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Editors

Dr. Mintu Bhattacharya,
Dr. B. Umesh Kumar Sharma,
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⊙ SBI
Name : IIRDDA
JPI ID : iirddabaksa@sbi

BHIM UPI

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G. Mahesh, Ph.D.
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Phone: 91-11-26863759
E-mail: gmahesh@niscair.res.in   website: http://nsl.niscair.res.in

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ORIGINAL RESEARCH ARTICLE

NEP 2020: KEY PROVISIONS AND THEIR IMPLICATIONS FOR DIFFERENTLY-ABLED LEARNERS

B. Umeshkumar Sharma[1] and Saru Joshi[2]
[1]Department of Education, NERIE, National Council of Educational Research and Training
[2]Department of Education, North-Eastern Hill University

Author Note

Correspondence concerning this article should be addressed to B. Umeshkumar Sharma, Department of Education, North East Regional Institute of Education, National Council of Educational Research and Training, Barapani, Ri-Bhoi, Meghalaya, Pin-793103, India. Email: sharma.u@gov.in; umesh.ncert@yahoo.com

Abstract

The National Education Policy (NEP) 2020 represents a significant step towards creating a more inclusive and equitable education system in India. This paper explores the key provisions of NEP 2020 that are relevant to learners with differently abled, analyzes the challenges and barriers in implementing the policy, and discusses potential benefits for students with differently abled. Key findings include the importance of inclusive education, early childhood care, special education, assistive technology, and teacher training in supporting learners with differently abled. While progress has been made, challenges such as lack of awareness, insufficient resources, and attitudinal barriers persist.

Recommendations for further action include increased funding, improved awareness and training, stronger collaboration between government, NGOs, and the private sector, and ongoing research and evaluation. By addressing these challenges and implementing effective strategies, India can ensure that NEP 2020 delivers on its promise of providing inclusive and equitable education for all learners.

Keywords : National Education Policy 2020, inclusive education, learners with differently abled

Introduction

The National Education Policy (NEP) 2020, a comprehensive framework for India's education system, aims to transform education into a holistic, student-centred, and equitable experience. One of its core principles is inclusivity, which seeks to ensure that all students, regardless of their backgrounds or abilities, have equal access to quality education.

The paper aims to analyze the implications of NEP 2020 for differently-abled learners, highlighting its key provisions, potential benefits, challenges, and strategies for successful implementation.

The term "differently abled" is a more inclusive and respectful way to refer to individuals with disabilities. These individuals often face unique challenges in traditional education systems, which are often designed for students without disabilities. These challenges may include:

Accessibility barriers: Physical environments may not be adapted to accommodate students with mobility impairments, and educational materials may not be accessible to students with visual or auditory impairments.

Stigma and discrimination: Students with differently abled may face negative attitudes and stereotypes from peers, teachers, and the wider community.

Limited access to specialized support: Students with specific learning needs may not have access to the specialized support and resources they require to succeed.

Lack of awareness and understanding: Teachers and school staff may lack the knowledge and skills to effectively support students with differently abled.

NEP 2020 represents a significant step towards addressing these challenges. By prioritizing inclusivity and equity, the policy seeks to create a more supportive and inclusive learning environment for all students. This includes provisions for:

Inclusive education: NEP 2020 emphasizes the importance of inclusive education, where all students learn together in the same classroom, regardless of their abilities.

Early childhood care and education (ECCE): The policy highlights the need for early intervention to support differently abled children from a young age.

Special education: NEP 2020 recognizes the importance of special education for students with specific learning needs.

Assistive technology: The policy promotes the use of assistive technology to help students with differently abled overcome barriers to learning.

Teacher training and professional development: NEP 2020 emphasizes the need for teachers to be equipped with the knowledge and skills to support students with differently abled effectively.

By addressing these areas, NEP 2020 aims to create a more equitable and inclusive education system that empowers learners with differently abled to reach their full potential.

Key Provisions of NEP 2020 Relevant to Learners with Differently Abled

The National Education Policy (NEP) 2020 outlines several key provisions that are directly relevant to the education of learners with differently abled. These provisions aim to create a more inclusive and equitable educational environment for all students.

Inclusive Education as a Fundamental Principle

NEP 2020 emphasizes inclusive education as a core principle, recognizing the right of all students, regardless of their abilities, to access

quality education. This means that students with differently abled should be integrated into mainstream classrooms, rather than being segregated in separate special schools. Inclusive education promotes social inclusion, reduces stigma, and provides opportunities for all students to learn from and with each other.

Focus on Early Childhood Care and Education (ECCE)

The policy places a strong emphasis on early childhood care and education (ECCE) for differently abled children. Early intervention is crucial in supporting the development of young children with disabilities and providing them with the necessary skills and foundation for future learning. NEP 2020 encourages the establishment of inclusive ECCE centers and the training of early childhood educators to meet the needs of differently abled.

Emphasis on Special Education and Vocational Training

While inclusive education is a priority, NEP 2020 also recognizes the need for specialized support for students with specific learning needs. The policy emphasizes the importance of special education programs and services to address the unique requirements of students with differently abled. Additionally, NEP 2020 promotes vocational training and skill development for students with differently abled to enhance their employability and self-sufficiency.

Provisions for Assistive Technology and Accessible Learning Environments

To ensure that students with differently abled can fully participate in education, NEP 2020 emphasizes the provision of assistive technology and accessible learning environments. This includes ensuring that schools have the necessary infrastructure, resources, and equipment to accommodate students with disabilities. The policy also promotes the development and use of assistive technology, such as braille readers, screen readers, and speech-to-text software, to help students with differently abled access educational materials and participate in learning activities.

Teacher Training and Professional Development for Inclusive Education

NEP 2020 recognizes the crucial role of teachers in creating inclusive classrooms. The policy emphasizes the need for teacher training and professional development programs that equip educators with the knowledge, skills, and attitudes necessary to support students with differently abled effectively. This includes training on inclusive pedagogy, assistive technology, and creating inclusive learning environments.

Analysis of NEP 2020's Impact on Learners with Differently Abled

Case Studies of Successful Implementation

While the full impact of NEP 2020 on learners with differently abled may take time to assess, there are early indications of successful implementation in certain schools. For instance, schools in states like Kerala and Tamil Nadu have reported positive outcomes, such as increased enrollment of students with differently abled, improved academic performance, and enhanced social inclusion (Kumar & Sharma, 2021). One such example is the inclusive school in Kochi, Kerala, which has implemented a comprehensive approach to supporting learners with differently abled, including specialized training for teachers, accessible infrastructure, and assistive technology.

Challenges and Barriers

Despite these successes, the implementation of NEP 2020 has faced several challenges and barriers. Some of the key challenges include:

Lack of awareness and understanding: Many schools and teachers may still lack awareness and understanding of the provisions of NEP 2020 and the specific needs of learners with differently abled.

Insufficient resources: Schools may face a shortage of resources, such as specialized equipment, assistive technology, and trained personnel, to effectively support students with differently abled.

Attitudinal barriers: Negative attitudes and stereotypes towards individuals with differently abled can hinder their inclusion in mainstream classrooms.

Infrastructure challenges: Schools may not have the necessary infrastructure, such as ramps, elevators, and accessible restrooms, to accommodate students with disabilities.

Strategies for Overcoming Challenges

To ensure the effective implementation of NEP 2020 and address the challenges faced by learners with differently abled, several strategies can be adopted:

Awareness and Training

Comprehensive Training Programs: Conduct comprehensive training programs for teachers, school administrators, and parents to enhance their understanding of the provisions of NEP 2020 and the specific needs of learners with differently abled.

Inclusive Pedagogy Workshops: Organize workshops on inclusive pedagogy to equip educators with the skills to create inclusive classrooms and support all students effectively.

Assistive Technology Training: Provide training on assistive technology to enable teachers and staff to utilize appropriate tools and resources to support students with differently abled.

Sensitization Programs: Conduct sensitization programs to address negative attitudes and stereotypes towards individuals with differently abled, promoting a more inclusive and accepting school culture.

Resource Allocation

Increased Funding: Allocate adequate funds to support the implementation of NEP 2020, including the provision of assistive technology, specialized equipment, and additional personnel.

Prioritization of Inclusive Education: Prioritize inclusive education in resource allocation, ensuring that schools serving students with differently abled receive the necessary support and resources.

Strategic Planning: Develop strategic plans for resource allocation to ensure that funds are used effectively and efficiently to meet the needs of learners with differently abled.

Attitudinal Change

Awareness Campaigns: Conduct awareness campaigns to challenge negative stereotypes and promote positive attitudes towards individuals with differently abled.

Inclusive Practices: Encourage inclusive practices in all aspects of school life, including extracurricular activities, sports, and social events.

Role Models: Highlight successful role models with disabilities to inspire and motivate students.

Infrastructure Development

Accessibility Audits: Conduct regular accessibility audits of school facilities to identify and address barriers faced by students with differently abled.

Universal Design: Incorporate universal design principles into school construction and renovation to create accessible and inclusive learning environments.

Assistive Technology Infrastructure: Ensure that schools have the necessary infrastructure to support the use of assistive technology, such as ramps, elevators, and accessible restrooms.

Collaboration and Partnerships

Public-Private Partnerships: Adopt partnerships between government agencies, NGOs, and private organizations to leverage resources and expertise.

Community Involvement: Involve the local community in inclusive education initiatives to create a supportive and inclusive environment.

Advocacy Efforts: Advocate for policies and practices that promote the inclusion of learners with differently abled at all levels of education.

By addressing these challenges and implementing effective strategies, India can ensure that NEP 2020 delivers on its promise of providing inclusive and equitable education for all learners, including those with disabilities.

Potential Benefits of NEP 2020 For Learners with Differently Abled

The National Education Policy (NEP) 2020 has the potential to significantly improve the educational experiences and outcomes of learners with differently abled. By prioritizing inclusivity and equity, NEP 2020 aims to create a more supportive and empowering learning environment for all students.

Improved Academic Outcomes and Self-Esteem

One of the primary benefits of NEP 2020 is the potential to improve academic outcomes for learners with differently abled. Inclusive education environments can provide students with the necessary support, resources, and accommodations to succeed academically. By Promoting a sense of belonging and acceptance, NEP 2020 can also help to boost the self-esteem of students with differently abled, which can have a positive impact on their overall academic performance (UNESCO, 2020).

Increased Social Inclusion and Acceptance

NEP 2020 promotes social inclusion by emphasizing the importance of integrating students with differently abled into mainstream classrooms. This can help to break down stereotypes and Promote a more inclusive and accepting school culture. By learning alongside their peers, students with differently abled can develop stronger social relationships, build confidence, and feel more connected to their communities (World Bank, 2020).

Enhanced Life Skills and Employability

NEP 2020 places a strong emphasis on developing life skills and preparing students for the workforce. By providing access to vocational training and specialized support, the policy can help learners with differently abled acquire the skills and knowledge they need to succeed in their chosen careers. This can improve their employability prospects and enhance their overall quality of life (UNICEF, 2020).

Contributions to a More Inclusive and Equitable Society

The implementation of NEP 2020 can contribute to the creation of a more inclusive and equitable society. By ensuring that all students, regardless of their abilities, have access to quality education, the policy can help to reduce social disparities and promote social justice. Additionally, NEP 2020 can Promote a culture of respect and acceptance for individuals with differently abled, which can have a positive impact on society as a whole (United Nations, 2020).

Recommendations for Further Action

To fully realize the potential benefits of NEP 2020 for learners with differently abled, several recommendations can be made for further action:

Policy Recommendations

Increased funding: Allocate adequate funding to support the implementation of NEP 2020, including the provision of assistive technology, teacher training, and infrastructure development.

Mandated inclusive education: Make inclusive education mandatory in all schools, ensuring that students with differently abled have equal access to education.

Data collection and monitoring: Establish a robust system for data collection and monitoring to track the progress of NEP 2020 implementation and identify areas for improvement.

Accountability mechanisms: Implement accountability mechanisms to ensure that schools and education departments are held responsible for meeting the standards set by NEP 2020.

Teacher Training and Professional Development

Specialized training: Provide specialized training programs for teachers on inclusive pedagogy, assistive technology, and supporting learners with differently abled.

Mentorship programs: Establish mentorship programs to pair experienced teachers with those new to inclusive education.

Continuous professional development: Encourage ongoing professional development opportunities for teachers to stay updated on the latest research and best practices in inclusive education.

Collaboration Between Government, NGOs, and the Private Sector

Public-private partnerships: Promote public-private partnerships to leverage resources and expertise from both government and private sectors.

NGO involvement: Encourage the involvement of NGOs in providing support services, advocacy, and awareness-raising initiatives.

Community engagement: Promote community engagement to create a more inclusive and supportive environment for learners with differently abled.

Research and Evaluation

Impact studies: Conduct regular impact studies to assess the effectiveness of NEP 2020 in improving the educational outcomes of learners with differently abled.

Qualitative research: Utilize qualitative research methods to explore the experiences and perspectives of students with differently abled, teachers, and parents.

Baseline data: Establish baseline data to measure progress and identify areas for improvement over time.

By implementing these recommendations, India can ensure that NEP 2020 is fully realized and that learners with differently-abled have the opportunity to reach their full potential.

Conclusion

The National Education Policy (NEP) 2020 represents a significant step towards creating a more inclusive and equitable education system for all learners, including those with disabilities. By prioritizing inclusive education, early childhood care, special education, assistive technology, and teacher training, NEP 2020 aims to address the unique needs and challenges faced by students with differently abled.

While progress has been made, challenges remain in implementing NEP 2020 effectively. To ensure that the policy delivers on its promise, it is essential to address these challenges through increased funding, improved awareness and training, and stronger collaboration between government, NGOs, and the private sector.

In conclusion, NEP 2020 has the potential to transform the educational landscape for learners with differently abled in India. By implementing its provisions effectively and addressing the challenges faced, India can create an inclusive and equitable education system that empowers all students to reach their full potential. Continued efforts are needed to ensure that NEP 2020 is fully realized and that learners with differently abled are provided with the support and opportunities they deserve.

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ORIGINAL RESEARCH ARTICLE

TOWARDS AN INCLUSIVE EDUCATION SYSTEM : CHALLENGES AND OPPORTUNITIES UNDER NEP-2020 WITH SPECIAL REFERENCE TO ASSAM

Devajani Duarah

Indira Miri School of Education, Krishna Kanta Handiqui State Open University, Guwahati, Assam

Author Note

Correspondence concerning this article should be addressed to Devajani Duarah, Indira Miri School of Education, Krishna Kanta Handiqui State Open University, Resham Nagar, Khanapara, Guwahati-781022, Assam. Email Id: devajani.dd@gmail.com

Abstract

This paper explores the implementation of the National Education Policy (NEP) 2020 in Assam, a state with diverse demographic and socio-economic challenges. Employing qualitative analysis of secondary data sourced from government reports, academic articles, and policy documents, the study assesses NEP 2020's effectiveness and identifies key challenges such as infrastructure inadequacies, educational disparities, and linguistic diversity. The findings indicate significant obstacles in rural infrastructure, early childhood education quality, and resource availability for linguistic and special education. Strategic recommendations include enhancing infrastructure, expanding educational access, supporting linguistic diversity, and improving teacher training and community engagement.

Introduction

The National Education Policy (NEP) 2020 introduces significant reforms in India's educational landscape, representing the first comprehensive overhaul in over three decades. Designed to support a diverse student body including those with disabilities, socio-economically disadvantaged children, and those from linguistically diverse backgrounds, NEP 2020 aims to create an inclusive educational environment through initiatives such as a four-year integrated B.Ed. program and ongoing professional development for teachers. These reforms promote a multidisciplinary and technologically integrated approach to ensure equitable education for all (Singh &Tomar, 2024; Taghizadeh-Hesary, 2023; Kasinathan et al., 2023).

Despite its ambitions, the policy's rollout has encountered obstacles including vague definitions and a lack of adapted practices to suit India's complex social structure, impairing its effectiveness (Balasubramanian& Banerjee, 2024). The transition from segregated to integrated educational settings is crucial for improving access and equity, particularly for students with special needs (Shaheena, 2024; Harankumar&Irudhaya, 2023). In Assam, the policy faces additional challenges due to its varied demographic and socio-economic landscape, impacting particularly vulnerable groups in regions like KarbiAnglong, Dima Hasao, the Bodo plains, and Tea Tribe communities (Position Paper on Inclusive Education, SCERT, Assam).

This paper analyzes the implementation challenges and opportunities of NEP 2020 within Assam, utilizing secondary data to outline key issues and recommend strategies for advancing inclusive education, ensuring comprehensive educational access across the region.

Objectives

1. To identify the key challenges in implementation of NEP 2020 for Inclusive education.
2. To suggestthe strategies to enhance the quality and inclusivity of education as per policy guidelines.

Methodology

This study employ a qualitative research methodology, analyzing secondary data collected from various sources.

Sources of Data Collection: Data was sourced from official government publications, academic articles, media reports on Assam's educational challenges, and strategic position papers by educational experts.

Findings

Current State and Challenges of NEP 2020 Implementation in Assam

The implementation of NEP 2020 in Assam has led to notable improvements in several areas, such as nearly universal access to electricity (99.86%) and drinking water (98.21%) in government schools. However, persistent challenges underscore the need for ongoing efforts to achieve truly inclusive education. Over 3,000 schools still lack adequate sanitation facilities, highlighting significant gaps in basic infrastructure (UDISE, 2022-23; Baruah, 2023). Moreover, transportation issues during monsoons affect around 40% of villages, further complicating access to education.

Early childhood education in Assam shows a high enrollment rate of about 80% in government facilities like AnganwadiCenters. Despite this, there are substantial disparities in the quality and availability of education across different districts (Annual Report of SSA, Assam, 2022-2023). The linguistic diversity of the region adds another layer of complexity, with the recent integration of six tribal languages at foundational levels facing challenges due to shortages of both teaching materials and trained educators (The Statesman, 2024).

