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Literature review :Orientation and mobility assistive devices for children with visual impairment

Ms Sanjana Mittal
Deputy Director
AIRSR

Abstract

Inspite of the fact that orientation and mobility is a significant factor determining quality of life of people for low vision or blindness there are no standard measures or agreement on how to measure performance in the first part of this systematic review an inventory of outcome measures used by recent studies to assess the performance of orientation and or mobility of adults with vision impairment low vision and blindness is presented a wide variety of outcome measures have been implemented in different fields of study such as epidemiologic research and interventional studies evaluating training assistive technology vision rehabilitation and vision restoration the most frequent aspect of outcome measures is efficiency such as time distance speed and percentage of preferred walking speed followed by obstacle contacts and avoidance and disorientation and veering other less commonly used aspects are target identification safety and social interaction and self-reported outcome measures some studies employ sophisticated equipment to capture and analyse performance in a laboratory setting while others carry out their assessment in real-world indoor or outdoor environments in the second part of this review the appropriateness of implementing the identified outcome measures to assess performance in clinical and functional practice is evaluated nearly a half of these outcome measures meet all four criteria of face validity either clinical or functional responsiveness reliability and feasibility and have the potential to be implemented in clinical or functional practice the findings of this review confirm the complicated and dynamic nature of multiple measures are required in any evaluation of performance to facilitate holistic assessment of abilities and limitations of each individual keywords assistive technology mobility orientation blind introduction the development of human life in this era cannot be separated from one word namely technology is a means or system that can provide convenience and comfort for all humans technological developments cover various fields in human life so as to produce various technologies so that they can be used as tools to achieve human goals in order to participate in education work and family and community life several kinds of technology are often used today such as computers laptops smartphones and other electronic machines furthermore assistive technology or assistive technology refers to assistive products and related systems and services developed for people to maintain or improve functioning so as to improve well-being among the people who generally need assistive technology are the elderly the disabled and people living with chronic conditions further for persons with disabilities assistive technology includes any item equipment or product that is used to enhance and maintain functional abilities assistive technologies including low vision devices hearing aids and augmentative and alternative communication systems walking frames wheelchairs and prosthetic limbs further for persons with disabilities assistive technology includes any item equipment or product that is used to enhance and maintain functional abilities assistive technologies including low vision devices hearing aids and augmentative and alternative communication systems walking frames wheelchairs and prosthetic limbs further for persons with disabilities assistive technology includes any item equipment or product that is used to enhance and maintain functional abilities assistive technologies including low vision devices hearing aids and augmentative and alternative communication systems walking frames wheelchairs and prosthetic limbs tangcharoensathien v witthayapipopsakul w viriyathorn s 2018 without assistive technology persons with disabilities and the elderly and others in need are often discriminated against isolated and confined to poverty and the burden of morbidity and disability increases who 2018 based on statistical data submitted by the who it shows that there are about 253 million people with visual impairments as well as 36 million total blindness and 217 million have average to severe visual impairments who 2017 the various backgrounds of the blind persons seem to be to responsible some people have congenital blindness which has existed in them since birth then the others occurred when they were still teenagers or even adults these events were triggered by a variety of circumstances including illness accidents reading habits and blindness which

is an underlying cause jendriadi et al 2018 vision is a very important system for humans to understand the outside world because 85 of information can be obtained through the sense of sight suharmini 2009 where this is very influential on cognitive and affects the progress of spatial perception gori m et al 2016 a visual impairment is an abnormality in the vision that makes it necessary to employ other senses to comprehend an item pahlawaty aprilia 2022 in addition the impact of vision loss may be implied by limitations in independent mobility lamoureux et al 2004 orientation and mobility abilities is the ability of individuals to move from one place to the destination safely yosfan azwadi 2004 rahayu sunardi 2018 furthermore in order to get to their destination safely they need tools fulfillment of assistive devices for persons with disabilities in Indonesia in accordance with law no 16 of 2008 chapter 3 article 5 has rights including the right to accessibility public services and to live independently and be involved in the community the number of blind people is increasing assistive technology assistive devices have become a big demand over the last few years dakopoulus d and ng bourbakis 2009 orientation and mobility aids are currently common and often used such as guide dogs watchdogs companions and canes of which canes are the most popular and frequently used tools for blind people batman 2018 likewise in Indonesia sticks are the main choice used to assist orientation and mobility according to mukarami in milati 2019 sticks have functions including

1 can reduce the assistance of alert people
2 as a tool used to detect direct obstacles such as detecting stairs and determining a place location
3 for protection for the blind so that skills in using a cane can make the blind person able to move from one place to the destination independently fluently

and more easily understand the environment however the use of sticks also has drawbacks namely the information provided regarding the position of obstacles or obstacles is still very limited based on the findings from various disciplines various devices have been developed that help to complete activities in daily life not only that many assistive technology findings have been developed for the blind to access public services such as terminals subways shopping areas and others this is in accordance with the regulation of the minister of public works number 30 prt m 2006 related to the technical guidelines for facilities and accessibility in buildings and the environment which contains the provision of facilities and accessibility related to infrastructure in buildings and their environment based on the existing regulations it can be interpreted that although the orientation and mobility abilities of the blind are good they still need instructions in the form of clues or instructions in the form of visual auditory kinesthetic tactile stimuli aroma temperature which serve to facilitate the user raharja 2010 therefore based on the background that has been raised regarding assistive devices for the blind in orientation and mobility after studying and analyzing in depth this article aims to examine more related to assistive technology for the blind in navigating indoors and outdoors including buildings and accessibility of public services sourced from relevant articles between 2011 and 2022

raised regarding assistive devices for the blind in orientation and mobility after studying and analyzing in depth this article aims to examine more related to assistive technology for the blind in navigating indoors and outdoors including buildings and accessibility of public services sourced from relevant articles between 2011 and 2022 section for the blind so that skills in using a cane can make the blind person able to move from one place to the destination independently fluently and more easily understand the environment however the use of sticks also has drawbacks namely the information provided regarding the position of obstacles or obstacles is still very limited based on the findings from various disciplines various devices have been developed that help to complete activities in daily life not only that many assistive technology findings have been developed for the blind to access public services such as terminals subways shopping areas and others this is in accordance with the regulation of the minister of public works number 30 prt m 2006 related to the technical guidelines for facilities and accessibility in buildings and the environment which contains the provision of facilities and accessibility related to infrastructure in buildings and their environment based on the existing regulations it can be interpreted that although the orientation and mobility abilities of the blind are good they still need instructions in the form of clues or instructions in the form of visual auditory kinesthetic tactile stimuli aroma temperature which serve to facilitate the user raharja 2010 therefore based on the background that has been raised regarding assistive devices for the blind in orientation and mobility after studying and analyzing in depth this article aims to examine more related to assistive technology for the blind in navigating indoors and outdoors including buildings and accessibility of public services sourced from relevant articles between 2011 and 2022

METHOD

A literature review research design that examines and critically examines existing knowledge, ideas, or findings in academically oriented literature, and formulates theoretical and methodological contributions covering certain topics (Cooper, 2010). According to Creswell (2008) literature review is an activity to summarize articles in journals and/or proceedings, books, and other documents that are relevant to the chosen topic. Literature review includes research results published from 2011 to 2021. The process in writing literature review articles according to Ramdhani, Amin & Ramdhani. (2014) revealed that there are four stages in making a literature review, namely (1) choosing a topic or theme to be reviewed, (2) finding and selecting suitable/relevant articles according to the topic of discussion, (3) carry out analysis and synthesis of literature and (4) organize review writing. So from this theory, in writing this article in the first stage, namely searching for journals in the database through electronic search for ERIC publications, Resnearch Gate,

Spinger Link, Sage, Science Direct, Google, Google Scholar. The search uses the keywords blind, assistive technology, orientation and mobility in English and Indonesian. The search results are 35 articles that can be accessed in full text in pdf and MSword formats. The second stage selects articles according to specific criteria according to the criteria, namely (1) types of assistive technology for orientation and mobility inside and outside the environment, (2) assistive technology to access existing public facilities such as public transportation and shopping centers. Stage 3 synthesis of the 20 selected articles were grouped into three categories, namely (1) assistive technology for the blind to orient and navigate indoors, (2) assistive technology for the blind to navigate outdoors or buildings, (3) assistive technology for blind people to access public services (public transportation and shopping centers). The next stage is descriptive analysis by doingregular parsing of the data that has been obtained, then given an understanding and explanation so that it can be understood. Data collection contains criteria according to the quality of the articles and their relevance to topics related to assistive technology for orientation and mobility for the blind. So from the discovery of the articleas many as 27 articles were used as references for writing articles as many as 20 articles and 7 articles were not used.

RESULT AND DISCUSSION

Result(s)

Writer	Brief Description	Function	Participants
Abreu, David., et al. (2020)	The smartphone app is used in conjunction with a white stick that has two senders connected to the smartphone via bluetooth	Road detection	25 blind people
Sánchez, Jaime. (2012	Development of video game audio and haptic interfaces that allow the stimulation of orientation and mobility skills in the visually impaired through the use of a virtual environment	Virtual navigation to real navigation	10 blind students
Besden, Cheryl. (2019)	Tactile map with bus guide book and use of PIAF (Pictures in a Flash) tactile drawings	Navigation and tactile	2 blind students
Sánchez, Jaime and Claudio Oyarzún. (2011)	Development of handheld applications that allow users to plan trips and provide contextual information during trips with voice output.	Direction and distance identification, position marking	4 blind people
Long, Shelby K., et al. (2016)	Portable maps can be accessed by users anywhere and provide feedback through hearing and touch.	Outdoor navigation and object detection	6 blind people
Maidenbaum, Shachar, et al. (2014)	implement a simple algorithm for blindness using a virtual wand, modeled on the electronic travel aid "EyeCane	Virtual navigation (indoor)	23 (20 myopic and 3 congenital blind
Karen, Duarte, et al. (2014)	Smartphone support systems and applications to help the visually impaired in shopping centers	Public building navigation (shopping mall)	n/a (prototype)
López, Diego, et al. (2011)	BlindShopping is a mobile based on RFID and QR codes to help the visually impaired shop at supermarkets	Public building navigation (shopping mall)	n/a (prototype)
Yi , Chucai, et al. (2013)	Object discovery prototype system with camera-based networking and match-based recognition	Navigation and object identification	n/a (prototype)
ubril, Abimbola M. and Segun J Samuel. (2021)	A multisensor fusion detection system that combines three techniques, namely: laser light source, camera and ultrasonic sensor.	Obstacle detection and warning system	20 blind volunteer
Liimatainen, Jukka, et al. (2012)	Blind user-centered application through the use of sensor technology	Navigation outside the neighborhood	11 blind student
Milati, Nur, et al. (2019)	The tool consists of four parts in the form of an ultrasonic sensor, a microcontroller (arduino), a stick, and earphones and a battery as a supplier of electrical energy	Navigation and prevent rain noise	6 blind students
Branig, Meinhardt and Christin Engel. (2019)	SmartCane is a combination of an ordinary stick with a robot ball	Navigation scenario	n/a (prototype)
Constantinos, P., et al. (2015)	Maps via multimodal applications using the power of haptic feedback devices	Place orientation and navigation	11 blind adults
Koukourikos, P. & Papadopoulos, K. (2015)	Maps with multimodal application and studied with low cost haptic device, Novint Falcon	Space form concept orientation	10 blind adults
Apprey, M., W., et al. (2022)	Blind Navigation System using Arduino and 1sheeld	Navigation and communication in the neighborhood	5 volunteers (blind-folded)
Velázquez, R., et al. (2018)	a new navigation system that combines GPS and tactile-foot stimulation to represent information	Navigation and tactile stimulation of the feet	20 students
Paiva, S., et al. (2021)	navigation application system that uses the dijkstra algorithm in its implementation	Navigation routes, taxi points, parking lots and city landmarks	6 students

Writer	Brief Description	Function	Participants
Chaudary, B., et al. (2017)	a tele-guidance navigation system for VIPs assisted by verbal instructions of remote caregivers receiving video from cameras brought by VIPs.	Navigation in the neighborhood	19 visually impaired
Fiannaca, A., et al. (2014)	HEADLOCK is designed for optical head mounted displays, such as Google Glass.	Navigation in the neighborhood	8 blind people

Discussion(s)

Assistive technology for orientation and navigation in the room The development of video games with audio and haptic interfaces with stimulation of orientation and mobility skills in visually impaired persons through the use of virtual environments in school-age blind students shows that playing and practicing with AHM improves the development of O&M skills in blind learners (Sánchez & Oyarzún, 2011). Development of object discovery prototype system with camera-based network and match-based recognition using SURF and SIFT point of interest detectors and descriptors (Yi et al., 2013). Development of the EyeCane assistive device for navigating down corridors, virtual-EyeCane identical stimuli to those rendered from EyeCane in the real world has the potential to increase the efficiency of navigation through new virtual-learned real-world environments (Maidenbaum et all., 2013). The development of an audio-tactile map will support the development of a cognitive route which in the trial results significantly better performance on Nerry, et al, Literature Review: Orientation and Mobility... 41 spatial tasks (Koukourikos & Papadopoulos, 2015). Development of three-dimensional (3D) tactile maps for orientation and mobility (O&M) training provided to visually impaired persons improves comprehension, memory, and walking along unfamiliar routes in comparison to the effect of verbal explanation alone (Papadopoulos et al., 2015).The development of HEADLOCK is designed for optical head mounted displays, such as Google Glass where the qualitative results show the design of wearable assistive devices for visually impaired users (Fiannaca et al., 2014). Assistive technology for navigating outdoors/buildings The development of EBAT technology with detection and avoidance of obstacles located in the path to be traversed demonstrated a significant reduction in the number of accidental contacts in the travel path and resulted in clear benefits by reducing participants' insecurities,(Abreu et al., 2020). A portable, anywhere-accessible map application to mark obstacles in the outdoor environment such as fallen trees, mud, possible wildlife, and holes (Long et al., 2016).

The development of an electronic multisensory tool that detects holes or obstacles combined with ultrasonic sensing, so that the presence of obstacles can be distinguished from holes, where the test results are users can receive and use the device properly (Jubril & Samuel, 2021). The development of an application prototype implemented for the Nokia 5800 touch screen phone with the Symbian series 60 operating system provides an effective approach to introduce students to pathfinding in the school environment (Liimatainen et al., 2012). The development of the INSTIBLIND tool to reduce rain noise which consists of four parts in the form of ultrasonic sensors, microcontrollers (arduino), sticks, and earphones and batteries as suppliers of electrical energy, the category is very useful for the visually impaired (Milati, 2019). The development of SmartCane by installing a robotic ball at the end of the stick and how to calibrate and control it automatically which the results of prototype trials can help the visually impaired navigate (Branig &Engel, 2019). The development of the Blind Navigation System using Arduino and Isheeld is a system that aims to improve the blind people's access to the environment, especially in Ghana where the trial results obtained from the final test ensure the safety and speed of mobility (APrey et al., 2022). The development of a new wearable navigation system for blind walkers by combining a global positioning system (GPS) for the user's outdoor localization and tactile-foot stimulation and experimental results show users are able to recognize with high accuracy the tactile feedback given to their feet (Velázquez etal., 2018). Development of a prototype mobile application jointly developed with the City Hall of Viana do Castelo, a city in northern Portugal, targeting people with permanent or temporary limited mobility and intending to show them information about taxi points, parking lots and reference points in the city (Paiva, 2020). Development of a tele-guidance navigation system for VIPs assisted by verbal instructions of remote caregivers receiving video from cameras brought by VIP (Chaudary et al., 2017). Assistive technology for Accessing public services The ability to access public services is something that the visually impaired can also do independently without relying on an alert companion. Through the development of tactile maps and braille bus guidebooks where flexible lesson plans for teaching bus travel will add to the experience for students that will be more likely to apply the O&M skills they learn at home or at school with the goals already achieved (Besden, 2019). Another development that is still related to public transportation access is the Audio Transantiago application to adjust and move on a trip that is carried out using the bus public transportation system in Santiago de Chile where the test results of participants show a high level of skill in using the buttons on a pocket PC and audio is received well by users (Sánchez & Oyarzún, 2011).The development of other 42 Journal of ICSAR; Volume 7 , Number 1, January 2023, 37 - 43 assistive technology in the form of

access to other public services that can be taken is shopping centers. The environment setting is equipped with an adequate RFID sensor with a Bluetooth connection to the user's smartphone, the system can find the user and send instructions pointing to the desired destination. Important features that users can access about a store, service or available space(Duarte et al., 2014). Almost the same as other application developments that do not use Bluetooth channels, but this Blindshopping application uses a mobile-based QR code (López-De-Ipiña et al., 2011).

CONCLUSION

Based on the results of the research review analysis above, it can be concluded that many technologies have been developed following the times. The development of assistive technology for the visually impaired is proven to provide benefits for users, including assisting in daily activities such as orientation indoors, as a guide to navigate indoors and outdoors, to access public facilities such as shopping centers and public transportation. So from these results found 6 articles on the development of assistive technology products that are useful for the blind to orient and navigate indoors, 10 articles on the development of assistive technology products that are useful for the blind to navigate outdoors or buildings, 4 development of assistive technology products for the blind to access public services (transportation and shopping centers). Seeing the development of increasingly sophisticated science and technology, it is very possible for innovations to develop in assistive technology that can help the blind to be oriented and move in the environment independently and safe.

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Training in Independent Living among Visual Impaired Children

Ms. Geeta Bhutani
Asst. Professor, Spl. Edu. (ID Dept.)
AIRSR

ABSTRACT

Purpose of the Study

The aim is to study the Training in Independent Living among Visual Impaired Children. Self Help skills necessary for managing adulthood life include skills related to food preparation, money management, time management, personal hygiene, eating, dressing, clothing, selection and care, use of the telephone, cleaning, home maintenance and community functioning, within these area are consist some Sub skills the individual must attain and succeed in all areas and their sub skills then only they can live independently.

Key words: Visual Impaired Children, Independent Living Skills, Education, Vision, Independent Living

INTRODUCTION

Through Independent living skills to attain the equal opportunities, full participation and sustain their rights in the society. (Hazekamp and Huebner, 1989)

The best way to know what Independent living skills to teach a child at a particular age, is to find out what are the Independent living skills shown by sighted children of that age.

The main aim of Provide the education to visually impaired is to lead the independent living skills. training in independent living for visually impaired children typically involves training essential skills to enhance their self- actualization. This may include orientation and mobility training, daily living skills, braille literacy, technology usage and social skills development. Vocational training to individual needs is crucial to empower these children to navigate their environment and lead independent lives. It is essential to develop these skills, together with orientation and mobility skills, so that the person becomes fairly independent and can participate in the various activities of community life such as going to school, visiting friends and so on.

Especially in the task like

- Observing the task while others are doing.
- No aware about the implementation of step by step process while completing the task.
- No aware the technique that others use to perform independent living skills.
- No able to perceive or analyses technique while doing the tusk very easily by others.
- No enough for overcoming the impact of visual impairment on learning the independent living skills by giving instruction or applying strategies for understand the appropriate skills.
- No getting more opportunities for learning the new skills until they become more efficient in particular skills. Sometime children's with visually impaired are frustrated or denied in process of learning the new skills.

Visual impaired Children need carefully designed instruction in independent living skills, facilitate by individuals who understand the impact of visual impairment on the acquisition of General information and learning. Development of independent living skills is vital for full integration in society. Specialized assessment and instruction must be provided. Including sufficient time, resources, and support must be available to teachers of students with visual impairments to allow them to address all the educational needs of their students, including those related to independent living skills. Parents, teachers and administrators must work together in these efforts to achieve the promise of equal opportunity, which is the overarching goal of education.

Importance to teach independent living skills

Vision loss does not prevent from living an active, healthy, fulfilling life. There are techniques are available to learn independence living skills safely and independently which may leads the person with visual impairment very confident and develop personality.

