Journal of Informatics Education and Research
ISSN: 1526-4726
Vol 5 Issue 1 (2025)

Mobility Challenges and Inclusive Solutions for People with Physical Disabilities in India

[1]Jay Pandya,
[1]Research scholar,
[2]Jay Kumar Joshi
[2]Associate Professor & HOD
Department of Business and Management,
Institute of Advanced Research Gandhinagar, INDIA
*jaypaandya.phd2020@iar.ac.in

ABSTRACT
This study examines the complex mobility challenges encountered by individuals with physical disabilities in India and seeks to identify inclusive solutions that can improve their accessibility and autonomy. Significant barriers to their full societal participation include inadequate infrastructure, limited transportation options, societal stigma, economic constraints, and gaps in policy implementation. Utilizing a mixed-methods approach, this research incorporates surveys, interviews, and field observations to analyze these issues. The findings underscore the critical need for enhanced accessibility standards and their enforcement, increased investment in accessible transportation, greater affordability and availability of assistive devices, as well as inclusive educational and employment opportunities. Additionally, public awareness campaigns are essential to address social stigma. The research advocates for a comprehensive framework of inclusive solutions, which encompasses universal design principles, accessible transportation systems, assistive technologies, support services, policy advocacy, and participatory design methodologies. By adopting these strategies, India can foster a more inclusive and equitable society, enabling persons with physical disabilities to fully exercise their right to mobility and engage meaningfully in all facets of life. The researchers are collaborating with a prominent NGO active in the field of disability in Bengaluru, and a study involving beneficiaries of CSR Program driven in association of NGO partner is planned.

Key Words: Disability, Mobility, Accessibility, Inclusion, Assistive Technology, PwPD, CSR, NGO, India

Introduction
Mobility is a fundamental human right, essential for accessing education, employment, healthcare, social interaction, and overall well-being. However, for millions of people with physical disabilities in India, mobility remains a significant challenge. Navigating inaccessible infrastructure, limited transportation options, and societal stigma creates substantial barriers to their full participation in society. This research delves into the multifaceted mobility challenges faced by PwPD in India and explores inclusive solutions to enhance their accessibility and independence.

India is home to a large population of PwPD, with the 2011 Census reporting over 26 million individuals with disabilities. While policies and programs exist to support PwPD, their implementation and effectiveness often fall short. This research aims to bridge the gap between policy and practice by examining the lived experiences of PwPD, caregivers, policymakers, and service providers. By understanding their perspectives and insights, we can identify the most pressing mobility challenges and develop targeted solutions.

The study employs a mixed-methods approach, combining quantitative data from surveys with qualitative data from interviews, focus group discussions, and field observations. This comprehensive methodology allows for a nuanced understanding of the complex interplay of factors that influence mobility for PwPD in India. The research explores the accessibility of built environments,

transportation systems, assistive technologies, and support services, while also considering the social and cultural contexts that shape the experiences of PwPD.

By analyzing existing policies, programs, and best practices, this research aims to develop actionable recommendations for policymakers, practitioners, and PwPD themselves. The ultimate goal is to promote inclusive mobility and accessibility for PwPD in India, fostering a more equitable and inclusive society where everyone can participate fully and meaningfully.

Objectives and research questions

This research aims to explore the key mobility challenges faced by people with physical disabilities in India and to identify potential inclusive solutions to address these challenges. The specific research questions are:

1. To examine the prevalence and types of mobility challenges faced by PwPD in India.
2. To assess the impact of socioeconomic factors on the mobility of PwPD.
3. To identify and analyze innovative and inclusive solutions for enhancing mobility and accessibility for PwPD.
4. To develop recommendations for policy and practice to promote inclusive mobility and accessibility for PwPD in India.

Literature Review:

The literature review examines the mobility challenges faced by individuals with physical disabilities in India, highlighting issues related to assistive devices, infrastructure, and healthcare, as well as the effects of social stigma and discrimination. It emphasizes the importance of understanding the diverse experiences of people with disabilities, influenced by factors like disability type, socioeconomic status, gender, and location, and how poverty exacerbates these challenges.

