

# **Stress coping strategies and their relationship to family adjustment for mothers of hearing-impaired children**

**Nemaa Nady Abd El-Samee (Ph.D.)**

Associate Professor, social work individual and families  
department  
Faculty of social work Helwan University

**Alaa Hosny Saleh Metwally \* (Ph.D.)**

Assistant Professor, social work individual and families  
department  
Faculty of social work Helwan University



## Abstract

This study aims to explore the relationship between stress coping strategies and family adjustment for mothers of hearing-impaired children. The study sample was chosen randomly from 70 mothers of hearing-impaired children. The result of this study proved a positive and statistically significant relationship between stress coping strategies and some dimensions of family adjustment such as the prevailing pattern of relationships in the family, avoiding family conflicts at a significance level of 0.05, and feeling satisfied and happy among family members at a significance level of 0.01. The finding of this study emphasized that there is no relationship between stress coping strategies and some dimensions of family adjustment such as family's ability to face its problems and family cohesion.

**Keywords:** Stress coping strategies; family adjustment; mothers of hearing-impaired children.

## Introduction

All over the world, more than 5% of the world's population, i.e., about 466 million, suffer from hearing loss, and 34 million of them are children (7%). The United Nations indicates that 7.5 million people in Egypt suffer from hearing loss, deafness, or hearing loss by 2050 (Humes, 2019, p. 1220), and more than 900 million are expected to suffer from hearing loss (WHO, 2019).

Hearing disability in children is one of the most common sensory disabilities at birth. According to the Center for Disease Control (CDC), 1-3 out of every 1,000 children are born with hearing differences (CDC, 2021). Hearing impairment psychologically impacts children and their families' lives (Continisio, 2023, P.2). Nwadinobi (2019) indicated that hearing impairment is a general term that includes both partial hearing loss and deafness. A person who falls under the category of deaf also falls under the category of hearing impaired (Das, 2021, P16).

Mothers face greater pressure compared to fathers because they bear most of the responsibilities of raising their disabled children (Rani, 2022, p. 1477). Due to the feeling of guilt, some mothers need to obtain more information about their children's disability and search for maximum support solutions. International studies reflect that hearing loss in children can exacerbate negative self-attitudes and may cause social isolation for their mothers. Therefore, some mothers may be more vulnerable to life stress and disorders (Ashraf., Iqbal & Jahan, 2023, p.774).

Aliakbari, Kakojoibari, Mohtashami, and Yektakhah (2011) found that mothers of hearing-impaired children are exposed to more psychological pressure than mothers of normal children. Continisio (2023) also aimed to evaluate parental stress and coping skills among mothers of deaf and hard-of-hearing children after confirming hearing loss, fitting hearing aids, and/or cochlear implants. The study found that 32% of mothers reported high levels of stress; risk factors of stress, in general, include cognitive delay and low levels of parental education.

Raising deaf or hard-of-hearing (D/HH) children leads to high levels of parental pressure, especially among mothers, which prompts them to search for, develop, and use strategies to confront these pressures. Families' compatibility with the various challenges posed by children's hearing loss is affected by the personal and social sources of compatibility available to manage these pressures and challenges (Anat & Zait, 2016, p. 23). The results of Bawalsah's study (2016) showed that there is a positive correlation between the stress levels of hearing-disabled children's parents and coping strategies. Ishtiaq, Mumtaz, and Saqulain (2020) also illustrated different levels of stress experienced by parents of hearing-impaired children and different coping strategies. In addition, Galal, Ibrahim, and Mohamed (2022) indicated that parents of hearing-impaired and deaf children have a moderate level of stress coping strategies; they also showed that there is a statistically significant negative relationship between stress and coping strategies.

Doshi (2005) defined coping strategies as psychological efforts to reduce, endure, minimize, or control stressful events. In theory, any situation that exceeds a person's ability to deal with it requires him to use some coping strategies to deal with the situation (Idris & Badzis, 2017, p. 226). Bailey and Smith (2000) indicated that the goal of coping strategies is to strengthen family resources, reduce the source of stress and negative feelings, and achieve balance in family performance. Strategies that directly aim to deal with the source of stress, such as problem-solving and information seeking are more compatible strategies than those of denying or minimizing the situation (Bonab, Motamedi & Zare, 2017, p. 12).

Billings and Moos (1981) identified that active coping strategies are related to cognitive and behavioral attempts to deal directly with the problem and its consequences, while passive coping strategies refer to cognitive attempts to avoid confronting problems

and behaviors aimed indirectly at reducing emotions and stressors. Negative coping strategies are often used by individuals when they are vulnerable to deciding that circumstances cannot be changed or modified, and they need to accept the given situation as is (Indiana, Sagone & Fichera, 2021, p.1424).