Financial constraints remain a significant hurdle, even though measures like free uniforms, textbooks, and stipends for Children with

Duarah, D. (2024). Towards an Inclusive Education System: Challenges and Opportunities under NEP-2020 with special reference to Assam

Special Needs (CWSN) aim to mitigate these barriers (Annual Report of SSA, Assam, 2022-2023). Gender disparities also persist, with a high dropout rate among girls at the secondary level, though targeted programs and infrastructural improvements are being implemented to promote gender equity.

Furthermore, the education of children with special needs and the professional development of teachers, including specialized training such as Assamese Finger Spellings, require more robust support. Collaborations with NGOs are vital in addressing the shortfall in qualified educators, enhancing the overall quality of education (Annual Report of SSA, Assam, 2022-2023). Community and parental engagement through School Management Committees and Community Learning Centers have improved outcomes, yet cultural barriers and limited resources continue to present challenges.

Special Education Zones (SEZs) have been introduced to direct resources towards regions with high concentrations of socio-economically disadvantaged groups, aiming to enhance educational outcomes. However, efficient resource utilization and active community involvement are essential for the success of these zones (Annual Report of SSA, Assam, 2022-2023).

Strategies to Enhance Inclusivity and Quality of Education in Assam

To address the identified challenges and improve the effectiveness of NEP 2020 implementation in Assam, several strategic recommendations are proposed:

1. **Infrastructure Development:** There is an urgent need for investment in school facilities, especially in rural and underserved areas. Priorities include building adequate sanitation facilities, ensuring reliable electricity, and improving transportation, particularly in regions prone to seasonal flooding.

2. **Early Childhood Education Expansion and Standardization:** Extending the coverage of AnganwadiCenters across all districts

is crucial to ensure uniform quality of early education. This should be accompanied by standard health screening and educational readiness protocols and specialized training for educators in inclusive pedagogies and early intervention strategies.

3. **Support for Linguistic Diversity:** Investment in the development and distribution of educational materials in all recognized local languages is necessary. Collaborations with local universities and cultural organizations to produce textbooks and digital content are essential, alongside initiating certification programs for educators in tribal and local languages.

4. **Enhancement of Support for Children with Special Needs (CWSN):** There is a need to invest in assistive technologies such as screen readers and speech-to-text software to enhance digital learning accessibility for CWSN. Training programs should focus on advanced special education strategies and behavioral management, with initiatives to integrate CWSN with other students.

5. **Teacher Training and Professional Development:** Establishing a statewide Continuous Professional Development (CPD) framework is critical, mandating regular training sessions on inclusive education practices, modern pedagogies, and technology use. Incentives like salary increments and career progression opportunities should be offered to teachers who participate regularly in these programs.

6. **Addressing Economic and Gender-Based Barriers:** Simplifying the application processes for scholarships and ensuring timely fund disbursement is vital to support socio-economically disadvantaged students. Targeted initiatives should be launched to reduce dropout rates among girls, addressing cultural biases and providing support networks.

7. **Bolstering Community and Parental Engagement:** Strengthening School Management Committees (SMCs) and expanding

Community Learning Centers (CLCs) are essential to enhance community involvement in education, improving accountability and aligning educational efforts with local needs and expectations.

8. **Establishment and Support of Special Education Zones (SEZs):** Accelerating the identification and declaration of SEZs in regions with high concentrations of disadvantaged groups is crucial. Ensuring that these zones receive necessary resources, including specialized staff and tailored educational materials, is imperative to meet the specific needs of the populations they serve effectively.

9. **Implementing Robust Monitoring and Evaluation Systems:** Establishing a comprehensive monitoring and evaluation system is critical to regularly assess the effectiveness of educational programs and interventions across Assam. A transparent feedback mechanism that allows educators, parents, and students to report on the effectiveness of educational policies and suggest improvements is also necessary.

Conclusion

The findings underscore the complex and uneven landscape of NEP 2020 implementation in Assam. While notable progress has been made in several areas, significant challenges persist that hinder the realization of a fully inclusive and equitable educational system. It is important to note that this analysis relies on secondary data, which may not capture the full spectrum of ground realities or the latest changes in policy implementation. Addressing these challenges through targeted strategies is crucial for Assam to meet the ambitious goals set out by NEP 2020. By focusing on infrastructure, teacher training, support for linguistic diversity, technological enhancements, and community engagement, Assam can make substantial progress toward establishing an educational system where no child is left behind. Future research could benefit from incorporating primary data to provide a more detailed and current perspective on the effectiveness of NEP 2020 in Assam.

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ORIGINAL RESEARCH ARTICLE

DEVELOPING AND ENHANCING ASSISTIVE DEVICES FOR PERSONS WITH DISABILITIES IN INDIA

ACOMPREHENSIVEOVERVIEW : POLICY, TECHNOLOGY, AND SOCIAL IMPACT

Pooja Sutodiya
Cardiff University, United Kingdom
Barpathar Tea Estate & Earth Tea, Karbi Anglong, Assam , IIndia

Author Note

Correspondence concerning this article should be addressed to Pooja Sutodiya, Cardiff University, United Kingdom. Barpathar Tea Estate & Earth Tea, Karbi Anglong, India. Email Id: poojasutodiya@gmail.com

Abstract

India's journey toward accessibility and inclusivity for persons with disabilities (PwDs) has been met with both advancements and ongoing challenges. The development and distribution of assistive technology (AT) are crucial to improving the independence and quality of life of PwDs. This paper explores the current state of assistive device technology in India, focusing on gaps in policy frameworks, the need for social innovation, and the impact of educational integration. Through an analysis of government schemes, challenges in rural outreach, and opportunities for open-source solutions, this paper provides strategic recommendations for enhancing accessibility and inclusivity in the AT sector. Findings suggest that fostering public-private partnerships, simplifying certification processes, and promoting awareness can bridge significant gaps in accessibility for PwDs in India.

Introduction

The provision of assistive devices and technologies for differently-able individuals is not only a matter of accessibility but also a fundamental human right. The United Nations Convention onthe Rights of Persons with Disabilities (CRPD) mandates the development and dissemination ofassistive technologies to ensure full participation in all aspects of life. Despite these internationalcommitments, India faces significant challenges in ensuring equitable access to these vitalresources. The latest data from the National Family Health Survey (NFHS) suggests a decline inthe reported population of people with disabilities to 1% between 2019 and 2021, down from the2.2% reported by both the 2011 Census and the 2018 National Sample Survey (NSS). Thesediscrepancies highlight the complexities in defining and identifying disabilities, which in turnaffectsthedeliveryandaccessibilityofassistivedevices.

This paper will analyze the current landscape of assistive devices in India, explore the policy frame works and their short comings, discuss the integration of AT in to education, and propose strategic recommendations to enhance the development and distribution of these criticaltechnologies.

Current Landscape of Assistive Devices in India

Assistive technology (AT) refers to a broad range of devices, software, and equipment that help individuals with disabilities perform functions that might otherwise be difficult to impossible. In India, the availability and use of AT are governed by several schemes under the Ministry of Social Justice and Empowerment, suchas the Assistance to Disabled Persons for Purchase/Fitting of Aids and Appliances (ADIP Scheme), and the Deendayal Disabled Rehabilitation Scheme (DDRS). These schemes aim to provide financial assistance for thepurchase of

devices like hearing aids, wheelchairs, and braille printers. However, the implementation of theses chemes of ten faces bureaucratic hurdles, a lack of awareness among beneficiaries, and limited geographic reach, especially in rural areas.

A significant challenge in the deployment of assistive devices is the lack of a standardizedframework that can cater to the diverse needs of PwDs. The PWD Act, 1995, provides benefits only to those with a disability of at least 40%, as certified by a medical authority, which excludes many individuals with less severe disabilities who may still face substantial barriers toparticipation in society. Moreover, the certification process itself is often cumbersome and lacks transparency, as seen in the experience of individuals with rare disorders like VATER Syndrome, who are frequently stigmatized and treated as mere beneficiaries seeking entitlement.

Need for Innovation and Inclusive Development

To bridge the gap between the needs of differently-abled individuals and the availability ofsuitable assistive devices, there is a pressing need for innovation and a focus on inclusivedevelopment. Thiscanbe achieved through several strategicinitiatives :

1. **Revising Social Innovation Policies:** Transforming AT initiatives in to non-profit, sustainable models that prioritize accessibility and affordability over profit-making isessential. Current models often cater to a small segment of the population that can afford expensive devices, leaving out many who would benefit greatly from these technologies.

2. **Creating Special Grants for AT Development:** Targeted funding should be madeavailable to encourage the development of innovative AT solutions. Financial barriers often hinder technological advancements that could otherwise provide substantial benefits to PwDs. Grant scan incentivize developers to focus on creating afford able, user-friendly devices tailored to the specific needs of the Indian context.

3. **Fostering Infrastructure Collaborations:** Building partnerships between government, private sector, and non-profit organizations can create the infrastructure necessary for the mass production of AT devices. Such collaborations can leverage different expertise and resources, making these technologies more widely available.

4. **Supporting Open-Source Development:** Approach to AT software and hardware development can foster community engagement and innovation. By making designs and codes publicly available, developers and users can collaborate to improve and adapt technologies to better meet diverse needs.

Integrating Assistive Technology In to Education

One of the most effective ways to promote the development and dissemination of assistivedevices is through education. Integrating AT development projects into high school and college curriculum can promote early involvement, deeper understanding and most importantly empathy among students. This approach has several benefits:

- **Building Empathy and Awareness:** By engaging in hands-on projects to develop assistive devices, students gain a deeper understanding of the challenges faced by differently-abled individuals. This can foster empathy and a commitment to inclusivity from a young age.

- **Promoting Innovation:** Educational settings provide a unique environment for experimentation and innovation. Students, often unencumbered by the constraints of commercial pressures, can explore creative solutions to complex problems, leading to break through sin AT.

- **Creating a Pipeline of Talent:** By incorporating AT into education, we can cultivate pipe line of skilled individuals who are passionate about developing technologies thatserve the

differently-abled community. This can help ensure a steady stream of innovation and improvements in AT.

Addressing Policy Gaps and Enhancing Accessibility

While the integration of assistive devices in to the lives of differently-abled individuals is critical, it is equally important to address the broader policy gaps that hinder accessibility. The Rights of Persons with Disabilities Act, 2016 (RPWDA) emphasizes the need for accessibility in all areas, including health, education, employment, and community life. However, implementation remains inconsistent, and many policies fail to consider the unique needs of women and children with disabilities.

For instance, while the RPwD Act prioritizes women and children with disabilities, specific provisions regarding the employment of differently-abled women are lacking. Women with disabilities are often marginalized in both disability-specific and gender-specific programs, highlighting the need for targeted interventions that address their unique challenges.

To create a more inclusive society, policies must be revised to ensure that all differently-abled individuals, regard less of the severity of their disability, have access to the support and resources they need. This includes not only physical access but also the opportunity to participate fully in all aspects of life.

Recommendations for a Comprehensive Approach

To achieve a truly inclusive society, India must adopt a multi-faceted approach that addresses both the immediate needs of differently-abled individuals and the systemic barriers that prevent full participation. Key recommendations include:

1. Scaling Up Successful Innovations: Develop a clear path way for scaling up successful AT innovations through government support and public-private partnerships. This can help ensure that effective technologies reach those who need them most.

2. **Raising Awareness through Engagement:** Implement awareness programs to educateyoung people about the needs of PwDs and the role of technology in supporting these individuals. Such programs can help breakdown stereo types and foster a more inclusive culture.

3. **Balancing Stringent Certification with Inclusivity:** As certification processes become more stringent, it is crucial to balance the sere quirements with the need for inclusivity. This can be achieved by expanding the definition of disability to include a broader range of conditions and by simplifying the certification process to make it more accessible.

4. **Promoting Gender-Sensitive Policies:** Specific provisions should be made to address the unique needs of differently-abled women, particularly in employment and social integration. This can help ensure that all individuals, regardless of gender or disability, have the opportunity to contribute to society.

5. **Encouraging Social Innovation:** Support social entrepreneurs and innovators who are developing afford able an defective assistive devices. This can help drive innovation and ensure that a wide range of solutions are available to meet the diverse needs of PwDs.

Conclusion

The development and dissemination of assistive devices are crucial to improving the quality of life for differently-abled individuals in India. By fostering innovation, integrating AT into education, addressing policy gaps, and promoting inclusivity, India can create a society where all individuals have the opportunity to participate fully and contribute to their communities. As wemove towards a more inclusive future, it is essential to ensure that no one is left behind and that all individuals, regardless of their abilities, have the tools they need to thrive.

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ORIGINAL RESEARCH ARTICLE

ADVANCING INCLUSIVE SCIENCE EDUCATION : INTEGRATING TECHNOLOGY FOR DISABILITY-INCLUSIVE LEARNING IN HIGH SCHOOLS OF KAMRUP (M), ASSAM

Mitali Baruah

Govt. Banikanta College of Teacher Education, IASE,
Lachit Nagar, Guwahati, Assam

Author Note

Correspondence concerning this article should be addressed to Mitali Baruah, Govt. Banikanta College of Teacher Education, IASE, Lachit Nagar, Guwahati, Assam. E-mail Id: baruahmitali1986@gmail.com

Abstract

This study explores the role of science, technology, and innovation in advancing disability-inclusive education within high schools in Kamrup (M), Assam. Employing a mixed-methods approach, the research utilises both qualitative and quantitative tools, including structured questionnaires and interviews, to capture the perspectives of students with disabilities (SWD), science teachers, and school administrators. Key areas of focus include SWD engagement in science classrooms and the challenges educators face in adapting teaching practices to be more inclusive. Data collection spans five high schools, with insights gathered from both male and female students, faculty, and administrative heads. Using thematic analysis, the study highlights critical barriers to inclusive education- such as limited access to assistive technologies and insufficient

teacher training-and identifies potential strategies to address these gaps through innovative science and technology solutions. Ultimately, this study aims to provide actionable insights for policymakers, educators, and disability advocates to foster more inclusive and supportive learning environments, leveraging science and technology to improve educational equity for SWD in Assam.

Keywords: inclusive education, innovation, science, students with disabilities, technology

Introduction

Technology collaboration is crucial for producing inclusive and convenient learning environments in today's educational geography. It is recognised for enhancing crucial learning elements such as student engagement, group interaction, real-time feedback, and interdisciplinary connections (Dexter & Doering, 2003; Driscoll, 2002). Students with disabilities (SWD) in merging in fundamental education setup are essential for ensuring equal educational opportunities. It directs organisations to adapt various needs within their frameworks (O'Gorman, 2005). However, despite the interest in inclusive education, significant gaps exist in effectively applying Information and Communication Technology (ICT) for SWD, including a lack of assistive tools, insufficient teacher training, and infrastructural challenges (Bingimlas, 2009). There is limited empirical research on assistive technology's effectiveness in Indian rural and semi-urban areas (Turner-Smith & Devlin, 2005). This study investigates how high school science teachers in Kamrup (M), Assam, use technology to promote inclusivity for SWD, highlighting the current state of practices and gaps in access.

Significance

This study empowers school administrators and educators to create inclusive science classrooms through technology. It explores challenges and opportunities in disability-inclusive education in Kamrup

(M), Assam, providing insights for teacher support, policy changes, and future interventions to enhance learning for students with disabilities in science education.

The Objectives of the Study

1. **Assess the Current Status of Inclusion:** Examine the state of inclusive practices in science education through classroom observations and secondary data analysis, identifying how SWD are currently supported.

2. **Understand Aspirations and Perspectives:** Investigate the aspirations of SWD in science education and the views of teachers, students, and school administrators on integrating SWD into mainstream science classes.

3. **Develop Strategies for Inclusive Science Teaching:** Develop practical approaches and instruction methodologies to improve the education experience for SWD in science classrooms, concentrating on technology's position as an enabling tool.

Methodology

The study utilised a mixed-methods design, integrating qualitative and quantitative methods to handle the study questions. A within-stage mixed-model design was chosen for nuanced analysis (Creswell & Clark, 2011). Data were collected from five randomly selected schools, including interviews with one head administrator from each school and responses from five teachers and five students to capture diverse perspectives. Specific methodologies for each research question are detailed in Table1.

This approach allowed for a comprehensive exploration of individual experiences while facilitating quantitative analysis of broader trends across the sample.

Data analysis

The collected data from questionnaires, interviews, and lesson plans were analysed using a thematic approach following Strauss and Corbin

(1998). Open coding of interview copies indicated essential themes, which were grouped into broader categories. Quantitative data from teachers were ordered by variables such as gender and experience, enabling comparisons and analysing Likert-scale responses to evaluate perspectives towards technology and inclusivity in science education.

Results

The results of this study offer a comprehensive view of the existing technological infrastructure in selected schools, science teachers' usage and perception of technology in inclusive education, and the experience of SWD in these environments. The analysis integrates data from various sources, including teacher and student responses, school infrastructure assessments, and feedback from school administrators.

Overview of School Infrastructure for Inclusive Education

Table 2 highlights the technological resources in five schools, which are crucial for supporting students with disabilities (SWD).The data in Table 2 reveals significant disparities in technological resources among the schools, with some lacking basic amenities like internet connectivity and smartboards, which are crucial for facilitating an inclusive learning environment.

Extent of Technology Usage by Science Teachers

Table 3 reveals that 75% of science teachers in inclusive classrooms report low technology use, while only 25% utilise technology regularly for inclusive education.

Teachers struggle to integrate technology due to limited resources, lack of training, and inadequate infrastructure, with observed usage often less than reported.

Teacher Perspectives on Inclusive Technology in Science Education

Table 4 shows that teachers see technology's advantages for SWD's learning, yet 75% face significant challenges in incorporating it into science instruction.

The thematic analysis reveals a strong inclination among teachers towards using technology, yet a significant gap in practical application due to logistical and educational constraints.

Student Experiences and Engagement

Table 5 shows that students with disabilities experience varied access to technology and the internet, with those in private schools generally having better availability than their public counterparts.

