

***Association of Spiritual Well-Being and Parental Acceptance with Child Behavioral Disorders through the Mediation of Life Satisfaction in Mothers of Children with Hearing Impairment***

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**Abstract**

***Background:*** Mothers' awareness of their negative feelings and emotions, such as anxiety and stress, has a powerful impact on improving life satisfaction and reducing children's behavioral disorders.

***Objectives:*** The present study was done to investigate the association between spiritual well-being and parental acceptance and child behavioral disorders through the mediation of life satisfaction in mothers of children with hearing impairment.

***Methods:*** This research was a descriptive correlational study performed by path analysis. The statistical population included all mothers of children with hearing impairment in Tehran city, of whom 284 cases were selected as the sample using convenience sampling. The research instruments included the Porter Parental Acceptance Scale (PPAS), the Spiritual Well-Being Scale (SWBS), Behavior Disorders Questionnaire (BDQ), and the Satisfaction with Life Scale (SWLS). The proposed model was evaluated using path analysis by SPSS Amos 24.0.

***Results:*** The results showed that there was a significant association between spiritual well-being and child behavioral disorders ( $p < 0.01$ ), spiritual well-being and life satisfaction ( $p < 0.01$ ), parental acceptance and life satisfaction ( $p < 0.01$ ), and life satisfaction and child behavioral disorders ( $p < 0.01$ ). There was no significant association between parental acceptance and child behavioral disorders ( $p > 0.05$ ). The results of path analysis indicated that life satisfaction played a mediating role in the association between spiritual well-being and parental acceptance with child behavioral disorders ( $p < 0.01$ ).

***Conclusion:*** According to the results, the proposed model had a good fit. Accordingly, by strengthening and improving spiritual well-being, parental acceptance and life satisfaction can improve the behavioral disorders of children with hearing impairment.

***Keywords:*** hearing impairment, life satisfaction, child-mother interaction, spiritual well-being, behavioral disorders

**Introduction**

Severe and profound partial hearing is associated with negative developmental consequences in communicative, cognitive, and social-emotional areas of the life of deaf children and their parents [1]. However, the type and intensity of consequences are influenced by the amount of

hearing loss (HL), hearing functionality via a hearing aid or cochlear implant, parental resources, task sharing in family, intelligence quotient (IQ), multiple disabilities, more disabilities, and educational efforts [2,3]. Since children with partial hearing or hard-of-hearing fail to control or manipulate their environment

around, they are unable to fulfill their demands or carry them out to attract attention and are likely to display symptoms of behavioral disorders due to starvation, tiredness, and sadness [4]. Children with hard-of-hearing experience more severe behavioral disorders and more slowly behavioral improvement than their peers with normal hearing [5]. Behavioral disorders have a higher incidence in the second year of children's life, typically when they start to learn the language, and these children are good at understanding speech but not at present the words. Assuming the language delay in the majority of children with partial hearing or hard-of-hearing, anger and frustration can be expected from them due to the lack of connection with their thoughts or feelings or feeling of confusion when they fail to reach parents' expectations [6].

Spiritual well-being is constituted of two elements, namely spirituality and well-being, with two dimensions of religious well-being and existential well-being [7]. Religious well-being indicates the relationship with a superior power that is God. Existential well-being is a psychological-social element expressing the individuals' feelings about who they are, what they do, why they do it, and where they belong [8]. Numerous factors, including spiritual well-being, affect deaf children's behavioral disorders. The mothers' religious beliefs are effective on the children's behavioral disorders, such that proper religious beliefs fulfill many humans' basic needs and bridge the ethical, emotional, and spiritual gaps [9-11]. The mothers' spiritual well-being accompanies suffering stresses due to the hearing loss in their children [12].

On the other hand, the behavioral disorders of deaf children with the parents often appear due to serious problems of regulating and empowering appropriate behavioral boundaries as a result of generalizing the children's defiance problem and parental acceptance [13,14]. Studies have indicated that the mothers of children with heavy hearing loss are more apt to use corporal punishment as a response to involuntary behaviors compared with the mothers of children with normal hearing [15,16]. In stress-free relationships accompanied by acceptance, the children would become confident about their value, they could express their feelings, and they can move forward in the direction of self-

actualization. Parental acceptance helps children learn that they can count on the support and assistance of others in their lives [17].

