

Exploring the Issues and Problems faced by Hearing Aid User among Senior Citizen

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Abstract: Hearing Loss is generally related to senior citizens as an age-related ailment. The problem further increases when people tend to avoid the problem rather than looking for solution. In India, we have around 104 million Elderly populations as per the last census of 2011.

Senior citizens though they have retired from the daily outside job but they need to have certain levels of activity at home and at times outdoor. Hearing inability does come in as a hindrance to communicate. They find themselves cornered and difficult to express their thoughts, ideas and opinion. The inability creates an aura of depression. Hearing Aids do provide certain solutions to this problem. Obviously, the natural effect does get compromised with an artificial support. But Hearing aid proper identification, diagnosis and usage plays the key role in its outcome. Many of them have the opinion Hearing does help them to communicate with their family members, watching television, listening music, talking with relatives and friends in cell phone, communicating in the busy street, market, railway station, post offices, Bank etc

While there are group of persons who feel Hearing aid is not so handy and does not solve the hearing impairment. More awareness and proper counselling in Hearing Aid use will go a long way in increasing the impact of Hearing aid. May be there are scope of future studies which reveals the joy of hearing with Hearing Aid w.r.t to senior citizens. Though there has been digital disruption creating new heights of technological innovation but it needs to be seen do Senior citizens enjoy using Hearing Aid.

Key words: Senior Citizen, Hearing Aids, Quality of Life, Hearing Impairment

Introduction

Senior citizens are the persons belonging to above 60 years. In case of Government institutions especially in Hospitals and Academics the age limit has been extended up to 65 years. The development of Technology has boosted the spirit of the elderly citizen of our country. It is said occasionally that you can retire from work but not from life.¹⁵ The spirit, energy, enthusiasm that exists during the working age slowly evaporates once you retire from your work. In this study we have tried to have a conceptual study of the literatures we have reviewed to understand what leads to this impact on quality of life and how far Hearing Aids are able to provide a solution to the problem.

According to Population Census 2011 there are nearly 104 million elderly persons (aged 60 years or above) in India; 53 million females and 51 million males. A report released by the United Nations Population Fund and HelpAge India suggests that the number of elderly persons is expected to grow to 173 million by 2026.¹

We do find the average life expectancy has increased. Earlier 65-70 was the normal age limit but thanks to the development of medical science the life expectancy has increased. We do find people working even in mid-70s. Obviously it all depends as to how one maintains their health parameters and required health advices as suggested by Doctors. For example, Morning and Evening Walk are one of the likely requirements to stay fit and maintain a good body metabolism. Today, the Yoga which was done ages back by our Rishi's and Guru's way back in Ramayana Age does find a very high requisite in today's world. Yoga and Pranayama are practised by all ages and does provide a ready solution to many chronic and congenital diseases.

Objective of the Study

Old Age senior citizens does suffer from many health-related issues. They do face hearing problem as one of the barriers. Hearing Aid has come up as one of the solutions to the Hearing problem. In this study we would be exploring the fact how far the Hearing Aid has been able to cover the problems. The problems if we define would be communication issues, finding difficulty to have a conversation with a group of people, understanding speech in a noisy environment etc.

There had been different studies on this aspect. Different researchers have come up with different view point. Obviously, sophistication of technology had helped in the development of Hearing aid. The Hearing aids

that used to be used around 20 years back are no more regarded as the solution to the problems. Rather, there has been a digital disruption which has increased the expectation of people. With the new possibilities and expectation, we would see how far Hearing aids have come as a solution to the senior citizens.

Literature Review & Conceptual Background

Hearing Problem faced by senior citizens have varied magnitude. The expectation of the users is different so are the challenges. In our Literature review of 21 papers in all reviewed different scholars have tried to identify the facts on different perspective. NidupDorji, Micheal P Dunne³ explored the association between quality of life, spirituality, social integration and chronic diseases. The scholars were of the impression that there is correlation between spirality and chronic diseases which also included hearing problems.