Idris and Ibrahim (2019) stated that the majority of parents of children with hearing loss (80%) pray to confront the situation they experience and to obtain social support. Most parents (about 98%) were found to seek social support from their family, friends, neighbors and the government. Henderson, Johnson, and Moodie (2014) illustrated that religion plays a strong role in the process of dealing with mothers who have children with HI. Daud et al. (2013) indicated that religion, active coping, and acceptance are widely used by parents of children with hearing loss, and mothers tend to embrace religion, seeking emotional and instrumental support much more than fathers do.

Noor, Yusoff, Abd Rahman, and Zakaria (2013) aimed to evaluate the differences in the coping strategies of hearing-impaired children's parents. The study showed that religion, active coping, and acceptance were the three highest scores in the fields. Substance abuse (i.e., drinking or using drugs) and behavioral disengagement (i.e., giving up) were the methods least used by parents. Therefore, resorting to religion and seeking effective support were realized to be more remarkable among mothers than fathers.

Ashraf, Iqbal, and Jahan (2023) found that the most common coping strategies used by mothers of hearing-impaired children focused on religion and flexibility training. Alamdarloo, Rangani, Rostami, and Morovat (2019) also found that mothers of hearing-impaired children received less social support from family, friends, and others compared to mothers of children with normal development.

Lopez et al. (2008) explained that the nature of a stressful situation may determine the type of strategies used to deal with it; in other words, individuals utilize emotion-focused strategies in situations where they are unable to make direct efforts to deal with these situations, such as health problems, whereas they employ problem-focused strategies in situations they can handle and control, such as family conflicts (Bawalsah, 2016, p. 2). In this context, Hamad, Elghmrawy, and Elsharkawy (2022) showed that mothers of children with hearing disabilities use emotion-focused coping strategies more than problem-focused coping strategies. Children's

hearing loss is considered an external pressure for mothers that they are unable to modify or change, so they resort to implementing emotional-focused coping strategies. Moreover, Safari, Khoramshahi, Bassak, Dastoorpoor, and Moradi (2022) demonstrated that mothers of hearing-impaired children use less effective emotional and compatibility methods, which negatively affects the development of mothers and their children. This, in turn, may affect the mothers' family compatibility.

Family adjustment is based on the social relationships that exist between family members to achieve balance within the family; it seeks to maintain stability and cohesion in the family, help all its members confront their problems, perform their jobs, and interact positively among them, and work to achieve satisfaction and avoid conflicts within themselves (Al-Kashef, 2023, p. 160). Family adjustment is considered an essential factor for the development of the individual in various aspects of life, as family harmony plays an important role in achieving success within the family system (Rahmani et al., 2024, p110).

Many factors can affect the family adjustment of disabled children's mothers. The most important of these factors are the poor functioning of the family system, the availability of support within the family, and the increase in tensions and conflicts within the family. Some factors lead to an increase in family adjustment, including family relationships and effective communication between family members who cooperate and work to effectively solve problems facing the family structure. Previous experiences in dealing with disability also play an important role in influencing the degree of adjustment (Marini & Stebnicki, 2012, p. 204).

Gurbuz et al. (2013) stated that mothers of hearing-impaired children are more anxious and neurotic and that anxiety is a common trait in families with hearing-impaired children. This, in turn, may affect family adjustment among mothers. Allegretti (2002) indicated that the family who decided to get cochlear implantation went through many stages of anticipatory and post-operative adaptive adjustments.

Marie et al. (2023) illustrated that mothers are exposed to more tension and pressure than fathers as a result of bearing the burden of caring for their hearing-impaired children, which may affect their adjustment. Besides, hearing-impaired children's parents are in dire need of social support to relieve parental stress more than normal children's parents. Continisio et al. (2023) pointed out that there is a relationship between the levels of stress that mothers of hearing-impaired children are exposed to and their educational level, which affects their family adjustment.

Based on the existing literature, it is clear that mothers of hearing-impaired children differ in their use of stress coping strategies between high, medium, and weak; this may be related to the extent of their personal, family, and social adjustment. Accordingly, the problem of the study can be addressed with the following question: "What is the relation between stress coping strategies and family adjustment for mothers of hearing-impaired children?"

### **Study Objectives**

This study aims to achieve the main objective:

- Determine the nature of the relationship between stress coping strategies and family adjustment for mothers of hearing-impaired children. This can be achieved through:

A-Determining the level of stress-coping strategies for mothers of hearing-impaired children.

B-Determining the level of family adjustment for mothers of hearing-impaired children.

### **Study Concepts**

#### **1. Stress coping strategies**

Stress coping strategies are defined as what people do to manage stressful events and the negative feelings associated with them in their lives (Daud, Noor, Yusoff, Abd Rahman & Zakaria, 2013, p. 319). It is also known as a practical, active way of responding to stressful situations (Bawalsah, 2016, p. 2).

