

Impact of Academic level on Life style of students with Hearing Impairment with reference to their interaction with others in Sonipat Haryana

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ABSTRACT

An academic level is a specific classification of higher education. Academic level of any individual shows his/her daily living style and also defines his/her life style. Generally academic level of normal hearing population has been an average level. These etiquettes have been particularly tricky to divyang students especially students with hearing impairment. Students with hearing impairment have delay speech & language this will affect their communication skills and academic levels in all stages of study. Lower interaction with others makes low academic level and this will directly impacted on all aspects of life style of students with hearing impairment. Therefore the first aim of this study was to study the impact of academic level on interaction between students with hearing impairment and person with normal hearing and the second aim of this study was to identify the barriers to interaction between students with hearing impairment and person with normal hearing. The data was collected from forty five students with hearing impairment and analyzed qualitatively. Out of these forty five, thirty six participants were used Behind The Ear(BTE)hearing aid and nine were fitted Cochlear Implant(CI). The participants were interviewed using spontaneous interview questions one by one physically. The finding shows that

*there were three major impacts of academic level on life style of divyangjan with hearing impairment with specific reference to their interaction with others. These impacts were classified related to hearing device, academic skill and social skills. The study also reveal the barriers to interaction with others by students with hearing impairment these are classified as late identification & intervention of hearing impairment, non availability of better support services and additional disability. The findings further reveal that the divyangjan hearing impairment hindered their interactions skills with others due to these barriers. **Keywords:** Impact, Academic level, Life style, Hearing Impairment, Interaction*

Introduction:

Academic level-

Academic level generally refers to the stage or classification of a student's education, often related to the type of degree they are pursuing. Common academic levels include undergraduate, graduate, and professional, with further distinctions within each based on completed credits or years of study.

Academic level is the classification of a student as a freshman, sophomore, junior, senior or graduate student. An academic level is a specific classification of higher education. For example, a traditional credit-bearing university might have academic levels such as undergraduate, graduate, and continuing education. For other schools, levels might indicate a profession, such as medicine, law, dental, or professional.

Academic levels can also refer to specific ranks within academic institutions, such as lecturer, assistant professor, associate professor, and professor. In some contexts, academic level may be used synonymously with academic standing: and be determined by the number of completed credits or units. The specific academic level system can vary by country, institution, and field of study.

Breakdown of common academic levels:

- Undergraduate: This level typically includes Bachelor's degrees, and students are often categorized as freshmen, sophomores, juniors, or seniors based on accumulated credits.
- Graduate: This level includes Master's degrees and Doctoral degrees (Ph.D.), signifying advanced study and research beyond the Bachelor's level.
- Professional: This level is for specialized fields requiring specific degrees, such as law (Juris Doctor), medicine (Doctor of Medicine), and dentistry.

Life Style-

Lifestyle according to Oxford Concise Dictionary is meant as "individual's way of life". Generally, lifestyle is conceived as a way of life or style of daily living that echoes a particular set of attitudes, values, habits and possessions associated with a person or a group. Every individual has their own characteristic lifestyle that includes their typically chosen actions on a daily basis. Lifestyle is multifaceted as there are many things that are included in the way of life of people, thus it is a multidimensional variable comprising behavioral, socio-cultural and economic dimensions. As far as health is concerned, the most pertinent lifestyle-related factors are dietary patterns, physical activity level, psycho-social stress level, mental or emotional wellbeing, substance use and the like. It can thus be concluded that the habits and practices relevant to dietary and activity pattern that promote health will be part of healthy lifestyle choice. Likewise, absence of psycho-social stress, relatively higher emotional well-being and lack of substance abuse can also be part of healthy lifestyle. Yet, healthy lifestyle tends to be unhealthy lifestyle if habits and practices concerning the factors mentioned above change to such a state in which health is no more promoted. Lifestyle It is a common saying that rural and urban lifestyles are not just the same; this is true because there is distinct difference between rural and urban environment attributed to many aspects of life. This is true for all the components of life- physical, biological and social. As a result of which, urban inhabitants would be adopting the urban lifestyle and rural inhabitants would be adopting rural lifestyles thus experiencing their environmental features. Due to urbanization and modernization in the developing countries, changes have been witnessed from traditional to

