



Characterization of Auditory Disability and Its Relation to the Resilience: Technical University of Manabí



Bibian Bibeca Bumbila García ^a
Hernán Andrés Cedeño Cedeño ^b
Tatiana Katiuska Moreira Chica ^c
Yaritza Rossana Parrales Ríos ^d

Article history:

Received: 10 July 2017

Revised: 15 January 2018

Approved: 20 January 2018

Published: 29 January 2018

Keywords:

Resilience;

Adaptation;

Dimensions;

Auditory disability;

Abstract

The objective of the work is to establish the characterization of the auditory disability and its relationship with resilience at the Technical University of Manabí. The article shows a conceptual analysis related to the inclusion and social integration of disabled students. Based on the fact that the person with disabilities grows and develops in the same way as that of people without disabilities and what usually happens is that disabled people are rejected and discriminated against based on a prefabricated and erroneous conceptualization of these people. The results associated with the application of the SV-RES test prepared by the researchers are shown (Saavedra & Villalta, 2008b). Characterization of the auditory deficit is made in the students, and the limitations that derive from it are pointed out. We analyze the particularities related to communication with students who have a hearing disability and resilience in this type of student, where some personal highlights that in this sense constitute an example of resilience. Finally, the results related to the study of the relationship between students' hearing disability and the level of resilience dimensions are shown.

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Author correspondence:

Bibian Bibeca Bumbila García,

Teacher of the Department of Social Sciences and Behavior

Universidad Técnica de Manabí, Portoviejo, Manabí, Ecuador

Email address: bbumbila@utm.edu.ec

1. Introduction

The issue of the inclusion of students with disabilities in the university is gaining strength each day, as a result of the interaction of multiple causes, among which the demands of the university students with disabilities are relevant. The principles in which this movement is framed are related to equal opportunities and the integration of

^a Teacher of the Department of Social Sciences and Behavior Universidad Técnica de Manabí, Portoviejo, Manabí, Ecuador

^b Master in Clinical Psychology, Professor of the Faculty of Humanistic of the Universidad Técnica de Manabí

^c Teacher of the Social Work Career of the Universidad Técnica de Manabí

^d Graduate, Faculty of Humanistic of the Universidad Técnica de Manabí

students with disabilities in the university environment. Its ramifications extend to physical and social barriers and a whole series of obstacles, sometimes imperceptible for the non-disabled, which hinder their inclusion and hinder their training process.¹

The social integration of people with disabilities is currently a topic of discussion and relevance in different contexts of society. According to to², talking about disability is complex, due to the difficulty of having figures and instruments that allow knowing the reality of people with some disability condition. In Latin America, there are about 50 million people with disabilities³, and its prevalence is very different from one country to another. In this context, there is a need to promote not only services and institutions that promote social or school integration, but also the abilities and learning processes of children, youth, and adults who have some special educational need derived from a disability. In fact, one of the challenges for the coming years is to facilitate and enrich the teaching-learning processes of young people in universities, to promote their full development and participation in society.

Sometimes, accessibility to education for people with developmental disorders and, in particular, for those associated with a disability becomes somewhat complex. The preceding is because regular education systems are not always prepared to grant adequate learning spaces that are relevant to their demands. It creates the need to have tools that allow educators to empower the most descended areas to give adequate answers to the demands of the school curriculum. In the perspective of current paradigms of inclusion, integration, and education for all, the evaluation of cognitive processes should aim at the creation of attitudes and the acquisition of knowledge and skills that allow the attention of students, considering all human diversity. There is ample evidence regarding the need for teachers to use teaching strategies for students with some disability, and challenges are more relevant for those who have a hearing disability.^{3,4,5} Therefore, from what has been stated, it is important to know how to enhance the teaching-learning processes in people with special educational needs.