Prevalence and Types of Mobility Challenges Faced by PwPD in India

Several studies and reports shed light on the prevalence and diverse types of mobility challenges encountered by Persons with Physical Disabilities in India:

Prevalence of Disability:

- The 2011 Census in India reported over 27 million individuals with disabilities, 5. 4 million of whom had mobility-related disabilities. This data sheds light on the extent of mobility challenges in the country, though underreporting and differing definitions of disability may lead to an underestimation. A systematic review by Rai et al. (2018) explores disability prevalence in India, its link to sociodemographic factors, and impact on quality of life for a more detailed understanding.

Types of Mobility Challenges:

- **Limited Access to Assistive Devices:** Studies indicate a considerable unmet need for assistive devices like wheelchairs prosthetics and orthotics among people with disabilities (PwPD) in India. Gupta et al. (2021) examine the government's wheelchair provision system uncovering implementation gaps and insufficient services. Borade et al. (2019) delve into the experiences of individuals with mobility-related disabilities utilizing assistive devices highlighting challenges in access usage and adaptation.

- **Inaccessible Infrastructure:** Addlakha (2021) discusses the lack of accessible infrastructure in buildings and transportation systems hindering mobility in Indian cities. Ramp Facility for Physically Challenged (2012) emphasizes the importance of ramp facilities in public spaces. Roe (2020) explores inclusive design in mobility for creating more accessible environments.

- **Transportation Barriers:** Inaccessible public transportation and limited private transport options significantly hinder the mobility of persons with disabilities (PwPD). Ramji and Venugopal (2019) propose the development of a sustainable mobility ecosystem in India to tackle these transportation challenges.

- **Social Stigma and Discrimination:**
  Social stigma and discrimination pose significant obstacles for persons with physical disabilities (PwPD) hindering their opportunities in education, employment and social engagement. Sharma et al. (2021) investigate the attitudes and empathy directed towards PwPD emphasizing the adver se effects of social stigma on their mobility. Additionally, Gupta & Priyadarshi (2020) address th e career development challenges faced by PwPD particularly focusing on the detrimental conseq uences of affirmative action and its influence on their self-confidence.

- **Healthcare Access:** Limited access to quality healthcare particularly rehabilitation services can hinder the potential of individuals with disabilities (PwPD) by exacerbating mobility limitations. Murthy (2018) emphasizes the challenges faced by people with disabilities in South Asia underscoring the urgent need for enhanced healthcare services. Nugraha et al. (2018) further stress the importance of strengthening rehabilitation services to effectively address mobility issues.

Diversity of Experiences:
The text emphasizes the importance of recognizing the diverse experiences of persons with disabilities (PwPD) influenced by various factors such as the type of disability, socioeconomic status, gender, and geographic location. Research by Saikia et al. (2016) highlights the differences in experiences among PwPD in India, pointing out the existence of disability divides across demographic groups. Lunar et al. (2018) provides a comparison of mobility performance between older adults in urban and rural areas, demonstrating how location affects mobility. Additionally, Bhattacharya et al. (2020) stresses the necessity for disability competencies in medical education, underlining the need for a better understanding of the varied requirements of PwPD.

Impact of Socioeconomic Factors on the Mobility of PwPD
Socioeconomic factors play a significant role in shaping the mobility experiences of Persons with Physical Disabilities in India. These factors interact in complex ways to create barriers and exacerbate existing challenges:

Poverty:
- Poverty significantly restricts access to essential resources necessary for mobility, such as assistive devices, healthcare, and transportation. Research by Gupta et al. (2021) highlights the difficulties faced by individuals with disabilities in obtaining wheelchairs through government programs, underscoring the financial strain on persons with disabilities (PwPD). Additionally, Thrush and Hyder (2014) examine the caregiving burden in low- and middle-income countries, which exacerbates the financial challenges for families caring for PwPD. The lack of financial resources not only limits access to appropriate healthcare but also hinders rehabilitation services, ultimately leading to adverse mobility outcomes. Murthy (2018) further discusses the healthcare access challenges faced by people with disabilities in South Asia, reiterating the detrimental effects of poverty on their ability to receive necessary medical care.

Education and Employment:
- The text highlights the significant barriers faced by persons with disabilities (PwPD) in terms of education and employment, which ultimately restrict their socioeconomic mobility. It emphasizes that lower educational levels and limited job opportunities hinder access to essential resources and

social participation.

- Research by Majumder (2019) sheds light on the educational disparities experienced by differently-abled individuals in India, indicating a need for improved educational attainment. Similarly, Manaf et al. (2019) address the employment challenges faced by persons with disabilities in Malaysia, providing insights into the broader employment barriers that PwPD encounter in various contexts. Izam and Mohamed (2020) further explore the specific unemployment issues faced by individuals with learning disabilities in Malaysia, illustrating the complex relationship between disability and employment.