Teachers face challenges integrating technology due to limited resources, insufficient training, and poor infrastructure, often using less than claimed. Administrator Perspectives on Technology Adoption.

Table 6 represents school administrators see technology as vital for inclusive education, but adoption varies based on resources, teacher training support, and institutional priorities.Data from questionnaires, interviews, and lesson plans were analysed thematically. Open coding revealed vital themes that were categorised. Teachers' quantitative data were organised by gender and experience, allowing for a comparative analysis of their views on technology and inclusivity in science education.

Discussion

The study highlights the challenges and opportunities of technology use in inclusive high school science education for Students with Disabilities in Kamrup (M), Assam.

Key Findings and Implications

Resource disparities among school types indicate imbalances in access to academic materials. Teachers' attitudes and tech proficiency significantly impact technology integration. Parental support of the school is most needed for a positive learning environment. Bridging the digital divide through school infrastructure upgrades and implementing blended learning can enhance engagement and outcomes, ensuring all students benefit from technological resources.

Conclusion

This research points out the critical role of technology in sustaining total education for Students with Disabilities (SWD) in high school science classes in Kamrup (M), Assam. While technology's usefulness is recognised, essential obstacles such as resource disparities and limited teacher training hinder progress. Targeted strategies, including improved funding and specialised training, are necessary to enhance support for SWD in classrooms.

This study provides a foundation for further research and policy development, with practical applications that include Equitable Resource Allocation Teacher Training Programs Parental and Community Engagement Blended Learning Models.

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Table 1

Methods used for different Research Questions (RQ)

Research Questions	Methodology	Nature of sample	Method of analysis
1	Survey through questionnaires and interviews	Purposive sampling of Students with special needs from 2 different schools	Thematic analysis of responses
2	Survey through a 5-point Likert scale on attitudes	Convenience sampling of 5 teachers, 5 heads of the institutes and 20 students from 5 different schools	Mean responses
	Semi-structured interviews	Snowball sampling of 5 teachers, five students and five heads of the institutes.	Thematic coding of audio-recorded responses
3	Facilitation by the researcher for cooperative learning among students	Purposive sampling of 10 students from 1 inclusive school	Analysis of written responses of students and record of their performances on tasks.
	Facilitation by the researcher for cooperative learning among students	Purposive sampling of 10 students from 1 inclusive school	Analysis of written responses and drawings of students and record of their performances on tasks.
	Facilitation by the researcher for cooperative learning among students	Purposive sampling of 5 students from inclusive settings and 5 from a particular school for students with visual impairments.	Analysis of video-recorded activities and drawings made by students.

Table 2

Technological Resources in Surveyed Schools

Serial Number	Name of the school	Types of schools	Smartboard	Computer laboratory with computers	Science laboratory with equipment	Internet connectivity	Do teachers have smartphones with them
1	School 1	State Government School	Absent	Present	Absent	Absent	Present

2	School 2	Provinciali sed School	Present	Present	Present	Present	Present
3	School 3	Special Needs School	Absent	Present	Present	Absent	Present
4	School 4	Provinciali sed School	Present	Present	Present	Present	Present
5	School 5	Private School	Present	Present	Present	Present	Present

Table 3

Frequency of Technology Use in Inclusive Classrooms

	Use technology	Number of science teachers (N=20)	% of Responses
Positive	Every time	3	15
	Often	2	10
Negative	Sometimes	8	40
	Hardly ever	7	35

Table 4

Teacher Attitudes and Perceptions on Technology in Inclusive Science Education

Open-Ended Question	Possible themes	Respondents (N=20)	
		Number	Percentage (%)
What are your thoughts regarding general technology use in science instruction?	Feels excellent about the use of any technology	17	85
	Technology is valuable and important	14	70
	Technology makes learning interesting	7	35
	Technology is beneficial to teachers and Students with Disability	12	60
Do you feel inclusive technology is beneficial in science instruction? Please explain	Yes, it can be beneficial	20	100
	Technology offers more visuals, simulations, etc.	18	90
	It makes science clearer	16	80
How would you describe your attitude towards teaching science with technology? Please explain	I have a great attitude towards technology	14	70
	Open to technology use	18	90
	Comfortable with Technology	5	25

How often do you use inclusive technology in your lessons? Please explain	Very often use inclusive technology	5	25
	Sometimes inclusive technology	9	45
	Very rarely do I use inclusive technology	14	70
	Never use inclusive technology (I do not know how).	11	55

Table 5

Student Technology Access and Engagement

Parameter	Student 1 (Gov. Blind School)	Student 2 (Provincialized School)	Student 3 (Special Needs School)	Student 4 (Provincialized School)	Student 5 (Private School)
Device Availability (Classroom)	Braille-enabled device (shared)	Shared desktop in the lab	No device (focus on tactile aids)	School-provided laptop	Personal tablet
Device Availability (Home)	No device	Shared smartphone	Braille books, no electronic device	Personal smartphone	Personal laptop
Internet Access (Classroom)	Limited, only in specific areas	Limited to lab time	No access	Full access	Full access
Internet Access (Home)	No access	Mobile data (limited)	No internet	Mobile data (limited)	High-speed Wi-Fi
Frequency of Technology Use (Class)	1 time per week	2 times per week	None	3 times per week	Daily
Frequency of Technology Use (Home)	None	1 hour per day	None	1 hour per day	3 hours per day
Engagement Level in Class	Moderate	Moderate	Low	High	High
Engagement Level at Home	None	Low	None	Low	High

Challenges Faced (Classroom)	Limited access to technology	Limited access to resources	Lack of suitable technology	None	None
Challenges Faced (Home)	No device/internet at home	Poor internet connection	No access to technology	Poor internet connection	No significant challenges
Teacher Support	High	Moderate	High (focus on alternative methods)	High	High
Parental Support	Low	Low	High	Low	High

Table 6

Administrator Perspectives on Technology Integration

Table 6: Here is a methodology table for the headmasters of the specified schools: Parameter	School 1 (Gov. Blind School)	School 2 (Provincialised School)	School 3 (Special Needs School)	School 4 (Provincialised School)	School 5 (Private School)
Familiarity with Technology	Moderate	Moderate	High	Moderate	High
Technology Integration in School	Limited	Moderate	High	Moderate	High
Challenges in Technology Adoption	Limited resources, specialised needs	Resistance from some staff	Need for ongoing training	Budget constraints	None
Support for Teachers	High	Moderate	High	High	High
Parental Engagement	High	Moderate	High	Moderate	High
Government/NGO Support	High	Moderate	High	Moderate	Low
Vision for Technology in Education	Advanced specialised tools	Expanding digital literacy	Advanced specialised tools	Enhancing blended learning	Leading in digital innovation
Plans for Future Technology Use	Continuously update specialised tech	Increase student engagement	Continuously update specialised tech	Improve internet access	Expand digital curriculum
Teacher Professional Development	Regular workshops on assistive tech	Occasional training	Continuous professional development	Occasional training	Regular training on the latest tech

ORIGINAL RESEARCH ARTICLE

ONLINE EDUCATION FOR PERSONS WITH DISABILITY: A COMPREHENSIVE STUDY

Bandita Das

Former ex-student of Kumar Bhaskar Varma Sanskrit And Ancient Studies University, Nalbari

Author Note

Correspondence concerning this article should be addressed to Bandita Das, Former ex-student of Kumar Bhaskar Varma Sanskrit And Ancient Studies University, Nalbar. Email id: banditadas507@gmail.com

Abstract

Disability is the experience of any condition that makes it more difficult for a person to do certain activities or have equitable areas within a giver society. Online educations offer significant benefits for persons with disabilities. It provides flexibility in learning environment, allowing individuals to access educational resources from home or any location that suits their needs. It represents a transformative approach to learning that accommodates diverse needs through technology and flexible pedagogical strategies. The current research problem objectives is to study the teachers perception towards online education for the persons with disability. The present research studies researcher uses the descriptive research design study. online education can be made more inclusive and effective for persons with disabilities. The rapid transition from traditional in person teaching to online education has brought many opportunities and challenges students who might have previously been unable to attend in person classes due to health concerns or other reasons can in person

now access educational content. However, ensuring equal access to online education remains a significant challenge.online education for persons with disabilities represents transformative shifts towards more inclusive and equitable learning environment. By providing flexible and personalized learning options, online education can remove traditional barriers and offer significant opportunities for growth and achievement.

Keywords: Disability, Inclusivity, Accessibility, Customization,

Introduction

Online education has emerged as a powerful tool for expanding access to learning, offering flexibility and convenience that traditional classroom setting often can not provide. For persons with disabilities , online education holds the promise of overcoming physical, geographical and institutional barriers that have historically limited their access to educational opportunities by providing valuable opportunities for individuals with disabilities, enabling them to access learning resources and educational programs that might otherwise be challenging in traditional settings ,this approach to education leverages technology to create a more inclusive and flexible learning environment, accommodating diverse needs. The ability to learn at one's own pace, utilize assistive technologies, and access a wide range of resources from the comfort of home are just a few of the benefits that online education can offer to this community.

However, the potential of online education to serve persons with disabilities is not without challenges. The digital device, accessibility of online platforms, and the availability of appropriate support systems are significant factors that influence the effectiveness of online learning for this population.

Literature Review

Anila kumari M C, (2012) found that an increase in performance in over all aspects of LD from the Initial stage to middle stages, from middle to final stage of implementation, MRTP is effective in minimizing

dysgraphia in all aspect. Jagdish R. Kute (2016), found that learning disabilities , implementing cloud based e-learning and finally compare the impact of traditional learning system and how it is critical for students . Many students resolving learning disabilities and achieve their educational learning . Khan, Afsar (2020)found that pre test and post test results of primary children, score ,comparison of results in pretest and post test score, comparison of non-disable students results is evaluated.Ratan sarkar, University of Pondicherry/ 2019found that educational rights of PWDs by RPWD act, Educational rights of the PWDs among teachers effective implementation of inclusive education for by RPWDs act,2016, barriers which may hinder the effective implementation of educational rights of PWDs, the relevance of educational rights of PwDs under the RPwDs act, 2016. Gupta ,Reena, Jamia Milia Islamia University 2018found that the current situation , enrolment and barriers of the students with disabilities faced in higher education.

Significance of the Study

- ✓ Online education offers significant benefits for persons with disabilities. It provides flexibility in learning environments, allowing individuals to access educational resources from home or any location that suits their needs.
- ✓ Online platforms also enable self- paced learning time or alternative methods to grasp content.
- ✓ Online education can reduce physical barriers to education, offering more inclusive opportunities and greater access to diverse courses or programs that might not be available locally.

Objective

1. To study the perception of teachers towards online education for the persons with disability.

Methodology

ResearchDesign: In this research study descriptive research design is used.

Sources of DataCollection

1. **primary source:** The researcher uses questionnaire survey as primary data.
2. **secondary source:** The researcher uses literature review, mail interview to collect the data.

Sample: 42 samples were taken by the researcher for present study .

Sampling Design: This study utilized simple random sampling method to select participants based on present research study.

Analysis and Interpretation of Data

To analyze and interpret the data the investigator used the percentile method and same as discussed below.

Objective - To study the perception of teachers towards online education for persons with disability Statements responses by the respondents are discussed below.

Table 1 shows that 31 respondents have selected the 'yes' option and 11 respondents have selected the 'no' option from the questions asked regarding the overall teachers' perception of improving the implementation of online education during COVID-19. Here researcher collected the positive responses for improving and implementing online education for differently able students.

Table 2describes that 15 respondents have selected the strongly agreed option and 20 respondents have selected the agree option. On the other hand, 7 respondents have selected the neutral option while 0 respondents have selected the disagree and strongly disagree option.

Table 3 shows that 20 respondents have selected the strongly agreed option and 15 respondents have selected the agreed option. On the other hand, 7 respondents have selected the neutral option and 0 respondents have selected the disagree and strongly disagree option.

Table 4 describe that 10 respondents have selected the strongly agree option and 20 respondents have selected the agree option. On the other hand 12 respondents have selected the neutral option while no one have respond the disagree option and strongly disagree option

Conclusion & Recommendations

Online Education for persons with disabilities represents a transformative shift towards more inclusive and equitable learning environments. By leveraging adaptive technologies, implementing accessibility standards, and providing flexible and personalized learning options, online education can overcome traditional barriers and offer significant opportunities for growth and achievement. Ensuring that online platforms and resources are designed with accessibility in mind supports diverse learning needs and empowers individuals to engage fully with educational content.

This approach not only fosters academic success but also enhances career prospects and personal development. As technology continues to advance, ongoing efforts to improve accessibility and inclusivity will be crucial in creating a more equitable educational landscape for all.

Suggestions

Some key suggestions for improving online education for persons with disabilities:

- **Varied Instructional Methods**: Incorporate diverse teaching methods, such as interactive simulations, discussions, and hands-on activities, to cater to different learning styles.

- **Dedicated Support Teams**: Provide access to support services, such as technical help desks and academic advisors who are trained in disability services.

- **Clear Policies**: Develop and communicate clear policies regarding accessibility and accommodations for students with disabilities.

- **Individual Accommodations**: Create personalized learning plans that address the specific needs and preferences of students with disabilities.

Implementing these suggestions can help create a more inclusive online learning environment, ensuring that students with disabilities have equal access to educational opportunities and can achieve their full potential.

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Table 1

Responses of questions of overall Teachers perception to improve the implementation of online education during covid-19.

Responses	Frequency	Percent	Valid Percent
Yes	31	31.0	31.0
No	11	11.0	11.0
Total	42	42.0	42.0

Figure 1

Performance score of all questions on overall Teachers perception to improve the implementation of online education during covid-19
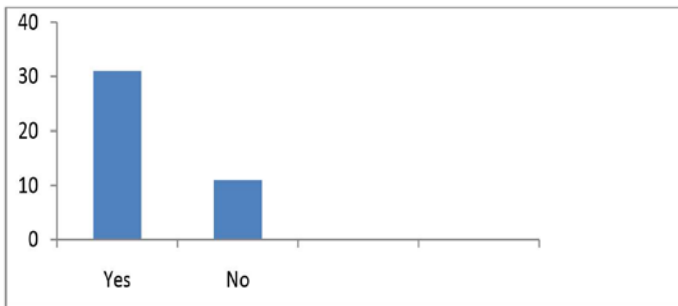
Table 2

Online education has provided more accessibility and flexibility for persons with disabilities.

Responses	Frequency	Percent	Valid Percent
Strongly Agree	15	15.0	15.0
Agree	20	20.0	20.0
Neutral	7	7.0	7.0
Disagree	0	0.0	0.0
Strongly disagree	0	0.0	0.0
Total	42	42.0	42.0

Figure 2

Online education has provided more accessibility and flexibility for persons with disabilities
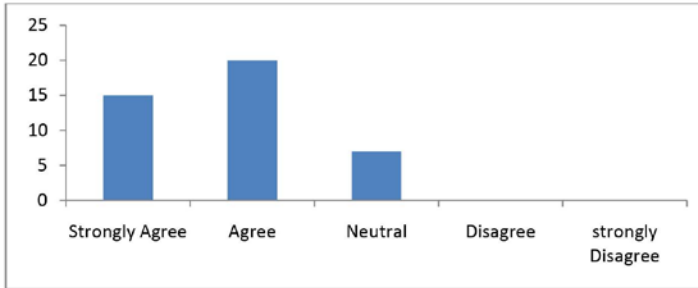
Table 3

Experiences, technological barriers or accessibility issues while engaging in online education as a person with a disability.

Responses	Frequency	Percent	Valid Percent
Strongly Agree	20	20.0	20.0
Agree	15	15.0	15.0
Neutral	7	7.0	7.0
Disagree	0	0.0	0.0
Strongly disagree	0	0.0	0.0
Total	42	42.0	42.0

Figure 3

Experiences, technological barriers or accessibility issues while engaging in online education as a person with a disability.

Das, B. (2024) Online Education for Persons with Disability: A Comprehensive Study
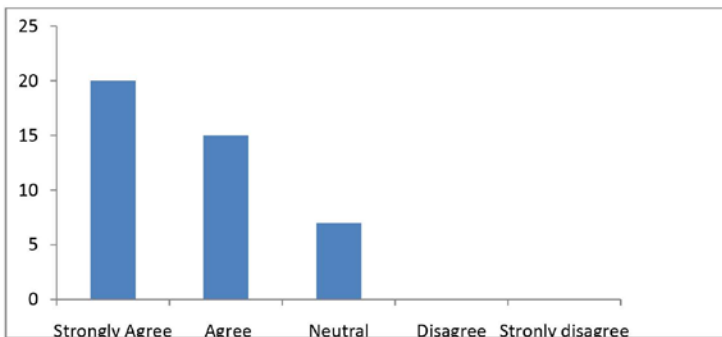
Table 4

Online education to be more inclusive and accommodating for individuals with disabilities compared to traditional in-person education.