Components of Independent living skills

1. **Personal Care**
   Grooming, dressing and hygiene are components come under personal care. Grooming and dressing is a difficult task for visually impaired children. But by using certain techniques especially through task analysis i.e. step by step process children with visual impairments can obtain independence in dressing and grooming. Strategies in warring dress themselves independently and manage their clothes including organizing their closets and drawers and identifying clothing. Mark the back part of the clothing with some button so that it is easily identifiable. Through teaching the child gets the knowledge about hygiene.
2. **Food Preparation**
   Meal Planning, Cutting the vegetables, Preparation of food and Cooking Tips are the area important for food preparation. When the children with visually impaired learns the skills in food preparation will help the students to become the most contributing members of their homes. Like measuring, cataloging, identifying, reading labels, and many other skills can be naturally implanted into these experiences.
3. **Clothing Management**
   Learning skills in the area of housekeeping, laundry, sorting and identifying Clothing will help the students with visual impairment to become the most contributing members of their homes. Through experiences the visually impaired person receive the knowledge about adaptations on Clothing Management as well as housekeeping adaptations.
4. **Money Management**
   Money management is the components consists of Organizing a Budget, Paying Bills, handle money and saving money, difference between spending and investing money and identifying money. Each components consists different strategies for the purpose of using the money in effective manner. When the children with visually impairment learns the components in money management it will be helpful in identify money as well as invest in lifelong learning and new skills to stay competitive and interested in life.
5. **Time Management**
   Visual Impaired students need to learn to manage their time, but this is an especially important skill for students with visual impairments. Students will need to have a structured schedule in order to anticipate events and know daytime activities and nighttime activities. When the children with visually impaired learns the skills in Time management. It will help them to learn skills in identifying and managing time.
6. **Household Maintenance and cleaning**
   Vacuuming, Sweeping Techniques and Maintenance of Household material are very important for maintaining the home. When the children with visually impaired learns the skills in Household Maintenance and cleaning will be more helpful in learning the sub skills like arranging, ordering / sequencing and folding.
7. **Shopping**
   We also need to learn how to do shopping. It is not a easy task for any person because so many skills are involved in doing shopping. Skills like decision making, money management, and travelling and communication skills, buying goods such skills are involved in learning skills in shopping. Person with visually impaired learns the skills in shopping it will be more helpful for them to lead independent life.
8. **Personal Organization**
   Using a Handwriting Guide, Braille Labeling, Using Modern Communication Systems, Computer Keyboarding (usually taught in the Technology section.), Internet (usually taught in the Technology section.) are very essential for leading the life with modern world and using modern technology for satisfying the day to day needs of visually impaired.

Conclusion

We need to develop and so we never know if we are getting taught the things we need to know and teach the concept to person with visual impairment. Many people think basic living skills are being able to do the laundry and run the dishwasher. But life has so many more challenges to offer. And we need the skills to cope. Unfortunately, many of the visually impaired never get to see the list of basic skills since they denial their opportunities to learn the concept in independent living skills.

References

- Pogrund RL. Independence focus: Promoting independence in daily living and recreational skills. In: Pogrund RL, Fazzi D, editors. Early focus: Working with children who are blind or visually impaired and their families. 2nd ed. New York: American Foundation for the Blind. 2002: 21850.
- Grey C. Inclusion impact and need: Young children with a visual impairment. Child Care in Practice. 2005; 11(2): 17990. <http://www.tandfonline.com/doi/abs/10.1080/1357527050003126> (12 Feb 2010)
- Fazzi DL, Klein MD, Pogrund RL, Salcedo PS. Family focus: Working effectively with families. In: Pogrund RL, Fazzi D, editors. Early focus: Working with children who are blind or visually impaired and their families. 2nd ed. New York: American Foundation for the Blind. 2002: 1652.
- Lakshmi HV, Geetha CV, Murthy KN. Parental perspective towards the education of visually impaired children. Asia Pacific Disability Rehabilitation Journal. 2009; 20(2): 8491. <http://www.dinf.ne.jp/doc/english/asia/resource/

apdrj/vol20_2/07_briefreports1.html> (12 Mar 2010).

- Joseph Rowntree Foundation. Residential schools and disabled children: Decision making and experience. 2001. <http://www.ebsco-host.com.ez.sun.ac.za/ehost/detail?vid=4&hid=2&sid=50a4a8f2e3aa45dea43a5687b7afc99a %40sessionmgr10&bdata=JnNpdGU9ZWhvc3QtbG12ZQ%3d%3d#db=aph&AN=10230206> (9 Mar 2010).
- Census 2001. Prevalence of disability in South Africa. Statistics South Africa. 2005. < http://www.statssa.gov.za/census01/html/Disability.pdf> (19 Apr 2010].
- Gilbert C, Foster A. Childhood blindness in the context of vision 2020.The right to sight. 2001; 79(1): 22732. < http://www.scielosp.org/pdf/bwho/v79n3/v79n 3a11.pdf> (21 Mar 2009).
- Iselin S, Lewis S. A comparison of the independent living skills of primary students with visual impairments and their sighted peers: A pilot study. Journal of Visual Impairment and Blindness, 2002; 96(5): 33544.
- Ferrell KA. Growth and development of young children. In: Holbrook MC, Koening AJ, editors. Foundation of education history and theory of teaching children and youths with visual impairments. 2nd ed. New York: American Foundation for the Blind. 2000: 11135.
- Lizhu Y, Xiaoyan Z. A study of the cross-situational stability of three to five-year old children's independence. Int J Early Years Educ, 2005; 13(2): 1718.
- Brambring M. Divergent development of manual skills in children who are blind or sighted. Journal of Visual Impairment and Blindness, 2007; 101(4): 201-12.
- World Health Organization (WHO). Global magnitude of visual impairment caused by uncorrected refractive errors in 2004.<http://www.who.int/bulletin/volumes/86/1/07-041210/en> (5 Aug 2010).
- Russel E, Nagaishi PS. Services for children with visual or auditory impairments. In: Case-Smith J, editor. Occupational therapy for children. 5th ed. St. Louis MI: Elsevier Inc., 2005: 82768.
- Warren M. Evaluation and treatment of visual deficits. In: Pedretti LW, Early MB, editors. Occupational therapy: Practice skills for physical dysfunction. 5th ed. New York: Mosby, 200: 385421.

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Overcoming Challenges in Orientation and Mobility for Children with Special Needs

Ms. Anoushka Sharma
Asst. Professor, Spl. Edu. (LD Dept)
AIRSR

Abstract
Orientation and mobility is an essential skill to acquire. Teachers, who have been especially organized to educate orientation and mobility to the visually impaired students, are considered essential in the delivery of services in this curriculum. Students will want to learn about themselves and the environment in which they circulate from basic frame image to independent tour in rural areas and in towns. Orientation and mobility experts operating with kids also assist kids with visual impairments to gain the talents they require to live successful lives. This article aims at challenges in orientation and mobility for children with special needs and ways through which we can overcome those challenges.

Keywords:
Orientation, Mobility, Visually Impaired Students.

Orientation and Mobility for Children

Orientation and Mobility (O&M) abilities are vital for youngsters, in particular people with visible impairments, to navigate and move independently in their environment. Developing these talents empowers youngsters to explore their environment, interact with others, and participate in various sports. The orientation and mobility expert's responsibilities middle mainly on capabilities which includes unbiased journey and each day living abilities. In addition to the standard orientation and mobility series, orientation and mobility professionals working with children help children examine fundamental competencies that assist independence along with gross and fine motor capabilities, auditory abilities, concept improvement, exploration and curiosity, trouble fixing and environmental experiential activities. The majority of customers on an orientation and mobility trainer's caseload tend to have some closing imaginative and prescient. It is likewise common place for youngsters with visual impairments to additionally have extra disabilities which include traumatic brain injury, hearing impairments, physical impairments, or cognitive impairments. Many experts in the area are contributors of the Association for Education and Rehabilitation of the Blind and Visually Impaired and are certified with the aid of the Academy for Certification of Vision Rehabilitation and Education Professionals which might be professional companies that govern the sphere. Certification allows an orientation and mobility specialist to work with humans across the lifespan, from babies to senior citizens.

Orientation and Mobility (O&M) consult with the set of talents that enable people, particularly people with visual impairments, to navigate and flow independently in their environment. Several demanding situations are related to O&M, and addressing those demanding situations is crucial to selling the autonomy and safety of people with visible impairments. Addressing these demanding situations involves a combination of focus campaigns, stepped forward accessibility in public spaces, advancements in assistive technology, complete education programs, and fostering a supportive and inclusive societal mind-set.

CHALLENGES IN ORIENTATION AND MOBILITY

Limited Environmental Awareness: trouble in obtaining records about the environment, which include limitations, landmarks, and adjustments in terrain. Lack of visible cues that sighted individuals rely upon for navigation.

Safety Concerns: Risk of accidents and collisions because of limitations, choppy surfaces, and other environmental hazards. Difficulty in identifying dangers, which includes site visitors or modifications in elevation.

Social and Emotional Barriers: Feeling of isolation and dependence on others for help, main to potential social demanding situations. Anxiety and stress associated with navigating unfamiliar or crowded environments independently.

Technological Barriers: Limited availability and accessibility of assistive technology which can enhance orientation and mobility. Dependence on traditional aids, which includes canes or guide dogs, without the integration of cutting-edge era.

Access to Training and Resources: Inadequate availability of O&M instructors and assets in regions, restricting get admission to schooling. Financial constraints that may avert individuals fro m acquiring necessary education and tools.

Changes in Environment: Difficulty adapting to changes in

the physical environment, which include renovations or creation work. Lack of consistency within the layout of public spaces, making navigation challenging.

Cognitive and Sensory Factors: Cognitive impairments that can affect the capacity to study and observe O&M abilities. Challenges associated with sensory processing, coordination, and stability.

Transportation Challenges: Difficulty in getting access to and using public transportation independently. Limited availability of transportation alternatives which are designed to individuals with visual impairments.

Educational and Employment Barriers: Limited integration of O&M schooling into instructional curricula for people with visual impairments. Workplace environments that might be absolutely reachable or supportive of impartial mobility.

Public Awareness and Attitudes: Lack of awareness and knowledge among the majority approximately the desires and capabilities of individuals with visible impairments. Negative attitudes and stereotypes which can create boundaries to social inclusion and participation.

OVERCOMING CHALLENGES IN ORIENTATION AND MOBILITY

Conquering difficulties in Orientation and Mobility (O&M) for kids with unique necessities requires a smart and individualized approach. Here are viable procedures to address these difficulties:

Early Intervention and Assessment: Distinguish extraordinary necessities early and direct extensive evaluations to grasp the kid's assets, shortcomings, and explicit requirements. Early intercession can essentially influence the improvement of O&M abilities.

Collaboration with Professionals: Structure a cooperative group that incorporates O&M trained professionals, teachers, specialists, and guardians. Ordinary correspondence and cooperation among experts guarantee a comprehensive way to deal with the youngster's turn of events.

Individualized O&M Plan: Create an individualized O&M plan in light of the kid's capacities, inclinations, and formative stage. Tailor the arrangement to address explicit difficulties, for example, tangible handling issues or engine ability shortfalls.

Family Contribution and Preparing: Connect with and teach guardians and parental figures about O&M techniques. Give instructional meetings to show families how to help and build up O&M abilities at home.

Utilization of Assistive Innovation: Coordinate age-proper assistive advancements, for example, versatility helps, GPS gadgets, and tangible instruments, to upgrade the kid's mindfulness and freedom. Consistently update innovation to meet the kid's developing necessities.

Organized Learning Exercises: Foster an organized and moderate educational program that lines up with the kid's formative stage. Integrate exercises that are connecting with, age-suitable, and intended to advance O&M abilities.

Sensory Integration Activities: Incorporate tactile mix exercises to address tangible handling difficulties. Use exercises that animate various faculties and assist the youngster with adjusting to different natural boosts.

Peer Association and Interactive abilities: Work with valuable open doors for the kid to cooperate with peers. Advance social consideration and work on creating interactive abilities to cultivate positive connections.

Natural Changes: Make fundamental adjustments to the youngster's current circumstance to upgrade availability and well being. Guarantee that pathways are clear, and ecological prompts are reliable and effectively interpretable.

Steady Openness to Conditions: Progressively open the kid to various conditions to construct certainty and commonality. Give adequate practice in exploring different spaces under steady oversight. Perceive and praise the kid's accomplishments and progress in O&M abilities. Encouraging feedback can support certainty and inspiration.

Transition Planning: Foster progress plans for changes in conditions, for example, moving from home to school or between various grades. Guarantee that O&M systems are coordinated into the youngster's individualized training plan (IEP).

Conclusion:

By joining these techniques and encouraging a strong, comprehensive climate, it is feasible to assist youngsters with exceptional requirements defeat difficulties in direction and versatility, permitting them to foster fundamental abilities for free route and cooperation in different exercises. Consistently assess the kid's advancement and change O&M methodologies as needs be. Be adaptable in adjusting the arrangement to meet the kid's advancing necessities. Additionally advocate for the youngster's consideration in standard instructive and sporting exercises. Advance mindfulness and comprehension of the kid's necessities among instructors, peers, and the more extensive local area.

References:

- Hornby, G.(2011. Building Effective School- Family Partnerships. New Zealand: Springer Science & Business Media.
- Jernigan, K.(1995). National Federation of the Blind.Michigan:Information Age Publishing.
- Heward (2009).Exceptional Children – An Introduction to Special Education.USA :Pearson Prentice Hall.
- Beaker, G(2014). The roles of parents – Involvement in children's Academic. USA:Pearson -Publishers.
- Jacobson WH. The art and science of teaching orientation and mobility to persons with visual impairment. New York: AFB Press, 1993

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Adaptive Sports and Recreation for Special Need Children

Mr. Vikas Kumar
Lecturer, Spl. Edu. (MD Dept.)
AIRSR

Abstract:
Children with special needs often face challenges in developing orientation and mobility skills, impacting their ability to navigate their surroundings effectively. This article explores the role of adaptive sports and recreational activities in fostering orientation and mobility among children with diverse abilities.

The integration of adaptive sports and recreational programs has proven to be instrumental in promoting physical fitness, social inclusion, and overall well-being for children with special needs. Specifically, the focus on orientation and mobility within these activities empowers children to enhance their spatial awareness, motor skills, and confidence in navigating various environments.

Through structured programs tailored to individual needs, children are exposed to a range of activities that not only cater to their abilities but also encourage skill development. Utilizing specialized equipment, such as modified bicycles, tactile markers, or auditory cues, these programs create environments conducive to learning and skill acquisition.

Moreover, the social aspect of adaptive sports and recreational activities plays a crucial role in the development of orientation and mobility skills. Interacting with peers in a supportive and inclusive setting fosters teamwork, communication, and problem-solvingall of which are essential elements in navigating social and physical environments.

Furthermore, the involvement of trained professionals, including orientation and mobility specialists, adaptive physical education instructors, and recreational therapists, ensures that these programs are not only enjoyable but also structured to address specific developmental goals.

By emphasizing the link between adaptive sports, recreation, and orientation and mobility skills, this article aims to underscore the importance of integrating these activities into the lives of children with special needs. Implementing such programs not only enhances physical abilities but also empowers these children to navigate the world with greater independence, confidence, and inclusion.

Keywords:
Adaptive sports, Recreation, Special needs children, Orientation and mobility, Inclusion, Skill development.

Introduction:
Adaptive sports and recreation play a pivotal role in the holistic development and empowerment of children with special needs. Amidst this landscape, the fusion of orientation and mobility (O&M) techniques with adaptive sports introduces a groundbreaking avenue for enhancing their physical abilities, fostering independence, and nurturing a sense of accomplishment.

In this article, we delve into the profound impact of adaptive sports within the realm of O&M for children with diverse abilities. We explore how these tailored activities not only promote physical fitness but also serve as a platform for refining spatial awareness, mobility skills, and sensory integration. Through a comprehensive examination, we aim to highlight the transformative potential of adaptive sports in empowering these children to navigate the world with confidence and enthusiasm.

Join us as we navigate through the intersection of adaptive sports and orientation & mobility, uncovering the multitude of benefits and opportunities they offer for special needs children.

Conclusion:
The article on adaptive sports and recreation for children with special needs highlights the pivotal role of orientation and mobility (O&M) in enhancing their participation and experience. O&M techniques serve as a cornerstone in

fostering independence, confidence, and overall well-being for these children. By integrating tailored O&M strategies within adaptive sports programs, children with special needs can access and navigate their surroundings more effectively, enabling them to engage fully in recreational activities.

Moreover, the symbiotic relationship between adaptive sports and O&M emphasizes the holistic development of these children. The adaptability of O&M practices in various sporting contexts allows for a personalized approach, addressing unique challenges and promoting inclusivity within the recreational sphere. Through this integration, children not only learn sports skills but also develop crucial spatial awareness, problem-solving abilities, and self-assurance, empowering them to navigate both physical and social environments with greater ease.

In conclusion, the incorporation of orientation and mobility practices within adaptive sports programs amplifies the opportunities for children with special needs to thrive. This combination promotes inclusivity, independence, and holistic development, enriching the lives of these children and fostering a more inclusive and supportive recreational environment.

References:

- Okoro CA, Hollis ND, Cyrus AC, et al.: Prevalence of disabilities and health care access by disability status and type among adults - United States, 2016. MMWR Morb Mortal Wkly Rep 2018;67:8827 [PMC free article] [PubMed] [Google Scholar]
- Diaz R, Miller EK, Kraus E, et al.: Impact of adaptive sports participation on quality of life. Sports Med Arthrosc Rev 2019;27:7382 [PubMed] [Google Scholar]
- Anderson LS, Heyne LA: Physical activity for children and adults with disabilities: an issue of "amplified" importance. Disabil Health J 2010;3:713 [PubMed] [Google Scholar]
- Braza DW, Iverson M, Lee K, et al.: Promoting physical activity by creating awareness of adaptive sports and recreation opportunities: an academic-community partnership perspective. Prog Community Health Partnersh 2018;12:16572 [PubMed] [Google Scholar]
- Ryan J, Katsiyannis A, Cadorette D, et al.: Establishing adaptive sports programs for youth with moderate to severe disabilities. Prev School Fail 2014;58:3241 [Google Scholar]
- Pearsall CN: The Relationship of Adaptive Sport Participation on Sense of Community and Community Integration. Master's Thesis, East Carolina University, 2019 [Google Scholar]

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Introduction to Orientation & Mobility for Deafblind Person

Mr. Harish Kumar
Lecturer, D.Ed Spl Edu (MD Dept.)
AIRSR

Deafblind children have problems with orientation and mobility. They have to face difficulties in going from one place to another. They also need a mobility coach who can train them and overcome their problems. They try to be able to do all their work independently in daily life and participate in all the activities of the society. To achieve mobility some special equipment is required which includes use of walking stick, magnifier lens, special glasses etc.

Key Notes: Deafblind, Orientation, Mobility, cane, Training, equipment, information

Introduction

Orientation and mobility are the skills that allow us to perform daily tasks independently, including the ability to know where you are and where you want to go, whether by moving from one room to another. Or Moving around the city for a shopping trip. Mobility is defined as the act of traveling to move safely and freely from one place to another. For mobility, a person has the ability to gather and use sufficient information from the environment to avoid hazards and reach the destination safely.

Children with deafblindness have significant challenges in many developmental areas, including vision, hearing, motor, communication, and language skills. Each area can impact a child's ability to move safely and efficiently through the environment. And mobility training is important for every visually impaired child. It doesn't matter how young or old he is, how physically active or inactive, how much vision he has or how smart he is, there are probably skills he needs to develop or refine in the areas of orientation and mobility.

Deafblind Persons who are unable to see or hear have different ways of communicating. Some children communicate with each other using verbal and sign language and adjust to each other without discrimination through orientation and mobility.

