

Coping Styles of Parents of Children with Hearing Impairment – A Secondary Publication

Maria Argendida, Jimenez Guadarrama*

Autonomous Metropolitan University, Mexico

*Corresponding author: Jimenez Guadarrama, maria.a.jimenez.gua@gmail.com

Copyright: © 2024 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: In the last decade, several investigations have been carried out detailing how hearing problems in infants have an impact on their integral development. However, little has been studied about how parents are affected and what actions they take to counteract such situation. Therefore, the present study aims to analyze the coping styles of parents who have children with hearing impairment. A descriptive methodology with a cross-sectional quantitative approach was used to collect data from 20 parents attending a specialized educational center in Mexico City. The first instrument collected sociodemographic information and the second was the Coping Strategies Scale-Modified (EEC-M), which consists of 98 items of the frequentist type distributed in 14 dimensions. The second instrument was validated and adapted to obtain reliable data. The reliability of the instrument was $\alpha = 0.842$. The results of the first instrument showed that only 30% received support from a family member and 65% did not. The second instrument showed that the “Never” option was the most selected, with the “Aggressive reaction” dimension obtaining the highest value. According to the data obtained, it is concluded that the plurality of strategies applied exists because of the different characteristics of the children and the different coping capacities of the parents.

Keywords: Hearing impairment; Coping strategy; Child development

Online publication: March 30, 2024

1. Introduction

The child population is one of the social groups that are prone to negative experiences that could negatively affect their development. In this context, Holland ^[1] places hearing impairment as one of the main disabilities affecting children’s quality of life, given that speech, language, behavior, and learning, are closely tied to self-esteem. Chavero *et al.* ^[2] mentioned the degree of impact caused by hearing impairment is difficult to assess and other factors like family environment, education, and personality are involved.

Hearing impairment causes educational and social inequalities among children. This has been demonstrated in several studies conducted in the last decade. A clear example is the comparative study of the neurocognitive profile of hearing-impaired children by Vázquez ^[3]. Results showed that children who did not have the condition showed superior cognitive development to those who did.

The health care system in many countries often neglects to address hearing problems in children. According to Su *et al* ^[4], due to bureaucratic barriers such as the distribution of timely services, more than 200,000 infants do not receive adequate care for hearing-related issues. Therefore, almost 60,000 suffer from deafness and, according to Núñez ^[5], approximately 40 % have some type of developmental disorder or major medical problem that delays the age of diagnosis of hearing loss. This situation prevents the intervention of other health care professionals that would benefit the treatment of hearing problems.

The effects of hearing problems in children are manifold, as they range from developmental difficulties to the inability to integrate into society. Research by He *et al.* ^[6] corroborates this assertion; given that they found after a univariate analysis an association between hearing impairment and juvenile delinquency. This fact sets a precedent for the importance of such an affectation.

One of the fields that has been scarcely studied in the field of children's hearing problems is the parents' perspective. Therefore, it is important to mention that the role they play as protectors makes them a fundamental aspect of the improvement of their children. This is because they are responsible for caring for their children to reduce hearing problems.

However, Badzis ^[7] mentioned that within such actions are hidden feelings of concern and unhappiness due to the exhaustion brought by the constant confrontation in such a strenuous situation. Therefore, Kazez *et al.* ^[8] pointed out that parents may become increasingly vulnerable if their problems are not addressed in time.

The constant action along with feelings of concern and vulnerability cause parents to begin detecting the increase in their children's hearing loss as long as they are involved in speech-related frequencies. However, such perception cannot be fully relied upon, as it usually only works when the problem is in the moderate range ^[9]. For this reason, it is always advisable to use techniques and strategies that are proven and recommended by a professional expert in the area.

Coping strategies for hearing impairment function as supportive tools for parents to control counterproductive emotions. In this sense, Gunjawate *et al.* ^[10] put forward fifteen strategies coping strategies for parents to cope with the stress caused by having a hearing-impaired child. Many of them emphasize the active participation of parents as agents of improvement for the infant. Kusnadi *et al.* ^[11] stated that the greater the parental intervention, the greater the acceptance that parents have of their children's hearing problems.

This paper aims to describe the different coping styles of parents who have children with hearing impairment and analyze and demonstrate the incidence of hearing problems.

2. Methodology

The present work is framed within the attributes of descriptive research; since its purpose is to specify the properties of the results obtained. It also seeks to specify the characteristics of the variable during the development of the study ^[12]. The approach used throughout the execution was of quantitative class, the steps applied were governed by a systematic order to achieve an optimal degree of accuracy in the discovery of the data ^[13]. Similarly, it should be noted that it was decided to use a transectional cutoff because of the facilities and benefits of collecting at a specific time ^[14].