The international classification of the functioning of disability and health⁶ establishes that disability is the result of the interaction. The person who presents a deficiency before the physical and attitudinal barriers of their environment; being, precisely, the negative attitudes and prejudices, aspects. It can suppose important obstacles for their social inclusion,⁷ motivating at the present time the investigation on the subject.² But it is not only the attitude of others that determines their integration but the perception of oneself that the disabled person has. It is very important the sense of self-efficacy of the person to successfully perform the necessary behavior and produce certain results about something that interests him, being noteworthy the role that plays in the self-concept, since it determines expectations, conditioning the behavior.⁸

According to⁸, the "I" of people with disabilities grows and develops in the same way as that of people without disabilities. What happens is that, often, they receive negative influences, confronting each other from childhood, in many cases, social rejection and negative experiences in interpersonal relationships, which devalue and frustrate. These circumstances lead to the hypothesis that people with disabilities are a group at risk of developing a negative self-concept.

2. Research Methods

The research methodology selected for the implementation of the work has been descriptive, and cross-sectional. Based on the application of a test as a form of information collection, since the main purpose is to systematically describe facts and characteristics of a population given or area of interest, objectively, and verifiably.⁹ These studies are very appropriate in the educational field. Especially, when working with some participants, there is difficulty in accessing the totality of opinions. Because it allows collecting detailed factual information describing the situation of disabled and non-disabled university students. , make comparisons and evaluations, make decisions and plan future action proposals. The investigative techniques associated with the performance of the SV-RES test prepared by the researchers¹¹, which allowed the study, were applied. This instrument is based on the evaluation of 12 dimensions, which allow verifying the situation according to three scales: high, average and low. The dimensions correspond to the following: the identity; autonomy; satisfaction; pragmatism; link; networks; Models; goals; affectivity; self-efficacy; learning and; generativity.

The study is of a quantitative-descriptive nature, of primary data sources, transactional in the collection of information, micro-sociological in its sample coverage. The fields of study are psychology and society. The sample is intentional, looking for the attributes necessary for the study

3. Results and Analysis

The population is composed of 88 students with disabilities, and the sample is composed of 21 young people with hearing disabilities, all enrolled in different careers at the Technical University of Manabí. Figure 1 shows a graph that indicates the number of students with hearing impairment by careers.

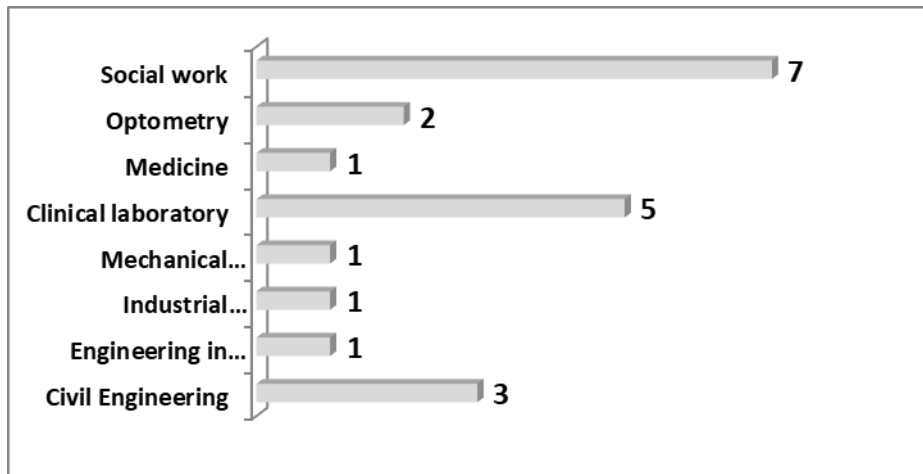


Figure 1. Students with hearing disabilities by careers

Of the total number of students with hearing impairment, 9 are women for 42.86%, and 12 are men for 57.14%. With ages between 18 and 33 years. They were classified according to the stage at which they acquired the disability, corresponding 15 young people with acquired disability from birth to 71.43% and 6 with disabilities for the 28.57%. Depending on the degree of hearing impairment, they are distributed as shown in figure 2.