modern way of life, paving way for alterations that are affecting all lifestyle dimensions. You must have noticed that when there is movement from rural to urban setup, there are subsequent changes in the dietary and activity pattern. Consequently, it affects the biological profiles of individuals and populations in terms of health status and growth pattern. Keeping in view the above, let us focus on the relationship between lifestyle-related factors and features, growth pattern, both pre- and post-natal.

Interaction-

An interaction grossly speaking is a transaction between two entities, typically an exchange of information but it can also be an exchange of goods or services.

Every day, teachers make countless real-time decisions and facilitate many of interactions between themselves and their students. Although they share this commonality, educators all over the country often talk about these decisions and interactions in different ways.

Student interaction factors: as a teacher we need to know some basic factors as follows -

- Know our students. In addition to their names and experiences, determine their skills and knowledge.
- Create a welcoming learning environment. Make students feel comfortable and important.
- Set and communicate expectations.
- Encourage students to interact positively with one another.

Interaction is the activity of being with and talking to other people, and the way that people react to each other.

Social interaction is a fundamental kind of interaction included a large number of behaviors so many that in sociology. Interaction is usually divided into five categories. These are: exchange, competition, cooperation, conflict and coercion.

Social interaction involves people communicating face to face or via computer and acting and reacting in relation to other people.

In statistics, an interaction may arise when considering the relationship among three or more variables, and describes a situation in which the effect of one causal variable on an outcome depends on the state of a second causal variable (that is, when effects of the two causes are not additive).

Hearing Impairment-

A person who is not able to hear as well as someone with normal hearing – hearing thresholds of 25 dB or better in both ears – is said to have hearing loss. Hearing loss may be mild, moderate, severe, or profound. It can affect one ear or both ears, and leads to difficulty in hearing conversational speech or loud sounds.

Hard of hearing refers to people with hearing loss ranging from mild to severe. People who are hard of hearing usually communicate through spoken language and can benefit from hearing aids, cochlear implants, and other assistive devices as well as captioning. People with more significant hearing losses may benefit from cochlear implants.

Deaf people mostly have profound hearing loss, which implies very little or no hearing. They often use sign language for communication.

Hearing Impairment: There are many definitions and classification systems of hearing impairment. By far most common division is between deaf and hard of hearing.

According to Hallahan & Kauffman (1991), children who cannot hear sounds at or above a certain intensity (loudness) level are classified as deaf; others with a hearing loss are considered hard of hearing. Hearing sensitivity is measured in decibels (unit of relative loudness of sounds) zero decibels (0 dB) designate the point at which people with normal hearing can detect the faintest sound. Each successive number of decibels indicates a certain degree of hearing loss.

Brill, McNeil, & Newman (1986) have provided separate definitions of hearing impairment, deafness, and hard of hearing. According to them, hearing impairment is a generic term indicating a severity from mild to profound; hearing impairment includes the subsets of deaf and hard of hearing. A deaf person is one whose hearing impairment precludes successful processing of linguistic information through audition, with or without a hearing aid. A hard of hearing person is one who, normally with the use of a hearing aid, has residual hearing adequate to enable successful processing of linguistic information through audition.