Responses	Frequency	Percent	Valid Percent
Strongly Agree	10	10.0	10.0
Agree	20	20.0	20.0
Neutral	12	12.0	12.0
Disagree	0	0.0	0.0
Strongly disagree	0	0,0	0.0
Total	42	42.0	42.0

Figure 4

Online education to be more inclusive and accommodating for individuals with disabilities compared to traditional in-person education

ORIGINAL RESEARCH ARTICLE

OPEN AND DISTANCE LEARNINGSYSTEM FOR PERSON WITH DISABILITIES: CHALLENGES AND REMEDIES

Dipankar Das
Department of Education, Dudhnoi College, Goalpara, Assam

Author Note

Correspondence concerning this article should be addressed to Dipankar Das, Department of Education, Dudhnoi College, Goalpara, Assam. Email Id: dasdipankar1805@gmail.com

Abstract

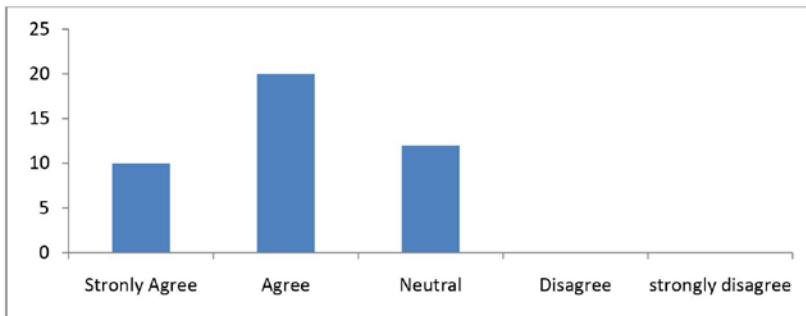The Open and Distance Learning (ODL) system is now a significant source of education for the general public that is provided without prejudice to meet the demand for education for all. Individuals with disabilities (PwDs) are included in the general education system under the inclusionary principles since education is now a fundamental right for every person. The goal of this study is to gather data and information regarding various problems and obstacles in the Open and Distance Learning (ODL) system for people with disabilities (PwDs). Following a thorough analysis of many secondary sources related to this field, the researcher discovered several problems and obstacles, including less accessible institutions for PwDs, technological impediments, a lack of specialized facilities in regional centers, a lack of faculty training, and content adaptation. Therefore, to get past these challenges, the relevant institutions must undergo new reforms, and

assistance from governmental and non-governmental organizations is needed. Additionally, it is strongly advised that all institutions implement a clear policy so that they can grant students with disabilities the same access to education as regular students in comparable situations.

Keywords: Distance Education, ODL system, PWDs, Challenges, Remedies

Introduction

Distance education is an umbrella term or a method of education where an instructor and students are physically separated, allowing for interaction through written communication and audio/video transmissions (Mind Admission, 2021). The most widely used method for enabling students to further their education at any time and from any location is the Open and Distance Learning (ODL) system. Open and distance learning (ODL) is the provision of distance education options that seek to lessen or eliminate access barriers, such as those relating to finances, prior learning, age, social media, work or family obligations, disability, incarceration, or other comparable barriers (UNESCO, 2015).

Due to its drawbacks and the rising need for higher education in the twenty-first century, distant learning has gained importance. According to a recent poll, between 2021 and 2022, enrollment in open and distance learning (ODL) climbed by 41.7%, while enrollment in online courses increased by 170%. 20.3 lakh Indian students choose ODL in 2021–2022, up from 14.6 lakh in 2021–2022. A total of 25,905–70,023 students, including international students, were enrolled in online courses. As per the All India Survey on Higher Education (AISHE) 2020–21 report, the ODL system has a substantial impact on India's gross enrolment ratio (GER) in higher education, which is 27.1%.

In order to make India a worldwide knowledge superpower, the National Education Policy (NEP) 2020 acknowledged the importance

of the Open and Distance Learning (ODL) system in developing each learner's unique capacities. The ODL system is essential to the execution of education programs since it expands access to education at all levels, from higher education to schools (Kathuria, 2022). Notable is also the fact that ensuring that everyone has access to an equal education has been one of India's top priorities. Despite having RTE (2009), 77 million children in India were not enrolled in the regular system; this type of exclusion was commonly observed in marginalized groups such as girls, scheduled castes and tribes, people with disabilities (PwD), and individuals. Since they are regarded as the most vulnerable group in India's educational system, children with disabilities (CwDs) require particular attention and adjustments. There are 46.2 lakh children with impairments in the 10–19 age groups, according to the 2011 Census. Of this group, 27% had never attended school and 12% had done so in the past. Furthermore, according to Kathuria (2022) 54% of children with various disabilities never attended any kind of school.

Open and Distance Learning (ODL) system for Person with Disabilities (PwDs)

The Rights of Persons with Disability (RPwD) Act of 2016 identifies twenty-one different categories of disability. Out of all the constraints, children with disabilities find it most difficult to attend conventional schools; inaccessible Students with a variety of physical and psychological limitations might find problems in educational resources. For kids with disabilities, the challenges of education and recovery exacerbate. Individuals with disabilities who experience difficulties using public transit and buildings are less likely to participate in economic, socio- cultural, educational, and sports activities. Their sense of self is greatly influenced by their own ideas, those of others, and those of their family members, in addition to their constraints. All of this makes persons with disabilities feel more socially isolated, and on sometimes, it even makes other family members feel alienated from society (Rao & Lakshmi, 2023).

The Open and Distance Learning (ODL) system in India, with its catchy tagline "Education at your doorstep," has essentially brought education to students' doorsteps. The development of information and communication technologies guarantees that even the most remote students will receive an education (Vanathi& Padma, 2015). By analyzing the social elements that are crucial to the development of a civil society, open and remote learning provide an excellent chance to handle the numerous educational challenges (Bhattacharya, 2017).

According to the SarvaShikshaAbhiyan (SSA) framework developed by the Ministry of Human Resource Development (MHRD) in 2006, SSA will guarantee that all children with special needs receive an education in a suitable setting, regardless of the kind, category, or severity of their condition. To ensure that no child is left out of the educational system, the SSA will implement a zero rejection policy. Additionally, it will support a variety of choices, methods, and techniques for teaching pupils with special needs. Because open and remote learning programs are self-paced, flexible in terms of time and location, and able to handle erratic schedules, they are appropriate for children and young adults with impairments. Technology-mediated remote learning over computer networks expands the options for learning by removing the need for extra equipment to be kept separately on campus and any potential mobility issues that students might have. It's becoming increasingly obvious that open learning and distant learning will have a significant impact on how education and training programs are designed in the future (Moore & Tait, 2002).

The National Accessible Records Access Protocol (NARAP) emphasizes that policies should place a high priority on ensuring digital accessibility. They should also integrate assistive technologies with support from specialized agencies such as the National Institute for Empowerment of Persons with Multiple Disabilities (NIEPMD) to improve the Open and Distance Learning (ODL) system for Persons with Disabilities (PwDs) in India. Support for educational materials must

come from the Department of Empowerment of Persons with Disabilities (DEPwD) and other relevant agencies. It is also necessary to provide these documents in a variety of formats, including audio and Braille. Advice on required inclusive teaching practice training for educators may be obtained from AICTE and UGC. In order to remove barriers and improve PwDs' educational outcomes in the ODL system, scholarships and other forms of financial help are required, according to the Ministry of Social Justice and Empowerment. Additionally, the National Resource Centre for Inclusion and Universal Design (NRC-IUD) offers professional counseling services.

Review and Related Literature

In the 21ˢᵗ century, every child has the right to get an education. But, through only formal education, it can't be possible and as a result, online and distance education (ODL) is come forwards to fulfill the right. Many scholars have already provided their valuable opinions and studied about this provision of online learning for persons with disabilities (PwDs). In their research, Rao & Lakshmi (2023) claimed that open and distance learning can effectively integrate the disabled, provided that interested parties create curricula and educational resources for ODL that will improve instruction for Indian citizens with disabilities. The various difficulties that disabled students in open schools in India confront were the subject of research conducted by Kathuria (2022). She offered various solutions to address issues like difficulty accessing study centers, sharing updates, learning material distribution, grading systems, assessment, etc. Some of the ideas she offered were text material presentation, exam system modification, online guidance and counseling cells in the study centers, etc. Husin et al. (2022) discovered that ODL modes of delivery lacked facilities that could accommodate students with special needs and were inherently exclusive. Most of the youngsters had trouble understanding the material and receiving enough academic help from their parents and teachers. Their home environment was not supportive of their studies, and neither their parents nor their instructors

had the necessary technological know-how to help them with their assignments, which made their ODL problems worse. According to Ihuoma&Abaaa (2022), PwDs have issues with enrollment, the physical environment, support services, money, and other areas. Majeed (2020) suggested, based on his research that formal and distant learning institutions should confer with or take into account the concerns and challenges of students with disabilities while choosing educational tools and creating course materials. According to a survey conducted by Mapuranga&Nyenya (2014) at Zimbabwe Open University (ZOU), the regional centers lack clear policies, effective infrastructure, assistive gadgets, etc. They proposed that in order for the institution to be accommodating to the needs of students with disabilities, it should focus on the infrastructure, admissions policy, and training of instructors from the various departments. Gilliet (2012) also found that using the right technologies, such computers, smart phones, and the internet; can improve the success of these kinds of offerings. With the right technologies, ODL institutions can undoubtedly serve a large number of people with special needs.

Objectives of the study

1. To highlight different challenges in Open and Distance Learning (ODL) for Students/ Person with Disabilities (PwDs).
2. To suggest some recommendations as remedies for further improvement in ODL System for Persons with Disabilities.

Methodology

Descriptive method is used in this study. In this study, to find out different issues and opportunities regarding ODL system for Person with Disabilities (PwDs), secondary data and sources, such as; articles, journals, book, book chapters, different policies and regulations, the official websites of different institutions, data published by different organizations, news paper articles etc. are used. By using these sources, as a result, different challenges are extracted and some recommendations for improvement are also provided.

Discussion

Issues and Challenges in Open and Distance Learning (ODL) for Person with Disabilities (PwDs):

Content Adaptation: Students who are blind or have limited vision are not able to read textbooks or other printed materials that are given to them. Thus, depending on the needs of the learner, these kinds of problems can be fixed by offering audio recordings of the print materials, Braille text, big size text, or e-text. Students with disabilities cannot access the different websites available on the internet. The online content poses challenges for students with impairments, even if it offers crucial information on a range of topics. As a result, educational institutions ought to create programs that make use of websites that are accessible to people with impairments.

Interaction and Engagement: Online engagement has been given increased prominence through various online ways following the COVID-19 epidemic. Students who depend on in-person support and collaboration may find that online surroundings are less favorable to social contact than formal settings.

Curriculum Reformation: The curriculum needs to be drastically changed to accommodate the many kinds of disability. Every student should have access to the curriculum at all times. It is recommended that a variety of disability experts be consulted prior to the curriculum's final approval. This will enable them to get the most out of their education (Rao & Lakshmi, 2023).

Technological Barriers in Various Study Centers: Upgrading basic technologies is necessary for the development of different study centers in colleges and universities that may fulfill the students with disabilities' needs. As a result, it can support students with impairments in achieving their varied objectives.

Less Number of Open Universities especially designed for persons with Disabilities: In India, the number of open universities or higher education institutions catering to PwDs is quite small. The number of open

institutions should be increased in order to provide the necessary facilities for the various types of students with disabilities to enroll in significant numbers.

Fewer Opportunities in Employment: For people with disabilities (PwDs), there should be more job options. However, PwDs (people with disabilities) have very little opportunity to acquire the skills needed in the workforce (Rao & Lakshmi, 2023).

Website Accessibility: Every type of student with a disability should be able to visit the websites of all educational institutions. For students to have access to their traditional courses at any time and from any location there needs to be some electronic content included. As a result, increased involvement in the educational system is evident (Rao & Lakshmi, 2023).

Faculty training: There may be gaps in the support provided to children with disabilities if educators lack the necessary training to comprehend and apply accessible practices (Husin et al., 2022). Due to infrequent meetings, teachers in the ODL system are also not well informed of the disabilities of their students. Therefore, it isn't always possible to give them equal learning chances.

Suggestions for further improvement in ODL System for Persons with Disabilities

1. In addition to recognizing that modifications to teaching and learning environments for students with disabilities are necessary as disability-specific interventions, educational institutions also need to introduce and implement policies, procedures, and standards that uphold accessibility, inclusion-based learning for all students, and Universal Design for All (UDL).

2. In order to provide students with disabilities with the best opportunity to participate in distance learning, all ODL resources must be made with this objective in mind. Some examples of these resources include the audio, video, multimedia, and textual elements of websites; electronic chat rooms; e-mail; instructional

software accessible to learners with disabilities; CD-ROM; DVD; laser disc; videotape; audio tape; print materials; and audio, video, and video elements of websites.

3. It is important for various institutions to utilize ICTs and a variety of software programs created especially with students with impairments in mind. Through catering to the unique requirements of people with impairments, these applications will boost engagement and enrollment in open schools and colleges. AAC Communicator and DivyangSarathi are two instances of these apps.

4. Adoption of access solutions, such as matching readers or interpreters for sign language to work one-on-one with a student to give them access to resources for distance learning, should only be taken into consideration as a last resort after all other attempts to improve the course material's native accessibility have failed. This is especially true because colleges have received financing to help them offer access to distant education for a number of years (Valverde et al, 2011).

5. ODL can be made more accessible to PWDs by making changes to the course materials, curriculum, or resources. Curriculum, materials, and/or resources are changed through this process so that PWDs can easily use them. The process however not compromise the content but only should facilitate use by PWDs. Accommodation also improves on accessibility of ODL to PWDs. This would involve a fundamental alteration in the nature of the instructional activity which is equally effective for the student to grasp matter.

6. To ensure support and sustainability, there must always be collaboration and lobbying with local (and higher) authorities. Various government and non-government organizations should work with PWD institutions and play an active role in raising awareness among the disabled population and in raising funds

for their education. This could potentially help the institution become better equipped and facilitate access to education for PWDs.

7. Individuals with disabilities may also have access to assistive technologies, which are helpful for computer-based learning. These technologies include braille displays, screen keyboards, mnemonics, shortcut keys, screen reading software, screen magnification software, and alternative pointing devices, like foot-operated microphones, head-mounted pointing devices, or eye-tracking systems.

Conclusion

Since all students have the right to an education in the twenty-first century, regardless of their gender, race, location, language, or disability, it is now everyone's responsibility to provide them with an education that will enable them to live independently and self-reliant. The education of Persons with Disabilities (PwDs) has improved thanks to technological advancements in the modern era, but given the increasing demand from diverse learners, formal education is unable to meet their needs. Because of this, Open and Distance Learning (ODL) can be a great way for them to educate themselves. After all, ODL has the clear motto, "Education for All." However, ODL is also facing many challenges when it comes to the education of children with special needs, so it needs to reform its policies, practices, and regulations to provide PwDs with the same level of accessibility as other students. As a result, ODL institutions need to act quickly to adjust all of its components to better fulfill the needs and demands of PwDs.

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- https://www.ugc.ac.in/
- https://www.aicte-india.org/
- https://socialjustice.gov.in/
- https://www.nrc-iud.org/

Figure 1

Issues and Challenges in ODL for PwDs

ORIGINAL RESEARCH ARTICLE

SPIRITUAL HEALTH OF PARENTS HAVING CHILDREN WITH CEREBRAL PALSY AND ITS

IMPACTS ON THEIR LIFESTYLE : A QUALITATIVE STUDY

Rimjim Kalita

Ph. D. Scholar, Department of Education,

Kumar Bhaskar Varma Sanskrit and Ancient Studies University, Nalbari

Author Note

Correspondence concerning this article should be addressed to Rimjim Kalita, Ph. D. Scholar, Department of Education, Kumar Bhaskar Varma Sanskrit and Ancient Studies University, Nalbari.

Email Id: rj.kaku222@gmail.com

Abstract

Spiritual Health is a very broad concept. It came from ancient literature like the Vedas, Upanishads, the Puranas, etc. Spiritual Health can be denoted as the overall health of an individual. The concept of health doesn't only define a specific part of the body like mental or physical. But it covers the overall health including the physical, mental, emotional, spiritual, etc. If a person is spiritually healthy then he or she can be considered as healthy from their inner self. Cerebral Palsy is a type of disability that can be inborn or after birth. In this disability, a child becomes dependent on their parents, family members, or other caregivers. So, raising children with Cerebral Palsy (CP) carries major challenges for parents which can affect various aspects of their lifestyle.

In this study, the investigator used the qualitative case study method to explore the impacts of parenting children with Cerebral Palsy on parent's spiritual health and their lifestyle, focusing on physical activity, diet, stress, social support, and family dynamics. This study is conducted on 12 parents of children with Cerebral Palsy in Baksa district (BTR, Assam). The investigator used the semi-structured interview method for collecting the data. This study will be helpful for people to know how the parent's lifestyle affected in raising children with Cerebral Palsy and what about spiritual health.

Keywords: Spiritual Health, Lifestyle, Parents, Children with Cerebral Palsy

Introduction

Health is considered one of the jewelsof an individual's life. Without good health, a person can't live his/her life beautifully. Spiritual Health is one of the most important partsof the health concept. It is a broad but vague concept. Because, like physical or mental health symptoms spiritual health doesn't see its symptoms directly. It originally came from ancient literature like the Vedas, Upanishads, the Puranas, etc. Spiritual Health can be denoted as the overall health of an individual. The concept of health covers overall health, including physical, mental, emotional, spiritual, etc. If a person is spiritually healthy then he or she can be considered as healthy from their inner self. Cerebral palsy is a type of neurological disorder affecting motor function, mobility, and cognitive development of people. It affects over 17 million individuals worldwide. It is a kind of inborn disability or after-birth disability. Children with Cerebral Palsy are dependent on their parents in some situations. Cerebral Palsy children often need another hand like a caretaker, parent, family member, friend or to stand or walk from one place to another. The mind of cerebral palsy-affected children develops abnormally. So, the child becomes active in being on one part of their life for example, if someone is superior in their mind like very sharp in sensibility, capturing

things but can't walk properly. Some can do work with their hand but can't speak or listen properly, and some children can't stand, speak, or listen properly. Because of these reasons, they are always dependent on their parents mostly. So, the parents of children with Cerebral Palsy face unique challenges, that influence their lifestyle choices.

Concept of Spiritual Health

Spiritual Health means the health of the inner self with the outer self. It is a vast concept. The ancient scriptures of India also mention about it. And now, the World Health Organization also mentions the concept of Spiritual Health. A person can be called spiritually healthy when he/she has harmony among mind, body, and spirit. To become spiritually healthy a person can need to know their self first. If a person is spiritually healthy then in every situation he/she can be mentally, and emotionally strong. A spiritually healthy person can heal his wounds easily because of his inner strength.