The Basics of Mobility Skills

Guided Travel

His technique for walking with another person is often called "Sighted Guide Travel." However, you don't need to be sighted to be a good guide, so it's also known as "Guided Travel" or "Human Guide." In this method, a deaf-blind child holds in to the guide's arm while following them around obstacles. To stay involved and help with navigation, the child should grip the guide's arm with their thumb on the outside and fingers on the inside. The child stands half a step behind and to the side of the guide. The guide uses their arm movements to give signals about the environment, such as indicating stairs, doors, or narrow spaces. For example, the guide might move their arm behind their back to show that they're approaching a narrow space and need to walk single file. Other signals can be used to alert the child to stairs or doors.

Protective Techniques

Protective techniques help students travel independently and safely in familiar places by allowing them to find objects while keeping their bodies safe. These skills are mostly used indoors and are meant to give information about the surroundings while moving. One technique involves using upper hand and forearm protection. In this method, the arm is bent and held across the body at shoulder height, parallel to the floor. The palm faces outward, and the fingertips extend past the opposite shoulder. This position helps protect the student from objects that might come into contact with their head or chest.

Lower body protection involves extending the arm down and holding it diagonally across the body to protect against obstacles at waist to upper leg level. This technique, along with upper body protection (with the arm bent across the body), can be used together, though they may cause fatigue. Typically, neither technique is used all the time but rather as needed. For instance, a person might use trailing skills while walking down a familiar hallway and switch to lower body protection near the end of the hallway where there's often an open door, helping to locate it safely without injury.

Trailing

While trailing, a student will extend the arm at about 45 degrees, holding the arm to the side and slightly in front of the body while main training contact with a surface, such as a wall. This technique can provide a student with a method of maintaining alignment. It also provides some protection during

travel, as well as some information about the environment. This skill can be used in a variety of situations. Examples include traveling down hall ways while looking for a specific object such as a door, or when a student wants to achieve a straighter line of travel to maintain orientation, or while traveling along the out - side of a building while locating a way in. Trailing is also sometimes used along with a mobility device, or in conjunction with upper hand and fore arm protection

Dog Guides

Deafblind individuals choose to use dog guides instead of canes. Special schools train people to use dog guides, though these schools mostly focus on adults who are blind or visually impaired. However, some schools also train individuals who are deaf-blind.

Training usually lasts four weeks or more and many programs include follow-up instruction in the student's home. It's important to remember that even with a dog guide; the individual is still responsible for their own travel. The dog guide helps navigate but does not handle orientation or safety decisions.

Most schools expect students to be skilled travellers before they start the program. Also, those considering a dog guide should be aware of the extra responsibilities, such as feeding, grooming, and toileting the dog.

Conclusion

Orientation and mobility are very important in the life of Deafblind children. They face problems every day in moving from one place to another due to vision and hearing problems. If they are trained by a mobility instructor to walk inside and outside the place. If they are given training, they can do all the work independently, safely in their daily routine, which will give them an opportunity to participate in the society and their morale will be strengthened.

References

- Barclay, L. A. (2011). Learning to Listen/Listening to Learn. New York, NY: AFB Press.
- Cutter, Joseph. (2007) Independent movement and travel in blind children: A promotion model. Charlotte, NC: Information Age Publishing.
- Deci, E. (1995). Why we do what we do: The dynamics of personal autonomy. New York, NY: Grosset/Putnam.
- Hill, E., & Ponder, P. (1976). Orientation and mobility techniques: A guide for the practitioner. New York: American Foundation for the Blind.
- TSBVI. (no date). Using landmarks and clues to help your student know where he is in the world.
- Van Dijk, J. (2011). Personal communication.
- Tellefson, M. (2000). Suitcase mobility: A case study packed with opportunities for learning. RE:view, 32(1), 23-33.
- Promoting Learning Through Active Interaction : A Guide to Early Communication with Young Children Who Have Multiple Disabilities. Klein, Chen, et al., 2000.

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"A Comparative Study of Parenting Stress and Self-Efficacy of the Parents of Children with Learning Disability"

Mohd.Haseeb
Asst. Professor, Spl. Edu. (ASD Dept)
AIRSR

Stress can be defined as any type of change that causes physical, emotional or psychological strain. Stress is your body's response to anything that requires attention or action. Everyone experiences stress to some degree. The way you respond to stress, however, makes a big difference to your overall well-being. Stress is a normal reaction to everyday pressures, but can become unhealthy when it upsets your day-to-day functioning. Stress involves changes affecting nearly every system of the body, influencing how people feel and behave.

By causing mindbody changes, stress contributes directly to psychological and physiological disorder and disease and affects mental and physical health, reducing quality of life.

According to American Psychological Association "Stress an Illustrated Guide for coping with adversity. Informed by evidence and extensive field testing, for anyone who experiences stress"

According to Hans Selye "Stress a physical, chemical, or emotional factor that causes bodily or mental tension and may be a factor in disease causation" "Stress is the Spice of Life; the absence of stress is death". -Hans Selye

Operational definition 'Emphasizing an illustrated guide to coping with adversity or a difficult situation. Informed by evidence and extensive field testing for anyone experiencing stress to cope with it'

Stress is your body's way of telling you that there is something in the environment in need of your attention. It is basically a series of biochemical changes in your brain and body, such as an increase in adrenaline (causing your heart to beat faster) and a decrease in dopamine (a brain chemical that helps to block pain). These changes result in a state of heightened attention to the source of the a stress. High levels of stress cause your body to prepare to fight or run away from the perceived threat commonly called the "fight-or-flight response."

Examination stress is a particular type of stress which is felt by almost every person in life but the causes for such a feeling can be numerous under different situations and in different environments. The extent to feel such a stress can also vary from individual to individual. When students' aspirations are too high to reach but his abilities, interests, attitudes and capacities do not match with it, one may feel stress. An individual may excel in limited areas but sometimes when one wants to excel in every walk of life without considering one's own capabilities or under estimating own self may suffer from stress. When students do not plan their studies in the beginning of the academic year and don't set their aims of life, they may face difficulties before commencement of the examination, hence causing stress. Many students perceive examination as a threatening event. Their attitude towards examination is negative instead of working hard and developing confidence in them, they develop fear and remain tensed due to one or the other reason which may lead to stress during examination. Students learn more and more to achieve excellence. But when they don't meet their targets, they chose wrong methods of study like rote memorization etc. which lead them towards stress. The psychologists and educationists have been focusing their research proposals in the area of stress. They remained mostly in the fields of occupational stress, stressful life events and stress due to some chronic diseases etc. But less attention has been paid to the issue of examination stress realising the present day need in the area of education where focus is upon mobilizing and directing the inner potentialities of students to cope with difficulties and achieve better. The variable of examination stress has been selected for investigation especially as it exists in relation to one's cognitive functioning. The other variables selected for the present study is personality. Students react differently with the event of examination. It is yet to be explored whether more intelligent students take the examination as challenge and utilise their maximum energy to do the best. Personality has different traits and any particular trait may help the individuals to react in a specific way for coming possibilities. Some students want to achieve the standard of excellence in every sphere of life but examination stress plays its role everywhere. It may vary with varying levels of personality. Hence, the investigator took the present study to account to the issue of examination stress.

How does stress affect your brain and body
Stress affects both the brain and body. Little bit of stress is good for people to perform and protect themselves but too much stress can overwhelm them leading to fight, flight or freeze response. So learning how to cope with stress is important for our mental and physical wellbeing.

Does everyone respond to stress the same way
No, everyone reacts differently to stressful situations. Accordingly, both the impact of stress and the coping styles can vary from person to person.

Should stress be expected during the current situation.
Yes, the COVID-19 pandemic can be a stressful situation for a lot of people. However, most people can overcome the stress while a few may be overwhelmed.

What can be the manifestation of stress.
Stress can manifest as fear, worry, inability to relax, increased heart rate, difficulty in breathing, Disturbance in sleeping patterns, change in eating patterns, difficulty in concentrating worsening of pre-existing health conditions (physical and mental) and increased use of alcohol, tobacco and other drugs.

I am feeling stressed, does that mean I cannot work.
It depends on how you react or respond to stress. Most people manage stress well and continue to function while a few may have difficulty in coping with stress. Such people should seek help from mental health treatment providers.

The COVID-19 pandemic has had a major effect on our lives. The need for physical distancing and social restrictions has led to many of us to feeling socially isolated and left to deal with situation on our own. These challenges that can be stressful, overwhelming and cause strong emotions. It is important for everyone to understand what stress is, how it affects us and how to manage stress.

How to manage stress
Learning to cope with the stress will make you become resilient to stress.

The new realities of working from home, temporary unemployment, home-schooling of children, and lack of physical contact with other family members, friends and colleagues take time to get used to. Adapting to lifestyle changes such as these and managing the fear of contracting the virus and worry about people close to us who are particularly vulnerable, are challenging for all of us. They can be particularly difficult for people with mental health conditions.

Maintain a daily routine
Due to the COVID-19 pandemic social restrictions a lot of people are forced to stay at home. Having a daily schedule can help us use our time efficiently and not feel bored. Set time for regular meals, working from home, spending time with family members, exercise, daily chores and other recreational activities.

Sleep Adequately
Getting enough sleep least 8 hours, a night is good for both our body and mind. Sleep repairs, relaxes, rejuvenate our body and reverses the effect of stress.

- Good sleep habits (sleep hygiene) can help you improve your sleep:
- Be consistent. Go to bed at the same time each night and get up at the same time each morning, including on the weekends
- Make sure your bedroom is quiet, dark, relaxing, and at a comfortable temperature
- Remove electronic devices, such as TVs, computers, and smart phones, from the bedroom
- Avoid large meals, caffeine, and alcohol before bedtime
- Get some exercise. Being physically active during the day can help you fall asleep more easily at night
- There are many things, which can put us in stress. Our daily challenges, problem, and difficult circumstances can lead us to stress. If handle properly, stress increase the one's survival. Stress is like electricity, it give energy, increase, human arousal and affect performance.
- High stress too can produce unpleasant effects and cause our performance to deteriorate. May cause someone to feel somewhat listless and low on motivation, which may lead us to perform slowly and less efficiently. So we can't say that all stress is not inherently bad or destructive.

Eustress The term use to describe the level of stress that is good for you and is one of the person's best assets for achieving peak performance and managing minor crisis. Eustress somehow have the potential of turning into distress. stress can be described as the pattern of responses an organism makes to stimulus event that disturbs the equilibrium and exceeds a person's ability to cope.

Nature of stress
The word stress has its origin in the Latin words 'strictus', meaning tight or narrow and 'stringere', the verb meaning to tighten. These root words reflect the internal feelings of tightness and constriction of the muscles and breathing reported by many people under stress. Stress is often explained in terms of Characteristics of the environment that is disruptive to the individual. Stressors are events that cause our body to give the stress response. Such events include noise, crowding, a bad relationship, or the daily commuting to school or office. The reaction to external stressors is called 'strain' . Stress is a dynamic mental/cognitive state. It is a disruption in homeostasis or an imbalance that gives rise to a requirement for resolution of that imbalance or restoration of homeostasis.

An individual's response to a stressful situation largely depends upon the perceived events and how they are interpreted or appraised. Lazarus has distinguished between two types of appraisal i.e. primary and secondary. Primary appraisal refers to the perception of a new or changing environment as positive,

neutral or negative in its consequences. Negative events are appraised for their possible harm, threat or challenge. Harm is the assessment of the damage that has already been done by an event. Threat is the assessment of possible future damage that may be brought about by the event. Challenge appraisals are associated with more confident expectations of the ability to cope with the stressful event, the potential to overcome and even profit from the event. When we perceive an event as stressful, we are likely to make a secondary appraisal, which is the assessment of one's coping abilities and resources and whether they will be sufficient to meet the harm, threat or challenge of the event. These resources may be mental, physical, personal or social. If one thinks one has a positive attitude, health, skills and social support to deal with the crises s/he will feel less stressed. This two-level appraisal process determines not only our cognitive and behavioural responses but also our emotional and physiological responses to external events.

One factor is the past experience of dealing with such a stressful condition. If one has handled similar situations very successfully in the past, they would be less threatening for her/him. Another factor is whether the stressful event is perceived as controllable, i.e. whether one has mastery or control over a situation. A person who believes that s/he can control the onset of a negative situation, or its adverse consequences, will experience less amount of stress than those who have no such sense of personal control.

These stressors can be external, such as environmental (noise, air , pollution), social (break-up with a friend, loneliness) or psychological (conflict, frustration) within the individual. Very often, these stressors result in a variety of stress reactions, which may be physiological, behavioural, emotional, and cognitive.

The hypothalamus initiates action along two pathways. The first pathway involves the autonomic nervous system. The adrenal gland releases large amount of catecholamines (epinephrine and norepinephrine) into the blood stream. This leads to physiological changes seen in fight-or-flight response. The second pathway involves the pituitary gland, which secretes the corticosteroid (cortisol) which provides energy. The emotional reactions to experience of stress include negative emotions such as fear, anxiety, embarrassment, anger, depression or even denial.

the stresses which people experience also vary in terms of intensity (low intensity vs. high intensity), duration (short-term vs. long term), complexity (less complex vs. more complex) and predictability (unexpected vs. predictable). The outcome of stress depends on the position of a particular stressful experience along these dimensions. Usually more intense, prolonged or chronic, complex and unanticipated stresses have more negative consequences than have less intense, short-term, less complex and expected stresses. An individual's experiences of stress depend on the physiological strength of that person. Thus, individuals with poor physical health and weak constitution would be more vulnerable than would be those who enjoy good health and strong constitution.

Signs and Symptoms of Stress

The way we respond to stress varies depending upon our personality, early upbringing and life experiences. Everyone has their own pattern of stress response. So the warning signs may vary, as may their intensity. Some of us know our pattern of stress response and can gauge the depth of the problem by the nature and severity of our own symptoms or changes in behaviour. These symptoms of stress can be physical, emotional and behavioural. Any of the symptoms can indicate a degree of stress which, if left unresolved, might have serious implications.

Types of Stress

The three major types of stress, viz. physical and environmental, psychological, and social. It is important to understand that all these types of stress are interrelated.

Physical and Environmental Stress

Physical stresses are demands that change the state of our body. We feel strained when we overexert ourselves physically, lack a nutritious diet, suffer an injury, or fail to get enough sleep. Environmental stresses are aspects of our surroundings that are often unavoidable such as air pollution, crowding, noise, heat of the summer, winter cold, etc. Another group of environmental stresses are catastrophic events or disasters such as fire, earthquake, floods, etc.

Psychological Stress

These are stresses that we generate ourselves in our minds. These are personal and unique to the person experiencing them and are internal sources of stress. We worry about problems, feel anxiety, or become depressed. These are not only symptoms of stress, but they cause further stress for us. Some of the important sources of psychological stress are frustration, conflicts, internal and social pressures, etc. Frustration results from the blocking of needs and motives by something or someone that hinders us from achieving a desired goal. There could be a number of causes of frustration such as social discrimination, interpersonal hurt, low grades in school, etc. Conflicts may occur between two or more incompatible needs or motives, e.g. whether to study dance or psychology. You may want to continue studies or take up a job. There may be a conflict of values when you are pressurised to take any action that may be against the values held by you. Internal pressures stem from beliefs based upon expectations from inside us to ourselves such as, 'I must do everything perfectly'. Such expectations can only lead to disappointment. Many of us drive ourselves ruthlessly towards achieving unrealistically high standards in achieving our goals. Social pressures may be brought about from people who make excessive demands on us.

This can cause even greater pressure when we have to work with them. Also, there are people with whom we face interpersonal difficulties, 'a personality clash' of sorts.

Social Stress

These are induced externally and result from our interaction with other people. Social events like death or illness in the family, strained relationships, trouble with neighbours are some examples of social stresses. These social stresses vary widely from person to person. Attending parties may be stressful for a person who likes to spend quiet evenings at home while an outgoing person may find staying at home in the evenings stressful.

Sources of Stress

A wide range of events and conditions can generate stress. Among the most important of these are major stressful life events, such as death of a loved one or personal injury, the annoying frequent hassles of everyday life and traumatic events that affect our lives.

Life Events

Changes, both big and small, sudden and gradual affect our life from the moment we are born. We learn to cope with small, everyday changes but major life events can be stressful, because they disturb our routine and cause upheaval. If several of these life events that are planned (e.g. moving into a new house) or unpredicted (e.g. break-up of a long-term relationship) occur within a short period of time, we find it difficult to cope with them and will be more prone to the symptoms of stress.

Hassles

These are the personal stresses we endure as individuals, due to the happenings in our daily life, such as noisy surroundings, commuting, quarrelsome neighbours, electricity and water shortage, traffic snarls, and so on. Attending to various emergencies are daily hassles experienced by a housewife. There are some jobs in which daily hassles are very frequent. These daily hassles may sometimes have devastating consequences for the individual who is often the one coping alone with them as others may not even be aware of them as outsiders. The more stress people report as a result of daily hassles, the poorer is their psychological well-being.

Traumatic Events

These include being involved in a variety of extreme events such as a fire, train or road accident, robbery, earthquake, tsunami, etc. The effects of these events may occur after some lapse of time and sometimes persist as symptoms of anxiety, flashbacks, dreams and intrusive thoughts, etc. Severe trauma can also strain relationships. Professional help will be needed to cope with them especially if they persist for many months after the event is over.

EFFECTS OF STRESS ON PSYCHOLOGICAL FUNCTIONING AND HEALTH

What are the effects of stress? Many of the effects are physiological in nature, however, other changes also occur inside stressed individuals. There are four major effects of stress associated with the stressed state, viz. emotional, physiological, cognitive, and behavioural.

Emotional Effects : Those who suffer from stress are far more likely to experience mood swings, and show erratic behaviour that may alienate them from family and friends. In some cases this can start a vicious circle of decreasing confidence, leading to more serious emotional problems. Some examples are feelings of anxiety and depression, increased physical tension, increased psychological tension and mood swings. presents the phenomenon of 'Examination Anxiety'.

Physiological Effects : When the human body is placed under physical or psychological stress, it increases the production of certain hormones, such as adrenaline and cortisol. These hormones produce marked changes in heart rate, blood pressure levels, metabolism and physical activity. Although, this physical reaction will help us to function more effectively when we are under pressure for short periods of time, it can be extremely damaging to the body in the long-term effects. Examples of physiological effects are release of epinephrine and nor - epinephrine, slowing down of the digestive system, expansion of air passages in the lungs, increased heart rate, and constriction of blood vessels.

Cognitive Effects : If pressures due to stress continue, one may suffer from mental overload. This suffering from high level of stress can rapidly cause individuals to lose their ability to make sound decisions. Faulty decisions made at home, in career, or at workplace may lead to arguments, failure, financial loss or even loss of job. Cognitive effects of stress are poor concentration, and reduced short term memory capacity.

Behavioural Effects : Stress affects our behaviour in the form of eating less nutritional food, increasing intake of stimulants such as caffeine, excessive consumption of cigarettes, alcohol and other drugs such as tranquillisers etc. Tranquillisers can be addictive and have side effects such as loss of concentration, poor coordination, and dizziness. Some of the typical behavioural effects of stress seen are disrupted sleep patterns, increased absenteeism, and reduced work performance.

Stress and Health

You must have often observed that many of your friends (may be including yourself as well!) fall sick during the examination time. They suffer from stomach upsets, body aches, nausea, diarrhoea and fever etc. You must have also noticed that people who are unhappy in their personal lives fall sick more often than those who are happy and enjoy life. Chronic daily stress can divert an individual's attention from caring for herself or himself. When stress is prolonged, it affects physical health and

impairs psychological functioning. People experience exhaustion and attitudinal problems when the stress due to demands from the environment and constraints are too high and little support is available from family and friends. The physical exhaustion is seen in the signs of chronic fatigue, weakness and low energy. The mental exhaustion appears in the form of irritability, anxiety, feelings of helplessness and hopelessness. This state of physical, emotional and psychological exhaustion is known as burnout. There is also convincing evidence to show that stress can produce changes in the immune system and increase the chances of someone becoming ill. Stress has been implicated in the development of cardiovascular disorders, high blood pressure, as well as psychosomatic disorders including ulcers, asthma, allergies and headaches. Researchers estimate that stress plays an important role in fifty to seventy per cent of all physical illnesses. Studies also reveal that sixty per cent of medical visits are primarily for stress-related symptoms.