**Stress coping strategies are theoretically defined** as a group of cognitive and behavioral efforts or activities that mothers of hearing-impaired children use to deal with stressful situation, to reduce the internal and external demands associated with the situation, and to restore the mother's previous state of personal and social harmony.

**Stress coping strategies are measured procedurally** by the degree that mothers of hearing-impaired children get in terms of the dimensions on the coping strategies scale represented in the following: emotional and ideological, general cognitive, specialized cognitive, escape avoidance, and mixed practices.

#### **2. Family adjustment**

Family adjustment refers to the process through which families respond to and cope with changes, challenges, or stressors in their environment or within the family system itself. Families directly respond to the extensive demands of a stressor and realize that to improve family satisfaction and well-being and restore factional stability, systematic modifications within the family unit are required (Friedman et al., 2006).

**Family adjustment is theoretically defined as** the process through which the forms of interaction and communication patterns of mothers of hearing-impaired children change within the family so that they can overcome the challenges and pressures they face in order to achieve cohesion within the family, achieve its goals, and confront its problems.

**Family adjustment is measured procedurally** by the degree that mothers of hearing-impaired children get in terms of the dimensions on the family adjustment scale represented in the following: the family's ability to face its problems, family cohesion, the prevailing pattern of relationships in the family, the feeling of satisfaction and happiness among family members, and avoiding family conflicts.

### **Theoretical Guidelines of the Research: Ecological Theory**

Ecological theory, also known as ecological systems theory and later called the bioecological systems theory, is a psychological and sociological framework developed by Urie Bronfenbrenner. Ecological theory is the human development theory which elucidates the process of socialization as the means by which an individual acquires membership within a given society (Härkönen, 2007, P.4).

Ecological theory focuses on the person in the environment and the ongoing interactions and transactions between people, families, groups, and communities. The social worker seeks to achieve a full understanding of the complex interactions between the client and all levels of social and physical systems, as well as the meaning that the client assigns to each of these interactions (Teater, 2014, p.23).

The presence of a hearing-impaired child in the family is one of the external life pressures facing the family, especially mothers. According to the circular relationship between the systems on which the ecological theory is based, external life pressures (the child's hearing disability) lead to internal pressures in mothers (psychological, physical, mental), which also increases the number of external pressures and vice versa, which may affect the family adjustment of mothers. Ecological theory explains the relationship between a person and the social environment surrounding him. It is important to determine the level of strategies for confronting pressures among mothers of hearing-impaired children because of the impact it may have on their personal and social adjustment.



## Study Hypothesis

There is a positive statistically significant relationship between stress coping strategies and family adjustment for mothers of hearing-impaired children.

### **The sub-hypothesis are the following:**

- 1- There is a positive statistically significant relationship between stress coping strategies and the family's ability to face its problems for mothers of hearing-impaired children.
- 2- There is a positive statistically significant relationship between stress coping strategies and family cohesion for mothers of hearing-impaired children.
- 3- There is a positive statistically significant relationship between stress coping strategies and the prevailing pattern of relationships in the family for mothers of hearing-impaired children.
- 4- There is a positive statistically significant relationship between stress coping strategies and feeling satisfied and happy among family members for mothers of hearing-impaired children.
- 5- There is a positive statistically significant relationship between stress coping strategies and avoiding family conflicts for mothers of hearing-impaired children.

**Sample:** The sample frame consists of 234 mothers of hearing-impaired children who attended the Resala Charity Organization in Dokki and Faisal branches during the period between 10/2023 to 12/2023. The study sample consisted of 70 mothers of hearing-impaired children, representing 30% of the mothers who were selected by a random sample method according to the following conditions:

- 1- The mother's consent to conduct the study.
- 2- The mother can at least read and write.
- 3- Their children are between 6-12 years old.
- 4- Their child must be hard of hearing or deaf and have no other group or mental benefits.
- 5- The child lives with his normal family (father, mother, brother, sister).

## Tools

**The first scale:** Stress coping strategies scale, prepared by Al-Saratawi and Al shakhs (1998).

**Scale description:** The scale consists of (30) statements that measure five dimensions, It aims to identify the ways in which parents of children with special needs face the pressures of disability.

**Validity of the scale:** The scale was standardized on a sample of (892) mothers and fathers of children with special needs, and factorial validity was used, as a factor analysis of the initial form of the scale was conducted. Five factors were found that saturated (30) items of the scale, as their saturations reached 30.0 or more in relation to the factors to which they belong.

**Scale reliability:** The stability of the final form of the scale was estimated using the internal consistency method, Cronbach's alpha method, where it reached 83.0 for the total score, while it ranged between (32.0 to 85.0) for the five dimensions of the scale.

