



Status of Perceived Social Support and Quality of Life among Hearing-Impaired Adolescents

Tayebeh Reyhani¹, *Vahideh Mohammadpour², Seyedeh Zahra Aemmi^{3,4}, Seyed Reza Mazlom⁵, Seyed Mohsen Asghari Nekah⁶

¹ Department of Pediatric Nursing, Faculty of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, Iran.

² MSN, Faculty of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, Iran.

³ MSN, Psychiatry and Behavioral Sciences Research Center, Ibn-e-Sina Hospital, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran.

⁴ Ph.D Student in Nursing, Faculty of Nursing and Midwifery, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran.

⁵ Department of Nursing, Faculty of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, Iran.

⁶ Assistant Professor, Faculty of Educational and Psychology, Ferdowsi University, Mashhad, Iran.

Abstract

Background

Annual four to five thousand babies are born with hearing loss in the Iran. Hearing impairment is a disability that affects the quality of life of people with this problem. These individuals need to support from family and friends because of their specific conditions that this received support has impact on their quality of life. This study was conducted to assess the status of perceived social support and quality of life of hearing-impaired adolescent.

Material and Methods

A cross-correlation study was performed with cluster and multi stage random sampling method on 83 students with hearing impairment who met the inclusion criteria of the study in Mashhad. The data collection tools included Pediatric quality of life inventory (adolescent form) and perceived social support inventory (from family and friends). The data obtained from the questionnaires were analyzed through SPSS software version 16.

Results

The results showed that the majority of the most of adolescents with hearing impairment were reported moderate total quality of life (%51.8). But the majority of them reported perceived social support from family was moderate (%61.5) and from friends was week (%45.8). Also there was a significant relationship between category of total quality of life of adolescent viewpoint with perceived social support from family ($P=0.005$).

Conclusion

Based on the obtained results, the majority of the most of adolescents with hearing impairment were reported moderate total quality of life. Disability and condition of these persons affects quality of life of them, so need for adequate support from family, friends and society. Nurses play an important role in identifying and introduce these needs and condition and how to deal with them.

Key Words: Adolescence, Hearing Loss, Quality of Life, Social Support.

*Please cite this article as: Reyhani T, Mohammadpour V, Aemmi SZ, Mazlom SR, Asghari Nekah SM. Status of Perceived Social Support and Quality of Life among Hearing-Impaired Adolescents. Int J Pediatr 2016; 4(2): 1381-86.

*Corresponding Author:

Vahideh Mohammadpour, MSN, Faculty of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, Iran.

Email: mohammadpourv2@mums.ac.ir

Received date Nov 10, 2015 ; Accepted date: Dec 12, 2015

1-INTRODUCTION

Hearing is fundamental ability to the development of spoken communication and language and impairment in this ability to be considered as a condition in which a person's performance, social adaptation and communicating with others people affected negatively, due to a partial or complete lack of hearing sensitivity (1, 2). The World Health Organization (2015) estimated that 360 million persons have disabling hearing loss which represents 5.3% of the world's population (328 million adults and 32 million children). Disabling hearing loss refers to hearing loss greater than 30 dB in the better hearing ear in children. The majority of these people live in low- and middle-income countries. This impairment may result from genetic causes, complications at birth, certain infectious diseases, chronic ear infections, the use of particular drugs, exposure to excessive noise and ageing. According to statistics, 3-5% of the population has moderate to deep hearing loss in Iran. Hearing disorders, the most common congenital birth defect which 50% of hearing loss at birth due to genetic diseases. Deafness in our country is allocated second place in disability after mental retardation (3, 4).

Studies reported that the physical and psychological health status of hearing-impaired adolescents affected negatively by their impairment and limited access to services and exclusion from communication can have a significant impact on everyday life, academic performance, emotional and social growth, causing feelings of loneliness, isolation and frustration and substantial and permanent impact on adolescent and his/her family (1, 3, 5, 6).

Quality of life (QoL) is a complex concept that a consensus on the definition and areas dose not exit and defined by WHO as "Individuals perceptions of their position

in life according to the culture and value system that they live, and its relation to the perceived goals, expectations, standards and concerns". As Communications are a one of the fundamental aspects of human life, loss of ability to communicate effectively can have negative effects on quality of life, especially if this impairment is not adequately managed. According to the condition of people with hearing impairment, provide social support and improve the quality of life for these persons with chronic health conditions and diseases is ultimate goal of rehabilitation. Social support has been defined as the actual or perceived availability of helpful behaviors by other social groups such as family and friends due to the perceived needs (2, 7-9).