Acceptance and rejection of parents are one of the important dimensions of the parental relationship. These dimensions can be considered as a continuum that parents who express their love and affection to their child verbally and non-verbally are on one side, and on the other side, there are parents who feel disgusted and hatred and condemn their child, and are likely to use harsh and offensive training methods [18]. Mendo-Lázaro et al. [19] showed that parental acceptance plays a critical part in the emergence of disorders in children. The less parental acceptance takes place, the more departed the children would become. Thus, the children's emotional stability would decline, and consequently, they would move towards aggression and other behavioral problems. Savell et al. [20] showed that the negative parent-children interaction and childhood discriminatory experiences would result in intensified behavioral disorders in the children during their adult ages. In a study conducted by Oh et al. [21], the effective role of mother-child positive interaction in preventing behavioral problems and childhood abuses was reported.

In this regard, the two factors of spiritual well-being and parental acceptance could affect the children's behavioral disorders by affecting satisfaction with life. Satisfaction with life reflects an equilibrium between the individuals' ambitions and their current conditions, regarded as the cognitive element of mental well-being [22]. Some studies have indicated that mental well-being does not decline in spite of a decline in cognitive, social, and physical abilities in some individuals [23,24]. In general, satisfaction with life may be influenced by childhood impairments, social support, self-efficiency, tolerance, physical health conditions, financial situation, and events of life [25].

For a sense of life-satisfaction, the person should be satisfied with "himself" as the most fundamental construct of life. Knowing the reasons behind the increase and decrease in the level of life-satisfaction is a valuable step in enhancing the level of life-satisfaction among these individuals, because when the extent of satisfaction is not at a desirable level, then it leads to mental problems, such as depression, life

pessimism, hopelessness about the future, lack of target, life meaninglessness, indifference, and family problems [26]. Narimani et al. [27] showed that religious attitude, spiritual well-being, and social support play a determinant role in life satisfaction among mothers with mentally retarded children. Lee and Jirásek [28] found that spiritual well-being is significantly related to satisfaction with life among parents with behaviorally disordered adolescents.

Numerous negative consequences of psychological well-being problems have been widely reported and described by mothers of children with partial hearing and hard-of-hearing after diagnosis of their children's disorder. Among these mothers, the majority were involved in recurrent deep sorrow and prolonged depression [29], and they experience confusion, loss, and a considerable degree of hardship. Therefore, it is highly important to plan to overcome problems facing mothers of partial hearing or hard-of-hearing children, due to the mothers' crucial role in promoting the socio-psychological state of the family and the problems and issues arisen from the children hearing impairment.

Given the limited number of studies on mothers of children with hearing impairment, the present study was done to investigate a causal relationship between spiritual well-being and parental acceptance of child behavioral disorders according to the moderating role of life satisfaction in mothers of children with hearing impairment.

## Methods

This research was a descriptive correlational study performed by the path analysis method. The statistical population included all mothers of children with hearing impairment of Pazhvak, Niusha, and Resa rehabilitation centers in Tehran city in 2019. The samples were selected from May to July 2019. With the consent of the officials of the rehabilitation centers, and by attending the centers, children with hearing impairment were identified. The mothers of these children were then contacted to attend the rehabilitation center on the scheduled date and were given the necessary explanations about the importance of the issue and the confidentiality of the information. The sample size was estimated to

be 284 cases using SPSS software v24.0 and the  $\beta$  of 0.010 and  $\alpha$  of 0.05. A total of 310 mothers agreed to participate in the study and were given questionnaires, and 284 cases were analyzed after the elimination of incomplete questionnaires. The inclusion criteria were being married, the age range of 27-48 years, having at least a middle school education, and having no mental disorders based on self-reporting. The exclusion criterion was the lack of answers to all the questions. Data were analyzed by descriptive and inferential statistics, such as mean, standard deviation, and Pearson correlation coefficient. The path analysis was used to assess the proposed model. SPSS Amos 24.0 was used for data analysis.

## Research Instruments

**The Behavior Disorders Questionnaire (BDQ):** The Rutter Children Behavior Questionnaire is a valid and reliable survey to measure behavior problems in children, which is answered by parents. The original items of the questionnaire were increased from 26 to 30 items by adding 6 more items and integrating 2 of them due to their similarities. The questionnaire is scored on a 3-point Likert scale ranging from 0 to 2. The overall score of the questionnaire ranges from 0 to 60 [30]. Bardideh et al. [31] reported the reliability of 0.94 for this scale based on Cronbach's alpha coefficient. In the present study, Cronbach's alpha coefficient of 0.86 was obtained for the scale.

