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RESEARCH ARTICLE

Perceived social support in mothers of typically developing children and mothers of children with hearing sensory impairment

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Abstract

Background and Aim: Children with sensory impairments can bring stress to their parents. The purpose of this study was to compare perceived social support in mothers of children with hearing impairment, visual impairment, and typically developing children in Shiraz City, Iran.

Methods: The study sample consisted of 139 mothers of normal children and children with sensory impairment (50 mothers of children with hearing impairment, 39 mothers of children with visual impairment, and 50 mothers of typically developing children). The Multidimensional Scale of Perceived Social Support was used to measure perceived social support. One-way ANOVA and multivariate analysis of variance (MANOVA) were respectively used for analyzing the total score of perceived social support and the scores of its subscales.

Results: The results showed that there was a significant difference between perceived social support and its subscales among mothers of children with hearing impairment, mothers of children with visual impairment and mothers of typically developing children. So, perceived social support and its subscales in mothers of children with hearing impairment and mothers of children with visual impairment are significantly lower than mothers of typically developing children ($p < 0.01$). It should be noted that there was no significant difference in perceived social support between mothers of children with hearing impairment and mothers of children with visual impairment.

Conclusion: The provision of counseling services and the implementation of appropriate interventions for mothers of children with hearing impairment and mothers of children with visual impairment is necessary.

Keywords: Perceived social support; mothers; children; hearing impairment; visual impairment

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Introduction

The birth of a child with sensory impairment brings stress to the family members, especially the parents, resulting in intense and conflicting feelings and reactions, calling for parents' new attitudes and behaviors [1]. In addition to that, Woolfson stated that children with hearing

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impairment (CHI) and children with visual impairment (CVI) could cause pressure and stress for their parents and increase family problems [2]. Of the family members of these children, mothers are especially exposed to a variety of mental issues because of the child's unique needs [3,4]. Therefore, mothers of CVI or CHI need more support than mothers of typically developing children (TDC). Moreover, studies of Chandorkar and Chakraborty [5], Gupta and Singhal [6], and Remine and Brown [7] have shown that the parents of these children have lower physical and mental health and existence of a child with disability threatens parent's compromise, especially mothers, and often negatively affects their satisfaction. The mothers of these children face more problems than fathers and are more engaged in dealing with their child's behavioral problems. Thus, they experience more stress and need more support [8].

Social support is studied in both received (objective) and perceived (subjective) social support. In perceived social support, personal evaluation of the availability of supports in urgent situations are reviewed [9,10]. The functional aspect of perceived social support means that social support is useful when the person knows for sure that he or she will be supported at the required time and by the right person [10]. Therefore, one's perception and attitude toward received support are more important than the amount of support provided to the individual. Several studies have shown that the higher the level of social support, the higher would be the level of health [11-14].

For this reason, people who have the support of others often feel less stress in life and experience fewer physical and mental problems than those who do not receive social support from their relatives [15,16]. On the other hand, the lack of perception of social support has many negative consequences, including the lack of social belonging, loneliness, and social abandonment [15,17]. In general, a review of empirical research suggests that social support plays an important role in promoting mental and physical health [9,18-20].

As it was mentioned, mothers of CVI or CHI have more mental problems than mothers of TDC, and social support has a positive effect on physical and mental health. Because preventive and interventional activities in each country require research in the context of that country, the present study aimed to compare the perceived social support of mothers of CHI, CVI, and TDC in Iran. We hope to provide relevant information on perceived social support in these mothers for health system authorities and planners. This study sought to answer the following questions: Is there a significant difference between the total score of perceived social support in mothers of CHI, mothers of CVI, and mothers of TDC?, and is there a significant difference between the subscales scores of perceived social support in mothers of CHI, mothers of CVI, and mothers of TDC?

Methods

Participants

The present study was a causal-comparative study. The study population included all mothers of children with hearing impairment (CHI), mothers of children with visual impairment (CVI), and mothers of typically developing children (TDC). The children must be in elementary schools covered by the Education and Exceptional Education Organization of Shiraz City, Iran, in the 2016-2017 academic year. The sample included 50 mothers of CHI, 39 mothers of CVI, and 50 mothers of TDC in Shiraz, Iran. Mothers of children with hearing impairment and mothers of children with visual impairment were selected by convenience sampling method. All children with hearing impairment or visual impairment covered by the Exceptional Education Office of Shiraz were selected, and the mothers of these children were invited to participate in the research. In this way, 50 mothers of CHI and 39 mothers of CVI were recruited for the study. Mothers of TDC were selected by multistage random sampling method. In this method, the list of elementary schools in Shiraz was prepared, and four girls' primary school and four boys' primary school were randomly selected. By visiting these schools, the students

were asked to inform their mothers to participate in this study. In this way, 50 mothers of TDC were recruited.