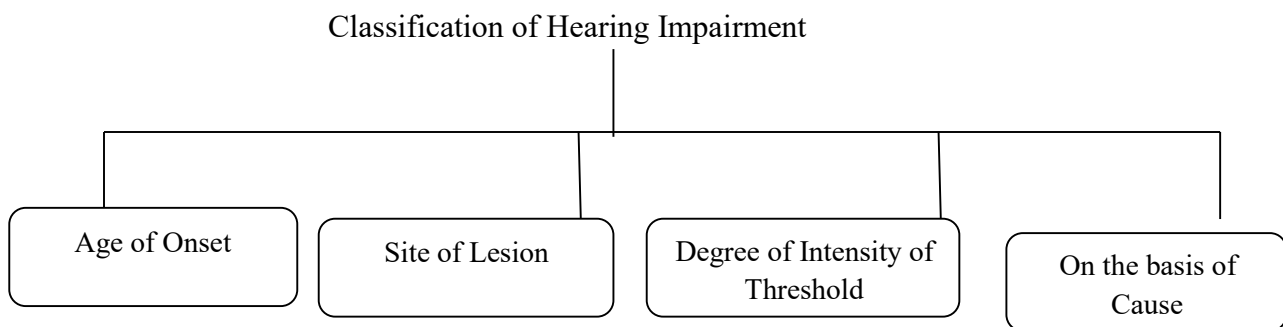
According to RPWD Act 2016, Hearing impairment is a partial or total inability to hear. It is a disability sub-divided into two categories deaf and hard of hearing.

- "Deaf" means a person having 70 dB hearing loss in normal speech frequencies in both the ear.
- "Hard of hearing" means a person having 60 dB to 70dB hearing loss in speech frequencies in both ears. (RPWD Act, 2016)

Characteristics of Hearing Impaired Children:

- Delayed language development.
- Minimal use of spoken language, and also very un-intelligible speech.
- Concentration on the lips of the speakers as an attempt to listen.
- The student turns his head towards the speaker to listen or cups his ears.
- No response when called from the back.
- Tuning the volume high while watching TV or listening to the radio.
- Frequent complaints of ear aches, ear discharges, or ear infections.
- A problem in inter personal relations because of communication problems.
- Lack of fluency in language comprehension and expression affects his cognitive processes like assimilation, abstraction categorization, and generalization.
- Problems in social adjustment.

Classification of Hearing Impairment-



Age of Onset:

- Congenital Hearing Loss: It refers to any hearing loss occurring prior to birth or at the time of birth.
- Acquired Hearing Loss: It refers to any hearing loss developed at a later stage due to some severe illness, accidents etc.

- Pre-Lingual Hearing Loss: Hearing loss occurs before language is developed.
- Post-lingual Hearing Loss: Hearing loss occurs after language has begun to develop.

Site of Lesion:

- Conductive Hearing Loss: outer and middle ear affected, most causes are treatable.
- Sensory Neural Hearing Loss: inner ear affected causing permanent hearing loss.
- Mixed Hearing Loss: Mixed Hearing Loss involves a combination of a conductive and sensory neural hearing loss.
- Central Auditory Disorder: Central Auditory Disorders stem from problems within the central auditory system, caused by damage that occurs somewhere along the auditory nerve or within the cochlear nuclei.

Degree of Intensity of Threshold

The classification of Hearing Impairment based on the degree of hearing loss is as follows-

W.H.O. Classification-

- -10 dBHL to 25 dBHL – Normal Hearing Sensitivity
- 26 dBHL to 40 dBHL – Mild Hearing Impairment
- 41 dBHL to 55 dBHL – Moderate Hearing Impairment
- 56 dBHL to 70 dBHL –Moderately Severe Hearing Impairment
- 71 dBHL to 90 dBHL –Severe Hearing Impairment
- 91 dBHL and above –Profound Hearing Impairment

According to Goodman

- -10 dBHL to 15 dBHL – Normal Hearing Sensitivity
- 16 dBHL to 25 dBHL – Minimal Hearing Sensitivity

- 26 dBHL to 40 dBHL –Mild Hearing Impairment
- 41 dBHL to 55 dBHL – Moderate Hearing Impairment
- 56 dBHL to 70 dBHL –Moderately Severe Hearing Impairment
- 71 dBHL to 90 dBHL –Severe Hearing Impairment
- 91dBHL and above –Profound Hearing Impairment

Mild Hearing Loss:

- They range between 26 db to 40 db
- Speech and language development are within normal limits.
- May have difficulty in hearing faint speech and distant speech.
- Sometimes may exhibit problem in auditory perception.
- Hearing aid is beneficial.
- No difficulty in school situation.