According to Shick et al., youth had impairment hearing scored lower in some aspects of quality of life, particularly self and relationships (10). Some studies show that diminished quality of life to the children with hearing loss and their families (2, 11). Nurses as health professional have an important role in identifying and planning to meet these special needs of people with chronic diseases and conditions such as hearing-impaired adolescent (12, 13). Thus, the researchers aimed to investigate the relationship between perceived social support and quality of life of hearing impaired adolescents in order to better identification of these individuals' special needs and provide more appropriate social support needed to maintain the quality of life at an optimal level.

2-MATERIALS AND METHODS

This one group correlational study was conducted on 83 deaf and impairment hearing students in deaf schools durring 2012-2013, Mashhas-Iran. The sample size was determined 90 based on previous

study (14) that afterward seven students were excluded of study due to repeated absence from the class or dropping out of school. All usual ethical considerations for biomedical research have been considered and applied to this work. In this study, stratified, cluster and multi stage random sampling method was used. In the first step, of the two existing deaf middle and technical high schools of Mashhad, both were considered.

In the middle schools, all classes of first to third grades (3 classes) were selected as a cluster, and 2 classes were randomly selected from each grade. In each selected class, all students who met the inclusion criteria entered the study. In technical high schools, first the names of students were 13-18 years old get out from school (due to age restrictions) and then according to the numbers of these students were equivalent to the quota intended for them, all students who met the inclusion criteria entered the study.

2-1. Inclusion criteria

The inclusion criteria were: Studying in a Mashhad deaf school, the age range 13–18 years old, impairment hearing for at least 1 year, no evidence of other acute or chronic illness (e.g., cardiopulmonary, musculoskeletal, and renal disorder) or history of mental disease, living with parents, no experience of major stress (such as death of close relatives, immigration, divorce of parents, and severe disease of close relatives) in the last 6 weeks.

2-2. Data collection tools

Data collection tools in this study were: Demographic information questionnaire, Pediatric quality of life inventory (adolescent form) and perceived social support inventory. The 23-item of pediatric quality of life inventory encompass: Physical functioning (8 items), Emotional functioning (5 items), Social functioning (5 items), and School functioning (5 items)

and comprised of parallel child self-report and parent proxy-report formats with a 5-point Likert response scale (0 = never a problem; 1 = almost never a problem; 2 = sometimes a problem; 3 = often a problem; 4 = almost always a problem) was utilized across child self-report for ages 8 to 18 and parent proxy-report. Child self-report includes ages 5 to 7, 8 to 12, and 13 to 18 years. Parent proxy-report includes ages 2 to 4 (toddler), 5 to 7 (young child), 8 to 12 (child), and 13 to 18 (adolescent), and assesses parent's perceptions of their child's health related quality of life. Higher scores on the questionnaire is representative the problem is less and higher quality of life (15, 16).

Perceived social support from friends (PSS-Fr) and from family (PSS-Fa) was assessed the perception of social support received from each social group. Both scales consist of 20 self-report items measured on a 5-point Likert- scale (1 = strongly disagree to 5 = strongly agree). The results were classified based on the mean and one standard deviation (SD). The students with the higher scoring questions were assigned to the good group and those with the lower scoring questions were assigned to the weak group; also in this questionnaire, higher scores signify a greater level of perceived social support (17, 18). To fill out questionnaires were used from one of the classrooms that were familiar to students and help of Mr teacher for boy students and Mrs teacher for girl students to explain the objectives and read questions with hints and gestures. Those study participants who had the undesirable comprehension, were excluded later. To determine validity, the content validity method was used. Cronbach's alpha of the pediatric quality of life questionnaire was 0.79 of adolescent viewpoint. The reliability of the Perceived social support (PSS-Fa) and (PSS-Fr) was assessed through Kuder-Richardson 20 and it was calculated 0.78 and 0.80, respectively.

2-3. Data analysis

To analyze the data were used descriptive statistics (mean and standard deviation) and chi-squared for the relationship between levels of quality of life of adolescent viewpoint and perceived social support from family and friend. Statistical analysis was performed using SPSS version 16; and considering the significance level of $P < 0.05$.

3-RESULT

Results showed that most of the subjects were boy (54.2%), aged 16.4 ± 1.4 years; around 91% of the participants had congenital deafness of which 81% used hearing aids. The educational levels of most parents were at elementary levels (mothers, 46.6%; fathers, 44.8%). Most fathers (59%) were labour and most mothers (94%) were housewives. Socioeconomic status of most of the participants (33.7%) was moderate.