Concept of Lifestyle

Lifestyle means a person's way of living day-to-day life. It is influenced by perceptible and imperceptible factors. The perceptible factors are demographic variables and imperceptible factors are psychological variables that equally affect an individual's way of living. These factors are values, thinking, economic situation, family environment, personal issues, etc. The term 'Lifestyle' was first introduced in the year 1929 by Austrian psychologist Alfred Adler. The lifestyle of a person can be different based on their locality, occupation, and family environment. For example, a city person has a different lifestyle than a person who lives in a rural area.

Concept of Cerebral Palsy

Cerebral Palsy is a type of disability that is inborn but it can also develop after birth. It is a neurological disease. In this disability, a person can't stand straight or have floppy arms, legs, etc. Cerebral Palsy is mainly related to the brain. In this disease, a person faces abnormal

development of the brain. Because of this, the person can't talk, sometimes can't listen properly, and sometimes can't stand alone but at that same time they also have higher sensibility, thinking capacity, memorization, etc.

Significance of The Study

Nowadays Spiritual Health is considered an important concept of health. The present study is focusing on the parent's lifestyle and their spiritual health who have children with disability. The previous study about Parents' coping ability of life having children with cerebral palsy revealed that they face problems in balancing their day-to-day lives. This study is focusing on the spiritual health of parents and their lifestyle patterns.To become good parents, they need to first balance their life patterns. As we know cerebral palsy childrenseekhelp from their parents or caretakers to survive in day-to-day life. So, in taking care of children with cerebral palsy parents become so much busy and don't have time for their own life. This situation affects their mental, physical, social, and spiritual health and also their lifestyle as well. Spiritual Health impacts the overall health of a person which also impacts an individual lifestyle. So, if the person has good spiritual health then it can be said that he has a good health situation and also has living balanced lifestyle. In this study, the investigator has studied the parent's spiritual health and lifestyle who have children with disability in Baksa district.

This study will be helpful for people to know about the cerebral palsy disability of children and its impacts on parents' lifestyles as well as their spiritual health. This study is conducted in the rural area of Baksa district. It also raises awareness about disability among the people who don't know about it and the people who know but don't know how to handle it. This study will also become helpful for parents having children with disability to know the concept of spiritual health and how can it impact their lifestyle.

Statement of The Problem

The present study is stated as "Spiritual Health of Parents Having Children with Cerebral Palsy and its Impacts on their Lifestyle: A Case Study"

Operational definitions

a. **Spiritual Health:** In this study, Spiritual Health defines the Parent's spiritual health having children with Cerebral Palsy.

b. **Lifestyle:** In this study, Lifestyle defines the Parent's lifestyle or day-to-day living having children with Cerebral Palsy.

c. **Parents:** Parents are the individuals who have children. In this study, parents relyon the person who has children with Cerebral Palsy.

d. **Cerebral Palsy:** It is one of the neurological disability related to the brain. In this study, Cerebral Palsy refers to the parents having children with cerebral Palsy.

Objective

1. To explore the spiritual health of parents having children with cerebral palsy and its impacts on their lifestyle.

Delimitations

a. This study is delimited to only the parents having children with cerebral palsy disability.

b. This study is delimited to only the rural area of Baksa District.

Review of Related Literature

The review of related literature helps to know about the research area perfectly. There have some reviews mentioned below related to the present study.

Alaee, Shahboulaghi, Khankeh, and Kermanshahi (2014) conducted a study on Psychosocial Challenges for Parents of Children with Cerebral Palsy: A Qualitative Study. In this study, they found that the parents of children with cerebral palsy experienced unique

psycho-social challenges related to the child's care and health problems. A lack of financial support, limited access to medical services, and limited welfare facilities for their social presence. Ranjan, Ranjan, Singh, and Sengar (2015) conducted a study on the Role of Spirituality in the Well-being of the Parents of Children with Mental Retardation. In this study, they found that with the well-being of parents of children with mental retardation seem to display low well-being, they have livedpoor quality of life. Mohammadchenari, Marashian, and Shoushtari (2022) conducted a study on the Relationship between Spiritual Well-being, Social Health, and Parent-Child Interaction with Health-Related Quality of Life in Parents of Children with Specific Learning Disorders. In this study, they found that spiritual well-being, social health, and parent-child interactions were essential in the health-related quality of life of parents of children with specific learning disabilities.

Methodology

Method

In the present study, the qualitative descriptive study method is used to collect and analyze the data. The investigator used both a questionnaire and a semi-structured interview. In semi-structured interviews, the investigator categorised the data according to the dimensions mentioned in the interview.

Sample and Sampling Technique

In the present study, the investigator used purposive sampling to select the sample. The parents who have children with Cerebral Palsy disability in the rural area of Baksa District have been selected as samples. There are a total of 12 parents selected as samples for the present study.

Tools

In the present study the investigator has used a semi-structured interview method to know the Lifestyle of parents. The semi-structured

interview schedule is made out by the investigator. It is divided into five dimensionsphysical activity, diet, stress, social support, and family dynamics.For Spiritual Health the investigator has used the Spiritual Health Assessment Scale (SHAS) developed by Dr.Kusum Gaur (2022) to examine the level of Spiritual Health of parents having children with Cerebral Palsy disability. In this tool, there are mainly three main domains of Spiritual Health Self-Development, Self-Actualization, and Self-Realization.

Statistical Technique Used

In the Present study only the percentage method has been used to show the percentage of spiritual health of parents having children with Cerebral Palsy.

Analysis and Interpretation

In the present study, the collected raw data are analyzed with qualitative descriptions. With that, the percentage of Spiritual Health is shown with a table and number. The analysis process is discussed below-

Following the main objective of the study the Spiritual Health of Parents having children with Cerebral palsy is described with a statistical table of percentages. The table 1 and figure 1shows that the parents having children with cerebral palsy have a good level of self-development, a fair level of self-actualization, and a good level of self-realization. So, it can be said that parents have a better level of spiritual health.

The data collected for the Lifestyle of parents having children with Cerebral Palsy are discussed. Focusing on the domains of lifestyle as physical activity, diet, stress, social support, and family dynamics the investigator has collected the raw data through semi-structured interviews.

Physical activity: The parents said they are physically active as they exercise for 20 to 30 minutes daily. They do Yoga and Walk in the morning. It helps them to be active all day. They also said that being

active is very important for them to engage with their cerebral palsy-affected children.

Diet: The parents said about it as they planned the diet plan according to their children's health. But during the planning, they have low maintenance in their diet which sometimes leads to health issues.

Stress and coping mechanism: In the interaction process of parents, the investigator has the chance to know that parents always have tension for their child. Because of children's disability, they always have stress for their future. They said that, from born to till date our children are dependent on us. Without our presence, they can't live life like normal people. The parents also added that they have to do Yoga, meditation, and morning walksregularly. These activities help them to cope with their tension and stress.

Social support: The parents of children with cerebral palsy said on it as they have living in a rural area. The parents are not educated either. Becauseof that, they are not veryaware of the disability, how to cure it, and the economic help schemes of the government. Therefore, if there has any social or economic help already exists. The parents haven't been able to reach it.

Family Dynamics: In the criteria of family dynamics the parents said that they have good relationships with their partner and other family members. The family members always help and support them whenever they seek help. The partner is always on their side and taking care of their disabled child equally.

Findings of The Study

The findings of the study based on the analysis part are discussed as

1. The parents having children with cerebral palsy have a good level of self-development, a fair level of self-actualization, and a good level of self-realization. So, it can be said that they have a better situation of spiritual health.

2. The parents with the cerebral palsy child have living a balanced lifestyle. They followed the regular cycle of exercises by doing yoga, morning walks, meditation, etc. This activity helped them to manage the stress, tension, and overthinking about their child's future. It also helped them to maintain their day-to-day life schedule.

3. Because of their good spiritual health, they have good coping management of problems they face in day-to-day life.

4. In taking care of the child the parents always help and support each other at every point of their life. The other family members also support them in their situation.

5. The parents always need to be available for their cerebral palsy-affected children. They planned their children's diet chart and followed it but sometimes forgot to plan and follow their diet chart which sometimes leads to their health issues.

6. The study is done in a rural area and the parents are not educated enough to know all the medical things, the government schemes about disability, etc. Because of this, they lack the available economic advantages given by the government.

Discussion and Conclusion

The present study focuses on the spiritual health of parents having children with Cerebral Palsy and its impact on their lifestyle. From the findings of the study, it can be said that The parents have a better level of spiritual health which also leads to their lifestyle. The parents have lived a balanced lifestyle where they face lots of problems in day-to-day life in dealing with cerebral palsy children. But they also can cope with the problems and manage all the problematic situations.

In the end, it can be said that spiritual health impacts on person's lifestyle. Good spiritual health leads good lifestyle. It helps in solving problems and living a balanced life with all the day-to-day hustles. As

we know cerebral palsy children need help in doing daily life activities. Parents are the only individuals who are always there for them in every situation. So, in this thing, parents have a tough life. But a good practice of prayers, physical activity, and mental activity can help to know themself clearly and make life decisions rightly. This thingleads to living a better lifestyle.

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https://en.wikipedia.org/wiki/Disability

https://en.wikipedia.org/wiki/Lifestyle_(social_sciences)

Table 1

Showing the percentage of Spiritual Health of parents having children with Cerebral Palsy.

Parents having children with Cerebral Palsy.			
DIMENSION	LEVEL OF SPIRITUAL HEALTH		
	POOR	FAIR	GOOD
SELF-DEVELOPMENT	0%	10%	90%
SELF-ACTUALIZATION	20%	60%	20%
SELF-REALIZATION	10%	30%	60%

Figure 1

Dimension and Domain percentage of the Parents' Level of Spiritual Health having children with Cerebral Palsy and Multiple Disabilities.
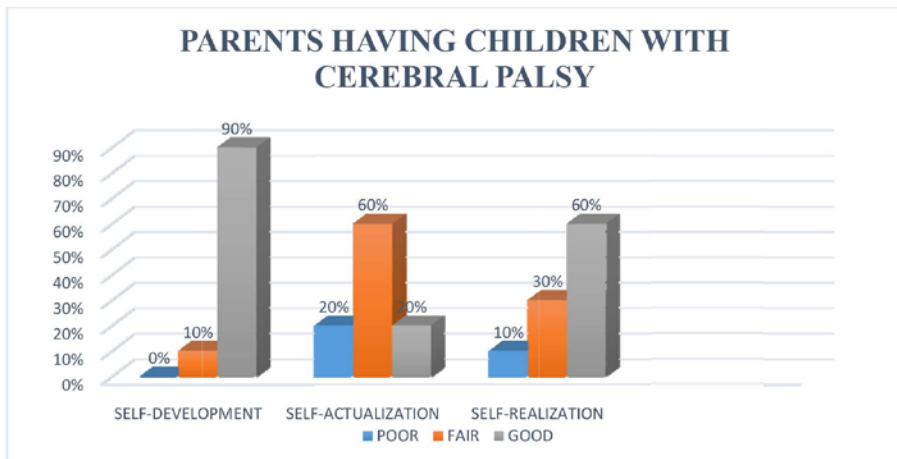
ORIGINAL RESEARCH ARTICLE

ISSUES AND CHALLENGES OF DISABLED PRISONERS IN INDIAN INCARCERATION SYSTEM: A HUMAN RIGHTS PERSPECTIVE

Anindita Das
Research Scholar, Sikkim University

Author Note

Correspondence concerning this article should be addressed to Anindita Das, Research Scholar, Sikkim University.

Email Id: dasanindita666@gmail.com

Abstract

The differently-abled individuals in the prisons of India face unique challenges that often go unnoticed, ranging from inaccessible infrastructure to inadequate healthcare and pervasive social isolation. Though the national legal frameworks such as the Rights of Persons with Disabilities Act, 2016, and constitutional guarantees that theoretically protect the rights of all citizens, the reality for differently abled people inside the bars is one of neglect and marginalization. Prisons in India are typically not designed to accommodate the needs of differently-abled individuals, leading to violations of their basic human rights. In addition, the lack of proper medical care, rehabilitation services, and assistive devices further exacerbates their difficulties. This paper explores the intersection of disability and incarceration in India, using case studies to highlight systemic barriers and unequal treatment of differently-abled prisoners. It evaluates the existing legal mechanisms

and highlights key judicial interventions aimed at safeguarding the rights of this vulnerable group. The paper also highlights the lacunas of the previous prison reform committees and advocates for a comprehensive and rights-based approach to prison management which is more focused on the importance of accessible infrastructure, adequate healthcare, and trained jail personnel sensitive to the needs of differently-abled inmates. The paper concludes by offering recommendations based on comparative studies with other countries where targeted prison reforms have been implemented to address the issues of differently abled inmates and make India's prison system more inclusive and just for all.

Keywords: Prison, disabled prisoners, disabled persons' rights, violation of human rights.

Introduction

India has been a steadfast advocate of human rights since its independence. However, to uphold the rights of the people behind the bars in the country, especially of the differently-abled populations is still far from the international standards. In academia, the intersection between the jurisprudence of prison and differently-abled prisoners is still a blind spot. As per the latest Prison Statistics India, 2022 published by the National Crime Records Bureau, there are a total of 5 lakh 73 thousand and 220 prisoners throughout the country, amongst which the majority three-fourths of the prisoners are in the undertrial category (Niranjana, 2022). Surprisingly, the official website of NCRB does not contain any information regarding the number of prisoners with disability. On the contrary, we can find countries like America where US Survey of Prison Inmates of 2016 revealed that almost 38% of prisoners living in federal and state prisons are found to have at least one disability (Bixby et.al, 2022). As mentioned in the Global Report on Health Equity for Persons with Disabilities published by the World Health Organisation, 16% of the worldwide population which is 1 in every 6 individuals, generally experience some form of disability, which makes the disabled community

the largest demographic minority in the world (WHO, 2022). Despite this fact, this group of people is continuously being ignored in the matter of collection of their data and policy reforms. In Indian scenario also, the collection of data relating to disability population in the Indian prison statistics is still an overlooked matter for the National Crime Records Bureau which ultimately violates the mandate of the international conventions for sustainable development goals (NCRB, 2022).

Objectives

Theobjectives of the paper are as mentioned below -

1. To explore the challenges of differently-abled prisoners inside the prisons of India.
2. To evaluatethe legal mechanismsas well as judicial initiatives to address the issues of differently-abled people behind the bars and its implementations.

Research Methodology

The methodology focuses on understanding the issues and challenges of differently-abled prisoners in India, in the absence of official data from the National Crime Records Bureau (NCRB) or other formal governmental records. Given the lack of quantitative data, this paper relies on qualitative methods, including the use of case studies to examine and contextualize the lived experiences of differently-abled prisoners. By employing this approach, the research aims to highlight systemic issues, identify prevalent challenges, and provide insights into the human rights landscape for this vulnerable group within Indian prisons.

Legal Framework on Disability

The intersection of disability rights and prison reform represents a crucial arena of human rights law, focusing on the protection and dignity of a section of the most vulnerable populations in society. Over the past few decades, there has been a growing recognition of the need to ensure that persons with disabilities, including those who are incarcerated, are afforded the same rights and protections as others (Callus et al, 2017).

This recognition has led to the development of a comprehensive legal framework at both international and national levels.

International Legal Standards

The foundation of disability rights in the legal domain is the United Nations Convention on the Rights of Persons with Disabilities, adopted in 2006 (Karr, 2011). It emphasizes non-discrimination, accessibility, and independent living, driving reforms in education, healthcare, employment, and justice systems (Della Fina et al., 2017). Ratified by 185 countries, including India, it remains one of the most widely adopted human rights treaties (Prakash, 2018). However, challenges like inadequate funding and policy gaps hinder implementation. Importantly, the CRPD does not explicitly address disabled individuals in prisons (Mannan et al., 2012).

The provisions of CRPD do not explicitly address disabled prisoners, their treatment is guided by the United Nations Standard Minimum Rules for the Treatment of Prisoners, commonly known as Nelson Mandela Rules. The Nelson Mandela Rules were adopted by the UN General Assembly in 2015 and serve as a global standard for the humane treatment of prisoners which were based on the principle that "all prisoners shall be treated with respect due to their inherent dignity and value as human beings" (Drakulevski, 2017). These rules stress dignity and non-discrimination (Rule 5), require accommodations for disabled prisoners (Rule 13), and mandate accessible medical care, including psychiatric services (Rule 22). However, inadequate infrastructure, lack of assistive devices, and untrained staff hinder effective implementation.

Constitutional Provisions

The rights of disabled prisoners in India are grounded in both constitutional principles and statutory provisions. The Indian Constitution, while not expressly addressing the rights of disabled prisoners, provides a framework that supports their rights through

various fundamental rights (Sharma, 2022). Although prisoners lose certain freedoms upon incarceration, the golden triangle of fundamental rights and the judiciary, particularly the Supreme Court of India, has played a crucial role in upholding and expanding prisoner's rights over time. Articles 14, 19, and 21 collectively form a robust framework that protects equality, personal freedoms, and the right to life, and their principles are essential in addressing the specific needs of disabled individuals within the prison system.Article 14 deals with the right to equality which guarantees that disabled prisoners are treated equally and fairly, with no discrimination based on their disability. It mandates equal access to facilities and services within the prison system.Article 19 of the Constitution deals with six freedoms. Although some freedoms are restricted in prison, disabled prisoners still have the right to express their needs and grievances. They should also have access to necessary communication aids and participate in prison activities.Moreover, Article 21 is about the right to life and personal liberty. This article ensures that disabled prisoners live with dignity, including humane treatment and necessary medical care. It also supports their right to a fair trial and legal assistance. Thus, these principles enshrined in the Constitution of India form the basis for protecting the rights of disabled prisoners and effective implementation is crucial in achieving the full realization of these rights in the prison system.

National Legal Framework

The Rights of Persons with Disabilities Act of 2016 is legislation that aims to ensure the rights, equality, and dignity of individuals with disabilities. The Act aligns with the United Nations Convention on the Rights of Persons with Disabilities and encompasses a wide range of provisions designed to support and protect persons with disabilities across various domains, including education, employment, and accessibility. Though the provisions of the Act do not deal with the disabled prisoners

expressly (Math et al., 2019), some provisions are impliedly applicable to prisoners with disabilities.