In the works of Pamela Souza, Bevan Yeuh¹⁶(2011)in their study did considered that relationship between audibility and Hearing Aid effectiveness. Following the same pathway, we could find in the works of Benemer Pieter, Nachtegeal Jannekel⁹(2009)in their work where they observed that Hearing Status has a direct correlation with distress, depression and loneliness. They felt that Hearing Loss does increases the chances of depression and loneliness.

In the review of literature when the usage of Hearing Aid as a solution to senior citizens hearing problem was considered. There were quite a few papers which dealt with the issues. Though not all scholars have considered Hearing Aid but rather they provided the name Assistive listening device which obviously includes Hearing Aids. In the works of Lilly Jensen²² (2014)the work focuses on user perspective on Assistive Technology and aimed at achieving a deeper knowledge. Elizabeth Dodds, Earl R Hardford¹⁹ (1982)considers that senior citizens are interested in Hearing Aid but they are reluctant to use. As a group they are reluctant to seek out remediation. While in the works of Fuentes Lopez³ determines the relevanceof use of Hearing Aid by older adults is generally influenced by education level, income level & Geographical area of residence. So, far in the Literature review, Charles Speaks & Carolyn Malmquist (1966) article on investigating the performance of Hearing Aids with different levels of Hearing Loss does come to close proximity to the topic. The Scholars have mentioned in their work that there is an indirect relationship between the Hearing loss and Performance on Hearing Aid.

Research Methodology

In the Literature study we have seen scholars in their work have sought the use of qualitative as well as quantitative techniques to assess the impact of senior citizen. Some of them used questionnaire format while others have taken data analysis through hearing threshold measurement. In our study we are doing a conceptual study of the scholars whom we have in defied related the work. We have assessed their work and tried to identify the areas of work or scope of further study. During the conceptual study we have tried to consider the variables which were mainly independent and dependent in nature. Hearing Loss and Performance of the Hearing Aid were the primary variables in which the most of the studies revealed.

Statement of Problem/Research Problem

Time study of the different research papers conducted by various authors and researchers have revealed that Senior citizens does face some form Hearing disabilities at their age. Studies have indicated that some try to conceal their problems while others show the interest but at a very late period. Hearing Aid has come up as a solution to the impairment problem. It is mostly used to bridge the communication gap faced by the senior citizens. But the problems are still there. The problem that we are addressing is do Hearing Aids can overcome the needs of the senior citizens Hearing challenges. Research on this field have revealed that people tend to be isolated and try to avoid communication when they suffer this type of problem.

Even in some it leads to depression. Though Hearing Aids covers the needs of the senior citizens requirement, how far they are able to handle the needs and requirement.

Research Gap

The Literature review does indicate that Senior citizens suffer from chronic diseases as well as Hearing ailments. The studies have indicated that hearing aids does impact varying level of hearing loss. But the gap which was explored during the literature review was that Senior citizens enjoyment and ease was unexplored. Obviously, joy, ease is subjective term and varies from different person to person. A home maker will have joy of different level compared to a working person. But here we are exclusively talking of the joy of hearing of senior citizens. The effortless smiles that come in their face and the facial expression which speaks of million words.

Quality of Life – Senior Citizens

The term quality of life refers to the fact that how much fit, comfortable and ability to involve himself/herself in part and parcel of life. ¹⁰We do have good and bad days; life does test how mentally strong we are to face the challenges.

Actually, the term Quality of Life (QOL) is quite ambiguous since it refers to the experience of an individual one has of his own and also relating to the living conditions in which the individuals does finds themselves.¹⁷

In the Health care sector, the quality of life is viewed as multi-dimensional encompassing emotional, Physical, material as well as Social Wellbeing.

Measuring Quality of Life

Measuring Quality of Life is a really challenging tusk. The challenge comes from the fact that the expectation of people changes. Some people consider money as the prima facie requirement to maintain a quality of life. They need money to buy all the ease like sophisticated car, High rise building, Garden Bungalow, Expensive Gadgets and the list goes on. There are others who need peace of mind, silence of thought and endless happiness without the fear of tension.