According to the results, most of adolescents with hearing impairment were reported moderate total quality of life (51.8%) and physical functioning dimension (41.0%). Dimensions of emotional (61.5%), social (50.6%) and school (43.4%) functioning were assessed good by the majority (Table.1). Most of hearing impaired adolescent reported perceived social support from family was moderate (61.5%), but from friends was low (45.8%) (Table.2).

As indicated in (Table.3), exact chi-squared results showed that there was a significant relationship between category of total quality of life of adolescent viewpoint with hearing impairment and perceived social support from family ($P = 0.056$). However, there was not a significant relationship between this factor with perceived support from friends ($P = 0.33$).

Table 1: Distribution of quality of life dimensions based on adolescent viewpoint

Quality of life dimensions of adolescent viewpoint	Low (n, %)	Moderate (n, %)	Good (n, %)	Mean \pm SD
Physical Functioning	17(2.5)	34(41)	32(38.5)	604.9 \pm 147.5
Emotional Functioning	12(4.8)	36(33.7)	34(61.5)	374.7 \pm 86.4
Social Functioning	18(27.7)	23(27.7)	42(50.6)	378.1 \pm 101.1
School Functioning	19(22.9)	28(33.7)	36(43.4)	369.8 \pm 96.8
Total quality of life	21(25.3)	43(51.8)	19(22.9)	1737.1 \pm 378.1

Table 2: Distribution of perceived social support from family and friends based on adolescent viewpoint

Variables	Low (n, %)	Moderate (n, %)	Good (n, %)	Mean \pm SD
Perceived social support from family	8(9.6)	51(61.5)	24(28.9)	12.9 \pm 2.8
Perceived social support from friends	38(45.8)	29(34.9)	16(19.3)	12.7 \pm 2.8

Table 3: The relationship between category of total quality of life of adolescent viewpoint with hearing impairment with perceived social support from family and friends

Variables	Perceived social support from family				Perceived social support from family				
	Week	Moderate	Good	Total	Week	Moderate	Good	Total	
Quality of life of adolescent	Week	0 (0)	4 (66.7)	2 (33.3)	6 (100)	0 (0)	3 (50)	3 (50)	6 (100)
	Moderate	5 (27.8)	9 (50)	4 (22.2)	18 (100)	4 (22.2)	9 (50)	5 (27.8)	18 (100)
	Good	3 (5.1)	38 (64.4)	18 (30.5)	59 (100)	5 (8.5)	26 (44.1)	28 (47.5)	59 (100)
	Total	8 (9.6)	51 (61.4)	24 (28.9)	83 (100)	9 (10.8)	38 (45.8)	36 (43.4)	83 (100)
P-value	0.005				0.339				

4- DISCUSSION

The current findings showed that the most of adolescents with hearing impairment were reported moderate total quality of life. Looi et al. (2016), in their study on "Quality of life outcomes for children with hearing impairment in Singapore," showed that total scores quality of life in children with hearing loss who were using hearing aids and/or cochlear implants were lower than healthy children (2). In study conducted by Borton et al. (2010) total scores quality of life in children with hearing loss was lower than healthy children (19). Also in Rajendran and Roy study, children with hearing impairment had a diminished health-related quality of life (20) and all these results confirm the findings of the present study. Also this study showed that most hearing-impaired adolescent reported perceived social support from family was moderate, but from friends was week. Several studies have shown that family, friends and caregivers such as nurses as members of the society, according to the conditions and special needs of these adolescent are responsible for to support and develop interventions to help deaf adolescents enjoy positive social interactions, peer acceptance, and deep and meaningful relationship with others. These support and relationships are associated with a wide range of positive outcomes, for adolescent's psychological well-being, social growth, better face with challenges in the future and ultimately reduce risk factors in later life (21-23); although these adolescents in the family life, schools and community are faced with many challenges.

4-1. Limitations

The limitations of this study can be noted that quality of life is a subjective concept that is perceived individually, we as researchers had to trust the responses of the participants.

5- CONCLUSION

Hearing loss as a major and important disability that disrupt one of the most important functions and needs of human that is communicate with other people. Also it has a negative effect on many aspects of life of person with this disability and his/her family such as quality of life. Nurses as health care providers have an important role in identifying and introduce the specific needs and challenge of this group of people to others till support that needed to be done.

6-CONFLICT OF INTEREST: None.

7- ACKNOWLEDGMENT

We appreciate all those who helped us in conducting this study. This article was extracted from a master thesis approved and financially supported by Mashhad University of Medical Sciences, Iran (No89350).