History of Prison Reforms in India

The development of the modern prison system inIndia can be traced through several key historical milestones. It began with T B Macaulay in 1835 and progressed through initiatives like the Pakwasa Committee in 1949, which addressed wages for prison labour. Significant contributions were made by Dr. WC Reckless, a UN expert, whose 1952 report advocated transforming jails into centres for reformation (Gupta, 2018). Further advancements included the creation of The Model Prison Manual in 1960 and recommendations from various committees, such as the Mulla Committee (1980–83) and the Krishna Iyer Committee in 1987, which introduced concepts like after-care, rehabilitation, and addressed the conditions of women prisoners in India. In 1996, following a Supreme Court directive in the case of *Rama Murthy v. State of Karnataka*(1999) to standardize prison laws, a draft Model Prison Management Bill was prepared in 1999. Although the Disabilities Act of 1995 existed, the concept of disability-inclusive correctional facilities in India was never incorporated into the agendas of the jail reform committees. Even on an international level, documents such as the Manual on Human Rights Training for Prison Officials by the Office of the United Nations High Commissioner for Human Rights overlooked the concern of prisoners with disability (Lines, 2008).

However,significant progress was made with the ratification of the CRPD. The widespread support for the CRPD, as the first legally binding global authority, resulted in a major shift in the perspective of disability rights in India. This shift led to the repeal of two existing disability laws in India and the integration of human rights principles into the Rights of Persons with Disabilities Act, 2016, and the Mental Healthcare Act, 2017. Despite efforts to align laws with CRPD

principles, the Model Prison Management Bill of 1999, later enacted as the Model Prisons and Correctional Services Act 2023, was considered inadequate to address the rights and needs of prisoners with disabilities. While the Act included chapters focusing on women prisoners, pregnant women prisoners, women prisoners with children, and transgender prisoners, it lacked specific provisions for disabled prisoners of the country.

An unstarred question was raised to the Ministry of Social Justice and Empowerment in India regarding the provision of special infrastructure, adequate standards of care, and data collection related to prisoners with disabilities in Indian prisons. The goal of this inquiry was to understand how the government was addressing the needs of disabled prisoners and whether the prison facilities were equipped to accommodate them. The Ministry of Social Justice and Empowerment responded to this question by deflecting responsibility, stating that the matter falls under the "State List'. This response rendered the inquiry ineffective, as it did not lead to any actionable measures or accountability at the central level. As a consequence, the lack of a unified national approach to addressing the rights and needs of disabled prisoners continued (UNCRPD Committee, 2019).

The situation was further complicated after the release of the feedback from the United Nations Committee on the Rights of Persons with Disabilities. The CRPD Committee periodically monitors the implementation of the Convention on the Rights of Persons with Disabilitiesby its member states, including India. In its Concluding Observations on India's report, the CRPD Committee criticized the country's efforts to ensure access to justice for disabled individuals, including those who are incarcerated by pointing out deficiencies in the legal and infrastructural support.

Case Studies Relating to Disabled Prisoners in India

There are no sufficient governmental statistics on the number of disabled prisoners who are kept inside the prisons in India. Therefore,

to discuss the challenges faced by this population behind bars, we need to completely rely on the case studies.

Case Study I

The recent case of Professor G N Saibaba created an impact on the socio-political scenario in India and highlighted the urgent need for disabled-friendly prisons in India. Professor Saibaba was a wheelchair user person with 90% physical disability who was arrested in May 2014 on allegations of terrorism. Though he was sentenced to life imprisonment in the year 2017, he was finally acquitted on 5th March 2024 by the High Court of Bombay claiming his trial as a "failure of Justice". However, the government filed a plea in the Supreme Court for a stay on the acquittal order of the High Court, but the Apex Court rejected the plea citing it as "it is a hard-earned acquittal. How many years has the man spent in jail?" (Das, 2024). After getting acquittal Professor Saibaba arranged a press conference where he described that he had been living in "Anda cell" for eight and a half years where he was denied the use of a wheelchair (UN News, 2023). It was a regular battle for him to take a bath, use the toilet, or even keep a glass in his hand for drinking water. He was even not allowed to receive the medicine provided by his family.

Saibaba's statement after his release brought to light many discrimination faced by the disabled prisoners inside the prisons (Sharma, 2024). People with any form of disability are often subject to inhumane treatment because of their impairment. The inhuman treatment of Saibaba without taking into account his disabled physical condition is criticized by several human rights agencies.

Case Study II

The case of Dalit and Labour activist Shiv Kumar provides several significant insights regarding disabled prisoners' torture inside the prisons in India. Activist Kumar had low vision impairment but due to brutal and inhuman torture inside the prison, his glass got damaged. Despite

his repeated requests, the authorities refused to provide him with any replacement. The torture inflicted upon Shiv Kumar led to the conduct of a judicial inquiry by the Punjab and Haryana High Court on his physical condition and the nexus of police, medical officers, and also the concerned magistrate (The Hindu, 2022).

Case Study III

Another case study regarding Father Stan Swamy is crucial in understanding the pathetic prison conditions faced by disabled prisoners. Father Stan Swamy was an 84 years old catholic priest and also a tribal rights activist who was arrested under *Unlawful Activities Prevention Act, of 1967* in the year 2020. He was a patient of Parkinson's disease which is legally considered as one of the 21 disabilities as acknowledged by the Rights of Persons with Disabilities Act, 2016. He filed a petition to the Special Court requesting to allow him to use a sipper and straw as he was unable to drink water from the glass (Indian Express, 2020). Despite his poor medical conditions, he was denied bail multiple times and unfortunately, he succumbed to death on July 5, 2021, on the date when his bail hearing had been scheduled.

Judicial Intervention

The judicial system of India has contributed several times to making an inclusive society for all by the pronouncement of different judgments and observations from time to time. A committee was formed in 2023 by the apex court namely the Supreme Court Committee on Accessibility to evaluate the barriers encountered by disabled people while seeking legal redressal from the Supreme Court. The report produced by the committee brought into light various issues and focused on disabled-friendly facilities including in–person assessment of the infrastructure of the court, comprehensive operational examinations, and thorough stakeholder engagement. Citing the Supreme Court's clear stand on the understanding of "vulnerable witness" to encompass individuals with impairments, the Delhi High Court in the case of *Smruti Tukaram Badade*

v. State of Maharashtra affirmed the rights of the hearing-impaired petitioner who opposed the sound-based procedures in the trial phase, arguing that they went against the principles of natural justice. The court instructed the concerned authorities to put appropriate arrangements in place to make sure that people with disabilities, whether they are accused or victims, can enjoy their rights and access the facilities of the criminal justice system. These arrangements may include the setting up of special courtrooms and the installation of assistive technology. Additionally, a comprehensive plan to address these accessibility concerns was mandated by the court to the Delhi State Legal Services Authority (DSLSA).

Conclusion

The interaction of disability study and the prison system exploresa unique and challenging set of issues that must be addressed from a human rights perspective. Disabled prisoners often face amplified disadvantages due to the dual stigma of their impairment and their status as incarcerated individuals. The present study has explored the legal frameworksboth at national and international, historical context, and a few case studies to shed light on the current state of affairs concerning disabled prisoners in India. The lack of official data on the number of disabled prisoners in India is enough evidence to understand the condition of this marginalized population. Undoubtedly, there are constitutional commitments but in the absence of strict legal provisions and policy frameworks for protecting the rights of disabled prisoners in India,significant gaps are found in the implementation of variousinternational obligations. The legal frameworks, both international and national, emphasize the importance of treating disabled individuals with dignity and ensuring their rights are upheld. However, despite these frameworks, disabled prisoners often encounter institutional neglect and discrimination. The historical analysis of prison reforms in India reveals that while there have been

efforts to improve the conditions of prisoners, these reforms have largely overlooked the specific needs of disabled inmates in the country. The case studies further deepened the understanding of the harsh realities faced by disabled prisoners in India, highlighting issues such as inadequate healthcare, lack of accessibility, and insufficient support systems. The current condition not only violates the rights of disabled individuals but also perpetuates a web of marginalization and neglect. To address these issues, a comprehensive approach is needed that includes policy changes, improved infrastructure, better healthcare, rehabilitation programs, and the active involvement of civil society. The following recommendations are provided to ensure the protection of the human rights of prisoners with disability.

a) The Model Prisons and Correctional Services Act, 2013 needs to be amended to incorporate the principles of UNCRPD.

b) Prisoners with disability must be acknowledged by the National Crime Records Bureau and data should be entered in this regard in the Prison Statistics of India.

c) The infrastructure of most prisons in India is not designed to accommodate the needs of disabled individuals. Thus, prisons should be retrofitted to ensure barrier-free access for disabled prisoners which includes the installation of ramps, handrails, and accessible toilets, as well as ensuring that all prison facilities are wheelchair accessible. Future prison constructions should adopt universal design principles to ensure that all facilities are inherently accessible to everyone, including disabled individuals

d) Prisons should provide necessary assistive devices such as wheelchairs, hearing aids, and prosthetics to disabled inmates. Regular maintenance and replacement of these devices should be ensured to maintain their functionality.

e) Prisons should be equipped with specialized medical facilities to cater to the diverse healthcare needs of disabled prisoners.

f) Disability training on the human rights model of disability should be introduced in the staff training program of the legal and correctional institutions.

g) Rehabilitation programs in prisons are often not designed to cater to the specific needs of disabled inmates. As a result, disabled prisoners are frequently excluded from these programs, limiting their opportunities for personal development and reintegration into society. Thus, rehabilitation programs should be adapted to meet the needs of disabled prisoners which may include offering vocational training, education, and therapeutic programs that are accessible and inclusive.

The problems encountered by prisoners with disabilities in India are complex and diverse, which necessitate ongoing research and activism in this domain. To carry forward future studies, more information on the conditions of disabled prisoners should be gathered, the efficacy of current policy and legal framework should be investigated, and best practices for treating disabled inmates of jails should be identified by a comparative analysis with developed countries' policies and practices. To address these issues extensively, there is also a need for greater collaboration between international organizations, civil society, and governmental entities.

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ORIGINAL RESEARCH ARTICLE

EXPLORING OPPORTUNITIES AND CHALLENGES IN IMPLEMENTING EQUITABLE AND INCLUSIVE EDUCATION: PERSPECTIVES FROM NEP 2020

Ritu Sarkar[1] & Agnes Humtsoe[2]
[1]Department of Education Assam Don Bosco University, Guwahati
[2]Department of Education, Mizoram University, Aizawl

Author Note

Correspondence concerning this article should be addressed to Ritu Sarkar, Department of Education Assam Don Bosco University, Guwahati. E-mail Id ritu.sarkar@dbuniversity.ac.in

Abstract

The National Education Policy (NEP) 2020 accentuates education's crucial role in promoting social justice and equality in India. It advocates for inclusive and equitable education as essential for a society where every individual, regardless of socioeconomic background, can flourish. This article explores the opportunities and challenges in promoting an inclusive and equitable education system as outlined in NEP 2020. The policy envisions bridging gender and social category gaps and highlights ongoing disparities, particularly among socio-economically disadvantaged groups (SEDGs) at the secondary and higher education levels. It proposes several measures to enhance inclusive education, including targeted interventions for minority communities, mechanisms to ensure equal access for children with special needs (CWSN), Special Education Zones (SEZs), a Gender-Inclusion Fund,

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the promotion of inclusive school cultures, and the strengthening of alternative school systems. However, considerable challenges persist, including enrolment discrepancies, socio-cultural and geographical impediments, gender inequity, and insufficient access and infrastructure. Addressing these issues is essential for moving India towards an education system that benefits and empowers all individuals to dream, prosper, and contribute to society. Thus, by analysing the opportunities and challenges, this article provides valuable insights into the implications of the policy in promoting an inclusive culture for equitable and inclusive education in India.

Key Words: NEP 2020, Opportunities, Challenges, Equitable, Inclusive Education

Introduction

Inclusive education is a modern educational approach that emphasizes equal access to education for all students, regardless of their backgrounds or abilities. This includes integrating children with disabilities, those who speak minority languages, and traditionally excluded groups into mainstream classrooms. In doing so, inclusive education helps to reduce discrimination, fosters equality and upholds the rights of all students to receive education and care. Therefore, it is crucial that schools incorporate inclusive learning methods into their curriculum. The ideals of diversity, equality, and inclusion, when integrated into the school education system, establish the groundwork for universal access to education, a larger workforce, and opportunities for lifelong learning for all students.

Over the years, the development of inclusive education in India has been aided by several policies and actions. In this regard, the Kothari Commission (1964–1966) acknowledged the need to provide equal educational opportunities for all students and the necessity of integrating diverse learners into the educational system. Further, the 1968 National Policy on Education too placed a strong emphasis on giving all societal segments, including underprivileged ones, equal access to education. It

advocated the inclusion of disabled children in regular classrooms, which was a step toward inclusive education. Later on, the NPE 1986, made it clear that students with disabilities should be included in regular classrooms. It promoted curriculum adaptation, teacher preparation, and support service enhancements to better serve students with exceptional needs. Similarly, the Integrated Education of Disabled Children (IEDC) was introduced in 1974 to integrate disabled students into mainstream classrooms. In addition to giving schools financial support, its goals were to lessen prejudice and advance equitable opportunity for children with disabilities. However, the IEDC program was superseded by the Inclusive Education for the Disabled at Secondary Stage (IEDSS) in 2009, which provides coverage for secondary school-aged disabled students (classes IX-XII). The NPE 1986's guiding principles were reaffirmed in the POA 1992, which recommended actions including curriculum modifications, resource centre creation, and special teacher training programs, with an emphasis on integrating students with disabilities into regular classrooms.

Likewise, the Rehabilitation Council of India Act (RCI) 1992, aimed to regulate and standardize the training of rehabilitation professionals. Although it did not specifically address inclusive education, it was important to make sure that qualified experts were on hand to assist with inclusive education projects. Additionally, the enforcement of the Persons with Disabilities (Equal Opportunities, Protection of Rights & Full Participation) Act 1995, represented a significant step towards encouraging inclusive education. It stipulated that, in a suitable setting, children with impairments must be provided with free education until they turn eighteen and called for the modification of instructional materials and infrastructure to accommodate these children in regular classrooms. Furthermore, the National Trust Act of 1999 prioritized the well-being of people with various disabilities, including mental retardation, autism, and cerebral palsy by advancing their rights and involvement. This act attempted to empower these people and their

families, which indirectly contributed to the inclusion of such children in the educational system.

The National Council of Educational Research and Training (NCERT) launched the Project for Integrated Education for the Disabled (PIED), to integrate children with disabilities into regular classrooms. To achieve this goal, PIED assisted with teacher preparation, the creation of instructional materials, and the modification of school infrastructure to improve accessibility. In addition, the District Primary Education Programme (DPEP) (1994) included special measures to integrate students with disabilities into mainstream schools and sought to achieve the goal of universalizing primary education. By enhancing school facilities, educating educators, and creating inclusive lesson plans, inclusive education can be emphasized. Similarly, the Sarva Shiksha Abhiyan (SSA) sought to make primary education available to all Indians, with a particular emphasis on inclusive education, ensuring that students with disabilities attended regular classrooms. In addition to providing assistance and appliances, accessible restrooms, teacher training in inclusive practices, and ramp construction, SSA also made available other appliances. Furthermore, the National Policy for People with Disabilities (2006) demanded that students with disabilities be included in regular classrooms, with the help of suitable curriculum adjustments, teacher preparation, and the provision of appliances and supports.

The Right to Education (RTE) Act 2009, stated that all children, including those with disabilities, receive free and compulsory education between the ages of six to fourteen in a typical classroom setting, thus promoting the inclusion of students with disabilities in schools. The 2016 Rights of People with Disabilities Act further strengthened the framework for inclusive education clarifying that students with disabilities have the right to inclusive education in a local school, emphasising the necessity for teacher training, provision of essential support services, and curricular modifications to cater to a diverse student body. In different ways, each of these acts and policies supported inclusive education in

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India. Equal educational opportunities, integrating disabled students into regular classrooms, and providing the required support systems such as qualified teachers, accessible facilities, and modified curricula were among the key points they made. All these policies align with the United Nations 2030 Agenda for Sustainable Development, which places a strong emphasis on inclusive and equitable education as a prerequisite for attaining sustainable development, or SDG 4. Its specific goals include eradicating gender inequalities and guaranteeing equal access to education to vulnerable populations, such as those with disabilities and disadvantaged communities. Apart from augmenting accessibility, Sustainable Development Goal 4 concentrates on elevating the calibre of education through gender, child, and disability-sensitive facilities as well as encouraging learning settings that enable students to contribute to sustainable development. Efforts to advance inclusive education involve global and national policies, investment in accessible infrastructure, inclusive pedagogies, capacity building, and partnerships among governments, international organizations, and civil society. Although significant progress has been made in promoting inclusivity, challenges such as funding gaps, cultural barriers, and the need for better data collection persist. Despite these hurdles, the global commitment to inclusive education remains central to reducing inequality and fostering sustainable development worldwide.

Basic Questions

1. What are the key prospects for enhancing inclusive education under the provisions of NEP 2020?

2. What are the issues hindering the effective implementation of NEP 2020 in providing equitable and inclusive education for all?

3. What are the suggestions to address the issues and take advantage of the opportunities presented by NEP 2020 to improve inclusive education?

Main Opportunities Introduced by NEP 2020 for Improving Inclusive Education in India

India has unveiled the National Education Policy (NEP) 2020, a comprehensive framework designed to change the nation's educational system. This ensures that all students, regardless of their origins or abilities, have access to high-quality education through some laws that greatly improve inclusive education. The following are the primary prospects via which NEP 2020 aims to enhance inclusive education in India.