Moderate Hearing Loss:

- They range between 41 db to 55db.
- Speech and language developments are little affected.
- Difficulty with rarely used words.
- Minor differences in meaning of words.
- Defective in articulation.
- Reading and writing are delayed.
- Voice quality is normal.
- Need early speech and language training.

Moderately Severe Hearing Loss:

- They range between 56db to 70db
- Grammar, vocabulary, articulation and voice are affected.
- Only loud speech can understood.
- Show difficulty in understanding.
- Needs special assistance in reading and writing.
- Needs individual attention.

Severe Hearing Loss:

- They range between 71db to 90 db ▪ Speech and language may be impaired.
- High-pitch voices.
- Articulation disordered.
- May able to identify environmental sounds.
- Needs special schooling.

Profound Hearing Impairment:

- They range between 91db and above
- Cannot hear conversational speech.
- Communication mostly through gestures.
- Voice and articulation are greatly affected.
- They hear only high pitched sound like thunder, explosion etc.
- Required regular speech and language training.
- Needs special schooling and vocational guidance.

On the basis of cause:

- Exogenous Hearing Impairment: This type of hearing impairment occurs due to all factors except or other than heredity. The factors are-

- (a) Prenatal causes
- (b) Natal causes
- (c) Postnatal causes
- (d) Infections
- (e) Noise
- (f) Aging

- Endogenous Hearing Impairment: This type of hearing impairment occurs due to heredity factors.
- Idiopathic Hearing Impairment: This type of hearing impairment occurs due to unknown factors.

Need of the Study:

Typically students with hearing impairments have profound hearing impairment, which implies very little or no hearing. Early identification of hearing impairment and intervention is a major issue in India, results the poor academic & speech level so they use sign language for communication. Communication is a key attribute of any entry, it play an imperative role in our life style. Without interaction we cannot communicate. Fertile interaction of students with hearing impairment has been affected due to their academic level. Children with hearing impairment (CWHI) who were early identified with getting good interventional services or fitting cochlear implant were placed in inclusive school setting. Early intervened CWHI depends on oral or auditory clues for communication. Late identification of hearing impairment and not availability of ideal interventional services in all places in India results low academic level and communication between students with hearing impairment and person with normal hearing. This communication gape creates lots of barriers in her/his role and life style. An investigation needed how academic

level impacts interaction and life style of students with hearing impairment in all aspects of life style.

Objective of the Study

The objectives of this study were as follows:-

- To study the impact of academic level on interaction between students with hearing impairment and person with normal hearing.
- To identify the barriers to interaction between students with hearing impairment and person with normal hearing.

Research Question of the Study

The Research Questions of this study were as follows:-

- What are the impacts of academic level on interaction between students with hearing impairment and person with normal hearing?
- What are the barriers to interaction between students with hearing impairment and person with normal hearing?

Review of Literature:

Brandão M. P., Pimentel F. L., & Cardoso M. F. (2011) conducted a study on Impact of academic exposure on health status of university students. The objective of this study was to assess the impact of academic life on health status of university students. This study was Longitudinal study including 154 undergraduate students from the Universidade de Aveiro, Portugal, with at least two years of follow-up observations. Socio-demographic and behavioral characteristics were collected using questionnaires. Students' weight, height, blood pressure, serum glucose, serum lipids and serum homocysteine levels were measured. Regression analysis was performed using linear