8- REFERENCES

1. Kirman A, Yildirim Sari H. Health status of hearing-impaired children and adolescents. *International journal of nursing practice* 2013;19(3):233-40.
2. Looi V, Lee ZZ, Loo JH. Quality of life outcomes for children with hearing impairment in Singapore. *International journal of pediatric otorhinolaryngology* 2016;80:88-100.
3. Deafness and hearing loss: WHO; [updated March 2015]. Available at: <http://www.who.int/mediacentre/factsheets/fs300/en/>.
4. Iranian national policy on prevention of hearing loss: Research Center ears, throat; 2013. Available at: <http://www.ent-hns.org/assets/images/13.pdf>.
5. Ebrahimi H, Mohammadi E, Shamshiri M, Mohammadi MA, Dadkhah B. Concerns of Mothers with Hearing Loss Child: a Qualitative Study. *Journal of Urmia Nursing And Midwifery Faculty* 2015;13(2):136-46.

6. Lotfi Y, Movallali G. A universal newborn hearing screening in Iran. *Iranian Rehabilitation Journal* 2007;5(5):8-11.
7. Grano N, Karjalainen M, Edlund V, Saari E, Itkonen A, Anto J, et al. Health-related quality of life among adolescents: a comparison between subjects at risk for psychosis and other help seekers. *Early intervention in psychiatry* 2014;8(2):163-69.
8. Mobaraki H, Kamali M, Esmaeili A. Effect of Community-Based Rehabilitation program on quality of life for people of 15-65 years old with severe and profound hearing loss in the city of Sabzevar. *Modern Rehabilitation* 2015;9(2):16-24.
9. Ariapooran S. Compassion fatigue and burnout in Iranian nurses: The role of perceived social support. *Iranian journal of nursing and midwifery research* 2014;19(3):279-84.
10. Schick B, Skalicky A, Edwards T, Kushalnagar P, Topolski T, Patrick D. School placement and perceived quality of life in youth who are deaf or hard of hearing. *Journal of deaf studies and deaf education* 2013;18(1):47-61.
11. Jackson CW, Wegner JR, Turnbull AP. Family quality of life following early identification of deafness. Language, speech, and hearing services in schools 2010;41(2):194-205.
12. Magalnick H, Mazyck D. Role of the school nurse in providing school health services. *Pediatrics*. 2008;121(5):1052-56.
13. Aemmi SZ, Ahmadi Z, Reyhani T, Haghani H. Comparison of Perceptions of Nurses and Premature Infants' Mothers about Mothers' Needs in Neonatal Intensive Care Unit. *Hayat* 2013;19(2):14-26.
14. Heidarzadeh M, Ghahremanian A, Hagigat A, Yoosefi E. Relationship between quality of life and social support in stroke patients. *Iran Journal of Nursing* 2009;22(59):23-32.
15. Varni JW, Seid M, Kurtin PS. PedsQL™ 4.0: Reliability and validity of the Pediatric Quality of Life Inventory™ Version 4.0 Generic Core Scales in healthy and patient populations. *Medical care* 2001;39(8):800-812.
16. Mohammedian H, Akbari H, Gilasi HR, Gharlipour Z, Moazemi Goudarzi A, Aghajani M, Monsef AM, Thahvylian H1, Azar-Abdar A. Validation of Pediatric Quality of Life Questionnaire (PedsQL) in Kashan city. *Scientific Journal of Ilam University of Medical Sciences* 2014;22(3):10-18.
17. Procidano ME, Heller K. Measures of perceived social support from friends and from family: Three validation studies. *American journal of community psychology* 1983;11(1):1-24.
18. Wesley KM, Zelikovsky N, Schwartz LA. Physical symptoms, perceived social support, and affect in adolescents with cancer. *Journal of psychosocial oncology* 2013;31(4):451-67.
19. Borton SA, Mauze E, Lieu JE. Quality of life in children with unilateral hearing loss: a pilot study. *American journal of audiology* 2010;19(1):61-72.
20. Rajendran V, Roy FG. Comparison of health related quality of life of primary school deaf children with and without motor impairment. *Ital J Pediatr* 2010;36(75):1-5.
21. Calderon R, Naidu S. Further Support for the Benefits of Early Identification and Intervention for Children with Hearing Loss. *Volta review* 1999;100(5):53-84.
22. Bess FH, Dodd-Murphy J, Parker RA. Children with minimal sensorineural hearing loss: prevalence, educational performance, and functional status. *Ear and hearing* 1998;19(5):339-54.
23. Batten G, Oakes PM, Alexander T. Factors associated with social interactions between deaf children and their hearing peers: A systematic literature review. *Journal of Deaf Studies and Deaf Education* 2013:3-18.