**The Spiritual Well-Being Scale (SWBS):** The Spiritual Well Being Scale (SWBS), designed by Paloutzian and Ellison in 1982, is a 20-item questionnaire, which consists of two subscales, including spiritual well-being and existential well-being. The former subscale measures the relationship between a superior power, while the latter, as a social-psychological element, evaluates individuals feeling about who the person is, what is he doing and why, and where does he belong to. Items are scored on a 6-point Likert scale from 1 (strongly disagree) to 6 (strongly agree) [32,33]. Jafari et al. [34] reported a Cronbach's alpha of 0.81 for the whole scale. In the present study, Cronbach's alpha coefficient was 0.83 for the scale.

**Porter Parental Acceptance Scale (PPAS):** The parental acceptance questionnaire was designed by Porter in 1954. The questionnaire includes a 40-question test scored on Likert's five-facet scale ranging from never [1] to always [5]. The score of

the questionnaire ranges from 40 to 200. The higher scores indicate the parents' high acceptance towards the child [35]. In the present study, Cronbach's alpha coefficient was 0.81 for the questionnaire.

Satisfaction with Life Scale (SWLS): the questionnaire of satisfaction with life was used by Diener et al. [36]. This scale encompasses 5 items, each having 7 choices scored from 1 (strongly agree) to 7 (strongly disagree). The range of scores for this scale is from 5 to 35. Bayani et al. [37] reported the reliability of this questionnaire to be 0.69 based on Cronbach's alpha coefficient. In the present study, Cronbach's alpha coefficient was 0.83 for this scale.

**Results**

Regarding age, 57.04% of the study participants were in the age range of 31-40 years. In terms of the level of education, the majority of participants had a middle school degree (48.94%). Also, 60.56% of the mothers were housewives. The demographic variables of the participants are presented in Table 1. Also, the degree of hearing problems in children was the degree of severe disability according to the International Classification of Function, Disability, and Health (ICF). Descriptive statistics, including mean and standard deviation (SD) and Pearson correlation coefficient of study variables, are presented in Table 2.

**Table 1: Demographic variables of the participants**

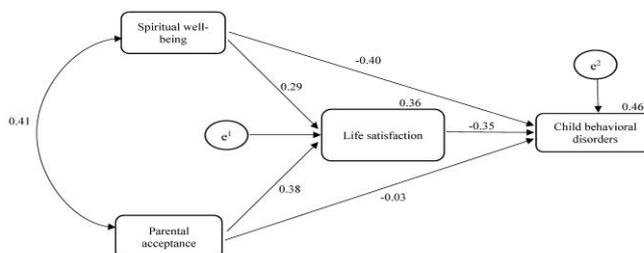
Demographic variables	n	%	
Age (years)	27-34	48	16.90
	34-41	162	57.04
	41-48	74	26.06
Education	Middle school	139	48.94
	High school	97	34.16
	College education	48	16.90
Employment status	Housewives	172	60.56
	Employee	112	39.44

**Table 2: Mean, standard deviation (SD), and Pearson correlation coefficients among key study variables**

Variables	Mean	SD	Correlation Coefficient
Child behavioral disorders	29.77	15.16	1
Spiritual well-being	79.92	31.24	-0.602
Parental acceptance	126.43	55.61	-0.469
Life satisfaction	23.46	7.45	-0.575

The initial model indicating the mediating role of life satisfaction in the association between

spiritual well-being and parental acceptance with child behavioral disorders is displayed in Figure 1



**Figure 1: The initial model indicating the mediating role of life satisfaction in the association between spiritual well-being and parental acceptance of child behavioral disorders**

According to the data of Table 3, the root mean square error of approximation (RMSEA=0.501)

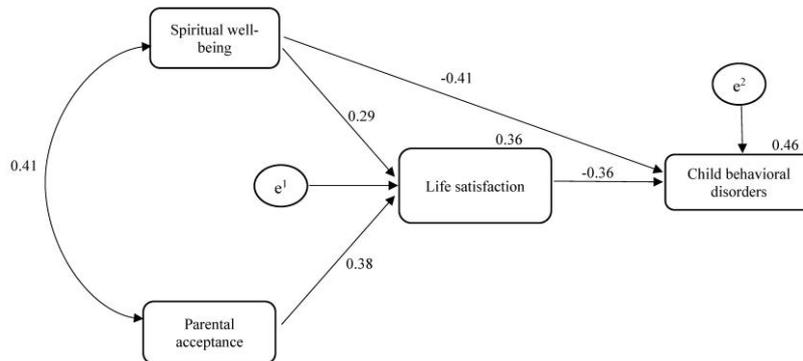
showed that the initial model required modification. Accordingly, the non-significant

association between parental acceptance and child behavioral disorders was removed. Figure 2 shows the final model, in which the

RMSEA=0.0001,  $\chi^2/df=0.244$ , and CFI=1.000 indicated a good model fit.