The inclusion criteria for mothers of CHI and CVI were as follows: having a child with hearing impairment or a child with visual impairment in the elementary school, and willingness to participate in research. The exclusion criteria were as follows: the child has disabilities more than hearing impairment or visual impairment, and the child is in preschool or high school. The inclusion criterion for mothers of TDC was having a normal child in elementary schools.

Table 1 presents the characteristics for mothers of CHI, mothers of CVI, and mothers of TDC. There were no significant differences between the three groups in their mean age, the ratio of boys to girl's children, family size, educational level, and family income.

Study Instrument

The multidimensional scale of perceived social support

Zimet et al. developed the multidimensional scale of perceived social support (MSPSS) [21]. This instrument was designed to measure an individual's perception of support from three sources: family, friends, and a significant other.

The MSPSS is a self-explanatory tool consisting of 12 questions; each question is scored on a 5-point scale from strongly disagree = 1 to strongly agree = 5. On this scale, every four questions, based on social support sources, are attributed to one of the sources of family, friends, and a significant other. It should be noted that on this scale, with increasing the score of individuals, the score in the overall factor of perceived social support increases. Besides, by summing up scores of individuals in the questions of each scale, the overall score of individuals in each subscale is obtained [21].

Zimet et al. [21] assessed the psychometric properties of the MSPSS. Based on their results, MSPSS is valid and reliable to evaluate perceived social support. Bruwer et al. evaluated the psychometric properties of the MSPSS by confirmatory factor analysis and reported that the triple factor structure of the MSPSS (family, friends, and significant other) had an acceptable fit with data [22].

Data analysis

The obtained data were analyzed in SPSS 19. To do descriptive statistics, frequency, frequency percentage, mean, and standard deviation of the study variables were calculated. One-way ANOVA and Scheffe post hoc test were used to compare the total score of perceived social support among three groups of mothers.

The results of the Kolmogorov-Smirnov test showed that the distribution of data in all research variables was normal ($p > 0.05$). Also, the Levene's test was used to test the homogeneity of variance before performing one-way ANOVA. This test result was not significant so one-way ANOVA can be used. Also, to examine the homogeneity of covariance, the M-box test was used, and the results showed that the amount of the M-box is not significant and as a result, the consistency between the covariates was confirmed.

Results

Table 2 presents the average values of total perceived social support scores for mothers of CVI, mothers of CHI, and mothers of TDC. There are differences between the three groups in terms of total perceived social support and its subscales. The results of the one-way ANOVA test indicate a significant difference between the three groups of mothers in terms of perceived social support ($F(2,136) = 15.903$, $p < 0.01$). The Scheffe post hoc test results indicate a significant difference between mothers of CHI and mothers of TDC in perceived social support (mean differences = -6.30, $p < 0.01$, 95% CI: -10.45, -2.15). Also, the Scheffe post hoc test results indicate a significant difference between mothers of CVI and mothers of TDC in perceived social support (mean differences = -9.79, $p < 0.01$, 95% CI: -14.22, -5.37). Thus, the perceived social support in mothers of CHI and mothers of CVI is significantly lower than mothers of TDC. It should be noted that there was no significant difference in the perceived social support between mothers of CHI and mother of CVI.

Table 1. Characteristics of mothers of children with visual impairment, mothers of children with hearing impairment, and mothers of typically developing children

	mothers of CVI (n = 39)	mothers of CHI (n = 50)	mothers of TDC (n = 50)
Mean age (years) (standard deviation)	36.03 (10.24)	37.48 (9.63)	36.71 (9.72)
Range (years)	28−53	29−52	27−54
Male (female) of children	24 (26)	22 (28)	23 (27)
Family size (standard deviation)	3.22 (1.82)	3.56 (1.43)	3.65 (1.76)
Educational level (%): < 12 years (> 12 years)	63.17 (36.83)	68.43 (31.57)	65.83 (34.17)
Family income (%): (≤ 10,000,000 IRR, 10,000,001–30,000,000 IRR, ≥ 30,000,001 IRR)	(43.59, 53.85, 2.56)	(40,56,4)	(38,56,6)

CVI; children with visual impairment, CHI; children with hearing impairment, TDC; typically developing children

Based on the results of MANOVA, the effect of the group on a linear combination of dependent variables is significant ($F(2,136) = 7.66$, $p < 0.01$). For this reason, the analysis of variance was used to determine which effect is significant on which dependent variable. The results of the analysis of between-group variance shows that the effects obtained for the group in the subscale of perceived support from the family ($F(2,136) = 6.666$, $p < 0.01$), from friends ($F(2,136) = 17.636$, $p < 0.01$) and from significant others ($F(2,136) = 6.738$, $p < 0.01$) are significant.