- NEP 2020 places a strong emphasis on ensuring that all children have access to education by 2030, covering preschool through secondary education. It also highlights the value of Early Childhood Care and Education (ECCE), which is essential for giving children from underprivileged backgrounds a head start in school. The policy introduces the National Mission on Foundational Literacy and Numeracy, aiming to ensure that every child achieves basic literacy and numeracy by grade 3. This mission is crucial for inclusive education as it ensures that all students, including those from disadvantaged groups, receive the foundational skills necessary for future learning.

- The policy further underlines the reformation of the school curriculum to promote an inclusive environment from an early age by disseminating diversity, incorporating lessons on human values, and removal of prejudices and stereotypes from the curriculum.

- The policy allows flexibility in choosing course (s), which can accommodate a range of learning styles and interests. Students from underprivileged populations or those with impairments especially benefit from this, since it enables them to pursue an education that fits with their interests and talents.

- NEP 2020 encourages the use of the mother tongue as the primary language of teaching and multilingualism, especially in the early years of schooling. By making education more

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approachable and relatable for students from various linguistic origins, this is anticipated to improve inclusion.

- The policy mandates the development of an inclusive educational infrastructure that meets the requirements of students with disabilities. This includes educational resources that are easily accessed, assistive technology, and qualified teachers who can work with children with unique needs.

- The goal of NEP 2020 is to eradicate the gender gap in education across the board. It highlights the inclusion of women and girls, especially those from underprivileged backgrounds, through focused scholarships, funding for teacher training that takes gender equality into account, and the creation of Gender-Inclusion Funds.

- The policy also stresses the Socio-Economically Disadvantaged Groups (SEDGs) and offers focused assistance to them. To meet the unique difficulties these groups face, it recommends accommodations for socio-emotional learning, special educators, and scholarships.

- NEP 2020 places a strong importance on the value of teacher preparation in inclusive education. It asks for the creation of a cadre of educators with the necessary skills to meet the needs of a variety of students, including those with disabilities. To guarantee that educators can provide a welcoming and inclusive learning environment, awareness-raising initiatives are emphasized.

- The policy promotes the use of technology to increase students and special needs children's access to education in remote places. This covers the use of digital platforms, assistive technology, and multilingual and multi format content development.

- The policy also focuses on standardizing assessment practices nationwide aided by the formation of PARAKH (Performance

Assessment, Review, and Analysis of Knowledge for Holistic Development) guaranteeing that exams are inclusive and meet the requirements of every student, including those who have learning difficulties.

- To significantly alter the educational landscape, the areas of the nation with sizable populations from the SEDGs that are educationally disadvantaged be designated Special Education Zones (SEZs), where all programs and policies are carried out to the fullest extent possible through extra coordinated efforts.

Challenges Connected with the Implementation of NEP 2020 in Providing Equitable and Inclusive Education

The National Education Policy (NEP) 2020 presents several chances to enhance inclusive education in India; nevertheless, there are a number of obstacles to its execution. To achieve the full potential of the policy in establishing an inclusive education system, these obstacles must be overcome. The issues include:

- Inadequate infrastructure and limited resources: Many schools, particularly those in rural regions, do not have the facilities required to provide inclusive education. This includes not having accessible restrooms, ramps, or enough room in the classroom for children with disabilities. To accommodate children with special needs, schools sometimes lack the technology, assistive equipment, and teaching and learning materials needed. Specialized resources such as multilingual audio-visual aids and Braille literature are likewise in low supply.

- Lack of special educators and insufficient teacher training programs: Teachers with special education training who are capable of meeting the various requirements of children with disabilities are severely lacking. Additionally, a large number of mainstream instructors lack the knowledge and experience needed to manage inclusive classes successfully. Teachers are frequently ill-prepared to meet the needs of different learners

since current teacher training programs frequently do not sufficiently cover inclusive education tenets and practices.

- Stigma, discrimination and resistance to change: The use of inclusive education may be hampered by socio-cultural views about marginalized populations and people with disabilities. Children from underprivileged backgrounds or those with impairments may not be able to attend school or fully engage in class activities due to stigma and discrimination. Communities, parents, and educators may be resistant to inclusive education approaches, especially in places where traditional teaching techniques are well embedded.

- Inadequate funding and unequal resource allocation: To implement inclusive education, a substantial amount of money must be set aside for infrastructure, supply, support services, and teacher preparation. However, the availability of funding for these efforts may be constrained by state and federal fiscal limits. Even in the case where funding is available, there may be an unequal resource allocation, with rural and distant regions receiving less assistance than metropolitan centres. This would exacerbate the already existing disparities in educational opportunities.

- Fragmented implementation and monitoring and accountability: Due to India's decentralized system of education governance, states and regions may implement NEP 2020 in very diverse ways, which might result in inconsistent adoption of inclusive teaching methods. Robust monitoring and accountability systems are necessary to ensure that schools follow inclusive education policies. Nevertheless, it is possible that the present methods are insufficient for efficiently enforcing and monitoring compliance.

- Limited access to technology and digital literacy: The digital gap continues to be a major obstacle, notwithstanding NEP 2020's emphasis on the use of technology in education. The absence of digital devices and dependable internet connectivity among many

students, particularly those in rural and poor regions, might make it more difficult for them to take advantage of technology-enhanced learning opportunities. It can be challenging to successfully incorporate digital tools into inclusive education when students, instructors, and parents lack digital literacy, even in environments where technology is readily available.

- Standardized curriculum and difficulties with assessments: Some students, especially those with impairments or those from varied language and cultural backgrounds, may find that the current standardized curriculum is too rigid to meet their unique requirements. Another challenge is making assessments more inclusive. Alternative evaluation methodologies may encounter opposition, and traditional approaches may not fairly represent the talents of children with special needs. Low awareness levels and sensitization programs: Parents, teachers, and the general public frequently lack knowledge about the rights of children with disabilities and the significance of inclusive education. To shift attitudes and foster an atmosphere that is more conducive to inclusive education, there is a need for extensive sensitization programs.

- Interdepartmental collaboration and involvement with NGOs and the private sector: Under NEP 2020, inclusive education must be implemented effectively, necessitating collaboration across the health, social welfare, and education departments. Such coordination, nevertheless, might be difficult and can cause lags or delays in the provision of services. Although these groups may be very helpful in promoting inclusive education, it may be difficult to successfully include them and make sure that their initiatives complement the policy's objectives.

- Data gathering; analysis and lack of clear measures: Monitoring success requires accurate data gathering on the enrolment, retention, and academic accomplishment of students from

marginalized groups, including those with disabilities. Unfortunately, gathering and evaluating this kind of data is frequently difficult, leaving gaps in our knowledge of how successful inclusive education programs are. It can be difficult to define and execute clear measures for assessing the performance of inclusive education programs, which makes it difficult to track advancement and pinpoint areas in need of improvement.

In view of these issues, the government, educators, communities, and other stakeholders must work together to address these issues to guarantee that the inclusive education objectives of NEP 2020 are achieved.

Suggestions for Tackling the Challenges and Maximizing the Prospects Presented by NEP 2020 in Inclusive Education

To effectively tackle the challenges and maximize the prospects presented by NEP 2020 in inclusive education, a multi-pronged strategy involving policy interventions, capacity building, community engagement, and resource optimization is required. Some of the suggestions are:

- Improve school Infrastructure and resource allocation and distribution: Spending more money on installing ramps, accessible restrooms, and classrooms that are built to fit students with disabilities. Additionally, schools should have the technology, assistive devices, and instructional materials needed to meet the requirements of a variety of students. Also making sure that resources are distributed fairly, giving rural and impoverished regions priority. Budgets for inclusive education should be set aside specifically by the government, and the efficient use of these allocations should be overseen.

- Specialized training programs and continual professional development: Create and carry out all-encompassing programs for training teachers that are centred on inclusive education. This covers instruction in managing diverse classrooms, assistive technology use, and special education needs (SEN). Also, by providing teachers with

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opportunity for ongoing professional development to stay current on the newest techniques in inclusive teaching. Incorporate courses on empathy and sensitivity for students with impairments and members of underrepresented groups.

- Community awareness campaigns along with parent and community involvement: To combat stigma and prejudice against children with disabilities and from marginalized backgrounds, launch national awareness campaigns educating communities about the value of inclusive education. In order to create a welcoming atmosphere for all children, involve parents and community leaders in the educational process through seminars, gatherings, and inclusive school activities.

- More budget allocation and financial incentives and scholarships: More money to be set aside in state and federal budgets, particularly for inclusive education. Make ensuring that funds are allocated efficiently to develop infrastructure, educate educators, and supply essential supplies. To promote students from underprivileged groups' enrolment and retention in schools, establish and grow scholarship programs and financial incentives.

- Ensure Effective Policy Implementation and Monitoring: By creating precise, uniform rules that can be used by all governments and regions to implement inclusive education. These have to contain particular tactics for various settings, such as cities, rural areas, and remote locations. In order to follow the development of inclusive education programs, implementing strong monitoring and evaluation systems is important. Analysing the data to find out the gaps that require more resources or assistance. Local committees should be made up of educators, parents, and community people to supervise the grassroots adoption of inclusive education policy.

- Bridge the Digital Divide: To guarantee that all students have access to online learning resources, invest in expanding digital

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infrastructure, especially in rural and isolated areas. Give impoverished pupils access to inexpensive gadgets and the internet. Likewise, to guarantee that educators, parents, and students can utilize technology in the classroom efficiently, implement digital literacy programs. Make these programs more accessible to students with disabilities by incorporating instruction in assistive technology utilization.

- Curriculum flexibility and adaptation along with inclusive assessment techniques: Creating a curriculum that is more adaptable to students' varied requirements and learning styles. Provide opportunities for individualized learning paths that are tailored to each student's interests and skills. Also, redesigning the evaluation techniques to make them more inclusive and enabling the use of substitute exams that better represent the skills of students with special needs. Oral exams, project-based assessments, and other unconventional techniques of evaluation may fall under this category.

- Promote Interdepartmental Coordination: To give students complete assistance, persuade improved collaboration between various government agencies, including those in education, health, and social welfare. This will involve having access to social services, counselling, and medical treatment. By promoting collaborations between governmental agencies, non-profit organizations, and the commercial sector, better use of resources and knowledge will take place when putting inclusive education plans into action.

- Increase Awareness and Sensitization: Hold frequent seminars to raise awareness among educators and other school personnel of the difficulties encountered by disadvantaged children and students with disabilities. This will contribute to the development of a more understanding and encouraging school climate. Conducting campaigns highlighting the value of inclusive

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education and its advantages for society at large through the media, especially social media.

- Clearly define success metrics for inclusive education programs, such as academic achievement, social integration, and the enrolment and retention rates of students with disabilities. Also, establish regular reporting and feedback systems at the state, district, and school levels in order to evaluate the implementation and make data-driven choices.

Through proactive resolution of these issues and utilization of NEP 2020's prospects, India may progress toward an education system that is more equal, inclusive, and productive for the good of all students.

Conclusion

To conclude, the NEP 2020 presents a transformative opportunity to make India's education system more inclusive and equitable. However, realizing this vision requires overcoming significant challenges, including infrastructure deficiencies, teacher shortages, socio-cultural barriers, and funding constraints. By adopting a holistic approach that focuses on enhancing infrastructure, strengthening teacher training, fostering positive socio-cultural attitudes, and ensuring effective policy implementation, India can create a more inclusive education environment. Bridging the digital divide, promoting curriculum flexibility, and fostering cross-sector collaboration will further ensure that all students, regardless of their backgrounds or abilities, have access to quality education. With sustained effort and commitment from all stakeholders, NEP 2020 can be a catalyst for meaningful change, helping to build a more inclusive and just society.

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ORIGINAL RESEARCH ARTICLE

PERCEPTIONS TOWARDS DISABILITY INCLUSION IN EDUCATIONAL WORKPLACES: AN ANALYSIS OF EDUCATIONAL INSTITUTIONS OF ASSAM

Pankaj Bora[1], Reema Rabha[2], Kasturi Goswami[3], Koilash Protim Hazarika[4], Prantik Bordoloi[5], Parishmita Borah[6]

[1]Department of Political Science, Bahona College, Jorhat, Assam, India & Visiting Faculty, Auniati University, Assam

[2-6]Department of Economics, Bahona College, Jorhat, Assam, India

Author Note

Abstract

This study examines perceptions of disability inclusion in educational workplaces across Assam, India. A mixed-methods

approach is used, incorporating surveys and interviews with 72 respondents from eight districts. The findings indicate that while workplaces are generally perceived as inclusive, significant gaps remain in terms of accessibility features, availability of assistive technologies, and implementation of supportive policies for employees with disabilities. Respondents highlighted positive workplace practices but noted persistent challenges that hinder full inclusion. The study underscores the need for targeted interventions to enhance workplace accessibility, improve infrastructure, and provide adequate resources to support individuals with disabilities. It recommends disability awareness training, infrastructural upgrades, and inclusive workplace policies to create environments that are truly accommodating and equitable for all.

Keywords: Disability Inclusion, Educational Workplaces, Assam, Accessibility, Inclusive Practices.

Introduction

Perception is a subjective process through which individuals interpret sensory information to understand their environment, shaped by experiences, cultural backgrounds, beliefs, and expectations. In the context of disability inclusion, perceptions are influenced by social attitudes and personal experiences, often leading to misconceptions that hinder inclusive practices in educational settings (Smith & Jones, 2023). Research shows that educators' positive perceptions of disability inclusion strongly correlate with the implementation of effective inclusive teaching strategies (Brown et al., 2022). On the other hand, negative perceptions rooted in stereotypes and misconceptions can lead to exclusionary practices, such as restricted hiring opportunities, inadequate accommodations, and limited professional growth for employees with disabilities (Smith & Jones, 2023).

In educational workplaces, perceptions of disability inclusion directly impact the level of access, support, and opportunities provided

to individuals with disabilities. Institutions where disability is perceived as a form of diversity tend to foster environments that accommodate the unique needs of employees and students with disabilities, creating inclusive spaces that value their contributions. However, gaps in understanding and awareness can perpetuate barriers such as inaccessible facilities, insufficient assistive technologies, and ineffective implementation of inclusive policies.

Factors shaping these perceptions include personal and professional experiences with disability, exposure to disability-focused training, and the broader sociocultural context (Avramidis & Kalyva, 2007; Campbell et al., 2017). Research highlights the importance of targeted interventions, such as disability awareness programs, professional development, and collaborative approaches, to enhance perceptions of inclusion and drive positive change (Florian & Linklater, 2010; Boyle et al., 2015).

This study explores perceptions of disability inclusion in educational workplaces across Assam, focusing on understanding prevailing views and identifying strategies to improve inclusive practices.

Objectives

1. To analyze the perceptions of disability inclusion in educational workplaces in Assam, focusing on accessibility, facilities, and support mechanisms for employees with disabilities.

Methodology

The study employed both primary and secondary data sources. Primary data were collected through a structured survey of 72 respondents from educational institutions in eight districts of Assam, including Jorhat, Dhubri, Nagaon, Kamrup (Metro), Sonitpur, Dibrugarh, Cachar, and Goalpara. Secondary data were gathered from libraries, government departments, journals, internet resources, and relevant publications. These 72 respondents are the teachers in the educational institutions in the sample districts.

A purposive sampling technique was used to select respondents who work with at least one co-worker under the Persons with Disabilities (PwD) category. The survey instrument consisted of a 5-point Likert scale (ranging from Strongly Disagree to Strongly Agree) to measure perceptions of disability inclusion in workplaces. Higher scores indicated more positive perceptions of inclusivity.

The data were processed and classified based on their nature, and then analyzed to identify patterns and insights. This approach provided a comprehensive understanding of how disability inclusion is perceived in educational workplaces across Assam.

Results

Disability inclusion in education recognizes disability as diversity, ensuring equitable access to all aspects of education. This involves proactive design and implementation of inclusive practices, removing physical, attitudinal, and systemic barriers to create a welcoming and supportive environment. The goal is to empower students with disabilities to reach their full potential, valuing their unique contributions and fostering full participation in college life. True inclusion extends beyond accommodations, transforming educational environments to be enriching for all and promoting a culture of respect, acceptance, and diversity.

The study covered eight districts to explore attitudes and perceptions toward disability inclusion in educational workplaces. After interviewing 72 respondents, several key findings were identified, which are summarized in the table below.

Table 1 is on Perceptions of Inclusive Workplace Environment in Educational Institutions of Assam. Based on the responses, it has been observed that the respondents overwhelmingly perceive their workplace as having an inclusive environment. A significant portion (58.3%) strongly agree that their workplace is inclusive, indicating a high level of satisfaction with the inclusivity of the environment. The absence of neutral or negative responses suggests a very positive and consistent perception of inclusivity among the respondents.

The perception of inclusive disability environments is reflected in how duties are assigned based on individual strengths. According to the data, 91.67% of respondents agree or strongly agree that duties are allocated accordingly. Only 8.33% disagree, indicating a strong consensus that responsibilities align with the strengths of employees with disabilities.

The data in Table 3 reveals that respondents perceive their colleagues as more considerate and sensitive to the special needs of Persons with Disabilities (PwDs) compared to management or higher authorities. A majority (54.16%) strongly agree that colleagues are supportive, with an additional 20.83% agreeing, while 25% disagree, indicating a largely positive perception with some room for improvement. In contrast, only 29.17% strongly agree that management is considerate, and 29.17% agree, but a notable 37.5% either disagree or strongly disagree, highlighting a significant gap in perceptions of management's sensitivity. This disparity underscores the need for targeted interventions, such as disability awareness training for leadership, to enhance their role in fostering a more inclusive workplace.

The data in Table 4 reflects a predominantly negative perception regarding the availability of special facilities for Persons with Disabilities (PwDs) in educational institutions. A significant majority, 70.83%, strongly disagree that ramps are available for PwD employees, with 20.83% disagreeing. Only 4.17% of respondents agree, and no one strongly agrees. Similarly, perceptions of the availability of tactile paths are largely negative, with 62.5% strongly disagreeing, 33.33% disagreeing, and only 4.17% agreeing, indicating a lack of such facilities in most workplaces. The survey also highlights dissatisfaction with assistive technology, with 25.0% strongly disagreeing and 50% disagreeing about the availability of adequate assistive tools. Only 16.67% agree, suggesting that the existing assistive technologies in educational institutions are insufficient for PwD employees.