General Adaptation Syndrome

What happens to the body when stress is prolonged? Selye studied this issue by subjecting animals to a variety of stressors such as high temperature, X-rays and insulin injections, in the laboratory over a long period of time. He also observed patients with various injuries and illnesses in hospitals. Selye noticed a similar pattern of bodily response in all of them. He called this pattern the General Adaptation Syndrome (GAS). According to him, GAS involves three stages: alarm reaction, resistance, and exhaustion

1. **Alarm reaction stage :** The presence of a noxious stimulus or stressor leads to activation of the adrenal pituitary-cortex system. This triggers the release of hormones producing the stress response. Now the individual is ready for fight or flight.
2. **Resistance stage :** If stress is prolonged, the resistance stage begins. The parasympathetic nervous system calls for more cautious use of the body's resources. The organism makes efforts to cope with the threat, as through confrontation.
3. **Exhaustion stage :** Continued exposure to the same stressor or additional stressors drains the body of its resources and leads to the third stage of exhaustion. The physiological systems involved in alarm reaction and resistance become ineffective and susceptibility to stress-related diseases such as high blood pressure becomes more likely.

Selye's model has been criticised for assigning a very limited role to psychological factors in stress. Researchers have reported that the psychological appraisal of events is important for the determination of stress. How people respond to stress is substantially influenced by their perceptions, personalities and biological constitutions.

COPING WITH STRESS

In recent years the conviction has grown that it is how we cope with stress and not the stress one experiences that influences our psychological well-being, social functioning and health. Coping is a dynamic situation-specific reaction to stress. It is a set of concrete responses to stressful situations or events that are intended to resolve the problem and reduce stress. The way we cope with stress often depends on rigid deep-seated beliefs, based on experience, e.g. when caught in a traffic jam we feel angry, because we believe that the traffic 'should' move faster. To manage stress we often need to reassess the way we think and learn coping strategies. People who cope poorly with stress have an impaired immune response and diminished activity of natural killer cells. Individuals show consistent individual differences in the coping strategies they use to handle stressful situations. These can include both overt and covert activities.

The three coping strategies given by Endler and Parker are:

1 **Task-oriented Strategy :** This involves obtaining information about the stressful situation and about alternative courses of action and their probable outcome; it also involves deciding priorities and acting so as to deal directly with the stressful situation. For example, schedule my time better, or think about how I have solved similar problems.

2 **Emotion-oriented Strategy :** This can involve efforts to maintain hope and to control one's emotions; it can also involve venting feelings of anger and frustration, or deciding that nothing can be done to change things. For example, tell myself that it is not really happening to me, or worry about what I am going to do.

3 **Stress Management Techniques**

Stress is a silent killer. It is estimated to play a significant role in physical illness and disease. Hypertension, heart disease, ulcers, diabetes and even cancer are linked to stress. Due to lifestyle changes stress is on the increase. Therefore, schools, other institutions, offices and communities are concerned about knowing techniques to manage stress. Some of these techniques are:

- **Relaxation Techniques :** It is an active skill that reduces symptoms of stress and decreases the incidence of illnesses such as high blood pressure and heart disease. Usually relaxation starts from the lower part of the body and progresses up to the facial muscles in such a way that the whole body is relaxed. Deep breathing is used along with muscle relaxation to calm the mind and relax the body.
- **Meditation Procedures :** The yogic method of meditation consists of a sequence of learned techniques for refocusing of attention that brings about an altered state of consciousness. It involves such a thorough

concentration that the meditator becomes unaware of any outside stimulation and reaches a different state of consciousness.

- **Biofeedback :** It is a procedure to monitor and reduce the physiological aspects of stress by providing feedback about current physiological activity and is often accompanied by relaxation training. Biofeedback training involves three stages : developing an awareness of the particular physiological response, e.g. heart rate, learning ways of controlling that physiological response in quiet conditions; and transferring that control into the conditions of everyday life.

- **Exercise :** Exercise can provide an active outlet for the physiological arousal experienced in response to stress. Regular exercise improves the efficiency of the heart, enhances the function of the lungs, maintains good circulation, lowers blood pressure, reduces fat in the blood and improves the body's immune system. Swimming, walking, running, cycling, skipping, etc. help to reduce stress. One must practice these exercises at least four times a week for 30 minutes at a time. Each session must have a warm-up, exercise and cool down phases

Anxiety Disorders

Occasional anxiety is a normal part of life. Many people worry about things such as health, money, or family problems. But anxiety disorders involve more than temporary worry or fear. For people with an anxiety disorder, the anxiety does not go away and can get worse over time. The symptoms can interfere with daily activities such as job performance, schoolwork, and relationships.

There are several types of anxiety disorders, including generalized anxiety disorder, panic disorder, social anxiety disorder, and various phobia-related disorders.

Signs and Symptoms

Generalized Anxiety Disorder

Generalized anxiety disorder (GAD) usually involves a persistent feeling of anxiety or dread, which can interfere with daily life. It is not the same as occasionally worrying about things or experiencing anxiety due to stressful life events. People living with GAD experience frequent anxiety for months, if not years.

Symptoms of GAD include:

- Feeling restless, wound-up, or on-edge
- Being easily fatigued
- Having difficulty concentrating
- Being irritable
- Having headaches, muscle aches, stomachaches, or unexplained pains
- Difficulty controlling feelings of worry
- Having sleep problems, such as difficulty falling or staying asleep

Panic Disorder

People with panic disorder have frequent and unexpected panic attacks. Panic attacks are sudden periods of intense fear, discomfort, or sense of losing control even when there is no clear danger or trigger. Not everyone who experiences a panic attack will develop panic disorder.

During a panic attack, a person may experience:

- Pounding or racing heart
- Sweating
- Trembling or tingling
- Chest pain
- Feelings of impending doom
- Feelings of being out of control

People with panic disorder often worry about when the next attack will happen and actively try to prevent future attacks by avoiding places, situations, or behaviors they associate with panic attacks. Panic attacks can occur as frequently as several times a day or as rarely as a few times a year.

Social Anxiety Disorder

Social anxiety disorder is an intense, persistent fear of being watched and judged by others. For people with social anxiety disorder, the fear of social situations may feel so intense that it seems beyond their control. For some people, this fear may get in the way of going to work, attending school, or doing everyday things.

People with social anxiety disorder may experience:

- Blushing, sweating, or trembling
- Pounding or racing heart
- Stomachaches
- Rigid body posture or speaking with an overly soft voice
- Difficulty making eye contact or being around people they don't know
- Feelings of self-consciousness or fear that people will judge them negatively

Phobia-related disorders

A phobia is an intense fear of or aversion to specific objects or situations. Although it can be realistic to be anxious in some circumstances, the fear people with phobias feel is out of proportion to the actual danger caused by the situation or object.

People with a phobia:

- May have an irrational or excessive worry about encountering the feared object or situation
- Take active steps to avoid the feared object or situation
- Experience immediate intense anxiety upon encountering the feared object or situation
- Endure unavoidable objects and situations with intense anxiety

There are several types of phobias and phobia-related disorders:

Specific Phobias (sometimes called simple phobias): As the

name suggests, people who have a specific phobia have an intense fear of, or feel intense anxiety about, specific types of objects or situations. Some examples of specific phobias include the fear of:

- Flying
- Heights
- Specific animals, such as spiders, dogs, or snakes
- Receiving injections
- Blood

Social anxiety disorder (previously called social phobia): People with social anxiety disorder have a general intense fear of, or anxiety toward, social or performance situations. They worry that actions or behaviors associated with their anxiety will be negatively evaluated by others, leading them to feel embarrassed. This worry often causes people with social anxiety to avoid social situations. Social anxiety disorder can manifest in a range of situations, such as within the workplace or the school environment.

Agoraphobia: People with agoraphobia have an intense fear of two or more of the following situations:

- Using public transportation
- Being in open spaces
- Being in enclosed spaces
- Standing in line or being in a crowd
- Being outside of the home alone

People with agoraphobia often avoid these situations, in part, because they think being able to leave might be difficult or impossible in the event they have panic-like reactions or other embarrassing symptoms. In the most severe form of agoraphobia, an individual can become housebound.

Separation anxiety disorder: Separation anxiety is often thought of as something that only children deal with; however, adults can also be diagnosed with separation anxiety disorder. People who have separation anxiety disorder have fears about being parted from people to whom they are attached. They often worry that some sort of harm or something untoward will happen to their attachment figures while they are separated. This fear leads them to avoid being separated from their attachment figures and to avoid being alone. People with separation anxiety may have nightmares about being separated from attachment figures or experience physical symptoms when separation occurs or is anticipated.

Selective mutism: A somewhat rare disorder associated with anxiety is selective mutism. Selective mutism occurs when people fail to speak in specific social situations despite having normal language skills. Selective mutism usually occurs before the age of 5 and is often associated with extreme shyness, fear of social embarrassment, compulsive traits, withdrawal, clinging behavior, and temper tantrums. People diagnosed with selective mutism are often also diagnosed with other anxiety disorders.

Risk Factors

Researchers are finding that both genetic and environmental factors contribute to the risk of developing an anxiety disorder. The risk factors for each type of anxiety disorder vary. However, some general risk factors include:

- Shyness or feeling distressed or nervous in new situations in childhood
- Exposure to stressful and negative life or environmental events
- A history of anxiety or other mental disorders in biological relatives

Anxiety symptoms can be produced or aggravated by:

- Some physical health conditions, such as thyroid problems or heart arrhythmia
- Caffeine or other substances/medications

If you think you may have an anxiety disorder, getting a physical examination from a health care provider may help them diagnose your symptoms and find the right treatment.

Treatments and Therapies

Anxiety disorders are generally treated with psychotherapy, medication, or both. There are many ways to treat anxiety, and you should work with a health care provider to choose the best treatment for you.

Psychotherapy

Psychotherapy or "talk therapy" can help people with anxiety disorders. To be effective, psychotherapy must be directed at your specific anxieties and tailored to your needs.

Cognitive Behavioral Therapy

Cognitive Behavioral Therapy (CBT) is an example of one type of psychotherapy that can help people with anxiety disorders. It teaches people different ways of thinking, behaving, and reacting to situations to help you feel less anxious and fearful. CBT has been well studied and is the gold standard for psychotherapy.

Exposure therapy is a CBT method that is used to treat anxiety disorders. Exposure therapy focuses on confronting the fears underlying an anxiety disorder to help people engage in activities they have been avoiding. Exposure therapy is sometimes used along with relaxation exercises.

REVIEW OF RELATED LITERATURE

Review of literature is a vital part of any research. It helps the researcher to know the areas where earlier studies had focused on and certain aspects untouched by them.

Parul 2022 conducted a study on examination stress among senior secondary school students in relation to their gender and stream and found that the present study that Male and Female Senior Secondary School Students differ significantly with regard to their Examination Stress. From the trend of the mean score, also it can be said that Female Senior Secondary School Students were facing more Examination Stress as compare to

males. This may be due to the difference in environment in which the two group reside. The surroundings in which a child is brought up, has a significant effect on their Examination Stress. Financial constraints of their family could be one of the reasons.

Raushan Alibekova, Chee Kai Chan and Byron Crape (2022) conducted a study on Stress, anxiety and depression in parents of children with autism spectrum disorders in Kazakhstan: prevalence and associated factors found that Significantly higher levels of stress and depression were reported among parents who perceived their needs as being unmet or extremely unmet as addressed by societal acceptance as compared to parents who reported adequate levels of needs met by social acceptance. Employed parents and parents with a higher level of perceived friends' support had less symptoms of stress, anxiety, and depression.

Goyal Anushka (2021) conducted a study on Exploring the Relationship of Academic Stress with Resilience and Self-concept of School Students and Undergraduates and found that academic stress, resilience and self concept among school students and undergraduates. Statistical analysis indicates that undergraduates are high on constructs of academic stress, self-concept and resilience although the relationship of academic stress with the self-concept and resilience of school students and undergraduates has been found to be non significant and negatively low. It was also found that there was no significant difference between undergraduates and school students on the dimension of academic stress, resilience and self concept.

Dr Partha Malakar, Sujata Ghosh (2019) - Conducted a study on Comparative Analysis of Stress, Anxiety and Depression between the Parents of Children with Autism and ADHD and found that in all the three dimensions such as stress, depression, and anxiety scores were higher for the caregivers of children with autism spectrum disorder in comparison to the caregivers of the control group. Their study findings support this present study as in this case stress, anxiety and depression scores are significantly high for the parents of children with ADHD and autism.

Reddy et al. (2018) Conducted a study on concludes that stream wise difference in stress does exist in students. It is important to deal with stress at personal, social and institutional level. Remedies such as feedback, yoga, life skills training, mindfulness, meditation and psychotherapy have been found useful to deal with stress. To identify the main reason of stress is the key to deal with it. Professionals can develop tailor made strategies to deal with stress. The integrated well being of students is important not only for the individual but for the institute as well.

K. Jayasankara Reddy*, Ms. Karishma Rajan Menon and Anjana Thattil (2018), Conducted a study on Academic Stress and its Sources among University Students The present study brought into light that academic stress still continues to be a devastating problem affecting a student's mental health and well-being. Stream wise differences in the experience of stress were also highlighted. Management of the condition thus becomes fundamental at every level namely, personal, social and institutional.

Dimitrov (2017) in his study claimed that stress can be addressed by ensuring that the students give utmost importance to their welfare. Food, exercise, work, recreation are some of the areas to focus on. He also concluded that the education system is more to do with the academic qualifications and does not contribute enough to the holistic development of students. Students are usually conditioned in a way that makes them fearful to take up upcoming challenges as the focus is only the academics and not the development of a go getter mentally.

Ciara author and Jack E. (James 2017) Conducted study on Stress among Parents of Children with and without Autism Spectrum Disorder and found that stress between parents of children with and without ASD, and between mothers and fathers, in addition to testing the interaction effect between parenting group and gender. Mothers reported higher parenting responsibility than fathers across both parenting groups. Parents of children with ASD reported significantly higher levels of parental distress, anxiety, and depression than parents of typically developing children, with no significant gender differences observed. Parents of children with ASD also had lower levels of cortisol on the third morning cortisol measure, but the parenting groups did not differ significantly with respect to other cortisol measures,. Significant correlations were found between all of the self-reported measures (i.e., parental distress, anxiety, and depression), whereas these variables were not correlated with the physiological measures.

Kaur Gurmeet, Puar Surjit Singh (2016) Conducted study on Relationship Between Mental Health And Academic Stress Of Senior Secondary School Students and found that Significant and negative correlation indicated that less the academic stress level better will be the mental health and vice-versa. Rural senior secondary school students were found to be having less academic stress and better mental health than their urban counterparts.

- Operational definition of Anxiety 'Anxiety refers A Strong feeling of worry or fear, especially about the future'
- Operational definition of stress ' Stress Emphasizing an illustrated guide to coping with adversity or a difficult situation. Informed by evidence and extensive field testing for anyone experiencing stress to cope with it'
- Operational definition of 'Autism Spectrum Disorder 'Autism Spectrum Disorder is a Neuro development Disorder impaired socialization Communication & reciprocal behavior.

OBJECTIVES OF THE STUDY

The following objectives are formulated for the proposed study:

- To Explore the stress among male and female parents of Autism Spectrum Disorder
- To Explore the stress among government and private male and female parents of Autism Spectrum Disorder
- To Explore the anxiety among male and female parents of Autism Spectrum Disorder
- To Explore the anxiety among government and private male and female parents of Autism Spectrum Disorder
- To analyze the relationship between anxiety and stress among parents of Autism Spectrum Disorder

HYPOTHESES

The following hypotheses are formulated to empirically validate the above objectives:

- There will be significant difference in the stress among male and female parents of Autism Spectrum Disorder
- There will be significant difference in the anxiety among male and female parents of Autism Spectrum Disorder
- There will be significant difference between anxiety and stress of parents of Autism Spectrum Disorder

DATA ANALYSIS AND INTERPRETATIONS

Result

This chapter deals with the detailed description of the empirical findings of the present investigation. The data collected was coded, tabulated and analyzed by using appropriate statistical techniques.

Demographic profile of the respondents.

A total no. of 60 participants Out of 60 (30 were from government school and 30 from public School children parents) out of 60 30 were male and remaining 30 female children parents out of 30 were from government school 15 Male and reaming 15 Female children parents , and out of 30 were form public School 15 Male and reaming 15 Female children parents, Were included in the sample of disabled student group.

The age of the of parents group range from (30 years to 40 years) were selected from different schools.

Table1: Age profile of the Participants.

Age Range	Mean age	No. of Participants	Percentage
1. Sr. secondary student (30-45)	37.5	60	100%

The findings of Table:

The finding table 1 presents the category of age and percentage (%) of the parents. Total no of participants 60. The **mean age of the participants is 37.5.**

Table 2 Level of stress among male and female parents

Sr. no.	Personality type	Male (30)		Female (30)	
		No.	%	No.	%
01	Low Stress	12	40%	8	26.66
02	Moderate Stress	11	36.66	13	43.33
03	High Stress	07	23.33	9	30

The finding table 2 presents the **Level of stress Among male and female parents,** above table shows that out of 30 male parents (12) 40% parent having low or mild stress , (11) 36.67% having moderate level stress and remaining (07) 23.33% parent having high level of stress While In female parents out of 30 parents (8) 26.67% parent having mild or low level stress , (13) 43.33% having moderate level stress and remaining (9) 30% parents having high level of stress.

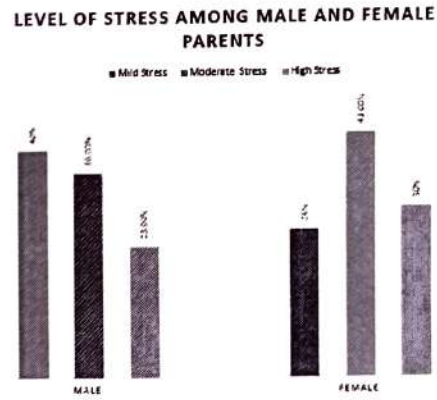

Figure -1 Graphical representation level of stress among male and female parents

The finding figure 1 presents the Level of stress Among male and female parents, above figure shows that out of 30 male parents (12) 40% parent having low or mild stress , (11) 36.67% having moderate level stress and remaining (07) 23.33% parent having high level of stress While In female parents out of 30 parents (8) 26.67% parent having mild or low level stress , (13) 43.33% having moderate level stress and remaining (9) 30% parents having high level of stress.

Table: 3 Mean comparison and correlation of stress among male and female parents.

*	Mean		Correlation	t value	Significance value
	Male (n=30)	Female (n=30)			
Level of stress Among male and female parents	1.83	2.03	0.63	1.00	Sig**

The finding Table: 3 present the mean comparison of stress among male and female parents The table shows that the mean value of the male parents is 1.83 and female parent mean value was 2.03 and between male and female parent have a positive correlation was 0.63 and the t-value is statistically found not significant because the calculated t-value (1.00) is lower than the table value 2.00, therefore there is no significant difference between male and female parent in the stress level.

Table 4 - Level of stress among male and female parents in Government School

Sr.	Personality type	Government School (30)			
		Male students (15)		Female Students (15)	
		No.	%	No.	%
01	Low Stress	7	46.66%	4	26.66%
02	Moderate Stress	5	33.33%	6	40%
03	High Stress	3	20%	5	33.33%

The finding table 4 presents the **Level of stress among male and female parents in Government School** above table Shows That out of 15 male Government School student (7) 46.66% parent having low stress, (5) 33.33% having moderate stress and remaining (3) 20% students having high level of stress While out of 15 female Government School student out of 15 student (4) 26.67% student parent having low stress, (6) 40% having moderate stress and remaining (5) 33.33% students parent having high level of stress .