**Correction method:** This scale was used in Mahfouz's (2021) study with mothers of children with multiple disabilities. The word "makes me happy" was deleted from phrases 1 3 4 7 8 and phrase 30 was deleted and modified to "I resort to punishing the disabled son if he insists on rejecting my instructions." The gradation of the scale has been modified from a five-point scale to a three-point scale as follows: agree (3), somewhat agree (2), disagree (1) except for some phrases that are reverse corrected.

**The two researchers have re-conducted the validity and reliability as follows:**

**Scale validity:** i.e. Internal consistency validity: The two researchers applied the tool to a sample of (20) mothers of hearing-impaired children not from the basic research sample, and it has the same characteristics. Except for some phrases that are reverse-corrected

**Table (1) shows the internal consistency between the dimensions stress coping strategies scale and the degree of the scale as a whole (N=20)**

Dimensions	Correlation coefficient	Level of significance
Emotional and ideological practices	.841	**
General cognitive practices	.548	*
Specialized cognitive practices	.497	*
Escape avoidance practices	.594	**
Mixed practices	.558	*

\*Significant at (0.05)

\*\*Significant at(0.01)

The table above shows that all correlation coefficients are significant, which indicates the validity of the scale for use in what it was designed for.

**Scale reliability:** was calculated in two ways, including **Cronbach's alpha method**, where the reliability coefficient was alpha (.705), which is a high coefficient, and **the split-half method** using Spearman-Brown's coefficient and its value (.849), which indicates the validity of the scale for application.

**The second scale: Family adjustment scale**, Prepared by Abu Al-Hasan (2004). This scale has been used in many previous studies and social work research, such as the study of Khafaja (2014), which indicated that the experimental validity of the scale as a whole reached (8, 67), and the reliability of the scale as a whole reached (0,75).

**Description of the scale:** In its final form, the scale consists of (50) divided into five dimensions (the family's ability to confront its problems - family cohesion - the prevailing pattern of relationships in the family - the feeling of satisfaction and happiness among family members - avoiding conflicts).

**Correction method:** Consists of three levels: OK =3, OK to some extent =2, I refuse =1, except for some statements which are corrected inversely.

**The two researchers have re-conducted the validity and reliability as follows:**

**Scale validity:** i.e. Internal consistency validity: The two researchers applied the tool to a sample of (20) mothers of hearing-impaired children not from the basic research sample, and it has the same characteristics. The correlation coefficients were calculated between the total scores of each dimension of the scale and the total score of the scale. This is shown as follows:

**Table (2) shows the internal consistency between the dimensions of the family adjustment scale and the degree of the scale as a whole (N=20)**

Dimensions	Correlation coefficient	Level of significance
The family's ability to face its problems	.633	**
Family cohesion	.853	**
The prevailing pattern of relationships in the family	.628	**
Feeling satisfied and happy among family members	.611	**
Avoiding family conflicts	.896	**

\*Significant at (0.05)

\*\*Significant at(0.01)

The table above shows that all correlation coefficients are significant, which indicates the validity of the scale for use in what it was designed for.

**Scale reliability:** was calculated in two ways, including **Cronbach's alpha method**, where the reliability coefficient was alpha (.778), which is a high coefficient, and the **split-half method** using Spearman-Brown's coefficient and its value (.797), which indicates the validity of the scale for application.

**The length of the cells is as follows:**

**Table (3) Levels of Arithmetic Averages**

If the mean value of the expression or dimension ranges from 1 to less than 1.67	low level
If the mean value of the expression or dimension ranges from 1.67 to less than 2.34	medium level
If the mean value of the expression or dimension ranges from 2.34 to 3	high level

## Study Results

**The first axis: the level of stress coping strategies dimensions of mothers of hearing-impaired children.**

**Table (4) shows the level of stress coping strategies dimensions of mothers of hearing-impaired children (N=70)**

Dimensions	mean	S.D	The level	ranking
Emotional and ideological practices	2.5	0.26	high	1
General cognitive practices	1.9	0.45	medium	4
Specialized cognitive practices	2.2	0.51	medium	3
Escape avoidance practices	2.4	0.34	high	2
Mixed practices	1.7	0.38	medium	5
dimensions Strategies for coping with stress as a whole	2.25	0.18	medium level	

The table above shows that the level of stress coping strategies dimensions of mothers of hearing-impaired children is medium, with an arithmetic mean of (2.25).

**The second axis: the level of dimensions of family adjustment of mothers of hearing-impaired children.**

**Table (5) shows the level of family adjustment of mothers of hearing-impaired children (N =70)**

Dimensions	Mean	S.D	The level	ranking
The family's ability to face its problems	2.2	0.36	medium	5
Family cohesion	2.4	0.38	high	2
The prevailing pattern of relationships in the family	2.4	0.40	high	2
Feeling satisfied and happy among family members	2.5	0.35	high	1

Dimensions	Mean	S.D	The level	ranking
Avoid family conflicts	2.4	0.45	high	2
The dimensions family adjustment as a whole	2.4	0.33	high level	

The table above shows that the level of the dimensions of family adjustment of mothers of hearing-impaired children is high, where the arithmetic mean is (2.4).

