

Toward Inclusive Higher Education: Challenges and Opportunities in Ten Asian Countries Following CRPD Ratification

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Abstract: The ratification of the Convention on the Rights of Persons with Disabilities (CRPD) has triggered a wave of policy initiatives aimed at inclusive higher education around the world. Yet the extent of progress remains unclear in Asian region. This systematic review fills that gap by analysing 46 peer-reviewed publications (2013–2024) that document post-CRPD developments in ten Asian countries—China, India, Iran, Japan, Kazakhstan, Malaysia, Pakistan, Singapore, Turkey and the United Arab Emirates. We mapped legislative reforms, organizational responses and structural adaptations designed to accommodate students with disabilities and compared the pace and depth of change across national contexts. The review revealed pronounced disparities. Economically advanced systems such as Japan and Singapore report the most comprehensive disability policies and support structures, whereas developing contexts—particularly Iran, Pakistan and Kazakhstan—continue to struggle with weak enforcement, under-resourced campuses and limited staff training. Cross-cutting barriers include inaccessible infrastructure, inconsistent accommodations, shortages of assistive technology and persistent social stigma. Conversely, targeted measures—establishing Disability Support Offices, embedding universal design principles and leveraging educational technologies—showed promise in countries like Turkey and Malaysia. By offering the first multi-country comparative synthesis of post-CRPD reforms, this study clarifies both common obstacles and context-specific successes. We concluded that legislation alone is insufficient; meaningful inclusion requires coordinated policy monitoring, sustained faculty-development programs and regional knowledge-sharing platforms. These insights are especially pertinent for low-income and conflict-affected settings such as Afghanistan, where evidence-based policy transfer could accelerate inclusive transformation.

Keywords: Inclusive higher education; Convention on the Rights of Persons with Disabilities; students with disabilities; Asia; policy implementation.

INTRODUCTION

The World Health Organization (WHO) estimates that 1.3 billion people, or 16% of the global population, live with significant disabilities, with 80% residing in developing countries (WHO, 2023). This figure is rising due to increasing life expectancy and the growing prevalence of noncommunicable diseases. Persons with disabilities (PwDs) face disproportionately high rates of mortality, poorer health outcomes, and significant limitations in daily functioning compared to the general population (WHO, 2022).

Against this backdrop, in 2015 the United Nations adopted the 2030 Agenda for Sustainable Development, anchoring disability inclusion squarely within several of its 17 Sustainable Development Goals (SDGs). SDG 4 (Quality Education) calls for “inclusive and equitable quality education” and explicitly urges states to “ensure equal access to all levels of education and vocational training for persons with disabilities.” SDG 10 (Reduced Inequalities) reinforces this mandate by committing governments to “empower and promote the social, economic and political inclusion of all,” while SDG 1 (No Poverty) and SDG 8 (Decent Work and Economic Growth) highlight the poverty-disability nexus and the importance of higher-level skills for decent employment. Together, these goals frame inclusive higher education (IHE) not merely as a sectoral reform but as a linchpin for achieving the broader promise to “leave no one behind” (United Nations, 2015).

Higher education institutions (HEIs) play a pivotal role in ensuring equitable access to quality education for all, fostering a just and inclusive society. These institutions are tasked with eliminating discrimination based on disability, gender, socio-economic status, ethnicity, and other characteristics, thereby upholding fundamental democratic values of pluralism and equality (Sarkar, 2016). Yet stark disparities persist. Higher-income nations in the Global North have expanded inclusive provision, whereas the Global South—home to 80 % of PwDs—still grapples with inaccessible campuses and limited institutional support (Nourian et al., 2022). Inclusion, by definition, requires educational institutions to adapt to the full diversity of learners (Armstrong et al., 2011), but many Asia-Pacific education institutions remain ill-equipped to do so. The region's 700 million PwDs continue to encounter a poverty trap reinforced by restricted educational and employment opportunities (United Nations Economic and Social Commission for Asia and the Pacific, 2022).