Furthermore, perceptions of the availability of sign language interpreters and Braille resources also show strong negative sentiments. A total of 62.5% strongly disagree and 25% disagree regarding the availability of sign language interpreters, with just 8.33% agreeing. Similarly, 58.33% strongly disagree and 20.83% disagree about the presence of Braille materials, with only 12.5% strongly agreeing. These findings indicate a significant gap in providing essential communication tools for PwD employees. The data on special parking spaces for PwDs reveals a similar trend, with 45.83% strongly disagreeing and 25% disagreeing about the availability of parking spaces, while only 25% agree, and 4.17% strongly agree. This suggests that the majority of respondents feel that their workplaces lack adequate infrastructure and accommodations for PwDs, highlighting the need for improvements to ensure a more inclusive and accessible environment.

In Table 5, the data indicates that while a majority of respondents find workplaces accessible (58.33%) and believe the accessibility features are adequate (66.67%), significant gaps remain. A notable minority (16.67%) disagrees on workplace accessibility, and an even larger proportion (29.16%) finds the features inadequate, highlighting the need for better implementation and evaluation of accessibility measures. The low percentage of "Strongly Agree" responses (4.17% for accessibility, 0% for adequacy) underscores that while progress has been made, many workplaces still fall short of fully addressing the specific needs of persons with disabilities in Assam.

Key Findings and Discussion

The study assessed perceptions of disability inclusion in educational workplaces in Assam, focusing on accessibility, facilities, and support mechanisms. Overall, respondents expressed a positive view of the inclusive environment in their workplaces, with 58.3% strongly agreeing that their institution fosters inclusion. However, there are gaps in actual accessibility and facilities.

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Most respondents (91.67%) felt that duties were allocated based on individual strengths, indicating good support for employees with disabilities. Colleagues were generally seen as supportive (54.16%), but there was a significant gap in perceptions of management's sensitivity, with only 29.17% strongly agreeing that management is considerate.

While 58.33% of respondents agreed that their workplace is accessible to PwDs, 16.67% disagreed, pointing to gaps in physical accessibility. Furthermore, essential facilities, such as ramps, tactile paths, and assistive technologies, were largely unavailable, with 70.83% reporting no ramps and 62.5% lacking tactile paths. Regarding the adequacy of accessibility features, 66.67% agreed they were sufficient, but no one strongly agreed, indicating room for improvement.

In conclusion, while attitudes toward disability inclusion are positive, there are significant barriers in infrastructure and support, highlighting the need for greater investment in accessibility and facilities to ensure true inclusion.

Conclusion

In conclusion, while the study reveals a positive perception of disability inclusion in educational workplaces in Assam, with respondents largely agreeing that their institutions promote an inclusive environment, significant gaps remain in infrastructure and support. While duties are generally allocated based on individual strengths and colleagues are supportive, the lack of essential facilities such as ramps, tactile paths, and assistive technologies indicates that physical accessibility is still a major challenge. Furthermore, perceptions of management's sensitivity to the needs of employees with disabilities highlight the need for more training and awareness. To achieve true inclusion, greater investment in both physical infrastructure and leadership sensitivity is necessary.

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Table 1

Respondent Perceptions of Inclusive Workplace Environment

Respondent believes that their workplace has an inclusive environment		
Opinion	Respondents Number	Percentage
Strongly Disagree	0	0%
Disagree	0	0%
Neutral	0	0%
Agree	30	41.66%
Strongly Agree	42	58.3%

Source: Computed from the sample survey data.

Table 2

Duties and responsibilities are allotted to the PwDs according to their strength

Duties and responsibilities are allotted to the PwDs according to their strength		
Opinion	**Respondents Number**	**Percentage**
Strongly Disagree	0	0%
Disagree	6	8.33%
Neutral	0	0%
Agree	30	41.67%
Strongly Agree	36	50%

Source: Computed from the sample survey data.

Table 3

Colleagues and management/higher authority are considerate and sensitive about the special needs of the PwDs

Colleagues and management/higher authority are considerate and sensitive about the special needs of the PwDs.		
Opinion	**Colleagues**	**Management/higher authority**
Strongly Disagree	0%	16.67%
Disagree	25%	20.83%
Neutral	0%	4.16%
Agree	20.83%	29.17%
Strongly Agree	54.16%	29.17%

Source: Computed from the sample survey data.

Table 4: The respondent's workplace has facilities for PwD Employees

Kind of facilities available for PwD Employees	Opinion				
	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Sufficient Ramps	70.83%	20.83%	4.17%	4.17%	0%
Sufficient Tactile path	62.5%	33.33%	0%	4.17%	0%
Sufficient Screen readers	58.33%	25%	4.17%	12.5%	0%
Sufficient Assistive Technology	25%	50%	8.33%	16.67%	0%
Sign Language Interpreters	62.5%	25%	4.17%	8.33%	0%
Sufficient Braille materials	58.33%	20.83%	4.17%	4.17%	12.5%
Sufficient Parking Spaces for PwD's	45.83%	25%	0%	25%	4.17%

Source: Computed from the sample survey data.

Table 5: The workplace accessible for the specific needs of the PwDs

Assessment of Workplace Accessibility for Persons with Disabilities		
Opinion	**The workplace accessible for the specific needs of the PwDs**	**The accessibility features are adequate for their needs**
Strongly Disagree	4.17%	20.83%
Disagree	12.5%	8.33%
Neutral	20.83%	4.16%
Agree	58.33%	66.67%
Strongly Agree	4.17%	0%

Source: Computed from the sample survey data.

ORIGINAL RESEARCH ARTICLE

LEVEL OF KNOWLEDGE OF THE PRIMARY SCHOOL TEACHERS ON THE LEARNING DISABILITIES CHILDREN OF GUWAHATI METROPOLITAN CITY, ASSAM

Bharali T. K.[1] and Deka Ranjan[2]
[1]Director, IIRDDA
[2]Research Scholar, Department of Computer Science,
Gauhati University

Author Note

Correspondence concerning this article should be addressed to T.K. Bharali, Director, Indian Institute of Research and Development for Differently Abled (IIRDDA),Naokata, Baksa, Assam.

E-mail id: tkbharali.09@gamail.com

Abstract

Learning disabilities belong to a group of neuro-developmentaldisorders which manifest in childhood as persistent difficulties in learning to efficiently read ("dyslexia"), write ("dysgraphia'), or do simple mathematical calculations ("dyscalculia"). It comprise a heterogeneous group of disorders to learn new skills (Impaired intelligence) with reduced ability to cope independently (Impaired social functioning). These deficits interfere with academic skills leading to low grades or failures. Other associated features are low self-esteem, demoralization, social skills deficits, dropping out of school, and difficulties in employment and social adjustment. If it remains undiagnosed, the students suffering from learning disabilities invariably

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fail to achieve school grades at a level that is matching with their intellectual abilities. This condition broadly affects the scholastic and functional skills of the children. The aim of this study is to know the level of understanding on learning disabilities in children among primary school teachers in Guwahati Metropolitan city, Assam.A descriptive survey approach with non-experimental research design was adopted. The study was conducted on primary school teachers of Guwahati Metropolitan city, Assam. The samples were chosen by using non-probability convenient sampling technique with the sample size of 150 primary school teachers. A structured knowledge questionnaire on learning disabilities with 25 items by using self-administration method were applied. Majority 88 (58.6%) of the primary school teachers are in the age group of above 31-35 years and 98 (65.3%) are female. The total primary school teachers 46 (30.6%) are qualified with BA/BSc. B.Ed, Regarding total years of experience as a teacher 60 (40%) of them have less than 5 years of experience. In regard to level of knowledge; out of 150 primary school teachers,94 (62.7%) of them have inadequate knowledge, 45 (30%) have moderately adequate knowledge and only 11 (7.3&) of them have adequate knowledge. Since learning disabilities are accepted as a major problem in school school-going population in today's world. The findings of thestudy suggest that there is a need for giving structured teaching programme as well as some training for the primary school teachers of Kamrup (Metropolitan) district of Assam.

Keywords: Learning Disability, Knowledge, Primary School Teachers

Introduction

Learning disabilities belong to a group of neurodevelopmental disorders which manifest in childhood as persistent difficulties in learning to efficiently read ("dyslexia"), write ("dysgraphia'), or do simple mathematical calculations ("dyscalculia"). It comprises a heterogeneous group of disorders to learn new skills (Impaired intelligence) with reduced ability to cope independently (Impaired social functioning). "Learning

Disabilities" is an unexplained difficulty in a person with average intelligence in learning basic academic skills. These skills are important for achieving success at school and work, as well as for coping with life in general (NJCLD, 1998). Though the heterogeneous term "Learning Disabilities" is used as a blanket term for referring to intellectual disabilities, there are different categories to the impairment of specific psychological learning disabilities (Reiff, et al. 1993). Therefore, learning disabilities include dyslexia (language–based disability), dyscalculia (disability with mathematical reasoning), dysgraphia (writing disability), Attention Deficit Hyperactive Disorder (ADHD), and auditory impairment to name a few. Though autism is not seen under the umbrella of learning disabilities, autism does affect areas of learning such as reasoning, verbal communication or comprehension. Worldwide, it is estimated that 1 in 160 children is on the autism spectrum while it is estimated that 5-10% of the world population has dyslexia and 3%-6% have dyscalculia (Panicker, L.P, 2021).

Children present with academic difficulties such as reading slowly and incorrectly, skipping lines while reading aloud, making repeated spelling mistakes, untidy/illegible handwriting with poor sequencing, and inability to perform even simple additions and subtractions are considered suffering from learning disabilities. They invariably fail to achieve school grades commensurate with their intellectual potential. Up to 15-20% of children with learning disabilities have associated Attention Deficit Hyperactivity Disorder (ADHD) which is characterised by persistent hyperactivity, impulsivity and inattention and this co-morbidity further impairs their learning (Karande, S., 2008). If learning disabilities remain undetected chronic poor school performance, class detention, and dropping out of school ensue (Karande, S.; Kulkarni, M., 2005). Nevertheless, early identification can help the child by mitigating its negative impact by providing specific interventions at the appropriate stage of life. On average, a total of ten percent of school going children are found to be suffering from learning disabilities in

India (Kuriyan, N. M., & James, J., 2018). In this aspect, early identification and intervention by the teachers and parents will bring lots of changes if they are acquired with adequate knowledge and appropriate skills in taking care of these children which helps the child to improve in the near future (Kuriyan, et al., 2018).

Significance of the Study

Every child has the right for equality education and learnings as each child's education is important. India is a signatory to the 2006 United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) and has committed to inclusive education for all students. India's national policies such as the 2016 Rights of Persons with Disabilities Act(Ministry of Law and Justice, 2016) are aligned with its international commitments, making provisions for inclusive education for all children. At the same time, India's recent National Education Policy (Ministry of Human Resource Development Government of India, 2020) allows for students with disabilities to be educated in inclusive schools, as well as in special schools and home settings depending upon the needs of the students. Special schools, many of which are managed by non-government organizations, thus continue to play an important role in the education of students with disabilities (Rose et al., 2021) Unfortunately, many students with disabilities still have limited access to education, with one-fourth of students with disabilities between the ages of 5 and 19 years out of school (Tiwari et al. 2015). In India, the magnitude of the problem and prevalence has not been fully understood. However, the incidence of learning disability in school children is not negligible. Hence, primary school teachers should be aware of learning disabilities and their concepts in order to meet their challenges. A survey conducted by the Indian Council of Educational Research and Training (2012) indicates that only 13% of teachers in India are provided with the appropriate training and resources required to recognize and support children suffering from learning disabilities (Misquitta&Panshikar, 2022). Due to the failure of the academic system of India to produce appropriately trained

teachers who can facilitate recognition and support for these children, these children may go through experiences of low self-esteem, lower academic achievement, and low parental and teacher support. They may also self-isolate due to problems in communicating and associating themselves with a peer group (Bhandari&Goyal,2015).

Objectives

1. To Study the level of knowledge of the primary school teacherson learning disabilities children of Guwahati Metropolitan city, Assam

2. To Study the relationship between knowledge and socio-demographics of primary school teachers in Guwahati Metropolitan city, Assam

Material and Methods

A descriptive survey design was used. The study was carried out on primary school teachers in Guwahati Metropolitan city, Assam. The samples were chosen by using non-probability convenient sampling technique with the sample size of 150 primary school teachers. A structured knowledge questionnaire on learningdisabilities with 25 multiple choice questions were used. These questions were developed empirically by referring to a literature review from various articles (Saravanabhavan&Saravanabhavan, 2010), (Divya&Balasubramaniam, 2020). The questionnaire discusses on the general concepts of learning disabilities, types and characteristics about each type of learning disabilities. The questionnaire was validated with right answer was scored as one and the wrong answer as zero which is interpreted as adequate knowledge (>75%), moderate adequate knowledge (50-75%) and inadequate knowledge (<50%).

Twenty primary schools from Guwahati Metropolitan city, Assam comprised the sample for the research. Inclusion criteria were that schools: were urban; had been established for more than 10 years; used English as their medium of instruction; were Independent; and primary schools offered classes from 1 – 12. These schools were then selected by random sampling.

Formal permission was obtained from the authority of the schools. Prior to the meeting, participants were sent a letter of invitation, an information sheet and a consent form. The school teachers who were willing to participate in the study were gathered in the classroom after their working hours. The questionnaires were distributed to the participants and the responses were collected through a self-administered method.Confidentiality was preserved during the process of data collection and analysis. All responses were coded to maintain anonymity. All data were entered into an Excel spreadsheet (Microsoft Office, 2003) and processed for statistical analysis by using descriptive and inferential statistics. Further a informative pamphlet on learning disabilities was distributed to all the primary school teachers, irrespective of their results.

Results

This study aimed to understand the knowledge of primary school teachers on learning disabilities and the awareness to be created to the steps needed to enhance the quality of well-being of children with learning disabilities.

Regarding the distribution of socio-demographic variables, the majority 88 (58.6%) of the primary school teachers were found to be in the age group of above 31-35 years and 98 (65.3%) were female. Only a few of the primary school teachers 46(30.6%) were certified with BA/B.Sc, B.Ed; maximum of the teachers belong to Hindu religion 140 (93.3%). With regard to total years of experience as a teacher 60(40%) of them have less than 5 years of experience.

The study findings with regard to the Level of knowledge on learning disabilities in children among primary school teachers state that most of the school teachers 94(62.7%) had inadequate knowledge of learning disabilities and 45(30%) of them had moderately adequate knowledge, and 11 (7.3%) was identified to have adequate knowledge (Fig-1).The overall mean knowledge score was 17.8 with a standard deviation of 5.57 respectively among the primary school teachers on learning disabilities in children (Table -1)

Discussion

The findings of the study revealed that most of the primary school teachers, 94(62.7%) of them had inadequate knowledge, 45(30%) had moderately adequate knowledge and only ii(7.3%) of them had adequate knowledge on learning disabilities in children.

The present study findings are similar to the findings of(Rajesh et.al., 2022) disseminated that most of the primary school teachers 18(60%) had inadequate knowledge on learning disabilities and 11 (36.7%) of them had moderately adequate knowledge, and 01(3.3%) aws identified to have adequate knowledge. Similarly findings are similar to the findings of a study conducted by (Arifa S.,Siraj S.S., 2019) explained that most of the primary school teachers 44(73.3%) had moderate knowledge, 12 (20%) had inadequate knowledge and only 04(6.7%) had adequate knowledge on learning disabilities in children.(16) .

A similar study findings by (GhimireSesmita ,1917) was carried out in 16 schoolsof Dharan, Nepal, with 150 primary school teachers selected by convenience sampling technique. Structured knowledge questionnaires were used to collect needed data on knowledge of primary school teachers. The results revealed that majority 79 (52.67%) of the primary school teachers had moderately adequate knowledge and 71(47.33%) had inadequate knowledge regarding learning disabilities. There was a significant association of knowledge of primary school teachers with demographic variables such as class involved in teaching. (17).Another related cross-sectional survey study by (Layla alkhunizi, Khadija Alnas,OlfatJanabi, 2019) was conducted in female governmental primary integrated and non-integrated schools in Dammam, Alkhobar, Qatif and other cities among 448 teachers, the findings were about two-thirds (75.4%) of participants' teachers had low knowledge about learning disabilities. As well as 65.6% of participants' teachers had low knowledge

about learning disabilities. Age, Nationality, Martial status, having children and teaching grade of participants teachers did not significantly (p>_ 0.05) affect the teacher's knowledge. (18)

The association between knowledge scores and selected socio-demographic variables of primary school teachers has been determined and found that there is no statistically significant association between the knowledge scores and socio-demographic variables at p_<0.05.

Limitations

The findings of this relatively small study cannot be generalised since very minimal sample were taken for the present study and non-probability convenient sampling technique was adopted.

Conclusion

This is an important study in Assam context because it throws light upon prevalent knowledge and practices with respect to learning disabilities among the primary school teachers. Several factors are identified that are suggested to maximize the negative impact of learning disabilities that our children are facing. Many students with learning disabilities in the main stream education have been remaining unidentified; they are often termed as "lazy", "dull" and "inattentive". The problems of these students remained unnoticed by the teachers due to lack of awareness about learning disabilities. First of all, awareness of this hidden disabilities has to be increased and the subject should to be compulsorily taught to Doctors, School teachers, Counsellors and Parents. The schools need to invest professional development for teachers. At present, teachers in inclusive settings feel ill-equipped to serve children with diverse needs. Although India has committed to providing inclusive education at the policy level, teacher education programs still fall short of equipping teachers with the necessary knowledge and skills to serve all students.

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Figure1

Charts for Knowledge, Experience, Qualification of Teachers, Age group and gender percentage on learning disabilities in children among primary school teachers.