**The study hypotheses results: The main hypothesis of the study:**

There is a positive statistically significant relationship between stress coping strategies and family adjustment for mothers of hearing-impaired children.

**Table No. (6) Explains the relationship between stress coping strategies and family adjustment for mothers of hearing-impaired children (N = 70)**

Dimension	Mean	S.D	correlation	Level of significance
stress coping strategies	67.78	5.44	.261*	0.05
family adjustment	119.6	16.87		

The following table shows that there is a positive relationship with statistical significance between stress coping strategies and family adjustment for mothers of hearing-impaired children. at a significance level of 0.05, and therefore the main hypothesis of the study is accepted.

**Table No. (7) Explains the relationship between stress coping strategies and family adjustment dimensions of mothers of hearing-impaired children (N = 70)**

Dimensions	Mean	S.D	correlation	Level of significance
Stress coping strategies	67.78	5.44	.066	Non-Significant
The family's ability to face its problems	22.00	3.64		
Stress coping strategies	67.78	5.44	.180	Non-Significant
Family cohesion	24.15	3.89		
Stress coping strategies	67.78	5.44	.256*	0.05
The prevailing pattern of relationships in the family	24.12	4.03		
Stress coping strategies	67.78	5.44	.329**	0.01
Feeling satisfied and happy among family members	24.90	3.54		
Stress coping strategies	67.78	5.44	.279*	0.05
Avoid family conflicts	24.48	4.51		

The table above shows that there is no positive statistically significant relationship between stress coping strategies and the family's ability to face its problems for mothers of hearing-impaired children. Therefore, the first hypothesis of the study is rejected, as well as there is no positive statistically significant relationship between stress coping strategies, family cohesion for mothers of hearing-impaired children and thus the second hypothesis of the study is rejected, but there is a positive relationship with statistical significance between stress coping strategies and the prevailing pattern of relationships in the family for mothers of hearing-impaired children at a significance level of 0.05, and therefore the third hypothesis of the study is accepted, and there is a positive relationship with statistical significance between stress coping strategies and Feeling satisfied and happy among family members for mothers of hearing-impaired children at the level 0.01 and therefore the fourth hypothesis of the study is accepted, and there is a positive relationship with statistical significance between stress coping strategies and avoiding family conflicts for mothers of hearing-impaired children at the level 0.05.

## **Discussion**

Consistent with previous studies, the current study found a medium level of stress coping strategies dimensions of mothers of hearing-impaired children. For example, Galal, Ibrahim, and Mohamed (2022) emphasized that parents of hearing-impaired and deaf children have a moderate level of stress-coping strategies. Ishtiaq, Mumtaz, and Saqulain (2020) indicated that there are different levels of stress-coping strategies for parents of hearing-impaired children. In addition, Daud et al. (2013) confirmed that mothers of hearing-impaired children tend to adopt religious strategies to cope with stress and search for emotional and effective support.

The finding of this study emphasized using emotional and ideological methods with the first rank. This relatively aligns with the results of Hamad, Al-Ghamrawi, and Al-Sharqawi's (2022) study, indicating the importance of emotion-focused coping strategies compared to problem-focused coping strategies adopted by mothers of children with hearing disabilities. Moreover, several studies asserted that the most common coping strategies used by mothers of hearing-impaired children are those that focus on religion (Ashraf, Iqbal, & Jahan, 2023; Henderson, Johnson, & Moody, 2014; Daud, Noor, Yusoff, Abd Rahman, & Zakaria, 2013).

The finding shows a higher level of family adjustment in hearing-impaired children's mothers. This varies with Rienzi's study (1990) as it showed that deaf parents with deaf children are more able to adapt than normal (hearing) parents with deaf children. The study also highlighted that the presence of a deaf individual in a normal family requires the family to be more flexible. According to Kakavandi et al. (2017), life skills training increases the quality of life of mothers of the hearing impaired. The increase in family adjustment among mothers of the hearing-impaired can be interpreted because of the training courses and seminars organized by the institution where the application was implemented.