- Additionally, the lack of accessible transportation options is identified as a critical factor that limits access to both education and employment, thereby further constraining socioeconomic mobility. Acheampong et al. (2020) discuss the potential of mobility-on-demand services to enhance transportation access for PwPD, suggesting a possible avenue for improving their overall opportunities

Social Stigma and Discrimination:

- Social stigma and discrimination significantly hinder the access of persons with disabilities (PwPD) to education employment and social engagement adversely affecting their mobility and well-being. Sharma et al. (2021) investigate the relationship between attitudes and empathy toward physically disabled individuals emphasizing how social stigma restricts mobility. Hwa et al. (2015) analyze the theory of planned behavior concerning the employment of Malaysians with disabilities shedding light on how social attitudes influence job opportunities. Additionally Gupta and Priyadarshi (2020) address the career development challenges faced by PwPD focusing on the detrimental effects of stigma and discrimination.

Access to Assistive Devices and Technology:

- The cost and availability of assistive devices, like wheelchairs, play a crucial role in the mobility of people with disabilities. A study by Gupta et al. in 2021 looks at how the government in India provides wheelchairs, pointing out the difficulties people face in getting these devices. Another study by Mohanraj and Raakesh in 2017 talks about how information and communication technology (ICT) can help people with disabilities access important information, but this access can be limited by their economic situation. Lastly, Akhil and others in 2020 focus on creating a self-propelled indoor wheelchair, showing how technology can enhance mobility. However, they also stress that these devices need to be affordable and accessible for everyone.

Environmental Barriers:

- Inaccessible infrastructure, like buildings and transportation systems, can make it really hard for people with disabilities (PwPD) to get around, especially for those who don't have many transportation options due to their lower income. A study by Addlakha in 2021 points out that in Indian cities, there are both risks and chances for improving mobility, showing that better accessibility is needed. Another study by Taylor and Józefowicz in 2012 looks at how disabled people move around in cities for fun and leisure, emphasizing how environmental obstacles can limit their social activities. Lastly, research by Had and others in 2023 reviews what older adults face regarding mobility barriers, which helps us understand the bigger picture of making environments more accessible for everyone.

Innovative and Inclusive Solutions for Enhancing Mobility and Accessibility for PwPD

Numerous innovative and inclusive solutions are emerging to address the mobility and accessibility challenges faced by Persons with Physical Disabilities:

Assistive Technologies:

- **Advanced Prosthetics and Orthotics:** Technological advancements have led to the development of sophisticated prosthetics and orthotics that offer improved functionality, comfort, and control.
- **Smart Wheelchairs and Mobility Scooters:** Smart wheelchairs incorporate features like obstacle avoidance, GPS navigation, and personalized controls, enhancing independent mobility. Similarly, advanced mobility scooters offer improved maneuverability and stability.
- **Exoskeletons and Robotic Assistive Devices:** Exoskeletons and robotic devices can provide support and assistance for individuals with mobility impairments, enabling them to perform tasks that would otherwise be difficult or impossible.

Accessible Design and Infrastructure:

- **Universal Design Principles:** The application of universal design principles in various environments, including buildings, transportation systems, and public spaces, is crucial for ensuring accessibility for individuals of all abilities. The concept of inclusive design in mobility, as discussed by Roe in 2020, emphasizes the importance of creating transportation systems that accommodate diverse needs. Additionally, the focus on ramp facilities, highlighted in the 2012 report on ramp facilities for the physically challenged, underscores the significance of such features as fundamental elements of accessible design. Together, these insights illustrate the necessity of integrating universal design principles to foster inclusivity and enhance the usability of public environments for everyone.

- **Smart Home Technology:** Smart home technology can automate various tasks and control environmental features, enhancing independence and accessibility for PwPD within their homes. Further research into specific smart home applications for accessibility could be valuable.

- **Accessible Transportation Systems:** Investing in accessible public transportation is essential for providing equitable access to transportation for persons with disabilities (PwPD). The work of Ramji and Venugopal (2019) emphasizes the importance of developing a sustainable mobility ecosystem in India, which should incorporate features that enhance accessibility in transportation systems such as buses, trains, and metro services. Additionally, Acheampong et al. (2020) investigate the role of mobility-on-demand services, highlighting their potential to improve transportation options for PwPD. These insights underscore the need for inclusive transportation solutions that cater to the diverse needs of individuals with disabilities, ultimately fostering greater mobility and independence.