**Table 3: The initial and final model fit indicators**

Fit indicators	$\chi^2$	df	( $\chi^2/df$ )	IFI	TLI	CFI	NFI	RMSEA
<b>Initial model</b>	-	0	-	1.000	-	0.998	0.999	0.501
<b>Final model</b>	0.244	1	0.244	1.002	1.011	1.000	0.999	0.0001



**Figure 2: The modified final model indicating the mediating role of life satisfaction in the association between spiritual well-being and parental acceptance of child behavioral disorders**

The association between spiritual well-being and child behavioral disorders was negative and significant ( $\beta=-0.415$ ,  $P=0.0001$ ). Moreover, there was a negative and significant association between life satisfaction and child behavioral disorders among the participants ( $\beta=-0.358$ ,  $P=0.0001$ ). We also observed a direct and

significant association between spiritual well-being and life satisfaction ( $\beta=0.292$ ,  $P=0.0001$ ). The association between parental acceptance and life satisfaction was positive and significant ( $\beta=0.378$ ,  $P=0.0001$ ). In order to determine the significance of the mediating-based relations, we utilized the Bootstrap method (Table 4).

**Table 4: Path coefficients of direct effects between research variables in the final model**

Path	Path type	$\beta$	P
<b>Spiritual well-being to child behavioral disorders</b>	Direct	-0.415	0.0001
<b>Spiritual well-being to life satisfaction</b>	Direct	0.292	0.0001
<b>Parental acceptance to child behavioral disorders</b>	Direct	-	-
<b>Parental acceptance to life satisfaction</b>	Direct	0.378	0.0001
<b>Life satisfaction to child behavioral disorders</b>	Direct	-0.358	0.0001

The indirect path from spiritual well-being to child behavioral disorders through the mediating role of life satisfaction was significant ( $\beta=-0.038$ ,  $P=0.001$ ). Moreover, the indirect path from

parental acceptance to child behavioral disorders through the mediating role of life satisfaction was significant ( $\beta=-0.056$ ,  $P=0.004$ ) (Table 5).

*Table 5: The results of the Bootstrap method for investigating indirect and intermediary paths*

Predictor variable	Mediator Variable	Criterion variable	Final model		Total effect
			Bootstrap	P	
Spiritual well-being	Life satisfaction	Child behavioral disorders	-0.038	0.001	0.037
Parental acceptance	Life satisfaction	Child behavioral disorders	-0.056	0.004	-0.466

## Discussion

The present study was done to investigate the association between spiritual well-being and parental acceptance, and child behavioral disorders through the mediation of life satisfaction in mothers of children with hearing impairment. The results showed that all direct paths except the path of parental acceptance to the behavioral disorders among children were significant. Indirect paths also become significant with behavioral disorders in children through satisfaction with life. According to the results of the study, the proposed pattern showed a desirable fit and is regarded as an important step forward in understanding the factors affecting the behavioral behavior of mothers with deaf and hard-of-hearing children. It may also be a proper pattern to compile and design programs for preventing the mothers' experienced complications and reducing their children's behavioral disorders.

The first finding was a direct relationship between spiritual well-being and the children's behavioral disorders. This finding is consistent with the results of Narimani et al. [27] and Dehshiri et al. [33]. The mothers' spiritual well-being plays an important part in affecting the children's behavioral disorders, such that intrapersonal religious beliefs and practices help individuals cognitively, emotionally, and physiologically dominate their problems and complications. It also helps them hold themselves accountable for their own thoughts and behaviors in conflicts and struggles and try to change them. Furthermore, from an interpersonal perspective, the mothers' spiritual well-being provides grounds for them to pay attention to the presence of God and appeal to Him when conflicts and misfortunes arise and they are affected by their child's hearing condition. Thus, they can cope with problems more peacefully and try to solve them since the spiritual well-being increases the potential to get connected with God and would lead the mothers

to control the atmosphere and establish effective communication with others.