As a senior citizen there quite a few needs and requirements. Though people turn old they try to remain healthy and energetic to be active.¹ Health related quality of life in any group of patients (indeed, in any population sample), disease-specific measures, such as those designed to evaluate health-related quality of life in specific illness groups.²

We can use some of the measures to identify the quality of life, as mentioned below³

- i. Beck Depression Inventory (BDI)
- ii. The Sickness Impact Profile (SIP)
- iii. The 36-item short form Health Survey (SF-36)

Health is one of prime requirement for senior citizens. If Health is maintained then there are less chances of diseases, infection and people gets the opportunity to enjoy the happiness of life. Health impairments does come in as an obstacle in one's normal habitat. ¹¹For example, if a person has developed cataract it means that the lens has become opaque and needs to undergo surgery for it. Similar, high blood sugar relates to Diabetes Mellitus which needs medication, Exercise, Walks and Diet Management for stability and recovery.¹⁶

Hearing Impairment and its Impact on Senior Citizens

Hearing Impairment is challenge for senior citizens. Often this impairment is termed as Presbycusis which relates to Auditory nerve and cochlea malfunctioning. Similar to eyes where nerve deafness can be taken care either by spectacles or contact lenses ¹⁴. In case of Hearing deafness when the problem relates to Senso-neural Deafness (SN HL) Hearing Aids or Cochlear Implant (CI) are the solutions one has.

Before we proceed further, we need to understand how far nerve deafness impacts one's normal activity. There are quite a few questions which arises at this point which needs more clarity.

- What problems senior citizen when they are heard of hearing ?
- Do they realize that they are having a challenge in Hearing?
- DO they have to compromise due to their hearing in ability?
- Do they feel handicapped due to this challenge?
- What solutions do they have in hand to overcome?
- How far these solutions are appropriate enough to overcome the challenge

Compared with visual impairment when people are readily accepting the fact that they have a problem. In case of Hearing Impairment people generally do not accept the fact that they have a problem. There are quite a few misconceptions in the minds of people which requires rigorous counselling before this view's changes.⁹ Many a people are of the view that Hearing Aid are used by persons who are deaf. Further, Hearing Aid use decorates the hearing capability of a person. The truth actually is, that Hearing Aid are worn by persons who have Hearing challenge similar to the fact that Spectacles are worn by persons who have Visual challenges.

Hearing Aids will be of no use to Deaf persons since they have 0% residual hearing similar to the fact that Blind persons will not benefit from Spectacles or lenses as they have 0% residual visualization. The fact remains, that the higher the residual hearing availability the more chances of hearing clarity and comfort.¹³

The problem is much in case of Hearing impairment since the taboo of non-acceptance. In India, People hardly accept that they have hearing challenges. Even if they have to compromise in many a case due to

their hearing disability still, they show high level of resistance to use hearing aid. The cosmetic physical looks become much more important than the hard of hearing.¹² They fail to understand the fact that if they are not able to communicate during a conversation. If they ask frequently to repeat, or say something completely different to what is being asked or said it ultimately makes very clear to the person spoken to the hearing problems.

People use spectacle for visual challenges, walking stick or crutch due to their arthritis problems, they use false teeth to bite and chew food. But when it comes to Hearing Aid the taboo of visibility and the fear of known to people having a hearing problem is one of the key reason people try to avoid Hearing Aid.

Dealing with a Hearing- Impairment in Elderly persons

Early detection of Hearing Loss is always important. The higher level of activeness does provide solution of most of the hearing impairment issues.⁸ Many at times senior citizens in order to adjust with their hearing ailments try to depend of lip reading. In this case the eyes help to understand what is being spoken by others and ears lose its importance. The following steps can be followed with senior citizens to mitigate the problem.

- Identification of Hearing Loss at the onset and its procedural treatment, rather than avoidance.
- Identification of causes of the Hearing Loss. Further, address to the avoidable factors such as loud sound, maintenance of aural hygiene etc.
- Provisions of appropriate Hearing aids with regular use.
- Offering the post-sale support service to senior citizens to use the hearing aid
- Listening to the Hearing impaired elderly persons with patience as many a times their expression is muffled due to lack of front teeth.
- Allow them to speak with a slow space at a close vicinity.
- Talk in a slow space and in clear voice
- If required repeat the oral communication more than once.
- Make them understand the lip movement and body language of the persons who speaks.