The population studied were all the parents of children attending the educational center specialized in children with hearing impairment in Mexico City; for privacy and permission reasons, the name of the institution will not be disclosed. We decided to adopt non-probabilistic sampling under voluntary participation; as a result, a total sample of 20 was obtained.

A questionnaire was used to obtain information about the parents' age, number of children, support

received, and academic level. This was done to better understand existing patterns and trends. The insights gained from this form will provide valuable information about these aspects. The second instrument utilized was the Modified Coping Strategies Scale (EEC-M), which had been validated by Lodoño *et al.* in 2006^[15]. It comprises 14 subscales, each containing seven items with response options ranging from “Never” (assigned a numerical value of “1”) to “Always” (assigned a value of “6”). It is important to note that a linguistic adaptation of the 98 scale items was carried out. The reliability coefficient was 0.842, and the values for each dimension can be found in **Table 1**.

Table 1. Table of scales and Cronbach’s alpha values

Scales	(Cronbach’s alpha)
Search for alternative	0.72
Conformism	0.132
Emotional control	0.357
Emotional avoidance	0.525
Behavioral avoidance	0.747
Cognitive avoidance	0.606
Aggressive reaction	0.801
Open emotional expression	0.361
Positive reassessment	0.366
Search for social support	0.763
Search for professional support	0.803
Religion	0.736
Reinforcing coping	0.692
Wait for	0.681
Modified Coping Strategies Scale (EEC-M)	0.842

3. Results

Based on the questionnaire survey, it was found that 50% of respondents were over 40 years old, with only 5% falling between the ages of 21 and 30. Concerning the support received, 30% reported receiving help from family members, while 65% stated they received no support at all. Additionally, 85% reported having between 2 to 3 children, while only 10% had more than 3. In terms of educational level, there was a varied distribution: 10% at the primary level, 30% at the secondary level, 40% at the high school level, and only 20% holding a university degree. For a clearer understanding of the data, refer to **Table 2**.

Table 3 displays the first three response options along with their frequency values. The option “Never” had an average frequency of 33.57, representing 23.98% of the total. In this regard, the subscale with the lowest value was “Coping restraint” with 0.51%, while the highest was “Aggressive reaction” with 3.88%. The response “Almost never” reached a frequency of 22, representing 15.66% of the total. The subscale with the lowest value was “Positive reevaluation” with 0.51%, while the highest was “Expectation” with 1.94%. Similarly, the response “Sometimes” achieved a frequency of 44.50, representing 31.79% of the total. The subscale with the least repetition was “Expectation” with 1.38%, while “Religion” had a rating of 3.32% of the total.

Table 2. Basic information of the respondents

Features		f	%
Age	21-30	1	5
	31-40	9	45
	>40 years	10	50
Total		20	100
Support received	Family	6	30
	Friends	0	0
	Others	1	5
	None	13	65
Total		20	100
Number of children	1	1	5
	2-3	17	85
	> 3	2	10
Total		20	100
Academic level	Primary	2	10
	Secondary	6	30
	High School	8	40
	University	4	20
Total		20	100

Table 3. Coping mechanism used (first three responses)

	Never		Almost never		Sometimes	
	f	%	f	%	f	%
Seek alternatives	11	0.56	12	0.61	33	1.68
Conformism	49	2.50	29	1.48	32	1.63
Emotional control	17	0.87	12	0.61	48	2.45
Emotional avoidance	23	1.17	23	1.17	63	3.21
Behavioral avoidance	60	3.06	27	1.38	33	1.68
Cognitive avoidance	53	2.70	28	1.43	47	2.40
Aggressive reaction	76	2.88	26	1.33	31	1.58
Open emotional expression	26	1.33	26	1.33	57	2.91
Positive reassessment	16	0.82	10	0.51	50	1.55
Seek social support	17	0.87	14	0.71	56	2.86
Seek professional support	37	1.89	33	1.68	42	2.14
Religion	11	0.56	14	0.71	65	3.32
Coping restraint	10	0.51	15	0.77	39	1.99
Expectation	64	3.27	38	1.94	27	1.38

Average	33.57	23.98	22	15.66	44.50	31.79
---------	-------	-------	----	-------	-------	-------

In **Table 4**, the last three response options are displayed along with their frequency values. The option “Frequently” had an average frequency of 14.07, representing 10.1% of the total. In this regard, the subscale with the lowest value was “Aggressive reaction” with 0.05%, while the highest was “Positive Reevaluation” with 1.48%. The response “Almost always” attained a frequency of 14.86, representing 10.61% accordingly. The subscale with the lowest value in this category was “Aggressive reaction” with 0.20%, while the highest was “Alternative seeking” with 1.68%. Similarly, the response “Always” garnered a frequency of 11.07, representing 7.91% of the total. The subscale with the least repetition under this response was “Cognitive avoidance” with 0.05%. Conversely, “Seek alternative” had a rating of 1.22% of the total.