Moreover, there is a positive relationship with statistical significance between stress coping strategies and family adjustment for mothers of hearing-impaired children at a significance level of 0.05. This agrees with Hamad, Elghmrawy & Elsharkawy (2022), affirming a positive relationship between the coping strategies used by the mother and the ability to overcome psychological obstacles. Idris and Badzis (2007) indicated that any situation that exceeds a person's capabilities to handle requires her/him to use some coping strategies to deal with this situation. The goal of coping strategies is to enhance family resources, reduce the source of stress and negative feelings, and achieve balance in family performance, which helps achieve family harmony (Bailey & Smith, 2000). Therefore, mothers of hearing-impaired children use less effective emotional and compatibility methods, which negatively affects the development of mothers and their children (Safari, Khoramshahi, Bassak, Dastoorpoor, and Moradi, 2022)

According to the ecological theory, the presence of a hearing-impaired child in the family represents external pressure on mothers, which requires the use of behavioral patterns to confront these pressures that achieve good levels of cohesion for mothers and increase their ability to achieve family harmony. It should be noted that the institution in which the study was conducted offers many courses and workshops that teach mothers of hearing-impaired children some strategies for confronting stress and tackling the problems they face in life, including the ways of dealing with hearing-impaired children, leading to achieving family adjustment among mothers.

In addition, consistent with the findings of Calderon and Greenberg's study (1999), there is no statistically significant positive relationship between stress coping strategies and the family's ability to face its problems for mothers of hearing-impaired children. The social

support mothers of hearing-impaired children received increased their adjustment within the family as well as their ability to face problems in the family. Based on the ecological theory, the status given to the mother within the family affects the roles that she performs when she receives support. The environmental systems surrounding her increase her ability to confront problems within the family.

Besides, there is no positive statistically significant relationship between stress coping strategies and family cohesion for mothers of hearing-impaired children. This aligns with Kusnadi and Agustin's study (2020) which indicated that the greater the parents' acceptance of the disability and the hearing-impaired child, the greater the participation between the parents. Consequently, this increases the degree of family cohesion. This is also similar to Zaidman et al. (2016) that pointed to the relationship between communication within the family system and family cohesion and defined cohesion as the degree of emotional connection between family members. The study showed that communication within the family system leads to family cohesion among mothers of the hearing-impaired.

Furthermore, there is a positive relationship with a statistical significance between stress coping strategies and the prevailing pattern of relationships in the family for mothers of hearing-impaired children at a significance level of 0.05. This follows a study by Holt et al. (2020), indicating that the family environment was similar for all hearing levels and sensory aids, while there were notable variations in the physical surroundings and parental responsiveness. A large portion of the correlations between the family environment and the psychosocial and neurocognitive development of DHH children might be explained by the degree of enrichment and support found in family relationships. On the other hand, the development of spoken language was linked to the availability of materials and experiences in the family to promote learning. Moreover, Zhao, Fu, and Ai (2021) explained that there was a significant correlation between parenting stress, social support, and resilience. Mediation studies demonstrated the mediating role of social support in the relationship between parenting stress and parents' resilience. The results indicated that enhanced parent resilience may be predicted by lowering parental stress and enhancing social support.

There is a positive relationship with a statistical significance between stress coping strategies and feeling satisfied and happy among family members for mothers of hearing-impaired children at level 0.01. Zaidman et al. (2016) focused on the coping strategies



employed by parents of hearing-impaired children and their relationship to feelings of satisfaction with the quality of life within the family. It showed that parental stress affects satisfaction with the daily functioning of the family, and those parents cope mainly by obtaining family and social support and redefining the crisis situation. The latter strategy appears to improve the family's overall quality of life, and promoting effective coping mechanisms may help reduce parental stress and increase satisfaction with the family's quality of life. According to the framework of the ecological theory, individuals are affected by the environmental climate surrounding them. The more the environment surrounding mothers of deaf children is supportive and stimulating for them, the more their ability to deal with stressful situations increases and affects their state of personal and social harmony, leading to a sense of satisfaction and happiness for them within the family structure.

Finally, there is a positive relationship with a statistical significance between stress coping strategies and avoiding family conflicts for mothers of hearing-impaired children at the level of 0.05. This agrees with a study by Schoenmakers, Van-Tilburg, and Fokkema (2015) which found that mothers of children with hearing-impaired tend to use emotion-focused coping strategies when discovering their children's disability. In light of the framework of the ecological theory, mothers of hearing-impaired children lean on coping strategies, which increase their ability to deal with problems and their efficiency and positively affect their thinking and behavior, working, thus, to avoid conflicts within the family system.

### **Recommendations for Future Research**

- Methods of coping with stresses and its relationship to future anxiety for mothers of hearing-impaired children.
- The effectiveness of solution-based therapy to improve family adjustment for mothers of hearing-impaired children.
- The effectiveness of a program based on skills training to develop methods of coping with stress for mothers of hearing-impaired children.

### **The difficulties faced by researchers during the practical application are as follows:**

- The length of the routine procedures for obtaining approval for the application of the practical aspect of the research.
- Some mothers refused to participate in the research.