In the olden days we related Hearing Aids with big pocket model instruments which had a white string connected with the receiver. The technological development and advancement in state of the art of digitalization have brought in new innovations and modernization. Today we can have sleek Hearing aids of black hair color or custom size hearing aid rooted in our ear canal. The physical looks also get further modernized with the high defined technological solutions such as app based control, Bluetooth support, Speech Enhancement, Noise Management and other unique features.⁷

Challenges faced by Hearing Impaired persons

Hearing Impaired persons do face quite a few challenges. The challenge is to understand and communicate. A senior citizen generally tends to spend most of their time at home. They need to communicate with his fellow family members.⁴ At times during family discussion, he remains quite since he is not able to understand what is being spoken. It not that he is unable to hear the speech but rather he finds it difficult to interpret the words as it becomes blurred and jumbled up by the time the sound travels to brain.

Occasionally when he travels to Bank, Post Offices, Clubs, Family Gathering etc. were quite a few people are speaking at the same time along with background noise. He finds really awkward to manage as the ability to understand and communicate further dents. Even though he wants to participate he tends to remain silent and introvert. The happiness to communicate, the charm of sharing ideas, thoughts, memories become really restricted.⁵ Hearing the FM radio, listening to classical music or watching the television though intended does not provide that charm of listening. Many a times when he sees his friends in the park or club, he tends to provide some excuses to avoid the embracement.⁶ To conclude, in order to hide the hearing incapability, he has to escape and run away from the situation. Further, it changes the nature of person may be from an extremely extrovert transforms to an introverted person.

The ability of self-reliance or Atmanirbhar disappears. The feeling I can evaporate and I can't come in. It affects the personality of a person and he moves an artificial shell which has a transparent closed wall. The shackles of non-hearing bring in depression and mental retardants.

The impairment does not happen in a single day. Rather, on the contrary it takes years to slowly increase the Hearing Problems.

Degree of hearing loss	Hearing loss range (dB HL)
Normal	–10 to 15
Slight	16–25
Mild	26–40
Moderate	41–55
Moderately severe	56–70
Severe	71–90
Profound	90+

Table I- Degree of Hearing Loss with the relevant Hearing Loss range

As the Above table-I mentions the degree of Hearing Loss and Hearing Loss range in Decibel. In our country since we have a high pitched voice's up to mild Hearing Loss is easily manageable. People having Moderate Hearing Loss does have some problem but they can manage with the little imperfection.

The problem arises when the deficiency does up to Moderately Severe and Severe Hearing Loss. Though it needs to be said that this change from one level to the another takes an ample period of time. If proper solutions are duly taken then the impairment does not further damages.

According to WHO (2018) data, the prevalence of hearing impairment (HI) in India is around 6.3% (63 million people suffering from significant auditory loss). The estimated prevalence of adult-onset deafness in India is 7.6% and childhood-onset deafness is 2%.^{iv}

As the problem is not created in a day. The solution also can't happen in a days' time. Hearing Aid is one of the solutions to the problem. People suffering chronic senso-neural (i.e., problem in the auditory nerve and cochlea) can get some relief if amplified sounds are provided in the ear canal.

The sound consists of two important part Speech and Noise. Speech relates to all the sounds which are spoken to us and we are providing are due attention to listen those words. On the other hand, noise relates to the sounds which are unwanted.² For example, a car buzz in a busy road, or a vegetable monger screaming to canvas his products.

Hearing Aid works with the technology to amplify the sounds to make it audible. The advanced technology of Digital does provide the leverage to amplify the soft sounds and compress the loud sounds.³The user needs to use it as recommended to get the maximum benefit of the Hearing Aid.

Impact on Quality of Life

Obviously at the onset it needs to be stated that hearing loss is not restricted to senior citizens only. But it can happen to any person at any age. The neonatal babies might have the congenital Hearing Problems. The question remains how far Hearing Aids are helpful in resorting the normalcy and bringing the color in a senior citizens life.