CONCLUSION

The purpose of the study was to determine if there will be significant difference in personality type gender and level of stress among students in the senior secondary level .The study was also designed to assess the level of stress and anxiety among parent autism spectrum disorder students. The finding table 2 presents the Level of stress Among male and female parents, above table shows that out of 30 male parents (12) 40% parent having low or mild stress , (11) 36.67% having moderate level stress and remaining (07) 23.33% parent having high level of stress While In female parents out of 30 parents (8) 26.67% parent having mild or low level stress , (13) 43.33% having moderate level stress and remaining (9) 30% parents having high level of stress.

The finding table 6 presents the Level of Anxiety Among male and female parents, above table shows that out of 30 male parents (11) 36.66% parent having low or mild Anxiety , (14) 46.67% having moderate level Anxiety and remaining (05) 16.66% parent having high level of Anxiety While In female parents out of 30 parents (6) 20.00% parent having mild or low level Anxiety , (16) 53.33% having moderate level Anxiety and remaining (8) 26.66% parents having high level of Anxiety.

The finding Table: 3 present the mean comparison of stress among male and female parents The table shows that the mean value of the male parents is 1.83 and female parent mean value was 2.03 and between male and female parent have a positive correlation was 0.63 and the t-value is statistically found not significant because the calculated t-value (1.00) is lower than the table value 2.00, therefore there is no significant difference between male and female parent in the stress level. Therefore here our hypothesis H1- There will be significant difference in the stress among male and female parents of Autism Spectrum Disorder.is found not significant its going null because because the calculated t-value (1.00) is lower than the table value 2.00, therefore there is no significant difference between male and female parent in the stress level

The finding Table: 7 present Mean comparison and correlation of Anxiety among male and female parents, The table shows that the mean value of the male is 1.80 and female parent mean value was 2.06 and between male and female parent have a positive correlation was 0.72 and the t-value is statistically found significant because the calculated t-value (1.52) is lower than the table value 2.00, on 0.5 reliability level while on 0.10 reliability level is 1.57 therefore there is significant difference between in the stress level in male and female participants. Therefore here our hypothesis H2 There will be significant difference in the anxiety among male and female parents of Autism Spectrum Disorder is proved and on the base of table 3 and table 7 cumulative our H3 There will be significant difference between anxiety and stress of parents of Autism Spectrum also proved

M. Lavanya and R. Ganesan (2014) conducted a study to find the comparative analysis on stressors among school students of various standards. The data was collected from high school students using structured questionnaire and was analyzed using statistical package for social sciences (SPSS 17.0). The findings suggested that higher physical stress levels could contribute to anxiety, negative emotions, depression, sleeping disorders and loneliness. High-stakes learning and performance situations could put a counterproductive stress on students. There was a significant difference between the weight gain/loss and their classes. There was a significant relationship between class standards and sadness/depressive behavior. This study also supported the researchers study.

The sum up, results of the present study, it is concluded that:

- Majority students of government and private school students majority of students parent having mild level stress
- Interventions should be undertaken to manage the excessive stress in parents with disabled children.
- Majority of the student parent having moderate level of stress.
- Majority of the student parent having mild level of Anxiety.
- Majority of the student parent having moderate level of Anxiety.
- Very few student parent having high perceived level of stress.
- Very few student parent having high level of anxiety
- Anxiety and stress level are dependent each other.

- There will be significance difference between level of stress and anxiety it also showed in male and female student parents, government and private also.
- There are differ level of stress level and anxiety in male and female, government and private school student parent.

REFERENCES

- Acharya, Y.T. (1996), The Relationship Between Personality and Essential Hypertension. Indian Psychological Review, 46, 3-4, 50-56.
- American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders 5th ed. CBS Publishers: New Delhi; 2013. Section II 50-55. 2. American Psychiatric Association:
- Diagnostic and Statistical Manual of Mental Disorders-5 th ed. CBS Publishers: New Delhi; 2013. Section II66-70.
- Arun P, Chavan BS, Bhargava R, Sharma A, Kaur J. Prevalence of specific developmental disorder of scholastic skill in school students in Chandigarh, India. Indian Journal of Medical Research. 2013;138: 89-98
- Agarwal, A and Khokhar, C.P. (1999), Frustration and Anxiety in Diabetics and Normals.
- Praachi Journal of Psycho-Cultural Dimensions, 15, 2, 157-161.
- Agarwal, S.C. and Singh, S. (2004), Achievement Motivation of Co-Educational and Single Sex Educational Sr.secondary Students. Indian Journal of Psychometry and Education,35,1,26-31.
- Agung, G., Suryani, S., & Hernawaty, T. (2018). Relationship between Academic Stress, Family and Peer Attachment with Internet Addiction in Adolescents. ResearchGate Publication.
- Alsulami, S., Al Omar, Z., Binnwejim, M. S., Alhamdan, F., Aldrees, A., Al-Bawardi, A., Alsohim, M., & Alhabeeb, M. (2018). Perception of academic stress among Health Science Preparatory Program students in two Saudi universities.
- Advances in medical education and practice, 9, 159164. https://doi.org/10.2147/AMEP.S143151
- Anupama, S., & Sarada, D. (2020). Academic stress and levels of life skills among high school children. IP Indian Journal of Neurosciences. 6(4):241-246.
- Austin, E., Saklofske, D., & Mastoras, S. (2010). Emotional intelligence, coping and examrelated stress in Canadian undergraduate students. Australian Journal of Psychology, 62(1), 42-50. 10.1080/00049530903312899.
- Ahuja Niraj. (2002) A Short Textbook Of Psychiatry(5th edition.). New Delhi, Jaypee Medical Publisher (Pvt) Ltd.,
- American Psychiatric Association (2000) Diagnostic and statistical manual of mental disorders(4th edition.). Washington, American Psychiatric Association.
- Barbara Schoen Johnson (1995). Child adolescent and family psychiatry nursing Philadelphia, . Lippincott Company.
- Basavanthappa B.P. (1998), Nursing research(3rd edition), Mumbai , Jaypee Brother Publisher.

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Activities of Daily Living For Visual Impairment Students

Ms. Mansa Verma
Asst. Professor, Spl. Edu. (VI Dept.)
AIRSR

ABSTRACT

A Visually Impaired Students because of difficulty in imitation cannot Perform the routine activities in a required manner for this reason visually impaired students need to learn how to do their daily living activities Daily living skills are those skills which enable us to carry out our day-to day activities on our own.it is necessary for the visually impaired students to take education training and practical early motor development also we would notice that a VIC considerably lags behind in motor movements. Activities like crawling, standing, sitting, walking are usually delayed in a therefore it is very important to develop O&M skills in very VIC right from the first year of his birth Orientation & Mobility (O&M)Training began is the art and science of teaching a person with vision loss to travel efficiently, safely and independently according to the individual's goals and ability. Orientation and mobility training impairments to travel safely efficiently and Independently in various environment in order to travel safely and efficiently the client needs.

Key Words

Orientation and Mobility, vision rehabilitation, Sensory development, Visual Impairment, white cane technique, sighted guide, Training, Mobility specialist, Long white canes, Education, Electronic Device.

Introduction

Daily Living Activities (DLA) comprises everything entailed in visual impairment life and relationships. These are the basic activities necessary during an ordinary day The ability to move independently safely and purposefully is of primary importance for all of us .the infant who learns to craw the toddler who takes his first step ,the if visually impaired students are trained with white cane techniques he or she can remarking the height, able for shore lining, can ascend stairs, can ascend from stairs, can crossing the road, can ascend in bus or rickshaw, can descend from bus or rickshaw, can and go with narrow space or door of a house.

Here after daily living activities will be used as daily living skills. the sighted person normally learn to perform these activities by themselves by observing other persons.

The environment deprivation and lack of opportunities also block the development of these daily living activities in the person with visual impairment as visual discrimination is involved in these activities, a visually impaired person cannot learn the same on his own the activities a person does daily from the moment he wakes up in moment and till she/he goes bed are considered as DLS or daily living skills in the other work. The basic activities that a person employee daily to maintain and keep himself and on per with the other and certain activities that are must for a person to live and does on a day to day.

Objectives of Teaching

To carry out day to day activities on his/her or with minimal assistance and safety, to be independent or to be self-sufficient in all functional activities, to develop self-confidence, to develop healthy personal and family relationships. To learn scientific management of self and home. To expedite comprehensive rehabilitation including economic independence and to develop a positive self-image.

Self-Help skills: Eating, Brushing, Dressing, Bathing, Toilet Training combing and washing heir, cutting nails, applying make-up, care and identification of clothes, taking care during menstruation, shaving.

Home Skills: Sweeping and mopping the Floor, dusting, washing utensils, washing-drying-folding- ironing clothes, sewing, polishing, money identification and management, feeding cattle, cutting grass, cleaning yard.

Cooking skills: Buying Food-stuffs from the market, cleaning, peeling fruits and vegetables, correct storage of food-stuff, identification fresh/stale fruits and vegetables, lighting stove/ gas stove, correct storage of lighting, preparing simple food, safe use of knives, measuring food items, cleaning and cooking fish non vegetarian food.

Training Strategy: Before planning any activity for a visually impaired child try to understand in which area what adaptation is required and then designs your programme accordingly.

Teaching about orientation: sighted child gathers

information about his environment mostly through vision for a VIC.

The Academy for Certification of Vision Rehabilitation and Education Professionals (ACVREP) offers certification for vision rehabilitation on professionals, including O&M Specialists. A Certified Orientation and Mobility Specialist (COMS) must adhere to a professional Code of Ethics and demonstrate knowledge and teaching skills in the following areas:

- Orientation and mobility (Cane Skill) services are commonly sought multiple times through the life of a single blind or visually impaired person ,because they are specific to certain locations such as homes ,workplaces and other necessary destinations that are prone to change throughout life
- Common techniques taught include cane travel ,trailing, locating dropped objects ,navigating
- Street crossings and others.
- Problem solving skills to determine what to do if you are disoriented or lost or need to change route
- Using public transportation and transit systems.
- Orientation and mobility (Cane Skill) services are commonly sought multiple times through the life of a single blind or visually impaired person ,because they are specific to certain locations such as homes ,workplaces and other necessary destinations that are prone to change throughout life
- Common techniques taught include cane travel ,trailing, locating dropped objects ,navigating
- Street crossings and others.

CONCLUSION

It can be concluded that maximum learning outcome expected of the children with visual impairment in an inclusive educational setting can be achieved. Classroom instructor must have a look at the following-

Totally Blind- Which method the person gets no beneficial statistics via the sense of imaginative and prescient and should use tactile and auditory senses for gaining knowledge of extreme impairment.

Functionally Blind- Which means learners learn mostly through other sensed but may be able to use vision to supplement information received from the other functions. Vision can't be measured the use of field of vision and visible hobby tests.

REFERENCES

- Acredolo L. P. Develoment of spatial orientation in infancy. Developmental Psychology, 1978, 14, 224234.
- Soong GP, Lovie-Kitchin JE, Brown B. Does mobility performance of visually impaired adults improve immediately after orientation and mobility training?. Optometry and Vision Science 2001;78(9):657-66.
- Geruschat DR, Del'Aune W. Reliability and validity of O and M instructor observations. Journal of Visual Impairment and Blindness 1989;83(9):457-60.
- Hoover RE. Foot travel without sight. Outlook for the blind and teachers forum 1946; Vol. 40:244-51.
- Wiener WR, Siffermann E. Development of orientation and mobility certification examination. Journal of Visual Impairment and Blindness 2000;94(8):485-94.
- Jacobson WH. The art and science of teaching orientation and mobility to persons with visual impairment. New York: AFB Press, 1993.
- Hill E., and Ponder P. Orientation and mobility techniques: A guide for the practitioner. New York: American Foundation for the Blind, 1976.

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Indoor and Outdoor Travel CWVI

Ms. Radha Rani Rawat
Asst. Professor, Spl. Ed. (HI Dept)
AIRSR

Abstract:
A 1987 study by the Royal National Institute for the Blind (RNIB) provided significant evidence that there were approximately one million people in the UK over the age of 16 who were considered blind or partially sighted. If you dig deeper into the data, you'll see that 90% of their are over the age of 59, with significantly more women than men across all age groups. While we primarily rely on vision to orient ourselves, blind people rely on other senses to orient themselves and move freely. You must use your senses of hearing, touch, and smell to determine your position relative to surrounding obstacles and landmarks. While we primarily rely on vision to orient ourselves, blind people rely on other senses to orient themselves and move freely. You must use your senses of hearing, touch, and smell to determine your position relative to surrounding obstacles and landmarks. It is the action of travelling of going from one place to another and to be mobile a person should be able to gather and use sufficient information from the environment to avoid hazards and to reach his destination safely.

Key Words:
O&M(Orientation and Mobility), CWVI(Children with visually impairment), VI(Visually impairment).

Introduction:
Movement is essential to every living and independent mobility is an important prerequisite for full participation in modern society. People who are visually impaired often experienced reduce mobility affecting vocational educational and recreational opportunities and activities of daily life such as shopping and access to health care. Despite the widespread belief that children are naturally active, a growing percentage of them do not participate in enough physical activity to maintain appropriate fitness levels. Youngsters with vision impairments should be especially concerned because they are frequently unable to participate in the entire spectrum of physical activities. Walking on uneven surfaces is often challenging for children with VI. Access to specified play spaces can be facilitated by handrails. Steps with vibrant colors can make moving from one place to another easier. There should be a safe level space in the playground and there should be few abrupt height changes. Push-toys and scooters can keep kids from tripping over obstacles while also assisting with steadiness and self-assurance in movement. Play mats made of rubber and bark can serve as safe ground covers. Potential hazards can be reduced by creating specific spaces for the storage of any play equipment that is not in use. Additionally, a system of verbal or tactile cues can be devised to alert people of uneven terrain ahead. Well-planned obstacle courses can be an enjoyable and successful way to improve your ability to observe and sense spatial relationships. It is essential that children who are deaf-blind or children with visually impaired receive learning opportunities and instruction that facilitate purposeful movement.

ESSENTIALS FOR MOBILITY SKILLS
There are some skills and techniques provide an overview of the different types of mobility skills and a better understanding of the purpose of each skill. It is necessary to consult with orientation and mobility specialist who can help to refine and individualized specific mobility skills appropriate for a particular child develop individualized instructional program and recommend additional resource information. Orientation skills enable the students to use sensory information to move purposefully in the environment. Orientation skills instruction is designed to teach the student to use environmental cues.

Guided Travel
Walking with a companion was part of this mobility approach, known as "sighted guide travel." There are also human guides and guided travel options. The child must grasp the guide's arm so that the thumb is on the outside and the other fingers are gripping the inside of the arm. This way allows the deaf-blind or

blind child to maintain a steady grip on the guide arms while following the around obstacles as they travel through the environment. The guide can use arm movements to provide "cues" regarding the surroundings, such as warnings when the child is about to approach stairs, doorways, or narrow space, because the youngster is half a step behind and to the side of the guide. The guide can move the guiding arm behind his or her back to indicate that they are approaching a narrow space and must walk single file. Other cues can be given to indicate stairs and doors.

Protective Techniques

With the use of protective tactics, students may navigate familiar environments on their own and securely discover objects while keeping their bodies safe. Protection skills are meant to give information about the surroundings when travelling, and they are mostly utilized in comfortable interior settings. The student will be protected from objects at head and chest level by practicing upper hand and forearm protection skills, which involve bending and holding the arm across the body at shoulder height, parallel to the floor, with the palm facing outward and the fingertips extending beyond the opposite shoulder. Protection for the lower body from waist to upper leg level is provided by the arm held diagonally across the torso and stretched downward. While they can be taxing, these two methods are occasionally combined. Usually, these methods are applied when necessary rather than on a constant basis.

Trailing

A pupil will extend their arm at a 45-degree angle while trailing, keeping it to the side and slightly in front of their body while still making contact with a wall or other surface. A pupil may be able to retain alignment by using this technique (figure 6). Along with some environmental information, it also offers some protection while transit. Numerous circumstances call for the application of this expertise. Examples include moving through halls in search of a certain object, such a door, or along a building's exterior when a student has to preserve orientation by achieving a straighter line of travel.

Mobility Devices

When utilized correctly, a variety of mobility aids can give a student the ability to walk independently, safely, and effectively. The long white cane is the mobility aid that people are most familiar with. There are numerous other mobility aids available, such as modified canes. As a kind of "extension" for the user's arm(s), hand(s), and fingers, mobility devices shield them from hazards and give them access to vital environmental data. Numerous views exist about the choice of mobility aids, when to start teaching, and what abilities are required to justify teaching with a specific aid. The student's team must consult closely with an O&M specialist when deciding how to deploy mobility equipment.

Dog Guides

When it comes to canes, some deaf-blind people would rather use dog guides. Specialised dog guide schools teach how to employ dog guides. Many schools also provide their services to people who are deaf blind. However, the majority of schools focus on working with adults who are blind or visually impaired. The majority of school-based training programmes last one or more weeks, and many also offer follow-up education in the student's home. It's critical to keep in mind that a person choosing to hire a canine guide still bears responsibility for their own travels. The dog is not the one who decides what is safe or what direction to follow. Before being admitted into the training programme, the majority of dog guide schools demand that their students be experienced travelers. People who are thinking about getting a dog guide should be aware that taking care of their dog also involves additional duties, such as daily feeding, brushing, and dealing with urination problems. While some do work with younger children, the majority of dog guide schools prefer to only accept applicants who have completed high school.

Electronic Travel Aids

Electronic Travel Aids (ETAs) are handheld gadgets that produce sonar or laser signals, which are transformed into tactile or auditory cues and reflected back to the user while they are travelling. The hand-held, chest, head, wheelchair, or cane-mounted devices are typically utilized to furnish additional information when travelling. People who use ETAs can learn how to decipher information from the gadget regarding potential roadblocks, "openings" in passageways, and drop-offs or inclines in the travel surface. They can also be applied to improve the ability to follow.

Wheelchair Mobility

A highly customized O&M programme is required for students who use wheelchairs. It should consider the student's residual senses, his or her capacity to utilise a chair with one hand, and the possibility of using a motorized wheelchair. In addition to the O&M expert, the student's physical therapist and occupational therapist must be actively involved in all choices about mobility for wheelchair users.

Conclusion

A necessary condition for full engagement in contemporary society is autonomous mobility. Reduced mobility affects daily activities like shopping and access to healthcare, as well as chances for employment, education, and recreation for those

who are visually impaired. Depression and social isolation can also be brought on by decreased mobility. "Orientation and mobility training" is the process of teaching a visually impaired individual how to move freely and independently about their surroundings. It is among the most crucial areas of training for the blind, involving intense work, ongoing instruction from family members and researchers, and practice on the part of the individual. Depending on a person's age, the age at which their visual impairment first appeared, the degree of residual vision, how well they use their remaining eyesight, and the amount of their disability, different types of training will be required. For example, a child who loses sight a few years after birth would have established some awareness of space and things, which will benefit him throughout orientation and mobility training, as contrasted to a child who is born blind. As a result, you must design a mobility training regimen that is ideal for the individual.

REFERENCES

- Cmar, J.L(2015). Orientation and mobility skills and outcome expectation as predictors or employment for young adults with visual impairments. Journal of visual impairment & blindness,109(2),95-106
- SSC Education.retrieved from thttps://www.ssc.education.ed.ac.uk/courses/vi&multi/vjun11iii.htmlon 14/2/2024.
- Government of India. The Mental Health Act. In: 14. India: Ministry of Law and Justice, Legislative Department; 1987. Retrieved from http://wcdsc.ap.nic.in/documents/acts_dw/Mental_Health.pdf.
- Arun Manna. Orientation and mobility, Renova Interbnational publication 2019.
- Blind-initiation & Development, Mumbai: National Association for the Blind, P.182.