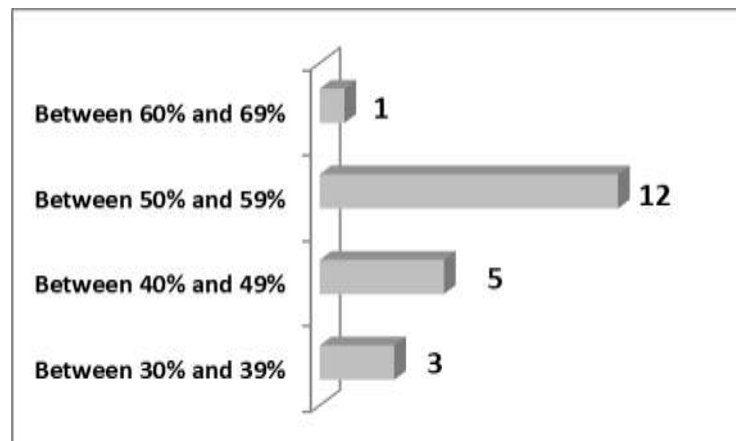


Figure 2. Distribution according to the degree of hearing impairment Fuente: Elaborado por los autores del trabajo

It can be seen that in no case is there a total auditory disability, the average disability predominates, which could positively influence the level of resilience of students who suffer from this type of disability

3.1 The auditory déficit

Hearing impairment means any hearing problem that, regardless of the location of the injury, the age at which it appears and the cause that originates it, which negatively affects the hearing. Thus, there will be people who can follow a conversation with relative ease, others with difficulty, others who only perceive some sounds and others who do not perceive any sound.¹¹

Differences in hearing and in the use of it lead to other distinctions that help to understand the needs of different groups better. Thus, in general, there will be a distinction between deafness and hearing loss.¹¹ Deafness refers to profound sensorineural hearing impairment (more than 90 decibels). This hearing loss prevents the perception of sounds of the environment and language, so it is necessary to use hearing aids such as hearing aids or cochlear implants. The term *hipoacusia* is also used to refer to the sensorineural hearing deficiency of variable degree, generally of severe or deep degree. Thus, you can find very different types of hearing impairment depending on the cause of the loss, the age at which it appears or the degree of it. There will also be differences between people with hearing problems depending on the individual amplification systems (hearing aids, cochlear implants) or the communication system (oral or sign language) they use. Therefore, among the university population, there will be university students with deafness who communicate in sign language, others who communicate in an oral language or even use the two forms of communication (bimodal).

The serious auditory deficit has important repercussions on the general development of the person and great conditions the educational alternatives that are to be taken. It must be borne in mind that in many cases students with the auditory deficit will find in the classroom, together with their normal-hearing peers, the most suitable setting for their development. Others may be harmed by the disadvantage represented by their disability about others. But the truth is that they all need concrete action, specific and careful attention and the application of certain pedagogical strategies. Often, the teacher does not know how to act.

From the situation analyzed above, several disadvantages are going to be harmed the teacher, peers and above all of them, the student who has a hearing disability. In spite of everything, to the undoubted errors and limitations, the expectations that today are offered to the educational and therapeutic attention of the student with severe or profound auditory disability are being extended in a remarkable and highly positive way for the person with a disability and those responsible of his education.

The teacher and the university authorities should be realistic and consider that despite the medical and specialized care received by the disabled youth, nothing will eliminate the hearing loss. None of the treatments and technological means restore the hearing nor suppress its consequences. A student with the auditory deficit is not a listener. He will continue to be disabled and needs concrete pedagogical and environmental aids and a different treatment.¹²

3.2 Communication with students who have a hearing disability

Hearing problems are not evident in the environment, in the same way, that difficulties of mobility or vision can be. Hearing loss is an invisible disability, except in the case of sign language users. Thus, it is highly probable that you do not realize that you are talking to a person with a hearing disability if they do not communicate it to you. For this reason, it is recommended that you investigate directly with the student to get to know each other, know which communication strategies can be more effective and what your needs are to complete and pass the academic course.