The second finding of the study was a positive relationship between spiritual well-being and satisfaction with life. This finding is consistent with the results of Narimani et al. [27] on children referring to the Emam Sajjad therapeutic center in Torbat-E-Heydarieh city and Lee and Jirásek [28] on Czech adolescents. It can be concluded that spiritual well-being increases the ability to self-regulate and manage negative emotions, such as anxiety, complication, and irritation. Generally, spiritual well-being may have a positive effect on mental health through facilitating more intimate relations, reducing conflicts in mothers with deaf children, and mitigating the conflicts emerging between the parents and between them and their children. Parents with high spiritual well-being ability own can pay full attention to their interactions, thoughts, and emotions as well as those of their partner and children more correctly; therefore, receiving these emotions, and conflicts and disagreements would decline in return. They would consequently experience a higher level of mental health. On the other hand, the relationship with God and spiritual well-being plays a compensatory and interactive role in the relationships with the family members. In general, spirituality is an organized system of beliefs that involves the individual's ethical values, which leads to the participation in a religious society to have a resolved belief in God or a superior power [27]. Spiritual well-being leads to an improvement in the mothers' satisfaction with life, and in turn, the mothers' satisfaction with life is effective in the quality of mother-child interaction. The mother-child interaction means the mother's style of parenting, which manifests during the mutual relationship between the mother and the child. In other words, this interaction is a type of reciprocal exchange; that is, the mother's inputs affect the child's growth and the child's

characteristics are direct outcomes of how the mothers' style of parenting, properties of parental relation patterns, and satisfaction with life.

The third finding of the study was no significant relationship between parental acceptance and the child's behavioral disorders. Contrary to this finding, the results of a study carried out by Mendo-Lázaro et al. [19] indicated that parental acceptance plays an important role in the outbreak of disorders in children. The less acceptance of the parents, the more distant children would get from them. Also, less acceptance of the parents decline the children's emotional stability, and they resort to aggression and other behavioral problems. Savell et al. [20], in a study on American teens in 2018, showed that negative parent-child interaction and discriminatory experiences in childhood leads to intensified behavioral disorders in children. Oh et al. [21] assessed college students in Hong Kong in 2018 and concluded that a positive mother-child interaction and mothers' social support for their children have an effective impact on preventing behavioral complications and abuse during childhood.

In the above-mentioned studies, the association between parental acceptance and the child's behavioral disorders is determined by correlation coefficient and regression tests, which revealed the significance of this association. However, in the present study, the presumptions are studied by the path analysis and the association between parental acceptance and the children's behavioral disorder was significant using Pearson's test, but the entire share and impact of the parental acceptance variable regarding the children's behavioral disorders are expressed through mediation or indirect relation in the model due to the presence of a mediation. In other words, also in this model, the parental acceptance variable is effective on the child's behavioral disorder, but indirectly. Therefore, it can be stated that this finding has been somehow in accordance with those of the previous studies. In general, family plays a fundamental role in creating satisfaction with life or disorders in the individuals and constitutes the main unit that maintains individual and social health. The relationship between the parents and the children is one of the most critical factors affecting mental and social health, which is of significant importance for the life of a

growing child. Ineffective educational style and an inappropriate parent-child interaction during the transit period would lead to the outbreak of communicative problems and, ultimately, the children's vulnerability in the face of disorders, such as anxiety, behavioral complications, and psychological damages. Parental acceptance is a combination of unique behaviors, emotions, and expectations existing between the parents and children and includes quality time, physical affection, and verbal communication [20].

Moreover, the fourth finding of the study was a positive relationship between parental acceptance and satisfaction with life. As mothers' parental acceptance increases, satisfaction with life is expected to be improved. No reports were found consistent with this finding. Parental acceptance leads to satisfaction with life among mothers. On the other hand, the mothers' satisfaction with life affects parental acceptance. Parental acceptance is the mother's parenting style manifested in the course of mother-child reciprocal relations. In other words, it is a sort of reciprocal exchange, which means that the mother's inputs somehow affect the child's growth, and the child's characteristics are direct outcomes of parenting style and the properties of the parents' communicative patterns, and finally, the mothers' mental health [21].