If we compare the life of a hearing impaired senior citizen to a black and white photograph, hearing aid is a colored photograph which resorts back the benefit of ones lost charm in life. Obviously, the normalcy cannot be restored with the artificial aid. But it does provide solutions to many challenges.

The introvert person now again finds the lost persona and tries to get involved in discussion. He tries to communicate with people via phone, video conferences, tries to listen music, watch movies, news and sop serials. He feels happy to talk with people when outside in market, banks, post office, clubs, restaurants etc.

Discussion & Findings

Obviously, the problem that is there cannot be substituted with an artificial solution. But obviously it helps to overcome many a challenge which one come across. The inherent question lies does every Hearing impaired person using hearing aid are happy. Do all of them possess the same feeling that it positively affects their quality of life. If still the answer is yes, then what is the price for this solution.

Actually, we have to balance our needs, requirements, availability and budget and one place. If we have a higher budget then we can have more expectation and so do the requirements and performance of the product will be also available. The Hearing Care Professionals does spend a pretty long time in counselling their

patient. Actually, they try to understand the needs and provide the solution with the best available product at the said price.

But all Hearing Aid users are not so lucky. They do complain that they have to compromise even though they have spent quite a few bucks for the Hearing Aid. Actually, who is responsible for the matter is debatable and would require a long introspection before any conclusion are drawn. But obviously, Hearing Aid requires high level of personal care in terms of maintenance, programming and adjustments. Many a times even though users are aware of the long hours of usage do not do so. The reasons for not doing might be very naïve such as lowering battery usage, Not much requirement at the present moment etc. There are people who do knowing the intricacy of the product and support service had purchased just for the sake of higher discounts.

The post-sale service is considered to be one of the prime reasons why few users feel happy while other not. In studies conducted by other researcher it has been seen that people who does frequently visit there Hearing Care Professional as advice and does follow the necessary protocols does gets the best benefit out of the Hearing Aid. Moreover, if Hearing Aid are used for a long period the chances of further deuteriation or the degree of deuteriation also slows down.

Recommendation

Going through the different problems faced by the senior citizens, it is felt that Hearing Aid user needs a continued checkup. Many a case we have observed that people due to ignorance have not used Hearing Aid as frequently they should have done. This has led to increase in Hearing loss. Further, as the literature review reveals the fact that people due to economic and social taboos have tried to conceive their hearing challenges. They tend to use Hearing aid at a later period when already the hearing problem has increased to a significant level.

In many cases people having problems in both ears tend use only one ear. The expectation is to have a clear and uninterrupted hearing. But to do that they need to use Hearing Aid on both sides. Further, there needs to necessary changes and service of the Hearing aid. This can only happen when they visit there Hearing Aid Professional on a regular interval or when they are asked to visit. Moreover, checkup of Hearing thresholds is also required which can only be done by professionals.

Though it's not an absolute solution to the problems but obviously it will tend to improve the challenges faced by the Hearing Aid users.

Scope of the Study

Since we have conducted a literature review of small size of 20 papers our finding has been quite restricted. A questionnaire based survey including people of different income group and areas would provide a better perspective of the work. Obviously, there are research gaps which have been mentioned earlier in the paper which can consider a full-fledged thesis for research work.

Conclusion

Senior citizens do undergo quite a few Health challenges. Hearing impairment is one of the challenges which makes a negative impact on the personality. People tend to be introvert and try to avoid conversation. They remain mum or speechless in a discussion. The happiness and enjoyment in listening music, watching television, speaking with friends and relatives in cellphones vanishes. They really struggle when they are in public place due to their hearing incapability.

Hearing Aid is one of the solutions to the impairment. Though the success rate varies from person to person. It's for sure it does have an impact. The success rate depends from choosing the hearing aid to the point of post-sale hearing management. The new digitization of technology such as Artificial Intelligence, Cloud Computing etc. there are more new advancement in the offerings. Further, it will increase the success rate satisfied Hearing Impaired persons and more people having this ailment will look for solution.

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