mixed-effect models, allowing for random effects at the participant level. Result revealed that a higher rate of dyslipidemia (44.0% vs. 28.6%), overweight (16.3% vs. 12.5%) and smoking (19.3% vs. 0.0%) among students exposed to the academic life when compared to freshmen. Physical inactivity was about 80%. Total cholesterol, high density lipoproteincholesterol (HDL-C), triglycerides, systolic blood pressure, and physical activity levels were significantly associated with gender ($p < 0.001$). Academic exposure was associated with increased low density lipoprotein-cholesterol (LDL-C) levels (about 1.12 times), and marginally with total cholesterol levels ($p = 0.041$). This study also suggested that high education level does not seem to have a protective effect favoring a healthier lifestyle and being enrolled in healthrelated areas does not seem either to positively affect students' behaviors. Increased risk factors for non-transmissible diseases in university students raise concerns about their well-being. These results should support the implementation of health promotion and prevention programs at universities.

Musarat Azhar et al (2014) conducted a study on Impact of Parental Education and SocioEconomic Status on Academic Achievements of University Students. This study examined the ways in which student's academic achievements are effected by parental education and their socio-economic status. Participants were 250 students taken from randomly selected departments and research findings are to be generalized to the University of Sargodha students. Students were selected from M.A 3rd level with the demographic information of gender, roll no and department. Data is collected from participants through questionnaire which contains three basic variables. Parental education and Socio-economic status are independent variables and student's achievement is dependent variable. Analysis of data indicates that students belonging to strong financial status perform better than those who face problems in finance. Similarly, parental education boosts up their children's performance.

Marschark et al. (2015), found that Students with hearing impairment face numerous challenges in academic settings; these students often struggle with language development, which can impact their reading comprehension and written expression. This linguistic gap can lead to academic delays compared to their hearing peers.

S.K. Mishra and Pallavi Kulushrestha (2020), conducted a comparative research study involving 52 deaf individuals (26 male, 26 female) and 52 hearing individuals (26 male, 26 female). Their findings revealed significant differences in the levels of depression, anxiety and quality of life and social challenges faced by the deaf community, largely due to linguistic inaccessibility, impacting education, employment, family, and social life, likely contribute to elevated depression and anxiety levels and a considerable negative impact on their overall quality of life. This pioneering study received an overwhelming response from the deaf community, highlighting a strong desire for more accessible psychological tests and professional counseling services. The authors strongly advocate for further research to shed light on the mental health challenges confronting the deaf community and emphasise the urgent need for greater awareness and the establishment of accessible research and counseling centers tailored to their unique communication needs.

Ranganathan and Rastogi (2020), conducted a study in Delhi schools, revealing that hearingimpaired students faced significant challenges in both academic performance and social interactions. They found that these students often struggled with classroom participation and group activities, impacting their overall educational experience.

Methodology

Setting:

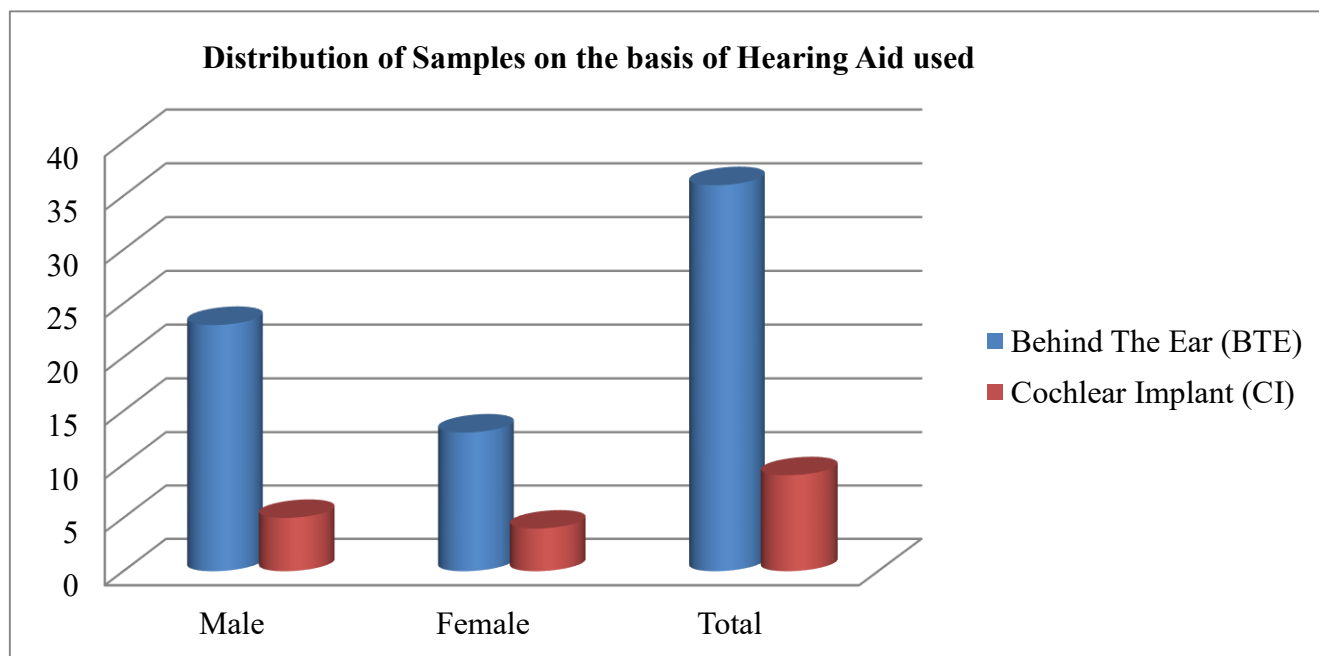
Data was collected from the students enrolled in different schools in Sonipat a district of Haryana, India. These schools are running special school for Divyangjan with hearing impairment and also running inclusive schools since above last ten years. The consent was obtained from the schools, participants, teachers and parents of participants also to conduct the research.

Sampling:

There was forty five students participated in this study. Out of these forty five participants twenty eight were male and seventeen were female. Among these 45 thirty six were using behind the ear (BTE) hearing aid and rest nine were fitted cochlear implant (CI). Samples were also distributed on the basis of their school settings. Eighteen participants had studied at special school focusing oralism philosophy and twenty seven participants had studied at special school focusing on total communication philosophy. All participants have good lip reading and face reading skills and interested to communicate with oral language in their school era.