If, the student communicates orally. He/she must make sure to attract their attention before beginning oral communication; always talk face to face, making it with a normal rhythm, neither fast nor slow, without shouting, not covering your mouth with a pen or your hand, or having anything inside it (chewing gum, caramel). In order to allow the lip reading. Care must be taken that the face is well lit and that the sun or the spotlights do not dazzle the person with a hearing loss to facilitate lip reading, if necessary. If you notice that the person does not understand something, repeat it or express it differently. It is important to be able to give explanations with short and concise sentences. Make sure that the person understands what is being stated by asking open questions that demonstrate their understanding. You have to try to be expressive with your face and your voice. If necessary, use gestures or resort to writing to make yourself understood. If the teacher finds it difficult to understand what the deaf person tells him, he should be made aware. Use technical aids, such as Frequency Modulated (FM) or magnetic induction transmission systems.

Keep in mind that if the student with hearing disabilities uses sign language to communicate they may need a sign language interpreter, paper, and pencil, a magic board or any other system that allows them to communicate in written form.

3.3 Resilience in people with hearing disabilities

There are several resilient examples of people with hearing disabilities¹³:

Resilience is the ability of a person or group of people to recover from adversity and continue to project their future. A characteristic or attitude that allows those who are involved in a complicated situation to take something

positive out of the tragedy. There are inspiring and transcendent lives like that of Hellen Keller, deaf-blind who became an example of overcoming and courage, a symbol of struggle for the rights of people with disabilities.¹³

Also lived by Malala Yousafzai that led him to obtain the Nobel Peace Prize in 2014. In 2012 she suffered an assassination attempt to defend her ideas, and after overcoming the wounds, today with a device in her left ear, she is inspired to who fight for human rights. Another of the most notable examples is inspired by one of the most popular and important works of music and art, the 9th symphony of Beethoven, was written by the German composer when he faced his hearing loss and had overcome the death of his mother, your father's alcoholism, economic problems and more. To deal with the deafness, Beethoven went to the resources of the time, without success. Today it follows that it was otosclerosis, fixation of the chain of ossicles that eventually also involves the cochlea. The alternatives to this ailment came decades after the death of the musician.

Maurice Sourdille, who was the first surgeon to achieve durable hearing gain with a surgical procedure, proposed in 1929. While the hearing aid was born at the beginning of the 20th century. Thanks to electric amplifiers. Today the stirrup surgery offers 95% success, and for those who have limitations for surgical resolution, digital hearing aids are an excellent alternative that allows you to enjoy the nuances of music, to hold conversations even in noisy environments, among other benefits. Other illustrious deaf people like Goya, prodigious genius of Spanish painting; Juan Jacobo Rousseau, a political philosopher with contributions to education. Many others masterfully collected in the book of Count Jhanz on characters who managed to stand out in their lives as artists, politicians, inventors or scientists despite the hearing loss, represent examples of resilience to imitate

The exemplary behavior of these illustrious characters with diminished hearing can be an example and encouragement in the face of adversity. Because before the inconveniences of life, you have two options: let yourself be overcome and feel the failure or overcome and emerge strengthened, betting on resilience.

Determining the relationship between hearing impairment and resilience. The SV-RES test prepared by the researchers¹⁴ was applied to the 21 disabled students who are the object of the study, wherein the following results. Figure 3 shows the result of the statistical analysis related to the study of the resilience of young people with hearing disabilities