Table 4. Coping mechanism used (last three responses)

	Frequently		Almost always		Always	
	f	%	f	%	f	%
Seek alternatives	27	1.38	33	1.68	24	1.22
Conformism	15	0.77	7	0.36	8	0.41
Emotional control	22	1.12	22	1.12	19	0.97
Emotional avoidance	15	0.77	12	0.61	4	0.20
Behavioral avoidance	10	0.51	6	0.31	4	0.20
Cognitive avoidance	3	0.15	8	0.41	1	0.05
Aggressive reaction	1	0.05	4	0.20	2	0.10
Open emotional expression	14	0.71	11	0.56	6	0.31
Positive reassessment	29	1.48	24	1.22	11	0.56
Seek social support	17	0.87	19	0.97	17	0.87
Seek professional support	5	0.26	7	0.36	16	0.82
Religion	12	0.61	18	0.92	20	1.02
Coping restraint	24	1.22	31	1.58	21	1.07
Expectation	3	0.15	6	0.31	2	0.10
Average	14.07	10.05	14.86	10.61	11.07	7.91

4. Discussion

The processing of the research results revealed that parents employ a range of strategies to cope with their children’s hearing impairment. This reaffirms the findings of Ishitiah et al. ^[16], whose study concluded that parents utilize various coping strategies in response to the stress associated with raising children with hearing problems. Furthermore, it was confirmed that support from family members is the most common, thus corroborating what Levinger *et al.* ^[17] mentioned, detailing that the primary source of support for parents facing crises due to their children’s hearing loss is the family.

One of the coping styles adopted by parents is open emotional expression; this action enhances the existing bonds between parents and children with hearing disabilities as an improvement strategy. Therefore, the assertion made by Mohammad *et al.* ^[18], who concluded that the constant use of strategies affects interactions

between parents and children, is rejected. Similarly, it is important to mention that the research conducted by Hamad *et al.* ^[19] detail that emotion-focused coping is the most commonly used strategy by parents. This statement contradicts the results obtained in the present research, as “seek alternatives” was the most employed strategy.

5. Conclusion

Raising a child with hearing impairment presents a significant challenge for parents, testing their mental resilience. The variety of strategies employed arises from differences in children’s characteristics and parents’ coping abilities. Thus, there’s no one-size-fits-all solution for addressing the hearing issues of every child.

Similarly, it is essential to mention that limited awareness, late perception, and lack of support are the main obstacles preventing parents from adequately addressing their children’s hearing difficulties. Therefore, the rate of decline in hearing problems among children is gradual and ineffective.

One of the limitations encountered during manuscript development is the scarce information available on parents’ perception and coping styles, indicating the lack of interest in this crucial population for the improvement of children with hearing problems.

In this regard, the present study aims to raise awareness among the population about the hearing difficulties faced by children and the coping activities undertaken by parents to address them. Therefore, it is recommended that governments conduct educational campaigns to provide knowledge and sensitization, leading to greater understanding of this issue.

Disclosure statement

The authors declare no conflict of interest

References

- [1] Holland T, 2020, Childhood Hearing Impairment. *Paediatrics and Child Health*, 30(1): 6–13. <https://doi.org/10.1016/j.paed.2019.10.002>
- [2] Chavero L, Canchola S, Torres C, et al., 2022, Importancia de la comunicación con un lenguaje de señas para el proceso adquisición del conocimiento con una metodología enseñanza - aprendizaje por medio de las TICs [Importance of Communication with a Sign Language for the Process of Knowledge Acquisition with a Teaching-Learning Methodology using ICTs]. *South Florida Journal of Development*, 3(3): 3637–3650. <https://doi.org/10.46932/sfjdv3n3-047>
- [3] Vázquez M, 2021, Comparación del perfil neurocognitivo entre niños de 3 a 6 años con y sin discapacidad auditiva [Comparison of the Neurocognitive Profile Between 3- to 6-Year-Old Children with and Without Hearing Impairment]. *Eugenio Espejo Journal*, 15(3): 37–44. <https://doi.org/10.37135/ee.04.12.05>
- [4] Su-Velez BM, Khoury H, Shapiro S, et al., 2021, Barriers to Receiving Necessary Hearing Care Among US Children. *Otolaryngology–Head and Neck Surgery*, 166(6): 1085–1091. <https://doi.org/10.1177/01945998211032113>
- [5] Núñez F, Jáudenes C, Sequí J, et al., 2021, Sordera infantil con discapacidad asociada (DA+) [Childhood Deafness with Associated Disability (DA+)]. *FIAPAS: Spanish Confederation of Familias de Personas Sordas*, Extra 178, 1–19. <https://dialnet.unirioja.es/servlet/article?code=8459932>
- [6] He VY, Su J, Guthridge S, et al., 2019, Hearing and justice: The Link Between Hearing Impairment in Early Childhood and Youth Offending in Aboriginal Children Living in Remote Communities of the Northern Territory,