The fifth finding of the study was a negative relationship between satisfaction with life and the child's behavioral disorders. As mothers' satisfaction with life improves, their child's behavioral disorders are expected to be eliminated. This finding is consistent with the results of Karimi et al. [38] and Toosi and Amiri [39]. Satisfaction with life refers to those opportunities where the individuals would behave the environmental and intrapersonal requirements properly and satisfyingly. A stressor among the mothers is giving birth to a deaf child. These children exert peculiar stress on their parents, especially their mothers. The most important issues and problems these mothers face are the acceptance of the child's disability, the fatigue caused by attendance and care, issues related to spare time, the household's financial issues, and medical and therapeutic issues. The parents' higher levels of stress are associated with the weak performance of the family, the child's behavioral disorders, and poor solidarity and

coherence in communication. In families with deaf children, factors, such as how to use coping strategies, the generalization of the parents' self-efficacy, the family's solidarity and coherence, and the sense of meaning in life are among factors affecting mother-child poor interactions and an increase in the children's behavioral disorders. The development of awareness about their negative emotions and feelings, such as anxiety and tension would lead to an improvement in satisfaction with life among the mothers and the mitigation of the children's behavioral disorders. Having the skills of increasing focus and attention helps the mothers of deaf and hard-of-hearing keep calm and keep away from tension and its consequences, resulting in an increase in their satisfaction with life.

The sixth finding of the study was an intermediate role of satisfaction with life in the association between spiritual well-being and the child's behavioral disorders. However, no relevant study was found to compare with this finding. To explain this finding, the mother's spiritual well-being upon encountering environmental stressors leads to more self-control, better compatibility, a positive view of the partner and the child, and a more effective relationship with them. On the other hand, families with deaf or hard-of-hearing children face higher levels of conflict and lower levels of coherence. Also, the sense of insufficiency about parenting over time would extend to other private aspects of life and marital relations of their mothers. As a result, despite having exceptional children, these families are expected to be influenced by the symptoms of the disorder in their children, and these families, especially mothers face more problems. Therefore, the importance of spiritual well-being and the management of negative emotions and feelings would emerge more than ever. When an individual acquires these skills, he/she may become aware of the problems and stresses and find suitable solutions, and consequently mitigate the stress in his/her relationship with his/her child, and achieve an improvement in satisfaction with life and a decline in the child's behavioral disorders. Hence, satisfaction with life plays a mediatory role in the relationship between spiritual well-being and the child's behavioral disorders. Most of the children's behavioral problems reflect the complicated situation of

interpersonal relationships between the family members, especially the parents. In other words, the presence of behavioral disorders in children reflects defective relationships between the family members, and their defective relationships are in close association with their children because of the wrong educational methods acquired by the parents. By empowering the spiritual well-being of the mothers, it may be well-expected that the mother's satisfaction with life, and consequently the deaf and hard-of-hearing children's behavioral disorders, would decline.

Moreover, the seventh finding of the study was an intermediate role of satisfaction with life in the relationship between parental acceptance and the child's behavioral disorders. This finding is consistent with the results of Esmaili et al. [40] and Mousavi [41]. To explain this finding, parental acceptance would lead to the mothers' satisfaction with life. In other words, parental acceptance affects these mothers' satisfaction with life, and the mothers' dissatisfaction with life leads to the outbreak of aggression in them, which in turn leads to behavioral disorders in the child. In fact, parental acceptance is among the most important factors affecting mental and social growth and the relationships between the parents and the children that are very important for the life of a growing child; such that the quality of these relations lays the foundations of cognitive, social, and emotional growth during the early years of the child's life [42]. The family plays a pivotal role in the health and illness of individuals and is the main unit that enhances individual and social health. Moreover, it has a significant effect on the formation of the notions of health and illness and the patterns of normal and abnormal behaviors. Inefficient educational styles and inappropriate parental acceptance during the transition period would lead to the development of communicational problems and, ultimately, the children's vulnerability in the face of disorders, such as anxiety, behavioral problems, and psychological damages [43].

#### **Limitations**

The statistical population of the research was exceptional children's mothers in Tehran, which makes it difficult to generalize the results to the other communities. Therefore, conducting more research on other samples is suggested to generalize results. Another limitation of this study

was the large number of questionnaires. Besides, we did not consider the fathers in these families; thus, the generalization of results to fathers will be difficult. Moreover, similar research should be done on fathers to solve the problem. Furthermore, it is suggested to hold educational workshops to strengthen the parental acceptance of mothers that can boost their trust, spirituality, and life satisfaction and reduce children's behavioral disorders.

### Conclusion

Spiritual well-being and parental acceptance in mothers had a direct and negative relationship with child behavioral disorders in children with hearing impairment. Spiritual well-being through life satisfaction can have an indirect effect on child behavioral disorders; thus, by strengthening and improving parental acceptance, spiritual well-being and life satisfaction in mothers can improve the child behavioral disorders of children with hearing impairment. As a result, strengthening the spiritual well-being of mothers can increase their life satisfaction and consequently reduce children's behavioral disorders.

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### Conflict of interest

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