## References

- Allegratti, C. M.** (2002). The effects of a cochlear implant on the family of a hearing-impaired child. (Practice Applications of Research). *Pediatric Nursing*, 28(6), 614-621.
- Aliakbari Dehkordi M, Kakojoibari AA, Mohtashami T, Yektakhah S.** (2011) Stress in mothers of hearing-impaired children compared to mothers of normal and other disabled children. *Audiol*; 20(1):128-36.
- Al-Saratawi, Z.A., Al-Ghanis, A.** (1998) Battery for measuring psychological stress, coping methods, and needs for parents of disabled people, University Book House, United Arab Emirates.
- Abu Al-Hassan, Samira (2004)** Family Adjustment Scale, Cairo, Madbouly Library.
- Ashraf, S., Iqbal, K., & Jahan, M.** (2023). Exploring the Strategies to Empower the Mothers of Adolescent Girls with Hearing Impairment to Deal with their Social and Emotional Problems. *Pakistan Journal of Humanities and Social Sciences*, 11(2), 772–783. <https://doi.org/10.52131/pjhss.2023.1102.0389>.
- Al-Kashef, Sarah Muhammad Ahmed.** (2023), Psychological burnout and its relationship to family harmony among mothers of autistic children in special needs centers in Khartoum, published research, National Research Center Gaza, *Journal of Educational and Psychological Sciences*, vol. 7, no. 7, February.
- Bailey, A. B., & Smith, S. W.** (2000). Current topics in review: Providing effective coping strategies and supports for families with children with disabilities. *Intervention in School and Clinic*, 35(5), 294-296. <https://doi.org/10.1177/105345120003500507>
- Bawalsah, J. A.** (2016). Stress and coping strategies in parents of children with physical, mental, and hearing disabilities in Jordan. *International Journal of Education*, 8(1), 1-22.
- Billings, A.G.; Moos, R.H.** (1981) The role of coping resources in attenuating the stress of life events. *J. Behav. Med.*, 4, 139–157.
- Bonab, B. G., Motamedi, F., & Zare, F.** (2017). Effect of coping strategies on stress of parent with intellectual disabilities children. *Asian Education Studies*, 2(3), 11.
- Calderon, R., & Greenberg, M. T.** (1999). Stress and coping in hearing mothers of children with hearing loss: Factors affecting mother and child adjustment. *American Annals of the Deaf*, 144(1), 7-18.
- Center for Disease Control and Prevention (CDC).** (2021) Hearing Loss in Children: Research & Tracking. Determining How Many Children Have Hearing Loss. Accessed on 13 December 2021. <https://www.cdc.gov/ncbddd/hearingloss/research.html>.
- Continisio, G.I.; D'Errico, D.; Toscano, S.; Maldonato, N.M.; De Falco, R.; Nunziata, F.; Rodio, A.; Casarella, A.; Del Vecchio, V.; Fetoni, A.R.; et al.** (2023) Parenting Stress in Mothers of Children with Permanent Hearing Impairment. *Children*, 10, 517. <https://doi.org/10.3390/children10030517>.
- Das, K.** (2021). Psycho-Social Determinants Quality of Life among Mothers2 of Intellectually Disabled and Hearing-Impaired Children (Doctoral dissertation).