ICT and Digital Accessibility:

- **Accessible Websites and Mobile Applications:** Designing websites and mobile applications with a focus on accessibility is crucial for enabling individuals with disabilities to access online information and services. The work of Mohanraj and Raakesh (2017) highlights the importance of Information and Communication Technology (ICT) interventions tailored for people with disabilities. These interventions emphasize the need for digital accessibility, ensuring that digital platforms are inclusive and usable for all users, regardless of their abilities. The integration of accessibility features not only benefits individuals with disabilities but also enhances the overall user experience for a broader audience.

- **Assistive Technology Software and Apps:** Various software and mobile applications are available to support individuals with disabilities in communication, education, employment, and daily living. Further research into specific assistive technology software and apps could be beneficial.

Policy and Advocacy:

- **Disability-Inclusive Policies and Legislation:** Majumder (2019) emphasizes the need for stronger policies to promote accessibility and protect the rights of persons with disabilities in India. The Ministry of Social Justice and Empowerment (2020) highlights government efforts to ensure basic physical accessibility features in COVID-19 facilities, stressing the importance of policy interventions for addressing specific needs.

- **Disability Rights Advocacy and Awareness Campaigns:** Raising awareness about disability rights is crucial for fostering a more equitable and accessible society for persons with disabilities (PwPD). The study by Sharma et al. (2021) emphasizes the significance of understanding and addressing social stigma associated with physical disabilities. It highlights the need for promoting positive attitudes and empathy towards individuals with physical disabilities, which can lead to improved social inclusion and support. Overall, the findings suggest that enhancing awareness and empathy can significantly contribute to dismantling barriers and fostering a more inclusive environment for all.

Recommendations for Policy and Practice to Promote Inclusive Mobility and Accessibility for PwPD in India

Based on the research explored, several recommendations can be made to promote inclusive mobility and accessibility for Persons with Physical Disabilities in India:

Policy Recommendations:

- **Strengthening Accessibility Standards and Enforcement:** The authors, Alzouby et al. (2019), suggest that there should be stronger enforcement of accessibility standards for buildings and transportation systems. They emphasize the importance of conducting regular audits to check if these standards are being followed. The authors point out that there are currently some problems with how these standards are implemented and monitored, which means improvements are needed to make sure everyone can access these facilities easily.

- **Promoting Accessible Transportation:** The text emphasizes the importance of investing in accessible public transportation systems, such as buses, trains, and metro networks. It advocates for the provision of subsidies and incentives to enhance accessible private transportation options. The work of Ramji and Venugopal (2019) highlights the necessity of developing a sustainable mobility ecosystem that prioritizes accessibility in transportation. This approach aims to ensure that all individuals, regardless of their mobility challenges, can benefit from efficient and inclusive transportation services.

- **Enhancing Affordability and Availability of Assistive Devices:** The text emphasizes the need for the expansion of government programs aimed at providing affordable assistive devices and technologies for persons with disabilities (PwPD). It underscores the importance of streamlining the application and distribution processes associated with these programs to enhance accessibility. Additionally, the work of Gupta et al. (2021) points out the shortcomings of the existing wheelchair delivery system, indicating that improvements are necessary to meet the needs of individuals requiring such mobility aids. Overall, the text advocates for systemic changes to ensure that assistive technologies are more readily available and efficiently distributed to those in need.

- **Supporting Inclusive Education and Employment:** Kunnath & Mathew (2019) advocate for inclusive higher education for students with disabilities, while Suresh & Dyaram (2020) emphasize workplace disability inclusion through accommodations and support services.

- **Promoting Disability Rights Awareness:** Public awareness campaigns are essential for challenging the social stigma and discrimination faced by persons with disabilities (PwPD). These

campaigns aim to promote positive attitudes and inclusive behaviors towards individuals with disabilities. Research by Sharma et al. (2021) emphasizes the importance of fostering empathy and understanding towards physically disabled persons, indicating that awareness initiatives can significantly impact societal attitudes. Overall, the findings suggest that targeted efforts in raising awareness can lead to a more inclusive and supportive environment for PwPD.