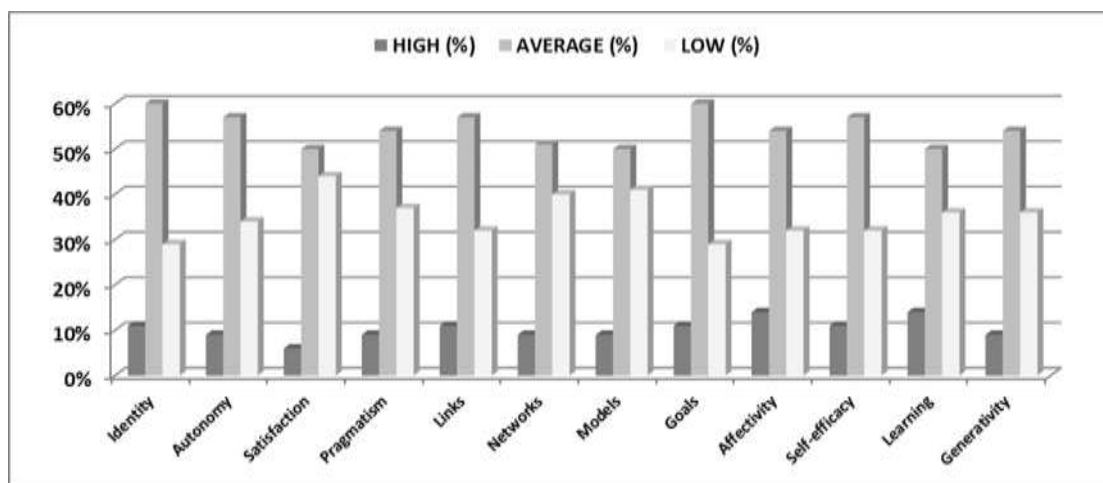


Figure 3. Resilience in young people with hearing disabilities

Through, the results of the test it was possible to verify that there is a close relationship between the level of resilience and the degree of disability of the students. Since the number of students with a high level of resilience is relatively proportional to the number of students, they present between 10% and 39% of disability. In the same way, it happens with those who present a high degree of disability, who manifest proportionality about the level of low resilience.

4. Conclusion

The work allowed to determine the existing relationship between the degree of the students' hearing disability and the level of resilience, being able to verify that the greater the degree of disability, the resilience is usually lower. Considering that the auditory disability is a type of disadvantage that in the personal physical aspect can be

compensated with technical means. Nevertheless taking into account the incidence that it represents the level of resilience of the students, it is important the consideration of a psychological support through Resilience activities that allow strengthening the resilience dimensions of students with this disability.





Acknowledgements

The author would like thank I Wayan Suryasa and Prof. María Rodríguez Gámez, Ph.D. for their valuable time and advice for completing the article.