- Daud, M.M.; Noor, S.S.M.; Yusoff, M.N.C.M.; Abd Rahman, N.; Zakaria, M.N.**(2013) Gender differences in coping skills of parents with hearing-impaired children. *B-ENT*, 9, 319-323.
- Friedman MM, Bowden VR, Jones EG.** (2006). *Family nursing, research, theory, and practice*. 5th ed. Upper Saddle River (NJ): Pearson Education.
- Gurbuz, M. K., Kaya, E., Incesulu, A., Gulec, G., Cakli, H., Ozudogru, E., & Colak, E.** (2013). Parental Anxiety and Influential Factors in the Family with Hearing Impaired Children: Before and After Cochlear Implantation. *Journal of International Advanced Otology*, 9(1).
- Galal Abdelrahman, R., Ibrahim El-Malky, M., & Mohamed Barakat, M.** (2022). Psychological Distress and Coping Strategies among Parents with Deaf and Mute Children. *Journal of Nursing Science Benha University*, 3(1), 637-651. doi: 10.21608/jnsbu.2022.215179.
- Härkönen, U.** (2007). The Bronfenbrenner ecological systems theory of human development. In *Scientific Articles of V International Conference Person.Color.Nature.Music*. Daugavpils University, Saule. Latvia.
- Hamad, N., E. Elghmrawy, L., & A. Elsharkawy, A.** (2022). Living with Children Having Hearing Impairment: Correlation Between Obstacles Experienced by Mothers and their Coping Strategies. *Egyptian Journal of Health Care*, 13(1), 1117-1141. doi: 10.21608/ejhc.2022.223443.
- Alamdarloo, G. H.; Rangani, A.; Rostami, S.; Morovat, M.** (2019) Perceived social support in mothers of typically developing children and mothers of children with hearing sensory impairment. *Audit. Vestib. Res.* 2019, 28,198-203.
- Henderson, R., Johnson, A., & Moodie, S.** (2014). Parent-to-parent support for parents with children who are deaf or hard of hearing: A conceptual framework. *American Journal of Audiology*, 23(4), 437-48.
- Humes, L.** (2019). The World Health Organization's hearing-impairment grading system: an evaluation for unaided communication in age-related hearing loss. *International journal of audiology*, 58(1), 1220.
- Holt, R. F., Beer, J., Kronenberger, W. G., Pisoni, D. B., Lalonde, K., & Mulinaro, L.** (2020). Family environment in children with hearing aids and cochlear implants: Associations with spoken language, psychosocial functioning, and cognitive development. *Ear and hearing*, 41(4), 762-774.
- Idris, R. G., & Badzis, M.** (2017). Interpersonal behavioural problems in children with hearing impairment: The parental experiences and coping strategies. *International Journal of Education and Research*, 5(10), 223-236.
- Idris, R. G., & Ibrahim, A. A.** (2019) Coping strategies of parents of children with hearing impairment in kano state.
- Indiana, M.L.; Sagone, E.; Fichera, S.L.O.** (2021) Are Coping Strategies with Well-Being in Deaf and Blind Parents Related? *Eur. J. Investig. Health Psychol. Educ.*, 11, 1422-1439. <https://doi.org/10.3390/ejihpe11040102>.
- Ishtiaq N, Mumtaz N, Saqulain G.** (2020) Stress and coping strategies for parenting children with hearing impairment and autism. *Pak J Med Sci*; 36(3):538-543. doi: <https://doi.org/10.12669/pjms.36.3.1766>.
- Kakavandi, K., KOOHI, R., SHOJAEI, S., Movallali, G., & Norozali, S.** (2017). The effectiveness of life skills training on the quality of life of mothers of children with hearing impairment.

- Kusnadi, S., & Agustin, A.** (2020). Acceptance toward Children and fathering in caring for children with hearing Impairment. *Journal Psikologi*, 19(2), 143-152.
- Marie, A., Clabaut, L., Corbeil, M., Vanlerberghe, C., Vincent-Delorme, C., & Le Driant, B.** (2023). Parenting stress and needs for social support in mothers and fathers of deaf or hard of hearing children. *Frontiers in Psychology*, 14, 1229420.
- Rani, P.** (2022). Parenting stress among parents of visually impaired children and speech and hearing impaired children.
- Rienzi, B. M.** (1990). Influence and adaptability in families with deaf parents and hearing children. *American Annals of the Deaf*, 402-408.
- Rahmani, S. S. A., Dewi, R., Pintanawati, S., Nurfitriya, M., & Fauziyah, A.** (2024). The Effect of Family Harmony on Family Business Succession. *Proceedings Series on Social Sciences & Humanities*, 15, 110-114.
- Safari Z, Khoramshahi H, Bassak Nejad S, Dastoorpoor M, Moradi N.** (2022) Coping and Emotional Styles in Mothers of Children with Hearing Impairment. *Jmr*; 16(2):161-169.
- Marini, I., Stebnicki, M. (Eds.)**. (2012). *the psychological and social impact of illness and disability*. Springer Publishing Company.
- Schoenmakers, E., Van-Tilburg, T., & Fokkema, T.** (2015). Problem-focused and emotion-focused coping options and loneliness: how are they related? *European Journal Ageing*, 12(1), 153-61. <https://doi:10.1007/s10433-015-0336-1>
- Teater, B** (2014) *Applying social work theories and methods* (2<sup>nd</sup> edition). maidenhead: Open University press.
- World Health Organization.** (2019). *Childhood hearing loss, strategies for prevention and care*. World Health Organization. Retrieved from: [https://www.who.int/docs/default-source/imported2/childhood-hearing-loss--strategies-for-prevention-and- care.pdf?sfvrsn=cbbbb3cc\\_0](https://www.who.int/docs/default-source/imported2/childhood-hearing-loss--strategies-for-prevention-and- care.pdf?sfvrsn=cbbbb3cc_0)
- Zaidman-Zait, A., Most, T., Tarrasch, R., Haddad-aid, E., & Brand, D.** (2016). The Impact of Childhood Hearing Loss on the Family: Mothers' and Fathers' Stress and Coping Resources, *The Journal of Deaf Studies and Deaf Education*, Volume 21, Issue 1, Pages 23-33, <https://doi.org/10.1093/deafed/env038>.
- Zhao, M., Fu, W., & Ai, J.** (2021). The mediating role of social support in the relationship between parenting stress and resilience among Chinese parents of children with disability. *Journal of Autism and Developmental Disorders*, 51(10), 3412-3422.