Practice Recommendations:

- **Capacity Building and Training:** Provide Training and capacity-building programs are essential for professionals who work with persons with disabilities (PwPD), including healthcare providers, educators, and urban planners. The development of these training materials should prioritize local needs and cultural contexts, as highlighted by Bhattacharjya and Lenker in (2019). This approach ensures that the training is relevant and effective, ultimately enhancing the support provided to PwPD.

- **Community-Based Rehabilitation Programs:** Strengthen Community-based rehabilitation programs are essential for offering complete support to people with disabilities, especially those with mobility issues. These programs should include access to assistive devices, therapy, and chances for social participation. The research by Borade et al. in (2019) emphasizes how important it is for individuals with mobility-related disabilities to have community support. It shows that using assistive devices can significantly improve their daily lives and experiences. Overall, strengthening these programs can lead to better outcomes for people with disabilities, helping them to engage more fully in their communities.

- **Accessible Information and Communication Technology:** Websites, mobile applications, and digital platforms must be designed to be accessible for persons with disabilities (PwPD). There is a strong emphasis on promoting the development and utilization of assistive technology software and applications. The work of Mohanraj and Raakesh (2017) highlights the importance of information and communication technology (ICT) interventions specifically tailored for individuals with disabilities. These interventions are crucial for enhancing accessibility and ensuring that digital resources are inclusive for all users.

- **Participatory Design and Planning:** Involving people with disabilities (PwPD) in the design and planning processes of accessible environments, transportation systems, and assistive technologies is essential. Their unique lived experiences and expertise provide valuable insights that contribute to the development of genuinely inclusive solutions. The research by Joshi et al. (2020) highlights the barriers faced by individuals in accessing urban mobility infrastructures, underscoring the importance of inclusive discussions in transport planning. This approach not only enhances accessibility but also ensures that the needs of all users are considered in the planning stages.

- **Monitoring and Evaluation:** To enhance inclusive mobility and accessibility, it is crucial to establish mechanisms for monitoring and evaluating the effectiveness of related policies and programs. Regular data collection and analysis play a vital role in facilitating continuous improvement in these areas. The research by Saikia et al. (2016) offers valuable data on disability divides in India, serving as a baseline for tracking progress over time. This approach ensures that efforts to promote inclusivity are informed by evidence and can be adjusted based on findings

Methodology

A robust research methodology is crucial for investigating the mobility challenges and inclusive solutions for people with physical disabilities in India. The qualitative method and data are non-numeric and non-quantifiable.

Data Collection:

- **Surveys:** The surveys will be conducted with a representative sample of PwPD across different demographics and geographical locations to gather quantitative data on their mobility challenges, needs, and preferences.
- **Interviews:** The Interview will be conducted with PwPD, caregivers, policymakers, and service providers to gather qualitative data on their experiences, perspectives, and insights.
- **Field Observations:** The field observations will be conducted in different environments (e.g., public spaces, transportation systems, workplaces) to assess accessibility features and identify barriers faced by PwPD.
- A review of the secondary data available on the companies' websites, social media, and newspaper coverage.

Data Analysis:

Two different methods will be used to analyze the collected data (1) Qualitative and (2) Quantitative methods.

- **Quantitative Data Analysis:** We may have to use the IBM SPSS and MS Excel to analyze survey data and identify patterns, trends, and correlations.
- **Qualitative Data Analysis:** Employ thematic analysis or other qualitative data analysis techniques to identify key themes, narratives, and insights from interviews, focus groups, and field observations.

Discussion

The findings of this research provide valuable insights into the mobility challenges and inclusive solutions for people with physical disabilities in India. Several key discussion points emerge:

- The study emphasizes the need for stronger enforcement of accessibility standards to ensure compliance with universal design principles in buildings, transportation, and public spaces.
- Investing in accessible public transportation systems and providing subsidies for private transportation options can improve mobility for people with physical disabilities.
- Expanding government programs to provide affordable assistive devices is crucial, as well as implementing policies for inclusive education and employment.
- Public awareness campaigns are also important to challenge social stigma and discrimination against individuals with physical disabilities.

Conclusion

In conclusion, this research has uncovered the significant mobility challenges faced by people with physical disabilities in India and identified key inclusive solutions to address them. Findings underscore the need for strengthened accessibility standards, investment in accessible transportation, improved access to assistive devices, inclusive education and employment opportunities, and disability rights awareness campaigns. Implementing these comprehensive strategies can significantly enhance the mobility, independence, and social participation of people with physical disabilities in India. Continued monitoring and evaluation will be crucial to ensure the effectiveness of these inclusive solutions over time.