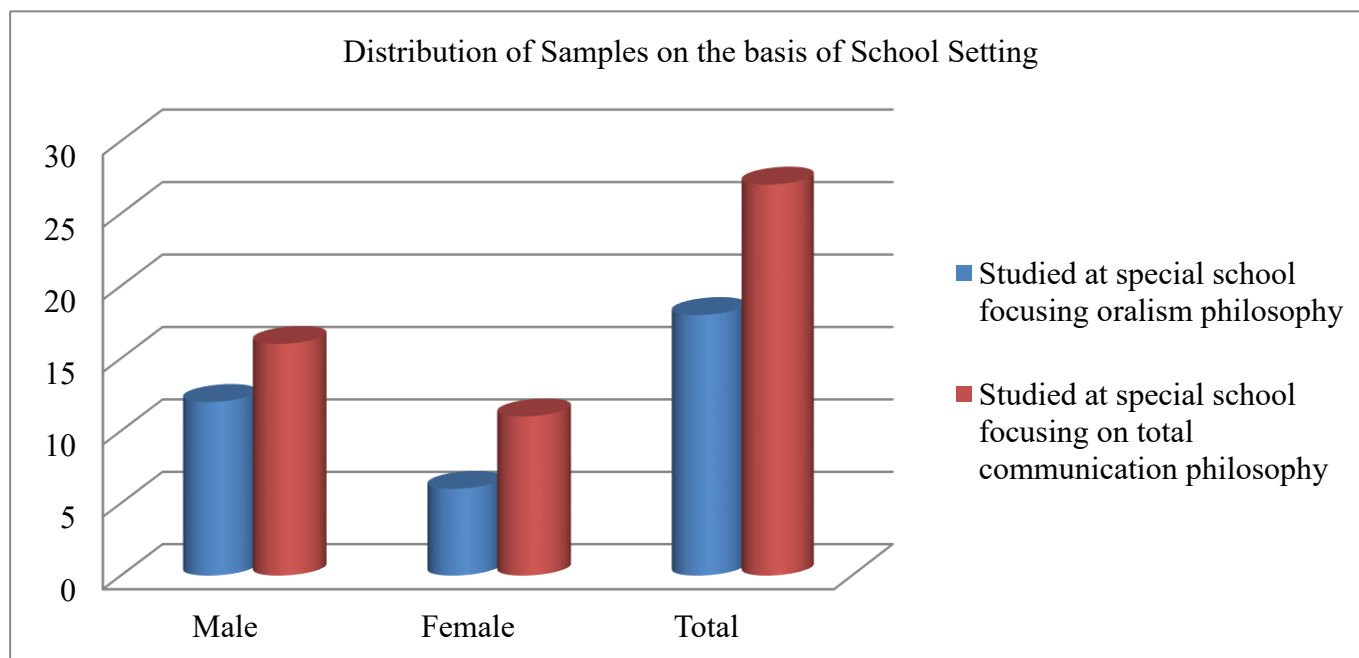
Distribution of Samples- On the basis of Hearing aid used

Gender	Behind The Ear (BTE)	Cochlear Implant (CI)
Male	23	05
Female	13	04
Total	36	09



On the basis of school setting

Gender	Studied at special school focusing oralism philosophy	Studied at special school focusing on total communication philosophy
Male	12	16
Female	06	11
Total	18	27



Data collection and Analysis Procedure:

Data was collected via spontaneous interview questions. Interviews were conducted in to four phases ten, ten, fifteen and ten participants was participated in first, second, third and fourth phase respectively. Interview was done one by one participant via physically at their work places. There were no standard interview questions constructed. The interview questions were based on objectives of the study and spontaneous questions can be asked about the context and repeatedly asked until get the accurate information till meet the objective of the study.

Result and Discussion:

The responses of the participants were analyzed to see the impact of academic level on life style of students with hearing impairment with reference to their interaction with others. Through spontaneous interview questions following impacts were come out and summarized from the participants.

Impact Related to Hearing Device-

- Participants of this study were BTE & CI user.
- CI user participants show better interaction & good academic level than BTE user participants.
- CI user participants have better understanding of interaction between others than BTE user participants.
- Through spontaneous interview questions participants were shows negative impact of BTE hearing device and the positive impact of CI as they use.

Impact Related to Academic Skills-

- Participants of CI user have better speech & language skills than BTE user.
- CI user has more friends compare with BTE user.
- CI user has better performance in academic as well as non-academic activities than BTE user at school.
- CI user has given more preference to higher education than BTE user.

Impact Related to Social Skills-

- Early identified with CI user participants shows better interaction skills than BTE user participants.
- The involvement in family and social events CI user participants shows better performance than BTE user.

Barriers to Interaction-

After conducting interviews with participants the following barriers was emerged-

- Late identification & intervention of hearing impairment shows more negative impact in academic level and all aspects of life style.

- Non availability of better support services like appropriate listening devices, schools, lack of subject experts near all population impacted negative in academics and all aspects of life style.
- Additional disability was a major barrier to academics & other aspects of life style.

Summary

The present study revealed that poor interaction with others has been badly impacted to academic level related life style of students with hearing impairment. Early identification of hearing impairment and fitting cochlear implant reduces the barriers to all aspects of life style. Additional disability, lack of ideal acoustic environment at school as well as society has badly impacted all aspects of life style of students with hearing impairment.

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