



ISSN: 2456-0057
IJPNE 2019; SP2: 36-40
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(Special Issue- 2)

“International Seminar on Application of Engineering in
Sports”

(October 11th-12th, 2019)

An analysis of benefits in the facilities provided for differently abled children in modern era: From an Indian perspective

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Abstract

Technology plays a vital role in human life. It is estimated that approximately one in every ten children in the world has a disability in low-income countries like India. Besides poverty and prejudice, lack of access to assistive technology, as well as inaccessible transport and school environments are major barriers, which restrict children with disabilities to access education and to participate in the community. Assistive technology has become first step for the children with disability which helps to educate them to become a good member in the society. Disabled sports, also adaptive sports or Para sports are played by the people with different abilities. They are of four categories: physical, deaf and intellectual. The objective of the study is to analyse the benefits of facilities provided for the differently abled population from the Indian perspective. Children with disabilities are among the most stigmatized and excluded groups of children around the world.

Keywords: Assistive technology-disability-facilities

1. Introduction

“There is a plan and purpose, a value to every life, no matter what its location, age, gender or disability”-Sharon Angle. “International day of disabled persons “is celebrated on December 3 to promote an understanding of disability issues and mobilize support for the dignity rights and well-being of persons with disabilities. It is estimated that there are more than 150 million children in the world are with disabilities. They frequently faces challenges to enjoy their academic, social and community participation. Children with disabilities are given opportunities to flourish as any other children, they have the potential to lead fulfilling lives and to contribute to the social, cultural and economic vitality of their communities. Surviving and thriving can be especially difficult for the children with disabilities. Girls with disability are suffering from the discrimination as well as abuse.

As per the Census, there are 26.8million persons with disabilities in India.14.99 million are males and 11.82 million are females. It may be seen that 18.63 million PwDs resides in rural areas, while 8.18 million resides in urban areas. As per the data available, above 13.4 million are in employable age group. 7.8 million Are male and 5.6 million are females. Also, out of the total PwD population, 14.6 million are literate. It shows that PwD is a large pool of human resource whose potential to contribute towards the economy of the country cannot be ignored. In the year of 1985-86, the ministry of welfare was bifurcated in to the department of women and child development and the department of welfare. Simultaneously, the scheduled castes development division, tribal development division and the minorities and backward classes welfare division were moved from the ministry of home affairs and also the waft division from the ministry of law to form the ministry of welfare. Though the subject of ‘DISABILITY’

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figures in the seventh schedule of the constitution, the government of India has always been proactive in the disability sector. It is not only running seven national institutes (NIs) dealing with various types of disabilities and Seven composite regional centres (CRCs), which provide rehabilitation service to PwDs and run Cause for rehabilitation professional but also funds a large number of NGOs for similar services and also a National handicapped finance and development corporation (NHFDC) which provide loans at concessional rates of interest to PwDs for self-employment. The Government of India has made some important decisions which will be very beneficial for the differently abled population.

2. Objective

Objective of the study is to analyse the benefits in the facilities provided for differently abled children in India. And challenges and platforms with the help of technologies. And to express the importance of differently abled population.

3. Government policies

The central government adopted the National Policies for persons with disabilities in 2006 which recognizes that persons with disabilities are a valuable human resources for the country and seeks to create an environment that provides those equal opportunities, protection of their rights and full participation in society. The national policy recognizes the fact that a majority of persons with disabilities can lead a better quality of life they have equal opportunities and effective access to rehabilitation measures. The national policy lays stress on physical rehabilitation, educational rehabilitation of persons with disabilities for a dignified life in society. The ministry of social justice and empowerment is the nodal ministry to coordinate all matters relating to implementation of the policy. The central coordination committee, with stakeholder representation, coordinates matters relating to implementation of the national policy. The policy document also identifies other ministries such as ministries of home affairs, health and family welfare, rural development, urban development, etc. For implementation of the national policy for persons with disabilities. The chief commissioner for person with disabilities at central level and state commissioners at state level are the agencies responsible for monitoring implementation of provisions of the persons with disabilities (equal opportunities, protection of rights, and full participation) Act, 1995 and national policy for persons with disabilities. National trust is supporting development of indigenous Augmentative and Alternative Communication (AAC) devices for use of children with Autism who are generally nonverbal. Katahamala and Chitrakatha are the AAC devices developed by the national trust in collaboration with IIT Kharagpur. In India also the high-tech devices have been developed with encouragement and support from National trust namely 'Awaj' 'Kavi' 'Aditi' and software called 'slate'. These devices helped persons with autism communicate through visual selection of their action through a set of pictures and pre-recorded messages available in the devices.

