and difficulties in taking care of such children. This factor will affect psychological well-being of these mothers. Moreover, the birth of a mentally disabled child may have social consequences, as well. In general, these children are among the exceptional and minority population of the society whose caring needs special equipment and this makes their mothers much worried about the way the society deals with the child; therefore, the social stress increases in the mothers. Meanwhile, these mothers are not able to change such situation and have to cope with it. Due to the feeling of anxiety and stress of dealing with society or the fear of mistreatment of the society toward themselves and their children, they will be severely hurt over time.

The birth of a mentally retarded child probably creates crisis for families while the highest pressure is on the mother so that the mother's mental balance will change for a long time. Although most mothers will undoubtedly lose their compliance after a while, in addition to concerns about the future of their children, they may be affected by other stressful factors such

as caring and health that may endanger their mental health. This enormous pressure and the endurance of this tough situation for parents, especially mothers who are more closely in touch with the children, increase the risk of mental and physical diseases and reduce their general health [28].

The mothers of children with mental and physical disabilities think the world has ended; and they negatively look at themselves, the child, and the world. They may even abandon their beliefs or experience increased tension and stress due to illogical thoughts. They express their dissatisfaction with the status of their child and consider it as irrecoverable. They see no hope and sometimes they get isolated. It seems that the loss of faith and negative religious coping as well as anger towards God (because of the feelings of abandonment by God), as poor coping strategies, are associated with the low mental health and the experience of severe pain in the families [29].

At the end, it should be noted that the present study had some limitations. The study was carried out merely in Isfahan. The data collection instruments were limited to the quality of life questionnaire [17] and the psychological well-being questionnaire [18]. Furthermore, the sample only included mothers; therefore, care must be taken in generalizing the findings of the present study.

Conclusion

The results of the present study indicated that mothers of children with hearing loss were better at the components of quality of life compared to mothers of children with mental and physical-motor disabilities while they were lower than mothers of children with visual impairment. Furthermore, although no significant difference was found among the four groups of mothers in terms of psychological well-being, the mean of their performance scores indicated that the mothers of children with hearing loss are better than the mothers of children with mental retardation and physical-motor disability while their performance was lower than the mothers of children with visual impairment.

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