Australia. *Health & Justice*, 7(16): 16. <https://doi.org/10.1186/s40352-019-0097-6>

- [7] Badzis M, Idris RG, 2019, Parenting Children with Hearing Impairment: The Milieu of Parents' Practices and Experiences. *Intellectual Discourse*, 27: 899–921. <http://eprints.abuad.edu.ng/id/eprint/417>
- [8] Kazez R, Perez S, Diamante L, et al., 2019, Madres y padres oyentes de niños sordos: subjetividad e intersubjetividad frente a situaciones de vulnerabilidad [Hearing Mothers and Fathers of Deaf Children Deaf: Subjectivity and Intersubjectivity Facing Situations of Vulnerability. *Desvalimiento Psicosocial*, 6(2): 1–16. <http://dspace.uces.edu.ar:8180/xmlui/handle/123456789/5392>
- [9] Swierniak W, Gos E, Skarzynski P, et al., 2021, The Accuracy of Parental Suspicion of Hearing Loss in Children. *International Journal of Pediatric Otorhinolaryngology*, 141: 1–5. <https://doi.org/10.1016/j.ijporl.2020.110552>
- [10] Gunjawate R, Ravi R, Driscoll C, 2023, Stress among Parents of Children with Hearing Loss and How They Deal with It: A Systematic Review. *International Archives of Otorhinolaryngology*, 27(1): 166–177. <https://doi.org/10.1055/s-0042-1743273>
- [11] Kusnadi S, Agustin A, 2020, Acceptance Toward Children and Fathering in Caring for Children with Hearing Impairment. *Journal Psikologi*, 19(2): 143–152. <https://pdfs.semanticscholar.org/2bfb/c889dcf43e08e5a057ead32899f086016446.pdf>
- [12] Hernández R, Mendoza C, 2014, Metodología de la investigación, las rutas cuantitativa, cualitativa y mixta. 6.a ed. [Research Methodology, the Quantitative, Qualitative and Mixed Routes (6th Edition)], McGraw-Hill. http://www.biblioteca.cij.gob.mx/Archivos/Reference_materials/Drugs_of_Abuse/Articles/SampieriLasRutas.pdf
- [13] Baena G, 2017, Metodología de la Investigación 3.a ed. [Investigation Methodology (3rd Edition)]. Grupo Editorial Patria. <https://www.editorialpatria.com.mx/pdf/files/9786074384093.pdf>
- [14] Arispe C, Yanali J, Guerrero M, et al., 2020, La investigación: Científica una aproximación para los estudios de posgrado [The Scientific Research an Approach for Graduate Studies].
- [15] Londoño NH, López GC, Puerta LC, et al., 2006, Propiedades Psicométricas Y Validación De La Escala De Estrategias De Coping Modificada (Eec-M) En Una Muestra Colombiana [Psychometric Properties and Validation of the Modified Coping Strategies Scale (Eec-M) in a Colombian Sample. *Universitas Psychologica*, 5(2): 327–349. <http://www.scielo.org.co/pdf/rups/v5n2/v5n2a10.pdf>
- [16] Ishitiaz N, Mumtaz N, Saqualin G, 2020, Stress and Coping Strategies for Parenting Children with Hearing Impairment and Autism. *Pakistan Journal of Medical Sciences*. 36(3): 538–543. <https://doi.org/10.12669/pjms.36.3.1766>
- [17] Levinger M, Allasad N, 2018, Bedouin Hearing Parents of Children with Hearing Loss: Stress, Coping, and Quality of Life. *American Annals of the Deaf*, 163(3): 328–355. <https://www.jstor.org/stable/26484301>
- [18] Mohammad M, Naderi F, Ehteshamzadeh P, et al., 2021, The Relationship Between Mother-Child Interaction and Spiritual Well-being and Child Behavioral Disorders Through the Moderating Role of Mental Health in Mothers of Children with Hearing Impairment. *Journal of Research & Health*, 11(4): 275–284. <http://dx.doi.org/10.32598/JRH.11.4.1853.1>
- [19] Hamad N, Elghmrawy L, 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. https://ejhc.journals.ekb.eg/article_223443_63b1dbe4a8317032a12f1c6f0d9a120f.pdf

Publisher's note

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.