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Orientation and Mobility: Definition, Importance and Scope in SupportingChildren with Special Needs

Ms. Anupama Gupta
Lecturer, Spl. Ed. (ASD Dept)
AIRSR

Abstract

In the realm of education, catering to the diverse needs of children is of paramount importance. Children with special needs often require specialized interventions to ensure their holistic development. Among the crucial focus areas is Orientation and Mobility (O&M), a pivotal field in empowering children with special needs to navigate and engage with their surroundings. This article explores the definition, importance, and scope of Orientation and Mobility in the context of supporting children with special needs.

Keywords: Orientation and Mobility, Special Needs, Children, Holistic Development, Independence, Safety, Social Inclusion, Academic Success, Early Intervention, Technology Integration

Introduction

Orientation and Mobility refer to skills that enable individuals, particularly those with visual impairments or other disabilities, to understand and navigate their environment effectively. It encompasses two essential components:

1) orientation, which involves knowing where one is in space and understanding the layout of the environment and
2) mobility, which involves moving safely and efficiently within that environment.

These skills are crucial for children with special needs for their independence and overall development. The goal of O&M is to empower individuals to travel, explore, and engage with the world around them confidently, promoting a sense of autonomy.

Importance

Orientation and Mobility skills are essential for the following reasons:

- **Independence and Autonomy:** O&M skills are fundamental in fostering independence among children with special needs. The ability to navigate their environment independently contributes significantly to their self-esteem and confidence. These skills empower them to participate more actively in various daily activities at home and in educational settings.
- **Safety:** For children with special needs, safety is a primary concern. O&M training equips them with the skills to move safely in various environments, avoiding obstacles and potential hazards. This protects them from physical harm and enhances their overall well-being.
- **Social Inclusion:** Effective orientation and mobility skills facilitate social inclusion by enabling children to navigate social spaces easily. As they become more proficient in moving around independently, they are better equipped to participate in social activities, fostering positive interactions with peers and reducing feelings of isolation.
- **Academic Success:** Navigating educational environments can be challenging for children with special needs. O&M skills contribute to academic success by allowing them to move freely within school premises, access resources, and participate in classroom activities without undue hindrance.
- **Life Skills Development:** O&M training extends beyond the immediate benefits of Mobility. It instills essential life skills such as problem-solving, decision-making, and spatial awareness. These skills are transferable to various aspects of a child's life, contributing to their development and preparedness for adulthood.

Scope

With that said, the scope of Orientation and Mobility for Children with Special Needs is as follows:

- **Early Intervention:** Early intervention is crucial for children with special needs. O&M programs can be integrated into early childhood education to identify and address mobility challenges early on. This proactive approach sets the foundation for a child's future independence and success.
- **Tailored Educational Programs:** O&M should be integral to educational programs for children with special needs.

Schools and educational institutions should provide tailored O&M training to meet each child's specific needs, fostering a supportive and inclusive learning environment.

- **Collaboration with Professionals:** Collaboration among educators, O&M specialists, and other professionals is essential to comprehensively address the diverse needs of children with special needs. This interdisciplinary approach ensures that the child's educational and Mobility needs are holistically considered and met.
- **Technology Integration:** Advancements in technology offer new avenues to enhance O&M training. Virtual reality, augmented reality, and other technological tools can be integrated into programs to simulate real-world environments and provide immersive learning experiences for children with special needs.
- **Community Involvement:** The scope of O&M extends beyond the school environment. Community collaboration is vital to creating inclusive spaces where children with special needs can move around safely. Raising awareness about O&M and fostering community support can contribute to the overall well-being of these children.

Conclusion

In conclusion, Orientation and Mobility are integral components in developing and empowering children with special needs. O&M's definition, importance, and scope of O&M underscore its role in fostering independence, ensuring safety, promoting social inclusion, and laying the foundation for academic success. Embracing a holistic approach that integrates O&M into early intervention, tailored educational programs, collaborative professional efforts, technological advancements, and community involvement is essential to providing children with special needs the tools they need to thrive in a diverse and dynamic world. As we continue to advocate for inclusive education, it is imperative to recognize the transformative impact that practical Orientation and Mobility can have on the lives of these children.

References:

- American Foundation for the Blind. (n.d.). Orientation and Mobility Services.
- Corn, A. L., & Erin, J. N. (1999). Foundations of Orientation and Mobility (2nd ed.). AFB Press.
- Ferrell, K. A., & Hummell, J. (2008). Mobility and Orientation for Vision Impairment: A Training Manual. New York: AFB Press.
- Hatlen, P. (2014). The Core Curriculum for Blind and Visually Impaired Students, Including Those with Additional Disabilities. AFB Press.
- Sacks, S. Z., & Silberman, R. K. (Eds.). (2009). Educating Students Who Have Visual Impairments with Other Disabilities. AFB Press.
- Wiener, W. R., Welsh, R. L., & Blasch, B. (2010). Foundations of Orientation and Mobility (3rd ed.). AFB Press.
- World Health Organization. (2011). World Report on Disability.
- Zebehazy, K. T., & Zatta, M. E. (2009). Orientation and Mobility Techniques: A Guide for the Practitioner. AFB Press

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Tactile Exploration of Surfaces for the CWSN

Mr. Jitender Srivastava
Asst Professor, Spl. Edu. (HI Dept.)
AIRSR

ABSTRACT

The ability to explore surfaces is vital for humans, enabling interaction with a wide array of objects in their surroundings. The perception of surfaces through static touch is essential for accomplishing stable grasping tasks, maintaining control during manipulation, and obtaining geometric information about objects. Furthermore, engaging in dynamic tactile interactive tasks contributes to tasks such as texture classification and surface profiling, enriching our comprehension and interaction with the surrounding environment.

KEY-WORDS

Inclusion, Tactile Surface, Stakeholders, Rehabilitation Council of India (RCI)

INTRODUCTION

The tactile sense of touch plays a vital role in perceiving objects through physical contact, predominantly involving the fingers. Unlike other senses, which have sensory organs concentrated in specific regions, the tactile sense utilizes sensory organs distributed throughout the entire skin. Mechano receptors located in the skin are responsible for detecting environmental stimuli. These tactile signals travel to the brain through the peripheral nervous system. Depending on the touch's location, the data is directed to a specific region in the brain. Subsequently, the brain processes these signals and translates them into the human experience of the tactile sense of touch.

Review of Literature

Tactile exploration allows the student to gather information about objects in their environments. Once the student can tactually identify an object, they can learn the object's function, which is a goal of learning.(Katy Ring).

Tactile discrimination that is, perceiving the detailed shape or texture of an object normally entails active exploration. In humans, this is typically accomplished by using the hands to grasp and manipulate objects, or by moving the fingers across a surface so that a sequence of contacts between the skin and the object of interest is established.(National library of medicine).

Tactile exploration also requires that information be gathered over time by systematically exploring an object one aspect at a time. This may require multiple explorations. The inability to simultaneously perceive all parts of an object means that the entire image of the object must be built-up out of an understanding of each of its components. This is clearly not as simple a task as gathering information in a single glance. A higher level of cognition may also be needed for the integration of sequential information, and without an understanding of "the whole", or the gestalt, future learning may be impaired. The development of tactile skills follows the same general progression in the blind child as it does in the sighted child, the blind child must develop his tactile skills to a much higher degree than his sighted peer, and blind children need more stimulation and motivation over a longer period of time (The Blind Child in the Regular Kindergarten, 1977).

DISCUSSION

The development of tactile exploration skills coincides with concept development and language acquisition. Adults must intentionally create opportunities for tactile exploration and interaction before children recognize their ability to reach out and touch things. Commencing in infancy, it is crucial to encourage movement, stimulation, and access to engaging people and objects. Without early active engagement in exploration, children may adopt a passive approach to information gathering, potentially impeding the complete development of their sense of touch and tactile learning abilities.

When students with visual impairments enter school, they often

lack sufficient instruction in developing and utilizing tactile skills, and they may not have had ample opportunities to touch and explore their surroundings. This deficiency can result in a delay in concept development, impacting their ability to fully benefit from traditional instruction. Moreover, if these students haven't had adequate exposure to tactile learning experiences, educators may mistakenly assume they are primarily auditory learners. Therefore, it is imperative for children with visual impairments to learn to actively seek information about their world, with the teacher of students with visual impairment (TVI) playing a central role in guiding educational teams to ensure appropriate tactile skill development.

Conclusion

In conclusion, three integral components contribute to efficient tactile learning: motor skills (including mechanical skills and hand development), cognitive skills (encompassing an understanding of the Hierarchy of Tactile Skills), and sensory skills for physiological tactile development (involving various levels of tactile learning). These skills are equally vital and should seamlessly integrate as students progressively enhance their proficiency in using tactile skills.

References

- R. Sekuler and R. Balke. Touch. In Perception, chapter 11, pages 357383. McGraw Hill, 2 edition, 1990.
- J. C. Rothwell, M. M. Traub, B. L. Day, J. A. Obeso, P. K. Thomas, and C. D. Marsden. Manual Motor Performance in a Deafffferented Man. Brain, 105(3):515, 542, 1982.
- R.S. Johansson and G. Westling. Roles of Glabrous Skin Receptors and Sensorimo tor Memory in Automatic Control of Precision Grip when Lifting Rougher or more Slippery Objects. Experimental Brain Research, 56(3), 10 1984.

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Techniques of Orientation & Mobility for Children with Visual Impairment

Mr. Sandeep Upadhyay
Lecturer, Spl. Edu. (VI Dept.)
AIRSR

Introduction:-

Orientation and Mobility (O&M) is an important area for students with visual impairments because it is essential for the student to learn to move safely and efficiently in all environments and as independently as possible. O&M students should be able to move safely and efficiently in their environment so that they can be connected to the main stream of society. The O&M should instruct the student on how to walk in specific situations such as (halls, stairs, doors, walkways, toilets, banks, hotels, pools, parks, etc.) and may instruct the student on special techniques. Can also give instructions regarding (trailing). Alerting, "protective techniques, visual guides), and dealing with unusual environmental encounters (ice, grating, escalators, revolving doors, elevators, trains, grounds, taxis, etc.) Although the actual travel skills will be taught by O&M, teachers of visually impaired students will assist students by teaching basic concepts, body image, visual proficiency, and following O&M's instructions.

Abstract:-

It is essential to teach students who are blind or visually impaired to navigate safely from one place to another. The goal is for the visually impaired to be able to travel independently from any location in the classroom to any other location as well as to be able to travel from the classroom to important locations in the school yard. Remember, if a student has poor vision, they will not be able to observe the activities available in their environment unless they are shown through guided exploration what is available. Students should be encouraged to use all their senses to gather information about their environment. Interpreting information obtained through the student's useful vision, hearing, touch, and smell can help the student establish and maintain his or her position in space. It is very important to impart sensory knowledge to students through special training. Audition. Students can develop auditory perception of objects using sound waves through echolocation. Students can also use environmental sounds to estimate time. For example, hearing students bustling about in the hall signals that it's time to go to lunch. Touch. The sense of touch allows a student to determine the shape, size, temperature, texture and weight of any object. It can be used not only for academics but also for all areas of daily life activities (e.g. identifying food, differentiating clothes etc.) It can also be helpful in knowing what air currents are. Can check whether the doors and windows are open or not. dirt. Sense of smell can be helpful in identifying areas (e.g., Clorox in the kitchen, cafeteria, bathroom, etc.). Smell can also help warn of danger. Odor can provide information about others as well as personal hygiene. Strategies to Encourage Environmental Exploration Use your voice to help the student. Explain where you are and how students can reach you, with clear instructions and in a normal speaking voice. Explain what is happening around the student. Show where the sounds and smells are coming from. As the student explores, describe everything with variety, quality and richness. Orient the student towards the classroom/school/playground and the decoration of those areas. Let the student know if you've changed rooms or left a door open. Avoid over-protection. Remember that all babies get bumps and bruises sometimes. Protection is important, but over-protection can be just as harmful to a student as under-protection.

Instructional strategies: O&M and its purpose; assessment of O&M needs and desires; establishing goals and planning programs; instructional strategies (e.g., reinforcement, prompting, shaping, fading, and chaining); an introduction to training sequencing.

Human guide techniques: basic guiding technique; modification to the basic technique; teaching considerations; guiding through narrow spaces and doors; transferring sides and reversing directions; ascending and descending stairs; seating; accepting or refusing assistance; common courtesies.

Self-protective and positional techniques: upper-hand-and-forearm; lower-hand-and forearm; trailing; parallel alignment; squaring off.

Systematic search patterns and familiarization procedures: explanation of various search pattern (e.g., linear, fan,

expanding box); locating objects; familiarization procedures.

Cane techniques: description of the long cane; cane techniques (e.g., diagonal techniques, touch techniques, three-point touch techniques, touch-and-drag technique); contacting objects and drop-offs; negotiating doorways and stairs.

Key Points:-

Orientation & Mobility, Visual Impairment, Cane, Techniques, Sensory, ascending, stairs, modification guiding through narrow space

Conclusion:-

O&M is basically a set of verbal instructions along with some practical skills which should be taught to visually impaired children by a trained instructor of orientation and mobility. Mobility technologies include certain skills that visually impaired children need to learn to move from one place to another independently and safely and to integrate into the mainstream of society. And can be made self-reliant. O&M students should be able to move safely and efficiently in their environment so that they can be connected to the main stream of society. The O&M should instruct the student on how to walk in specific situations such as (halls, stairs, doors, walkways, toilets, banks, hotels, pools, parks, etc.) and may instruct the student on special techniques. Can also give instructions regarding (trailing). Alerting, "protective techniques, visual guides), and dealing with unusual environmental encounters (ice, grating, escalators, revolving doors, elevators, trains, grounds, taxis, etc.) Although the actual travel skills will be taught by O&M, teachers of visually impaired students will assist students by teaching basic concepts, body image, visual proficiency, and following O&M's instructions.

References

- Abogan et al., 2013
  A. Abogan, A. Achakzai, V. Bersudskaya, S. Chaskel, M. Corrarino, E. Garin, J. Hammer, et al.
- Lessons in learning: An analysis of outcomes in India's implementation of the Right to Education Act Woodrow Wilson school of public & international affairs, Princeton University (2013) Google Scholar Action, 2014 Indus Action
- Project Eklavya: Making social inclusion possible within private unaided non minority schools under Section 12 Indus Action, India (2014) (1)(c) of RTE Google Scholar Ahmad, 2015 F.K. Ahmad Challenging exclusion: Issues and concerns in inclusive education in India Researchpaedia, 2 (1) (2015), pp. 15-32 View Record in ScopusGoogle Scholar
- Ainscow et al., 2006 M. Ainscow, T. Booth, A. Alan Dyson Improving schools, developing inclusion Routledge, London (2006) Google Scholar
- Ainscow and Sandill, 2010 M. Ainscow, A. Sandill Developing inclusive education systems: The role of organisational cultures and leadership International Journal of Inclusive Education, 14 (4) (2010), pp. 401-416 View PDF
- Cay Holbrook, Alan J. Koenig. Foundations of Education, Second Edition Vol I: History and Theory of Teaching Children and Youths with Visual Impairments. AFB Press. p. 25. ISBN 978-0-89128-340-9.
- Foundations of Education, Second Edition Vol I: History and Theory of Teaching Children and Youths with Visual Impairments. p. 25.
- ACVREP. "Certified Orientation and Mobility Specialist (COMS) - ACVREP". www.acvrep.org. Retrieved 2017-10-10.
- Sauerburger, Dona (Oct 3, 2017). "Orientation and Mobility University and College Personnel Preparation Programs". Retrieved Oct 10, 2017.
- Vocational Rehabilitation - Adults | Texas Workforce Commission". www.twc.state.tx.us. Retrieved 2017-10-10.
- Virgili G, Rubin G (2010). "Orientation and mobility training for adults with low vision". Cochrane Database Syst Rev (5): Cd003925. doi:10.1002/14651858. CD003925.pub3. PMC 7138242. PMID 20464725

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The Crucial Role of Human Guides for the Visually Impaired

Mr. Dinesh Kumar Bindal
Asst. Professor, Spl. Edu. (VI Dept.)
AIRSR

Abstract:-
In a society predominantly structured for the sighted, human guides serve as crucial allies, offering multifaceted support beyond mere navigation. Addressing the challenges faced by visually impaired individuals in mobility, social engagement, and access to information, this article underscores the pivotal role played by human guides. Their contributions go beyond physical assistance, encompassing emotional support, empowerment, and advocacy for inclusive environments. While acknowledging the advancements in technology aiding the visually impaired, the article emphasizes the irreplaceable aspects of human interaction, empathy, and personalized assistance that human guides provide. By shedding light on the nuanced and invaluable role of human guides, this article advocates for continued recognition and support to ensure the holistic well-being and integration of visually impaired individuals in society.

Keywords: Orientation, Mobility, human guide, visual Impaired, inclusion, development, approach, disability, rehabilitation

Introduction:
An Orientation and Mobility Specialists works with a child who is learning to use a walker. Movement is a building block for learning. As a child explores his world and has physical contact with it, learning takes place. Children with visual impairments typically need encouragement to explore their surroundings. To them the world may be a startling and unpredictable place, or it may not be very motivating.

Orientation and mobility training helps a blind or visually impaired child knows where he is in space and where he wants to go (orientation). It also helps him be able to carry out a plan to get there (mobility). Orientation and mobility skills should begin to be developed in infancy starting with basic body awareness and movement, and continuing on into adulthood as the individual learns skills that allow him to navigate his world efficiently, effectively, and safely.

Human guides play a pivotal role in the lives of visually impaired individuals, offering invaluable assistance and support. In a world primarily designed for sighted people, these guides bridge the gap, enabling greater accessibility and independence for those with visual impairments.

Mobility and Navigation: Navigating through unfamiliar or crowded spaces can be challenging for visually impaired individuals. Human guides offer physical support and verbal directions, helping them maneuver safely through obstacles, crossroads, or crowded areas.

Safety and Confidence: Having a human guide provides a sense of security, allowing visually impaired individuals to venture into new environments with confidence. Knowing they have someone to rely on reduces anxiety and enhances their ability to explore the world around them.

Social Interaction: Human guides offer companionship and social interaction, breaking the potential isolation that visually impaired individuals might experience. Beyond practical assistance, these interactions foster connections and a sense of belonging. Access to Information: Describing visual information that sighted individuals might take for granted such as the layout of a room, facial expressions, or surroundings helps visually impaired individuals grasp their environment and engage more fully in conversations or activities.

Empowerment and Independence: Human guides empower visually impaired individuals by granting them greater independence. With assistance in tasks like grocery shopping, attending events, or using public transportation, they can lead more autonomous lives.

Personalized Support: Human guides adapt their assistance based on individual needs. Some might require subtle verbal cues, while others may need more hands-on guidance. This personalized approach ensures effective support tailored to the individual.

Advocacy and Awareness: Human guides also contribute to raising awareness about the challenges faced by visually impaired individuals. By showcasing the importance of their role, they advocate for inclusive environments and equal opportunities.

In an increasingly technology-driven world, innovative tools like GPS navigation systems and sensory devices are augmenting the role of human guides. However, the empathy, adaptability, and human connection provided by a guide remain irreplaceable in ensuring the holistic well-being and inclusion of visually impaired individuals.

Conclusion:

In conclusion, the indispensable role of human guides for the visually impaired cannot be overstated. Beyond aiding in navigation and physical support, these guides offer a lifeline of independence, confidence, and social inclusion to individuals navigating a world primarily designed for sighted individuals. Their impact goes beyond mere assistance; human guides provide a bridge to a more accessible world, fostering connections, empowering independence, and advocating for inclusivity. Despite technological advancements, the personalized care, empathy, and human connection that human guides offer remain irreplaceable in ensuring the well-being and integration of visually impaired individuals into society.

As we continue to strive for a more inclusive world, recognizing and valuing the pivotal role of human guides stands as an essential step towards creating environments that cater to the diverse needs of all individuals, regardless of their abilities. Their presence not only facilitates physical navigation but also enriches lives through meaningful interactions, fostering a more empathetic and inclusive society for everyone.