National trust also set up a national resource centre 'sambhav' in action for ability development and inclusion (AADI), 2, Balbir Saxena Marg, Hauz Khas, new delhi-110016, where all such assistive devices and technologies have kept for live demonstration.

4. Acts and rules for the disabled persons in India

1. Right of persons with disabilities act, 2016.
2. The national trust rule, 2000.
3. The national trust regulations, 2001.
4. Rehabilitation council of India regulations, 1997.
5. Rehabilitation council of India (conditions of service of the member secretary, the officers and other employees) regulations, 1998.
6. Rehabilitation council of India (standards of professional conduct, etiquette and code of ethics for rehabilitation professionals) regulations, 1998.

5. Trust fund for empowerment of persons with disabilities

5.1 Disabilities under – NTA

The national trust works for the welfare of persons with any of the following disabilities

1. autism
2. cerebral palsy
3. mental retardation
4. multiple disabilities

5.2 Other Schemes

- a. Disha (Early intervention and school readiness scheme)
- b. Vikaas (day care)
- c. Samarth (respite care)
- d. Gharauda (group home for adults)
- e. Nirmaya (health insurance scheme)
- f. Sahyogi (caregiver training scheme)
- g. Prerna (marketing assistance)
- h. Sambhav (aids and assisted devices)
- i. Badhte Kadam (Awareness and community interactions)

6. Non-profit organisation India

- Action for autism: action for autism was started in 1991 to provide support and services to persons with autism and their families.
- AIKYAs vision is to enhance the quality of life of individuals with special needs through education and training to enhance them to achieve their fullest potential and integrate them into the main stream.
- Asha for Autism: Academy for Severe Handicaps and Autism, ASHA.
- Association of People with Disability: The Association of People with Disability, APD is an association of people, who believe while an individual's disability may be limiting, working together can help us to overcome these limitations.
- CBR Network: Office of the Chief Commissioner for Persons with Disabilities
Ministry of social justice and empowerment Gov. of India

7. Technologies

Technological advancements have made lives easier and it would be a never ending process. One would even totally rely on technology in the near future. In this case it can benefit the differently abled user group in a much better way. Technology can help all kinds of user group irrespective of their ambulatory conditions or any other impairment. Normal people would just use it. Whereas, differently abled people will gain something out of it. The technologies for the differently abled can be classified as follows;

1. **Assistive-Examples:** Screen magnifiers Adapted keyboards (larger keys with wider spaces) Telephone typewriters handheld amplifiers Screen reader software Digital Talking Book (DTB) players closed captioning programming.
2. **Adaptive-Examples:** Hearing aids Ramps, automatic door openers, grab bars, wider doorways systems found in buildings Wheelchairs Prosthetic devices Aids and assistive devices:-Aids and assistive devices are the supporting devices used by persons with disabilities in improving their quality of life in terms of mobility, communication and for performing their daily activities. There is a wide range of assistive devices available to meet the needs of persons with disabilities.by use of these aids& assistive devices, people with disabilities becomes independent and their participation in the society increases. Following are some of the assistive devices
3. **Aids for day to day life:** which covers self-help aids for use in activities such as eating, bathing, cooking, dressing, toileting, home maintenance, etc. These include modified eating utensils, adapted books, pencil holders, page turners, dressingaids, adapted personal hygiene aids.
4. **Mobility aids:** devices that helps people move within their environment, electric or manual wheelchairs, and modifications of vehicles for travel, scooters, crutches, canes and walkers.
5. **Home and workplace modifications:** structural adaptations that remove or reduce physical barriers such as ramps, lifts, modification in the bathroom, to make it accessible, automatic door openers and expanded doorways etc.
6. **Seating and positioning:** adapted seating, cushions, standing tables, positioning belts, braces and wedges to maintain posture, and devices that provide body support to help people perform a range of daily tasks.
7. **Alternative and augmentative communication devices (AAC):** these devices help people with speech impairments or persons having low vocal volume to communicate such as speech generating devices, voice amplification aids and communication software. for visually impaired person, devices as magnifier, braille or speech output devices, large print screens, and closed circuit television for magnifying documents etc.
8. **Prosthetics and orthotics:** replacement or augmentation of body parts with artificial limbs or other orthotic aids such as splints or braces. There are also prosthetics to assist with cognitive limitations or deflects, including audio tapes or pagers (that functions as a or reminders)
9. **Vehicle modifications:** adaptive driving aids, hand controls, wheel chair and other lifts, modified vans, or other motor vehicles used for personal transportation.
10. **Sensory aids for vision /hearing impaired:** such as magnifiers, large print screens, hearing aids, visualizing systems, braille and speech telecommunication output devices.
11. **Computer access aids:** head sticks, light pointers, modified or alternate keyboards, switches activated by pressure, sound or voice, touch screens, special software, voice to text software.
12. **Recreational aids to enable participation in social /cultural events and sports:** devices to enable participation in sports, social, cultural events which includes audio Deion for movies, adaptive controls for video games etc.
13. **Environmental controls:** electronic system that helps