International and regional instruments have attempted to close this gap. The UN Convention on the Rights of Persons with Disabilities (CRPD) codified non-discriminatory access to education including higher education, as a fundamental right (United Nations, 2006). Despite its ratification by numerous countries, the implementation of the CRPD has varied widely, shaped by diverse historical, cultural, political, and economic contexts. In many contexts, legislative promises are thwarted by inadequate infrastructure, entrenched stigma and under-resourced disability services (Magnússon, 2019). The Incheon Strategy for the Asian and Pacific Decade of PwDs (2013–2022) initiated by the Economic and Social Commission for Asia and the Pacific (ESCAP) has set measurable targets for improving quality of life. While significant progress has been made, the region still falls short of achieving these ambitious goals (United Nations Economic and Social Commission for Asia and the Pacific, 2022).

Evidence shows that completing higher education reduces poverty (Ezebuilo & Nwosu, 2014), increases employability, promotes social integration for PwDs and equips PwDs with the skills necessary to achieve independence and dignity ((Bellacicco & Pavone, 2020; Jameel, 2011; Moriña, 2017a). Studies in Pakistan, for instance, have revealed an inverse relationship between education levels and poverty incidence (Chaudhry et al., 2010). However, inclusion in higher education extends beyond access; it requires institutions to adopt comprehensive policies and practices that ensure full participation and equitable learning opportunities for all students (McDuff et al., 2020; Salmi & D'Addio, 2021).

Existing literature is dominated by single-country case studies or narrow thematic analyses; a multi-country comparison of post-CRPD reforms in Asian higher education is noticeably absent. To address this void, the present study systematically examines legislative, organizational and structural changes affecting students with disabilities (SwDs) in ten Asian nations—China, India, Iran, Japan, Kazakhstan, Malaysia, Pakistan, Singapore, Turkey and the United Arab Emirates. By identifying common obstacles, context-specific successes and transferable good practices, the study aims to inform evidence-based policymaking in similarly resource-constrained settings, particularly Afghanistan, where IHE reforms are still emerging.

METHOD

This study employed a qualitative systematic literature review (SLR) to explore the inclusion of SwDs in HEIs across ten Asian countries: China, India, Iran, Japan, Kazakhstan, Malaysia, Pakistan, Singapore, Turkey, and the United Arab Emirates (UAE). The SLR method was selected for its ability to synthesize and critically evaluate existing research, offering comprehensive insights into complex issues (Cumming et al., 2023). Systematic

reviews are widely regarded as essential tools in educational research, ensuring methodological rigor through meticulous planning and execution (Lalvani et al., 2015).

The countries were chosen based on their cultural, religious, educational, and historical connections to Afghanistan and their diverse socio-economic and political contexts. These nations represent a mix of developing economies (e.g., Pakistan, Iran, and Kazakhstan) and economically advanced countries (e.g., Japan, Singapore, and Malaysia), providing a balanced perspective on IHE practices in the region. This dual focus allows for the identification of shared challenges and unique approaches, offering valuable for lessons educational system of developing and low-income countries like Afghanistan.

Data Collection

Between May and July 2024, literature was sourced from databases such as Education Resources Information Center (ERIC), Google Scholar, and ProQuest, using keywords like "inclusive higher education" AND "country name" "students with disabilities" and "higher education" OR "university" AND "country name."

A total of 123 sources were initially identified through database searches and citation chaining (reference mining) techniques. These documents were distributed across the ten Asian countries as seen in Figure 1.