References:

- Straw LB, Harley RK, Zimmermann GJ. A program in orientation and mobility for visually impaired persons over age 60. Journal of Visual Impairment and Blindness 1991;85(3):108-13.
- Soong GP, Lovie-Kitchin JE, Brown B. Does mobility performance of visually impaired adults improve immediately after orientation and mobility training?. Optometry and Vision Science 2001;78(9):657-66.
- Geruschat DR, Del'Aune W. Reliability and validity of O and M instructor observations. Journal of Visual Impairment and Blindness 1989;83(9):457-60.
- Hoover RE. Foot travel without sight. Outlook for the blind and teachers forum 1946; Vol. 40:244-51.
- Wiener WR, Siffermann E. Development of orientation and mobility certification examination. Journal of Visual Impairment and Blindness 2000;94(8):485-94.
- Jacobson WH. The art and science of teaching orientation and mobility to persons with visual impairment. New York: AFB Press, 1993.

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Orientation & Mobility for Visually Impaired Person

Mr. Ramtirath Prajapati
Lecturer, Spl. Edu. (VI Dept.)
AIRSR

Abstract -
Special need for mobility for the visually impaired in the Indian scenario – Visually impaired persons face daily challenges of independent and safe mobility which limits the individual's economic development. And assist the visually impaired and improve their quality of life. Environmental changes have been made to enable a visually impaired person to perform all his/her activities. With the help of various types of traditional and electronic equipment, public places have been made convenient, examples of which are mostly metro, malls, parks and it is seen in places like schools etc. Here people do their orientation and mobility efficiently and without any hindrance. The government has also provided facilities in various types of jobs. The job provides a new direction to the needs of the visually impaired person and the positivity of the society and provides an opportunity to inspire other visually impaired people.

Keywords- Visually Impaired, Orientation, Mobility, Independent, society

Introduction

The Indian Constitution ensures equality, liberty, justice and dignity to all its citizens and clearly emphasizes on building an inclusive society including persons with disabilities. Society's attitude towards the disabled has changed rapidly in recent years. It is believed that if persons with disabilities get equal opportunities and effective rehabilitation facilities, they can lead a better quality of life.

Orientation and mobility is an important function for all of us, through which all the activities of life are done easily and we overcome the coming obstacles with our skill and wisdom. From birth till the last moments of death, we discharge our duties. In which all our senses together carry forward any task successfully. Due to the presence of these senses, we do not realize that they also contribute to our development, but when we are not able to use these senses together with time, and then we become aware of their loss. There is a feeling of lack.

Orientation and Mobility in a Visually Impaired Person Knowledge of how vision works helps a visually impaired person develop or re-learn the skills and concepts needed to travel safely and independently within their home and community.

Orientation and Mobility requires knowledge and skills in the following areas:-

1. Sensory development to make all senses aware to help you know where you are and where you want to go
2. Using your senses in combination with self-protective techniques and human guidance techniques to move around safely in indoor and outdoor environments
3. Using a cane and other devices to walk safely and efficiently
4. Requesting and/or refusing help
5. Finding destinations with strategies that include following directions and using landmarks and compass directions
6. Road crossing techniques, such as analyzing and identifying intersections and traffic patterns
7. Using problem-solving skills to determine what to do if you become disoriented or lost or need to change your route.
8. -Using public transportation and transit systems.

Training for visually impaired children:-

A mobility (O&M) specialist provides training to a visually impaired person to develop or re learn the skills and concepts needed to travel safely and independently in their environment. Orientation and Mobility Specialists provide services to the visually impaired across the life span, teaching children and students in preschool and school programs as well as adults through a variety of community-based rehabilitation. However, O&M specialists are primarily responsible for O&M training to facilitate independent movement both indoors and outdoors. For example, when a child is very young, teachers of visually impaired students, occupational therapists, and the physical

therapist can provide consultation to early intervention specialists and the family.

O&M training focuses on gestures to enable a visually impaired person to understand his location and navigate between familiar places, be it village or city, indoors or outdoors, with or without the aid of a stick. There is a great need for trained trainers at every place where a visually impaired person can use various techniques to integrate himself into the mainstream of society.

Conclusion

In today's time, parents of visually impaired children are being made successful parents by making them aware so that they can impart knowledge of all the skills to the child at home on the basis of which the visually impaired child can become self-reliant and contribute in various works of the society. Mobility Aids for the Visually Impaired (MAVI) is a project that works to empower visually impaired persons with improved mobility, especially in India. It tries to overcome the complications by providing safety, social inclusion and guidance.

References

- All India Confederation of the Blind Braille Bhawan, Sector-5, Rohini, Delhi-110085
- ACVREP. "Certified Orientation and Mobility Specialist (COMS) - ACVREP". www.acvrep.org. Retrieved 2017-10-10.
- Lowenfeld, B. (1981). Berthold Lowenfeld: On Blindness and Blind People. Selected Papers. New York: American Foundation for the Blind.
- Wall-Emerson, R. and Corn, A.L. (2006). Orientation and Mobility Instructional Content for Children and Youths: A Delphi Study. Journal of Visual Impairment and Blindness, 100: 331–342

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"Role of Parents for Children with Visually Impairment"

Mr. Prabhat Ranjan
Asst. Professor, Spl. Edu. (HI Dept)
AIRSR

ABSTRACT

The study investigated the impact of parental involvement in the education of children who are visually impaired in Delhi. The main areas were finding out if parents are involved in the education and all activities of children who are visually impaired examine how parents are involved in the education and all activities of children with blindness, the challenges parents face in supporting education and all activities of their children, and relationship between parents and teachers in supporting learners with visual impairment. In order to look at the respondents holistically, the researcher decides to use a Case Study. I will know about the Parent and guardian participation in the special education decision-making process is vitally important. The most important thing parents of disabled kids can do is take an active role as a member of the Individual Education Program (IEP) team that determines a student's path. The IEP team is charged with making educational decisions for students, and addresses issues such as eligibility, evaluation, program development, and placement of a child in special education or gifted programs. Parents and guardians know their kids better and should be very involved in the IEP process. Some families will have helped their child with vision impairment learn literacy skills early in their lives before arriving at school, while others will have not; some families will have been very involved in assisting the children's progress from self-awareness and use of their senses to daily routines around the environment. These learners and school administration should ensure that these learners are followed up to their various localities homes etc.

Key Words: Vision, Education, literacy, Evaluation, Development, Parents, Visually Impaired, Teachers, Blindness, Disabled,

Introduction:

The term visual impairment is an umbrella term to mean blindness and low vision. It is the term used to refer to the kind of vision loss experienced by someone who cannot see at all or someone who has partial vision loss. According to the World Health Organization (WHO August 2014), visual impairment is when the child's vision problem is permanent and cannot be corrected to give normal vision and this varies according to the degrees of visual impairment from mild loss to total blindness(no reaction to light) On the other hand, blindness refers to inability to see. This may be categorized as totally without sight where the individuals rely primarily on the other senses. According to WHO (2014), blindness refers to having a visual acuity of less than 1/60 to no light perception. Blindness is observed by WHO (2014) in three categories a person with visual acuity in the range of less than 1/60 to light perception, a person with no light perception, a person whose vision and visual acuity cannot be determined.

Low vision exists when a person's sight cannot be corrected to normal vision by glasses or contact lenses but the person has some vision. According to WHO (2014), low vision refers to a person with impaired visual functioning even after treatment and/or standard refraction and has a visual acuity of less t6/18 to light perception or vision field of less than 10o from the point of fixation but who uses or is potentially able to see thus having vision for the planning and/or when supported.

Blindness has some serious impact on learning such as difficulties in perceiving classroom instructions that involve the use of sight, problem in following visual pattern, object relationship and shape experience difficulty in concept formation and development problem with spatial awareness, difficulty completing a piece of work within a limited time, problem associating with their peers, problem with computation of skills among others.

Parents on the other hand are the caretakers of the offspring in their own species and should be able to create for a child stable nurturing home environment, a positive role model, play appositive and active part in children's life. They should be able to provide moral and spiritual guidance, set limits and provide consequences for the children's behavior.

In regards to learning, parents should be home teachers, provide for financial support, provide love and affection, provide for the basic needs of life such as food, shelter and clothing, provide educational materials such as books, pens, uniforms, Braille papers ,etc so as to support the learning of these children.

Therefore for the purpose of this study, the researcher focused on the effect of parental involvement on the education of children who are blind in the above school.

Different Types Of visual Impairment:

Visual impairment is a common term for any condition that affects the eyes or optical system. There are several types of visual impairments, each with unique characteristics and causes.

One of the common forms of visual impairment is myopia, also known as nearsightedness. In this eye condition, the objects in the distance appear blurry.

Another type of visual impairment is hyperopia or farsightedness. In this case, distant objects appear more transparent than those up close because light entering the eye focuses behind rather than on the retina.

Astigmatism is yet another type of refractive error where corneal shape irregularities result in distorted vision at all distances.

Some people may have color blindness which can cause confusion between colors such as green and red due to an abnormality in cone cells responsible for detecting specific wavelengths from the visible light spectrum.

Other types include cataracts, glaucoma, diabetic retinopathy, and macular degeneration conditions that affect various eye parts leading to blurred vision over time.

Parents and caregivers must understand their child's specific type(s) of visual impairment. This knowledge can help them better understand how it will impact their child's development and support them accordingly and how they can overcome challenges faced by the parents of visually impaired children.

The Impact of visual Impairment on Development:

Visual impairment has a significant impact on children's development, both physically and emotionally. Children with visual impairments may experience delayed motor skill development due to the lack of visual cues. This delay may cause frustration for both the child and the parent, who may struggle to find ways to help their child develop at an average pace.

In addition to physical delays, children with visual impairments may also experience emotional challenges. They may feel isolated or left out in social situations since they cannot see what others are doing or where they are going. This can lead to isolation and low self-esteem.

Parents of visually impaired children must provide extra support and resources to develop their confidence, independence, and self-reliance. Encouraging new activities such as music lessons or sports programs will boost cognitive growth and build social skills, thus helping them overcome any developmental challenges caused by vision loss.

Providing early intervention services like physical therapy, speech therapy, and occupational therapy, along with adequate mental health support, will improve overall developmental outcomes for visually impaired kids in terms of academic achievement, self-confidence, and employment opportunities later in life.

Purpose of the study.

The purpose of the study was to establish the involvement of parents in the education and all activities of their visually impaired children at Ashtavakra Special School at Rohini in Delhi.

Objectives of the study:

The objectives of the study were:

- To know about the parents are involved in the education of children who are blind.
- To know about the parents are involved in the all activity of children who are blind.
- To examine how parents are involved in the education and all activity of children who are blind.
- To establish the challenges parents face in supporting education of their children with visual impairment.
- To establish how parents and teachers are supporting learners who are visually impaired.

The challenges of parenting children with visual Impairment

Parenting is already a challenging task, but when you add the element of disability to it, it can become even more daunting. Parents of visually impaired children face unique challenges that require them to be patient, creative, and adaptive.

One of the parents' most significant challenges is ensuring their child's safety. Visually impaired children are often at risk for accidents and injuries due to vision obstacles or environmental hazards. This challenge demands constant supervision and awareness from parents.

Another major challenge is finding suitable educational

opportunities for children with visual impairments. Accessible education can be challenging, leaving many parents frustrated and uncertain about how best to support their child's learning needs.

Parents must also navigate social stigmas surrounding disabilities within society while providing emotional support for their children amidst negative attitudes toward people with disabilities.

Caring for a visually impaired child can also take a financial toll on families. Specialized equipment and medical care may not always be covered by insurance or provided through government assistance programs.

Despite these challenges, parenting a visually-impaired child comes with its own set of joys as well as struggles. With patience, perseverance, and appropriate support systems in place, raising happy and healthy individuals who will thrive despite any obstacle is possible.

Support as a parent of a child with a visual Impairment.

As a parent of a child with visual impairment, it is essential to know that you are not alone. There are many resources available for parents in your situation.

One great place to start is by connecting with other parents who have children with visual impairments. Joining support groups or online forums can allow you to share experiences.

Another option is to seek out professional support from organizations. These organizations can provide information on services available in your area and guidance on advocating for your child's needs.

Working closely with your child's healthcare provider, including ophthalmologists and pediatricians, may also be helpful, who can offer expert advice and recommendations specific to your child's condition.

Consider reaching out to local advocacy groups or disability rights organizations that may be able to connect you with additional resources and support networks.

Remember that seeking help does not mean weakness it means that you care about providing the best possible care for your visually impaired child.

Conclusion:

Arising from the decision of the research findings, it can be concluded that parents should get involved in the education of their children who are visually impaired by paying fees and providing scholastic materials since these are the basic necessities for any child's learning. This will enable the children to become self-reliant and live independently. In addition, regardless of the challenges parents go through such as negative as well as financial problem, parents and teachers should work as partners. This relationship will lead to improve performance of learners who are visually impaired.

Recommendations

With the findings and relevant conclusion drawn, the following recommendations are necessary as established by the objectives that guided the study.

- Parents should be encouraged to support their children at school by paying fees and providing scholastic materials.
- School administration should involve parents in school activities/decisions that concern their children.
- Parental involvement should be strengthened so as to promote better education of all the learners in the school.
- Parental involvement should be strengthened so as to promote better all Activity in daily life style.
- Parents should be encouraged to support their children at play the game and providing sport materials.

References:

- https://blindlearningzone.com/10-challenges-faced-by-the-parents-of-visually-impaired-children/#The_challenges_of_parenting_children_with_a_disability
- Beaker, G(2014). The roles of parents Involvement in children's Academic. USA: Pearson -Publishers.
- Heward (2009).Exceptional Children An Introduction to Special Education.USA : Pearson Prentice Hall.
- Hornby, G.(2011. Building Effective School- Family Partnerships. New Zealand: Springer Science & Business Media.
- Jernigan, K.(1995). National Federation of the Blind.Michigan:Information Age Publishing.
- Leoni,M.(2013). Supporting the Visually Impaired Learners SNE magazine (18th Sep 2013) V3, Pg-11

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Role of Other Senses in Orientation and Mobility Training

Mr. SandeepTiwari
Lecturer, Spl. Edu. (ASD Dept.)
AIRSR

Abstract

The objective of this article delves into the integral role of non-visual senses in orientation and mobility (O&M) training for individuals with visual impairments. While conventional orientation and mobility (O&M) approaches predominantly emphasize the use of mobility aids, this discussion underscores the importance of harnessing and integrating other sensory modalities. Through an exploration of auditory, tactile, olfactory, and proprioceptive dimensions, the article highlights how these senses can be cultivated and utilized to enhance spatial awareness, environmental comprehension, and overall independent navigation. By advocating for a more inclusive and multi-sensory orientation and mobility (O&M) training paradigm, this piece contributes to a comprehensive understanding of how individuals with visual impairments can navigate and engage with their surroundings more effectively.

Keywords: Other-Sense, Comprehension, Orientation, Mobility, Visual, Auditory, Olfactory, Gustatory, Tactile, Proprioception, Vestibular, Nociception:

Introduction

The capacity to move autonomously, safely, and purposefully holds paramount significance for everyone. Whether it's an infant mastering the art of crawling, a toddler taking those initial steps, a child independently climbing stairs or crossing a street for the first time, these milestones are readily acknowledged as crucial developmental achievements. As adolescents gain permission to embark on solo tours or drive a car, it signifies further maturation in their ability to make independent movement judgments. While these accomplishments enhance an individual's standing in the eyes of others, they also positively impact self-concept. Often, these achievements occur seemingly effortlessly and appear ordinary to most of us. However, it's essential to recognize that teaching independent mobility may require conscious effort, especially for children with visual impairment.

Orientation: Understanding one's position in space and the relationship to the environment. This involves developing a mental map of surroundings, recognizing landmarks, and understanding cardinal directions.

Mobility: The ability to move safely and efficiently within the environment. This includes walking, using mobility aids (such as canes or guide dogs), and utilizing transportation systems.

Orientation and Mobility (O&M) refers to a specialized set of skills and training designed to help individuals with visual impairments navigate and move safely and independently in their environment. The goal of Orientation and Mobility (O&M) training is to enhance a person's spatial awareness, orientation, and mobility skills, compensating for the absence or limitation of visual input. This training is particularly important for individuals who are blind or visually impaired, as it empowers them to engage in daily activities, travel, and interact with their surroundings.

Human beings have various senses that allow us to perceive and interact with the world around us. These senses work together to provide a rich and comprehensive perception of the environment, allowing us to navigate, communicate, and experience the world in a multifaceted way. The integration of information from these senses is crucial for our survival and our ability to interact with the surrounding world. The main senses of human being from which human survive easily in outer environment that or visual, auditory, tactile, olfactory gustatory Proprioceptive, Vestibular, and Nociceptive sense etc.

Visual (Sight): The sense of sight involves the ability to perceive light and interpret it as color, shape, and depth.

Role of non-visual Senses

Auditory (Hearing): This sense enables the detection and interpretation of sound waves, allowing us to hear and

distinguish various sounds. A visually impaired person use their other senses very smartly and sharply when they use their auditory sense they heavily rely on their auditory sense to become aware of their surroundings. They use sounds to understand the layout of spaces, identify obstacles, and navigate through environments, Auditory cues, such as echoes and the direction of sounds, help visually impaired children in orientation and mobility. They use sounds from traffic, footsteps, or landmarks to navigate safely in both indoor and outdoor settings. Visually impaired children often develop enhanced listening skills, enabling them to understand spoken language, interpret tones, and engage in conversations effectively. Auditory information aids develop spatial awareness. Visually impaired children they can perceive the location and movement of objects or people around them based on sound, helping them build mental maps of their environment.

Olfactory (Smell): The sense of smell allows us to detect and identify different odors and scents in the environment. The olfactory sense, play a vital role in the life of visually impaired children, offering them additional information and enhancing their experiences in various ways make them more aware to their surroundings. Different scents can signify specific locations, such as the kitchen, bathroom, or garden, providing spatial orientation. Smells can be markers for safety and identification. Like the scent of familiar foods, personal care products, or specific environments can help visually impaired person identify and navigate through different areas in their homes or schools through the use scent they recognize people, including family members, friends, and classmates. Scents can convey information about the presence and identity of individuals.

Olfactory experiences linked to memory and learning, visually impaired person associate specific scents with particular objects, places, or experiences, aiding in memory retention and recall.

Gustatory (Taste): Gustatory senses involve the ability to detect and differentiate between various tastes, such as sweet, sour, salty, bitter, and umami. The gustatory sense, is an important sensory modality its big impact on the experiences and well-being of visually impaired children it identify different flavors and assess the nutritional content of foods and This is crucial for maintaining a balanced and healthy diet. This sense distinguish between different tastes in food recognition. The gustatory sense is closely linked with the tactile sense, as the texture of food is often perceived through both taste and touch. Visually impaired children may use taste to discern the textures of different food.

Tactile (Touch): Tactile senses include the perception of pressure, temperature, and pain, allowing us to feel and interact with objects and surfaces, tactile sense, plays a crucial role in the life of visually impaired individuals. It serves as a primary means for gathering information about the environment, interacting with objects, and navigating the world. By touching and feeling the texture, shape, and size of items, they can gather information about their surroundings. Tactile sense is fundamental for reading and writing in Braille. Visually impaired individuals use their fingers to feel raised dots and patterns, enabling them to comprehend written text and express themselves through writing. Touch provides spatial information and helps in understanding the layout of spaces, to navigate and orient themselves in both familiar and unfamiliar environments, in mobility and navigation. Using a cane or guide dog, visually impaired individuals can feel changes in the surface, detect obstacles, and navigate safely through various environments, Fine motor skills is closely linked to the tactile sense, many adaptive technologies includes devices with braille displays, tactile graphics, and touch screens with haptic feedback, enhancing access to information and technology in a visually impaired person.

Proprioception (Body Position): Proprioception is the sense that helps us perceive the position and movement of our body parts without relying on sight, The proprioceptive sense, is particularly important for visually impaired individuals as it helps them navigate and interact with the environment Proprioception enables visually impaired person to have a heightened awareness of their body's position in space, it helps them understand the location and movement of their limbs, facilitating spatial orientation, Proprioception is crucial for mobility and navigation, this sense to maintain balance, coordinate movements, and navigate through various environments with or without mobility aids like canes.