people control various appliances, switches for telephone, TV, or other appliances which are active by pressure, eyebrows or breath.

The new sambhav centres will be established in other cities of the countries having population more than 5 million, as per 2011 census. A reference list of aids and assistive devices, including the cost shall be displayed in these centres. In order to develop awareness in the higher education system and also to provide necessary guidance and counselling to differently-abled persons, it is expected that the Institutes Facilitate admission of differently-abled persons in various courses; Provide guidance and counselling to differently abled individuals Create awareness about the needs of differently abled persons, and other general issues concerning their learning Assist differently-abled graduates to gain successful employment in the public as well as private sectors. Functions of the enabling units are as follows;

1. To provide counselling to differently - abled students on the types of courses they could study at the higher education institutions.
2. To ensure admission of as many differently-abled students as possible through the open quota and also through the reservation meant for them.
3. To gather orders dealing with fee concessions, examination procedures, reservation, policies, etc., pertaining to differently-abled persons.
4. Policies, etc., pertaining to differently-abled persons.
5. To assess the educational needs of differently abled persons enrolled in the higher education institutes to determine the types of assistive devices to be procured.
6. To conduct awareness programmes for teachers of the institute about the approaches to teaching, evaluation procedures, etc, which they should address in the case of differently-abled students.
7. To study the aptitude of differently-abled students and assist them in getting appropriate employment when desired by them after their studies.
8. To celebrate important days pertaining to disability such as the World Disabled Day, White Cane Day, etc., in the institute and also in the neighbourhood in order to create awareness about the capabilities of differently-abled persons.
9. To ensure maintenance of special assistive devices procured by the higher education institute under the HEPSN scheme and encourage differently-abled persons to use them for enriching their learning experiences.
10. To prepare annual reports with case histories of differently-abled persons who are benefited by the HEPSN scheme sanctioned to the higher education institute.

Providing access to differently abled persons: It has been felt that differently-abled persons need special arrangements in the environment for their mobility and independent functioning. It is also a fact that many institutes have architectural barriers that disabled persons find difficult for their day-to-day functioning. The colleges are expected to address accessibility related issues as per the stipulations of the Persons with Disabilities Act 1995, and ensure that all existing structures as well as future construction projects in their campuses are made disabled friendly. The institutes should create special facilities such as ramps, rails and special toilets, and make other necessary changes to suit the special needs of differently-abled persons. The construction plans

should clearly address the accessibility issues pertaining to disability. Guidelines on accessibility laid out by the office of the Chief Commissioner of Disabilities.

Providing special equipment to augment educational services for differently abled persons Differently-abled persons require special aids and appliances for their daily functioning. These aids are available through various schemes of the Ministry of Social Justice and Empowerment. In addition to the procurement of assistive devices through these schemes, the higher education institute may also need special learning and assessment devices to help differently-abled students enrolled for higher education. In addition, visually challenged students need Readers. Availability of devices such as computers with screen reading software, low-vision aids, scanners, mobility devices, etc., in the institutes would enrich the educational experiences of differently-abled persons. Therefore, colleges are encouraged to procure such devices and provide facility of Readers for visually challenged students.

8. Competitions and achievements

In 1976 the first winter games in Paralympic history were held in Sweden, and as with the summer games, have taken place every four years, and include a Paralympics opening ceremony and Paralympics closing ceremony. Since the summer games of Seoul, Korea in 1998 and the winter games in Albertville, France in 1992 the games have also taken part in the same cities and venues as the Olympics due to an agreement between the IPCAND IOC.