The results of Scheffe post hoc test showed a significant difference between mothers of CVI and mothers of TDC in terms of perceived social support from family (mean differences = -2.14, $p < 0.01$, 95% CI: -3.64, -0.63), from friends (mean differences = -4.33, $p < 0.01$, 95% CI: -6.17, -2.49) and from significant others (mean differences = -3.32, $p < 0.01$, 95% CI= -5.65, -0.99). Also, the results of Scheffe post hoc test indicate a significant difference between mothers of CHI and mothers of TDC in terms of perceived social support from family (mean differences = -1.42, $p < 0.05$, 95% CI = -2.83, -0.01), from friends (mean differences = -2.64, $p < 0.01$, 95% CI = -4.37, -0.91), and from significant others (mean differences = -2.24, $p < 0.05$, 95% CI = -4.42, -0.06). So mothers of CHI and mothers of CVI feel lower perceived support from family, friends, and significant others than mothers of TDC.

Discussion

This study aimed to compare perceived social support in mothers of children with sensory impairment (children with hearing impairment and children with visual impairment) and mothers of typically developing children. The results showed that mothers of children with sensory impairment had lower perceived support from family, friends, and significant others than mothers of typically developing children. For explaining these findings, we can say that having a child with sensory impairment can cause pressure and stress for their parents and increase family problems [2]. Besides, the problems of taking care of a child with sensory impairment can raise family and social problems for parents, especially the mothers [23]. As a result, mothers of children with sensory impairment have limited social networks and fewer relationships than mothers of TDC [24]. This condition probably makes mothers of children with sensory impairment feel less support than mothers of TDC.

Also, comparing subscales of perceived social support indicate that in the subscale of perceived social support from family, friends and significant others, mothers of TDC have more protection than mothers of CHI and mothers of CVI. For explaining these findings, it can be said that mothers of TDC form a larger social network, and their social cohesion is stronger.

Table 2. Mean (standard deviation) of perceived social support and its subscales in three groups

	Mean (SD)		
	Mothers of CHI	**Mothers of CVI**	**Mothers of TDH**
Total score of perceived social support	41.06 (9.53)	37.56 (8.04)	47.36 (7.32)
Perceived social support from family	14.25 (3.02)	14.02 (2.74)	16.40 (2.74)
Perceived social support from friends	12.36 (3.91)	10.66 (2.38)	15.00 (3.09)
Perceived social support from significant others	13.72 (4.88)	12.64 (4.60)	15.96 (3.66)

CHI; children with hearing impairment, CVI; children with visual impairment, TDC; typically developing children

Thus, they perceive higher social support, while mothers of children with sensory impairment form a smaller social network [25] and feel embarrassed and inaccessible to friends and relatives and family members, which results in weaker social relationships and less social support.

Also, it can be said that the particular circumstances of having a child with a sensory impairment cause mothers spend more time with their children, and therefore have less opportunity to engage in their interests, social activities, and skills. The mothers of children with sensory impairment face new challenges because of their children's special needs; one of them is the reaction of their relatives. Usually, relatives have a poor understanding of the children with sensory impairment, and their reactions are mostly emotional with pity. Hence, mothers typically end up in isolation and social abandonment, which reduces the level of intimate and social relationships. Therefore, compared to mothers with TDC, their perceived social support is lower [26]. In conclusion, the comparison of perceived social support in mothers of children with sensory impairment and mothers of TDC suggests that the problems of taking care of a child with sensory impairment can lead to increased confounding and social problems in mothers. Therefore, mothers with sensory impairment children need more social support than mothers with typically developing children.

It is worth noting that this study only focused on the mothers, so the results cannot be generalized to other members of the family. Also, the level and severity of deafness and blindness have not been investigated in this study. This research has been carried out in Shiraz City, Iran, and its results cannot be generalized to other cities of the country. We suggest that similar analysis be carried out on fathers and siblings of children with sensory impairment and typically developing children. It is also suggested that in future studies, the level and severity of deafness and blindness be studied. We suggest that mothers of children with sensory impairment be encouraged to form community-based associations and help each other to resolve their problems. Finally, it is recommended that in-charge organizations provide free psychological interventions with appropriate economic, educational, and cultural support to promote perceived social support for mothers of children with sensory impairment.

Conclusion

Our results indicate that mothers of children with sensory impairment have lower perceived support from family, friends, and significant others than mothers of TDC. Therefore, it is recommended that institutions and officials dealing with children with sensory impairments and their parent design and implement support programs such as psychological, economic, educational, and cultural supports to improve the perceived social support of mothers of children with sensory impairments.

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Conflict of interest

The authors declared no conflicts of interest.

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