Vestibular (Balance and Spatial Orientation): The vestibular sense contributes to our sense of balance and spatial orientation, helping us maintain an upright posture. Its assumes a crucial role in maintaining balance and spatial orientation, extending its significance to individuals with visual impairment as well. The vestibular system is located in the inner ear and consists of structures that detect changes in head position and movement. It works in conjunction with visual and proprioceptive (sensations from muscles and joints) information to help individuals maintain balance and a sense of spatial orientation, visually impaired individuals, the absence or limited use of visual input may place a greater reliance on the vestibular system to gather information about their surroundings. It contributes the spatial orientation, helping

individuals understand their position and movement in space. This is essential for navigation and orientation in the environment. Visually impaired individuals may develop enhanced spatial awareness by relying on cues from the vestibular and proprioceptive systems.

Nociception (Pain): Nociception is the ability to sense and respond to potentially harmful stimuli, signaling the presence of pain.

Nociception, the perception of pain, plays a significant role in the daily experiences of visually impaired individuals. they often experience sensory compensation, where their other senses become heightened to compensate for the lack of vision. Pain serves as a protective mechanism, alerting individuals to potential dangers and threats in their environment. For visually impaired individuals, pain perception can contribute to their overall awareness of the surroundings and help them navigate safely, avoiding obstacles or hazards.

Methodology

To investigate the role of non-visual senses in Orientation and Mobility (O&M) training for individuals with visual impairments, a comprehensive research methodology is used. in The methodology will involve a combination of qualitative and quantitative methods to provide a holistic understanding, and Conduct an in-depth review of existing literature on visual impairment, O&M training, and the role of non-visual senses, Identify gaps in the literature and try to give a establish theoretical framework in the study.

Conclusion

In conclusion, the exploration of non-visual senses in the context of Orientation and Mobility (O&M) training for individuals with visual impairments underscores the multifaceted role these senses play in shaping spatial awareness, environmental understanding, and independent navigation. By emphasizing the integration of auditory, tactile, olfactory, gustatory, proprioceptive, and nociceptive dimensions, this article advocates for a more inclusive and comprehensive O&M training paradigm.

The visual impairment experienced by individuals necessitates a heightened reliance on their other senses to compensate for the absence or limitation of visual input. Auditory cues become a crucial tool for spatial orientation and mobility, enabling individuals to understand and navigate their surroundings effectively. Similarly, the olfactory and gustatory senses provide valuable additional information, aiding in spatial orientation, memory retention, and recognition of environments and individuals. Tactile senses, for Braille literacy and navigation, offer vital information about the physical world, proprioception contributes to body awareness and movement coordination. The vestibular sense, for balance and spatial orientation, emerges as a key player in the adaptation strategies of visually impaired individuals. Furthermore, nociception, the perception of pain, serves as a protective mechanism, contributing to overall awareness and safety.

In essence, recognizing and harnessing the potential of these non-visual senses in O&M training not only empowers visually impaired individuals to navigate their surroundings independently but also enriches their overall sensory experiences. A holistic approach to training that acknowledges and incorporates the diverse capabilities of these senses is vital for fostering inclusivity, independence, and a comprehensive understanding of how individuals with visual impairments engage with and navigate the world around them.

References

- Allison, C., and Sanspree, M.J. (2006). Persons With Visual Impairments. In R. Gargiulo (Ed.), Special Education in Contemporary Society (2nd ed., pp. 480–519). Corn, A.L., Hatlen, P., Huebner, K.M., Ryan, F., and Siller, M.A. (1995). The National Agenda for the Education of Children and Youths With Visual Impairments, Including Those With Multiple Disabilities. New York: AFB Press.
- Hill, E.W. (1986). Orientation and Mobility. In G.T. Scholl (Ed.), Foundations of Education for Blind and Visually Handicapped Children and Youth: Theory and Practice (pp. 315–340). New York: AFB Press.
- Huebner, K., and Wiener, W. (2005). Guest editorial. Journal of Visual Impairment and Blindness, 99: 579–584.
- Johnson, N.L., and Kotz, S. (1970). Distributions in Statistics: Continuous Univariate Distributions-2. New York: John Wiley and Sons.
- Lowenfeld, B. (1981). Bertold Lowenfeld: On Blindness and Blind People. Selected Papers. New York: American Foundation for the Blind.
- Pierangelo, R., and Giulani, G.A. (2004). Transition Services in Special Education. Boston: Pearson Education.
- Sacks, S.Z., and Silberman, R.K. (Eds.). (1998) Educating Students Who Have Visual Impairments With Other Disabilities. Baltimore: Paul H. Brookes.
- Satterthwaite, F.E. (1946). An Approximate Distribution of Estimates of Variance Components. Biometrics Bulletin, 2(6): 110–114.
- Scholl, G.T. (1986). What Does it Mean to be Blind? Definitions, Terminology, and Prevalence. In G.T. Scholl (Ed.), Foundations of Education for Blind and Visually Handicapped Children and Youth: Theory and Practice (pp.

23–33). New York: AFB Press.

- Silberman, R.K. (2000). In M.C. Holbrook and A.J. Koenig (Eds.), Foundations of Education Vol. I History and Theory of Teaching Children and Youths With Visual Impairments (2nd ed., pp.173–196). New York: AFB Press.
- Smith, M., and Levack, N. (1996). Teaching Students With Visual and Multiple Impairments. Austin, TX: Texas School for the Blind and Visually Impaired.
- U.S. Department of Education. (2000, June 8). Educating Blind and Visually Impaired Students; Policy Guidance. Federal Register, 65 (111), p.36585–36594. Retrieved January 16, 2007, from http://www.ed.gov/legislation/FedRegister/ other/2000-2/060800a.html.
- U.S. Department of Education. (2007b). Table 1–5. Students Ages 12 through 17 Served Under IDEA, Part B, by Disability Category and State: Fall 2006. Retrieved October 15, 2007, from https://www.ideadata.org/arc_toc8.asp#partbCC.
- Wall-Emerson, R. and Corn, A.L. (2006). Orientation and Mobility Instructional Content for Children and Youths: A Delphi Study. Journal of Visual Impairment and Blindness, 100: 331–342.
- Foun da tions of Ori en ta tion and Mo bil ity. Blasch, Wiener, et al., (Ed.) ,1997. Land mark text in the field. http://www.afb.org.
- Hand in Hand : Es sen tials of Com mu ni ca tion and Ori en ta - tion and Mo bil ity for Your Stu dents Who Are Deaf-Blind: Vol ume I. Huebner, Prickett, et al., (Ed.), 1995. http://www.afb.org

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Benefits and Issues of Learning Analytic in Open and Distance Education in the Field of Special Education

Ms. Neeti Kaushik
Asst. Professor, Spl. Edu.
AIRSR

ABSTRACT

This paper aims to offer a comprehensive overview of the benefits and challenges associated with the rapid development of Learning Analytics (LA) in the education sector. In this study, the benefits of incorporating learning analytics in Open and Distance education in the field of special education were highlighted, such as in enhance student support, improved learning outcomes, personalized learning, early intervention & inclusivity and equity. However, ethical and privacy concerns, challenges related to data collection and analysis, and the evaluation process were identified as key issues in implementing learning analytics.

Key words- Learning Analytics, Open and distance learning, special education

INTRODUCTION

1.1 Background of the study

Poon-Mcbrayer (2003) and Siahaan (2022) both emphasize the importance of inclusive education for children with special needs, with the latter highlighting the lack of attention and equal education rights for these children. Hopkins (2017) provides a comprehensive overview of the types of extra help these children may need, including cognitive, physical, sensory, emotional, and social support. Abidova (2021) further underscores the need for inclusive education, particularly for children with developmental disabilities. These studies collectively underscore the need for a more inclusive and supportive educational environment for children with special needs. Children with special education needs require tailored educational interventions to address their unique learning requirements. Special education encompasses a wide range of disabilities, including physical, cognitive, behavioral, and sensory impairments. Some key aspects related to supporting children with special education needs:

1. **Individualized Education Plan (IEP):** Each child with special needs should have an Individualized Education Plan developed in collaboration with parents, educators, and specialists. An IEP outlines the child's learning goals, accommodations, modifications, and services needed to support their educational progress.

2. **Inclusive Education:** Inclusive education promotes the integration of students with special needs into mainstream classrooms whenever possible. It fosters a supportive environment where all students, regardless of ability, can learn together and benefit from diverse perspectives.

3. **Specialized Instruction:** Special education teachers are trained to provide specialized instruction tailored to the unique needs of each student. This may involve using alternative teaching methods, assistive technologies, or adaptive materials to accommodate different learning styles and abilities.

4. **Related Services:** Children with special needs may require additional support services such as speech therapy, occupational therapy, physical therapy, counseling, or behavioral interventions to address specific challenges and promote their overall development.

5. **Collaboration and Communication:** Effective communication and collaboration among parents, teachers, therapists, and other professionals are essential for providing comprehensive support to children with special needs. Regular meetings and progress updates help ensure that everyone is working together to meet the child's educational goals.

6. **Advocacy:** Advocacy plays a crucial role in ensuring that children with special needs receive the resources, support, and accommodations they require to thrive in school and beyond. Parents, educators, and advocacy organizations can work together to advocate for policies and practices that promote inclusivity and equal opportunities for all students.

7. **Emphasis on Strengths:** It's important to focus on the strengths and abilities of children with special needs rather than solely on their challenges. By recognizing and

nurturing their unique talents, interests, and skills, educators can help build confidence and self-esteem, empowering students to reach their full potential.

8. **Continuous Assessment and Adjustment:** Regular assessment of students' progress and needs allows educators to adjust instructional strategies and support services accordingly. Flexibility and responsiveness are key to ensuring that children with special needs receive the individualized attention and resources they require to succeed in school and beyond.

1.1.2 Open And Distance Education For The Children With Special Needs

Open and distance education can be valuable options for children with special needs, offering flexibility, personalized learning, and access to resources tailored to their individual requirements. How open and distance education can benefit children with special needs:

1. **Flexibility:** Open and distance education programs often allow students to learn at their own pace and on their own schedule. This flexibility is especially beneficial for children with special needs who may require additional time or breaks during learning activities.

2. **Individualized Instruction:** Distance education platforms can provide personalized instruction tailored to the specific learning needs of each child. Interactive multimedia materials, adaptive learning technologies, and virtual tutoring sessions can be customized to accommodate different learning styles, abilities, and challenges.

3. **Accessibility:** Online learning platforms can offer accessibility features such as screen readers, captioning, alternative formats, and adjustable font sizes to accommodate children with visual, auditory, or motor impairments. Additionally, digital learning materials can be easily modified or adapted to meet the diverse needs of students with special needs.

4. **Supportive Environment:** Distance education allows children with special needs to learn in a comfortable and familiar environment, such as their home or a therapy center, where they may feel less stressed or overwhelmed compared to traditional classroom settings. This supportive environment can enhance their concentration, engagement, and overall learning experience.

5. **Parental Involvement:** Open and distance education programs often encourage parental involvement in their child's learning process. Parents can play an active role in monitoring their child's progress, providing support and encouragement, and collaborating with educators to address any challenges or concerns.

6. **Access to Specialized Resources:** Distance education programs can provide access to a wide range of specialized resources and support services for children with special needs, including assistive technologies, therapeutic interventions, and educational materials designed specifically for their needs. Virtual classrooms and online communities can also facilitate peer support and collaboration among students with similar disabilities.

7. **Transition Planning:** Distance education can support children with special needs during transitions between educational settings or life stages, such as transitioning from early intervention programs to preschool, or from high school to post-secondary education or employment. Flexible learning options and transition planning services can help ensure a smooth and successful transition process.

8. **Continuity of Learning:** Open and distance education can provide continuity of learning for children with special needs, even during times of disruptions such as illness, relocation, or natural disasters. Remote learning platforms enable students to continue their education remotely, ensuring that they do not fall behind academically due to unforeseen circumstances. Overall, open and distance education can offer valuable opportunities for children with special needs to access quality education, personalized support, and inclusive learning environments tailored to their unique abilities and requirements.

1.1.3 Benefits Of Open And Distance Education For The Children With Special Needs

Open and distance education holds numerous benefits for children with special needs. Firstly, it provides flexibility in terms of time and location. This is particularly important for children with special needs who may require individualized schedules or specialized environments for learning. Secondly, open and distance education allows for personalized support. Children with special needs often require customized instruction and support. Open and distance education can provide this personalized support, allowing for individualized learning plans and resources tailored to meet the specific needs of each child. Thirdly, open and distance education can help children with special needs develop digital literacy skills. The use of modern technologies in distance learning can contribute to the development of digital literacy skills among children with special needs. They gain experience working with various digital tools and resources, which can be crucial for their future academic and professional endeavors. Lastly, open and distance education promotes inclusivity and equitable opportunities for children with special needs. By eliminating the barriers of physical presence in a traditional classroom, open and distance education ensures that children with special needs have equal access to education.

1.1.4 Learning Analytic

Learning analytics, the process of analyzing and representing learner data to enhance learning, is a rapidly evolving field with significant potential for improving education (Clow, 2013). This approach is rooted in statistical learning theory, which focuses on the selection of desired functions based on empirical data (Vapnik, 1998). It also draws on the use of probabilistic graphical models, which provide a unified framework for representing and reasoning with probabilities and independencies (Buntine, 1994). Hui (2019) further refines this model, proposing future research directions and highlighting trends in learning analytics applications.

Learning Analytic In Open And Distance Education

Learning analytics is a field that involves collecting, analyzing, and interpreting data to improve the learning process in open and distance education.

The use of learning analytics in open and distance education is a growing area of interest, with potential benefits for both institutions and students. Schlosser (1994) and Bates (1995) provide foundational works on distance education and the use of technology in open learning, respectively. Siemens (2012) and Wong (2017) further explore the potential of learning analytics, with Siemens emphasizing the need for a holistic approach that includes technical and social domains, and Wong highlighting the benefits of learning analytics in higher education, including the potential for personalized learning experiences. However, there is a need for further research specifically focused on the context of open and distance education (Wong, 2017).

Therefore, this study aims to identify the advantages and issues of Learning Analytics in open and distance learning with respect ot special education. Within this context of the scenario, the research questions addressed in this review are:

1) What are the advantages of using learning analytics in open and distance education in special education?
2) What are the issues of using learning analytics in special education in open and distance education?

METHODS AND MATERIALS

This literature review focuses on advantages and issues of learning analytics in education by searching for empirical studies including quantitative, qualitative, literature reviews and conceptual papers published in peer-reviewed journals. The keywords that were used included: learning analytics and education, learning analytics and advantages, special education, open and distance learning and learning analytics and issues.

RESULT AND DISCUSSIONS

Analytics in education can exist and appear in all stages, and it ranges from classroom, department and university until the level and stage of international (Siemens, 2013). First research question was what are the advantages of using learning analytics in open and distance education in special education?

Learning analytics in open and distance education in special education offers several advantages. It can help institutions make data-driven decisions, evaluate pedagogical effectiveness, monitor student progress, predict performance, and identify at-risk students (Wong, 2017). The use of educational analytics can also improve the learning process by analyzing student behavior and providing recommendations for instructional improvement (Car'kova, 2022). However, there are challenges in the widespread use of these tools, including the need for additional professional education in data analysis (Car'kova, 2022). To address these challenges, practitioners in distance learning institutions have called for an integrated, personalized, and evidence-based learning analytics system (Bart, 2019). In the context of open education, learning analytics can enhance learning experiences by leveraging massive open online courses (MOOCs) and linked data (Fulantelli, 2014).

Using learning analytics in open and distance education, especially in special education, offers several advantages. These include:

1. Enhanced Student Support: Learning analytics can provide insights into student educators to offer tailored support to students with disabilities and special need.

2. Improved Learning Outcomes: By analyzing student data, educators can identify areas where students may be struggling and intervene promptly to improve learning outcomes, particularly for students in special education programs.

3. Personalized Learning: Learning analytics allows for personalized learning experiences by adapting teaching strategies to individual student needs, which is crucial in special education where personalized approaches are often necessary.

4. Early Intervention: Through data analysis, learning analytics can help in early identification of students at risk of falling behind, enabling timely interventions and support, which is vital in special education settings.
5. Inclusivity and Equity: Learning analytics can contribute to promoting inclusivity by reducing barriers to learning for disadvantaged students and validating learning designs for marginalized groups, fostering a more equitable educational environment.

In summary, the use of learning analytics in open and distance

education, especially in special education, can significantly benefit students by enhancing support, improving outcomes, personalizing learning experiences, enabling early intervention, and promoting inclusivity and equity in education.

Second research question was What are the issues of using learning analytics in special education in open and distance education?

The use of learning analytics in special education in open and distance learning presents both opportunities and challenges. Kagklis (2016) and Siemens (2019) highlight the potential for learning analytics to improve the learning experience of students and the instructional experience of tutors, as well as to address the needs of educational organizations. However, the increased quantification of education through learning analytics raises concerns about individual ethics, privacy, and the broader impact on education (Siemens, 2019). Henno (2016) emphasizes the need for data analysis in online education, while Toto (2019) underscores the potential of learning analytics to assess the accessibility of online courses for disabled students and to monitor their academic success. Despite these potential benefits, the issue of autonomy and independence for disabled students in self-directed learning with technology remains a challenge (Toto, 2019).

The issues of using learning analytics in special education in open and distance learning include challenges related to data tracking, collection, evaluation, and analysis; lack of connection to learning sciences; optimizing learning environments; and ethical and privacy concerns. Additionally, there are issues surrounding the partial erosion of research ethics consensus, the use of ethical waivers for quality improvement, coercive data extraction, analytics as a management tool, and the relationship between surveillance and trust. Furthermore, the need for timely support and interaction for learners, difficulties in time management, lack of pedagogical knowledge for online teaching among instructors, and institutions not being prepared
for digital transformation are key challenges addressed by learning analytics tools in response to online education challenges during the pandemic.

CONCLUSION

This study tried to find the advantages and issues related to Learning analytics in open and distance learning in Special education. learning analytics helps in enhance student support, improved learning outcomes, personalized learning, early intervention and inclusivity and equity. At the the same time it is having disadvantageous also like collection of the information and evaluation of the progress are the critical factors.

References

- Buntine, W. L. (1994). Operations for learning with graphical models. Journal of Artificial Intelligence Research, 2, 159-225. https://doi.org/10.1613/jair.62
- Car'kova, E. (2022). Applied psychology and pedagogy, 7(3), 54-66. https://doi.org/10.12737/2500-0543-2022–
- Erkinovna, A. D. (2021). Modern tendencies of full life learning and "intellectual competence". ACADEMICIA: An International Multidisciplinary Research Journal, 11(6), 924-926. https://doi.org/10.5958/2249-7137.2021.01709.2
- Henno, J., Jaakkola, H., & Makela, J. (2016). Use of 'learning analytics'. 2016 39th International Convention on Information and Communication Technology, Electronics and Microelectronics (MIPRO). https://doi.org/10.1109/mipro.2016.7522246
- Just a moment... (n.d.). https://doi.org/10.1177/0002764213498851
- The learning analytics cycle | Proceedings of the 2nd International Conference on learning analytics and knowledge. (2012, April 29). ACM Conferences. https://doi.org/10.1145/2330601.2330636
- Li, K. C., Wong, B. T., & Ye, C. J. (2018). Implementing learning analytics in higher education: The case of Asia. International Journal of Services and Standards, 12(3/4), 293. https://doi.org/10.1504/ijss.2018.100215
- Poon-McBrayer, K. F., & Wong, P. (2013). Inclusive education services for children and youth with disabilities: Values, roles and challenges of school leaders. Children and Youth Services Review, 35(9), 1520-1525. https://doi.org/10.1016/j.childyouth.2013.06.00

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