Paralympics: In 1960, under the aegis of the World Federation of ex-servicemen, an International Working Group on Sport for the Disabled was set up to study the problems of sport for persons with an impairment. It resulted in the creation, in 1964, of the International Sport Organisation for the Disabled (ISOD) who offered opportunities for those athletes who could not affiliate to the International Stoke Mandeville Games: vision impaired, amputees, persons with cerebral palsy and paraplegics. At the start, 16 countries were affiliated to ISOD and the organisation pushed very hard to include blind and amputee athletes into the Toronto 1976 Paralympics and athletes with cerebral palsy in 1980 in Arnhem. Its aim was to embrace all impairments in the future and to act as a Co-coordinating Committee. Nevertheless, other disability-orientated international organisations such as the Cerebral Palsy International Sports and Recreation Association (CPISRA) and International Blind Sports Federation (IBSA) were founded in 1978 and 1980. The four international organisations experienced the need of co-ordinating the Games so they created the "International Co-coordinating Committee Sports for the Disabled in the World" (ICC) in 1982. The ICC was originally composed of the four presidents of CPISRA, IBSA, ISMGF and ISOD, the general secretaries and one additional member (in the beginning it was the Vice-President, and later on the Technical Officer). The International Committee of Sport for the Deaf (CISS) and International Sports Federations for Persons with an Intellectual Disability (INAS-FID) joined in 1986, but the deaf still maintained their own organisation. However, the member nations demanded more national and regional representation in the organisation. Finally, on 22 September 1989, the International Paralympics Committee was founded as an international non-profit organisation in Dusseldorf, Germany, to act as the global governing body of the Paralympic Movement. The word "Paralympics" derives from the Greek preposition "para" (beside or alongside) and the word "Olympic". Its meaning is that Paralympics are the

parallel Games to the Olympics and illustrates how the two movements exist side-by-side. India secured 43rd position in last Paralympics with two gold medals, one silver and one bronze respectively.

1. **Special Olympics:** It is the world's largest sports organization for children and adults with intellectual disabilities and physical disabilities, providing year-round training and competition to 5 million athletes under unified sports partners in 172 countries. Special Olympics and Paralympics will not conduct in the same year. In last 2019 Special Olympics India scored a record medal hunt of 368 medals including 85 gold, 154 silver and 129 bronze respectively.
2. **Unified sports:** The unified sports bring the athletes together with and without intellectual disabilities. The basic concept is that training and playing together can create a path of friendship and understanding.
3. **Deaflympics:** Formal international competition in deaflympics began with the 1924 Paris (France) silent games. The motto of deaflympics is "equality through sport". it provides the opportunity for the deaf persons to participate in sports. it occurs in every four years. last 2017 deaflympics was hosted by Turkey and India secured 25th position with 5 medals, includes one gold, one silver and three bronze.
4. **Training:** There is evidence to support that the use of inspiratory muscle training (IMT) as a training intervention can be implemented to increase the aerobic fitness, respiratory function and overall quality of life in this population of athletes. Long term physiological adaptations through prolonged training demonstrated within athletes with disabilities include increased respiratory volume, improved executive functions and increased reaction time among other benefits in relation to non-athletes in the same age group.

9. Challenges

There are several unmet challenges, which needed to be addressed among disability sector in India.

1. Need for dignified life for children and people with disabilities
2. Need to remove attitudinal barriers among communities and provide rehabilitation
3. Need to improve infrastructure in main stream schools to make them disabled friendly and train teachers for optimal support.
4. Need to converge between various department providing services
5. Need for national harmonization of disability welfare programme
6. Need to give executive powers and necessary resources to the commissioner of disabilities for effective implementation and safe guarding rights PWD
7. Need for promoting and monitoring mechanism for service outreach below district level.
8. Need to improve effective collaborations between Government NGO to avoid duplication.
9. Need to adopt a down to top approach in policy design
10. Need to improve community participation programmes
11. Children with disabilities remains invisible to the education system
12. Non supportive families
13. In efficiency of teachers or lack of care
14. Poor quality education
15. Lack of public support

16. Lack of accountability and monitoring mechanism

10 Conclusion

Future ahead:-Across India there are many efforts and campaigns to sensitise and enlist the support of the corporate sector when it comes to recognising the abilities of people with disabilities and providing them with the equal access to employment opportunities. In addition, there is a growing need to provide training to bridge the gap between those seeking a job and those offering suitable employment. The differently abled population plays a very important role in our society. We should consider them as equal citizens in the society. The 2019 Special Olympics shows some reality. It is high time to think. "Make in India" will be successful when there is "change in India" which is inclusive to all aspects of society. Let's make a better India.

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