References

Acheampong, R. A., Siiba, A., Okyere, D. K., & Tuffour, J. P. (2020). Mobility-on-demand: An empirical study of internet-based ride-hailing adoption factors, travel characteristics and mode substitution effects (Vol. 115, p. 102638). Elsevier BV.

Addlakha, R. (2021). Disability and the Pursuit Of Mobility: Risks And Opportunities in the Indian Urbanscape. Wiley.

Akhil, J. P., Ajith, R. R., & Ranjith, S. K. (2020). Design and development of a self-propelled indoor wheelchair with direct toilet accessibility (Vol. 18, Issue 1, p. 97). Taylor & Francis.

Alzouby, A. M., Nusair, A. A., & Taha, L. M. (2019). GIS based Multi Criteria Decision Analysis for analyzing accessibility of the disabled in the Greater Irbid Municipality Area, Irbid, Jordan. In Alexandria Engineering Journal (Vol. 58, Issue 2, p. 689). Elsevier BV. https://doi.org/10.1016/j.aej.2019.05.015

Bhattacharjya, S., & Lenker, J. (2019). Prioritizing Local Needs and Culture When Developing Rehabilitation Training Materials For Use in Another Country (Vol. 100, Issue 10). Elsevier BV.

Bhattacharya, S., Hossain, M., Singh, A., & Mishra, S. (2020). Thinking beyond the inclusiveness of "Disability competencies for an Indian Medical Graduate" in normal as well as crisis conditions-A community perspective (Vol. 9, Issue 10, p. 5406). Medknow.

Borade, N., Ingle, A., & Nagarkar, A. (2019). Lived experiences of people with mobility-related disability using assistive devices (Vol. 16, Issue 7, p. 730). Taylor & Francis.

Borade, N., Ingle, A., & Nagarkar, A. (2019). Lived experiences of people with mobility-related disability using assistive devices. In Disability and Rehabilitation Assistive Technology (Vol. 16, Issue 7, p. 730). Taylor & Francis. https://doi.org/10.1080/17483107.2019.1701105

Gupta, A., & Priyadarshi, P. (2020). When affirmative action is not enough: challenges in career development of persons with disability (Vol. 39, Issue 6, p. 617). Emerald Publishing Limited.

Gupta, A., & Priyadarshi, P. (2020). When affirmative action is not enough: challenges in career development of persons with disability. In Equality Diversity and Inclusion An International Journal (Vol. 39, Issue 6, p. 617). Emerald Publishing Limited. https://doi.org/10.1108/edi-05-2019-0146

Gupta, S., Meershoek, A., & Witte, L. de. (2021). A Narrative Review of the Government Wheelchair Provision System in India [Review of A Narrative Review of the Government Wheelchair Provision System in India]. 18(10), 5109. Multidisciplinary Digital Publishing Institute.

Had, N. H. C., Alavi, Khadijah, Akhir, N. M., Nur, I. R. M., Shuhaimi, M. S. Z., & Foong, H. F. (2023). A Scoping Review of the Factor Associated with Older Adults' Mobility Barriers [Review of A Scoping Review of the Factor Associated with Older Adults' Mobility Barriers]. International Journal of Environmental Research and Public Health, 20(5), 4243. Multidisciplinary Digital Publishing Institute. https://doi.org/10.3390/ijerph20054243

Hwa, M. A. C., Ramayah, T., & Amin, H. (2015). A theory of planned behavior perspective on hiring Malaysians with disabilities (Vol. 34, Issue 3, p. 186). Emerald Publishing Limited.
Izam, S., & Mohamed, W. A. W. (2020). The Unemployment of Special Needs with Learning Disability People in Malaysia: Reality or Fantasy. In Journal of Economic Info (Vol. 7, Issue 2, p. 141). https://doi.org/10.31580/jei.v7i2.1442

Joshi, S., Bailey, A., & Datta, A. (2020). On the move? Exploring constraints to accessing urban mobility infrastructures. In Transport Policy (Vol. 102, p. 61). Elsevier BV.

https://doi.org/10.1016/j.tranpol.2020.11.005

Kunnath, S. K., & Mathew, S. N. (2019). Higher Education for Students with Disabilities in India: Insights from a Focus Group Study (Vol. 6, Issue 2, p. 171). SAGE Publishing.