References

1. León, A. A., Alcedo, R. M. Á., González, G. M., García, C. L., Cuervo, U. J., Real, C. S., & Casares, L. M. J. (2006). La Universidad de Oviedo y los estudiantes con discapacidad. *Psychosocial Intervention*. Versión Online ISSN 2173-4712. Versión impresa ISSN 1132-0559. *Psychosocial Intervention*, vol.15 no.1 Madrid 2006.
2. Polo, M. T., Fernández, C., & Díaz, C. (2011). Estudio de las Actitudes de Estudiantes de Ciencias Sociales y Psicología. Relevancia de la Información y Contacto con Personas Discapacitadas. *Universitas Psychologica*, 10 (1), 113-124.
3. Tenorio, S., & González, G. (2004). Integración escolar y efectividad en la escuela regular chilena. *Revista Digital Umbral 2000*, N° 16 [en línea]. Disponible en: <http://www.galeon.com/documentosmc/integracion.pdf>.
4. Ainscow, M. (2005). Para comprender el desarrollo del sistema educativo inclusivo. *Revista electrónica de investigación psicoeducativa y psicopedagógica*, 3(7), [en línea]. Disponible en: <http://www.investigacion-psicopedagogica.org/revista/new/ContadorArticulo.php7109>, 5-20.
5. Muñoz, M. (2005). Evaluación de la experiencia en integración escolar de niños y niñas con necesidades educativas especiales de un hogar de menores de Talca. Ponencia presentada en el 4o Encuentro Internacional de Educación Especial y Psicopedagogía, Universidad Católica del Maule, Talca.
6. OMS. (2001). Clasificación Internacional del Funcionamiento de la Discapacidad y de la Salud. Madrid: Ministerio de Trabajo y Asuntos Sociales
7. CERMI. (2003). Discapacidad y exclusión social en la Unión Europea. Tiempo de cambio, herramientas para el cambio. Madrid: Comité Español de Representantes de Personas con Discapacidad - CERMI.
8. Buscaglia, L. (1990). Los discapacitados y sus padres. Buenos Aires: Emecé.
9. Balluerka, N., & Vergara, A. I. (2002). Principales alternativas metodológicas y diseños en Psicología. Una perspectiva general. En N. Balluerka & A. I. Vergara, Diseños de investigación experimental en psicología. Modelos y análisis de datos mediante el SPSS 10.0. Madrid: Pearson Educación, 5-10.
10. Samaniego, P. (2006). Aproximación a la realidad de las personas con discapacidad en Latinoamérica. Consultado el 15 de diciembre de 2017. Disponible en: <http://www.discapnet.es/NR/rdonlyres/etu4ssf6xo2urdc573onpe7utnsygawzctu4z6it76igeuw3bgdmok4ioouzjr7yff27y7ecmdgs4f/>.
11. a.g.bell. (2017). La Discapacidad Auditiva en el Entorno Universitario. Consultado el 10 de diciembre de 2017. Disponible en: <http://www.oiresclave.org/index.php?option>.
12. Ramos, B. S. (2013). Alumnos con discapacidad auditiva. Necesidades y respuesta educativa. Escuelas católicas. Desafíos de la diferencia en la escuela, Disponible en: <http://www2.esuelascaticas.es/pedagogico/Documents/auditivos%205.pdf>.
13. Ledezma, J. G. (2017). Discapacidad auditiva y resiliencia. El Carabobeño. Consultado el día 25 de diciembre de 2017. Disponible en: <https://www.el-carabobeno.com/discapacidad-auditiva-resiliencia/>.
14. Saavedra, & Villalta. (2008a). Escala de resiliencia SV-RES. Para jóvenes y adultos. CEANIM. Consultado el 20 de octubre de 2017. Disponible en: https://www.academia.edu/26343874/Saavedra_Villalta_SV-RES60_ESCALA_DE_RESILIENCIA-SV-RES.
15. Jurado, W. C. C., Pérez, A. V. P., Quiroz, A. M. V., & Gámez, M. R. (2017). Environmental Impact On Electrical Networks Near The Manabita Litoral. *International Journal of Life Sciences (IJLS)*, 1(2), 18-27.
16. Parihar, K. S., Dahiya, R., Billaiya, R., & Jain, P. (2017). Effect of Nuclear Family in Participation of Activities. *International Journal of Health Sciences (IJHS)*, 1(1), 28-35.
17. Arauz, W. M. S., Cedeño, G. I., Chávez, S. S., Pérez, A. V., & Gámez, M. R. (2017). Microgrid With a 3.4 kWp Photovoltaic System in the Universidad Técnica de Manabí. *International Journal of Physical Sciences and Engineering (IJPSE)*, 1(2), 11-20.
18. Omer, A. M. (2017). Sustainable Development and Environmentally Friendly Energy Systems. *International Journal of Physical Sciences and Engineering (IJPSE)*, 1(1), 1-39.
19. Folke, C. (2006). Resilience: The emergence of a perspective for social-ecological systems analyses. *Global environmental change*, 16(3), 253-267.
20. Gallopín, G. C. (2006). Linkages between vulnerability, resilience, and adaptive capacity. *Global environmental change*, 16(3), 293-303.
21. Cutter, S. L., Barnes, L., Berry, M., Burton, C., Evans, E., Tate, E., & Webb, J. (2008). A place-based model for understanding community resilience to natural disasters. *Global environmental change*, 18(4), 598-606.

Biography of Authors

	<p>Bibian Bibeca, Degree in Psychology and Vocational Guidance Ph.D. in Pedagogy, Master in Management and Educational Leadership. A student in the doctoral program in sociological sciences and local development. Santa Clara, Cuba. Teacher of the Department of Social Sciences and Behavior of the Universidad Técnica de Manabí.</p>
	<p>Hernán Andrés, Clinical Psychologist, Master in Clinical Psychology, Professor of the Faculty of Humanistic of the Universidad Técnica de Manabí.</p>
	<p>Tatiana Katuska Moreira Chica, Teacher of the Social Work Career of the Technical University of Manabí Liaison with the Community Coordinator of the Universidad Técnica de Manabí</p>
	<p>Yaritza Rossana, Graduate, Faculty of Humanistic of the Universidad Técnica de Manabí</p>