Lunar, F. R., Marquez, J. P., Quianzon, F. K., Policarpio, B. J., Santelices, L. A., Velasco, M. K., Quinto, R. J., & Gorgon, E. J. R. (2018). Mobility performance among community-dwelling older Filipinos who lived in urban and rural settings: A preliminary study (Vol. 39, Issue 2, p. 91). World Scientific.

Majumder, C. (2019). Educational Status of Differently Abled Persons and Developed Policies in India (p. 341). Rekha Patel.

Manaf, A., Othman, S. Z., Isa, M. F. M., Noor, W. S. M. M., & Azizan, N. (2019). Employment Challenges among Persons with Disabilities in Malaysia. In International Journal of Academic Research in Business and Social Sciences (Vol. 9, Issue 10). https://doi.org/10.6007/ijarbss/v9-i10/6469

Ministry of Social Justice and Empowerment writes to States/Uts to ensure basic physical accessibility features for divyangjan in centres for COVID-19 testing & quarantine facilities and treatment at hospitals. (2020).

Mohanraj, I., & Raakesh, B. R. (2017). ICT interventions on aiding people with disabilties — A state of art survey (p. 189).

Murthy, G. V. S. (2018). Challenges in Accessing Health Care for People with Disability in the South Asian Context: A Review [Review of Challenges in Accessing Health Care for People with Disability in the South Asian Context: A Review]. 15(11), 2366. Multidisciplinary Digital Publishing Institute.

Murthy, G. V. S. (2018). Challenges in Accessing Health Care for People with Disability in the South Asian Context: A Review [Review of Challenges in Accessing Health Care for People with Disability in the South Asian Context: A Review]. International Journal of Environmental Research and Public Health, 15(11), 2366. Multidisciplinary Digital Publishing Institute. https://doi.org/10.3390/ijerph15112366

Nugraha, B., Setyono, G. R., Defi, I. R., & Gütenbrunner, C. (2018). Strengthening rehabilitation services in Indonesia: A brief situation analysis (Vol. 50, Issue 4, p. 377). Foundation for Rehabilitation Information.

Rai, S., Sathiyamoorthy, R., Gupta, S., Kant, S., Wadhwa, S., Sood, M., & Sreenivas, V. (2018). Prevalence of disability and its association with sociodemographic factors and quality of life in India: A systematic review [Review of Prevalence of disability and its association with sociodemographic factors and quality of life in India: A systematic review]. Journal of Family Medicine and Primary Care, 7(6), 1177. Medknow. https://doi.org/10.4103/jfmpc.jfmpc_10_18
Ramji, A., & Venugopal, S. (2019). Creating a Sustainable Mobility Ecosystem in India: Vision 2030 (p. 1).

Ramp Facility for Physically Challenged. (2012).

Roe, J. (2020). A study on a mobility design research concentrated on Inclusive design (Vol. 7, Issue 3, p. 245).

Roe, J. (2020). A study on a mobility design research concentrated on Inclusive design. In Journal of Digital Art Engineering and Multimedia (Vol. 7, Issue 3, p. 245). https://doi.org/10.29056/jdaem.2020.09.06

Saikia, N., Bora, J. K., Jasilionis, D., & Shkolnikov, V. M. (2016). Disability Divides in India: Evidence from the 2011 Census (Vol. 11, Issue 8). Public Library of Science.

Sharma, N., Yadav, V. P., & Sharma, A. (2021). Attitudes and empathy of youth towards physically disabled persons (Vol. 7, Issue 8). Elsevier BV.

Suresh, V., & Dyaram, L. (2020). Workplace disability inclusion in India: review and directions. In Management Research Review (Vol. 43, Issue 12). Emerald Publishing Limited. https://doi.org/10.1108/mrr-11-2019-0479

Taylor, Zbigniew, & Józefowicz, I. (2012). Intra-urban daily mobility of disabled people for recreational and leisure purposes. In Journal of Transport Geography (Vol. 24, p. 155). Elsevier BV. https://doi.org/10.1016/j.jtrangeo.2011.12.008

Thrush, A., & Hyder, A. A. (2014). The neglected burden of caregiving in low- and middle-income countries [Review of The neglected burden of caregiving in low- and middle-income countries]. Disability and Health Journal, 7(3), 262. Elsevier BV. https://doi.org/10.1016/j.dhjo.2014.01.003