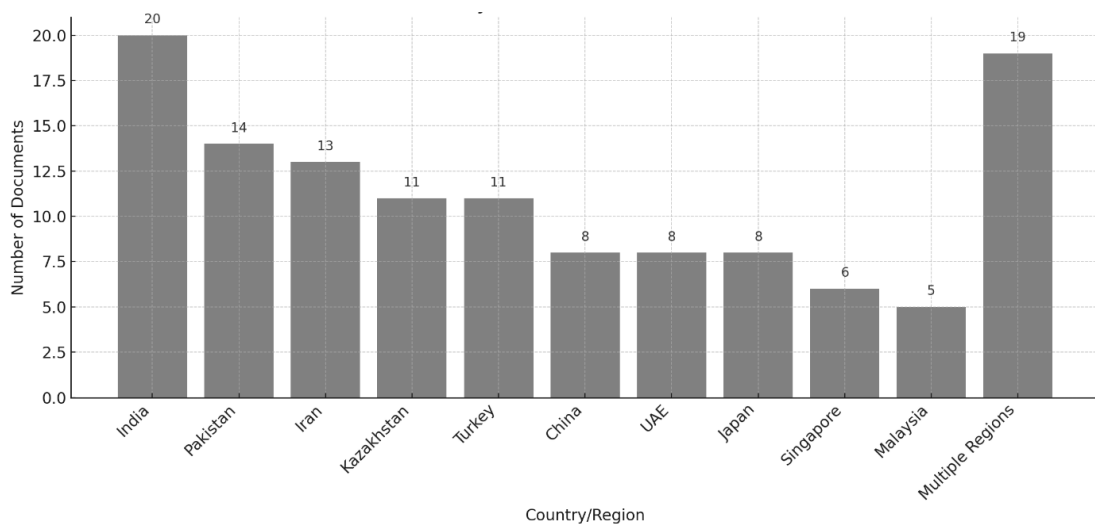


Figure 1. Distribution of Collected Sources Across Ten Asian Countries

The 19 documents shared across multiple countries and regions cover topics such as UNESCO reports on IHE; CRPD studies; universal designs for learning (UDL); and inclusion in Central Asia, South Asia, ASEAN, and Asia as a whole.

The inclusion criteria for selecting articles were as follows:

- a) Titles or abstracts containing the terms higher education, university and students with special needs/disabilities.
- b) Articles discussing inclusive education laws or policies in the target countries.
- c) Publications released after CRPD ratification in the respective country.
- d) Peer-reviewed articles available in English (except for Persian language articles related to Iran, which were reviewed by the first author fluent in Persian and English).
- e) Available online.

After removing duplicates, screening titles and abstracts and reading 64 full texts; 46 met inclusion criteria and formed the backbone of this review. 46 articles (4 or 5 articles per country) were selected based on their alignment with the study's objectives. These articles, published between 2013 and 2024, examined various aspects of inclusion for SwDs in HEIs, including accessibility, legal frameworks, faculty and student attitudes, and support services.

Data Analysis

Selected articles were analysed thematically to identify recurring patterns, challenges, and opportunities in IHE. Comparative analysis was conducted across the ten countries to highlight variations in legislative and institutional responses to the CRPD. Articles were grouped into three main categories:

- a. Legislative and Policy Frameworks: Evaluating laws and policies supporting inclusive education.
- b. Institutional Practices and Accommodations: Exploring the provision of support services and reasonable accommodations for SwDs.
- c. Barriers and Challenges: Identifying systemic obstacles to inclusion, such as infrastructure gaps, societal attitudes, and resource constraints.

The findings were synthesized to address the study's research questions:

- a) What is the status of PwDs and SwDs in HEIs in these countries?
- b) What legislative and organizational changes have been adopted post-CRPD ratification?
- c) What reasonable accommodations are provided for different types of SwDs?
- d) What are the main challenges to inclusion in HEIs?

Study Rationale

The qualitative SLR approach was chosen for its ability to provide an in-depth understanding of the research topic by integrating findings from diverse contexts. This methodology ensures that the study captures a comprehensive view of inclusive education practices, drawing on best practices and lessons from both advanced and developing economies. By addressing the intersection of policy, practice, and lived experiences, this study aims to offer actionable recommendations to improve inclusion in higher education.

FINDING AND DISCUSSION

Finding(s)

This study synthesizes insights from 46 peer-reviewed articles, official reports, and policy documents, examining the inclusion of SwDs in HEIs across ten Asian countries. The findings reveal substantial disparities in inclusive education practices, highlighting a spectrum of progress influenced by socio-economic, cultural, and political factors. Countries with robust economies and advanced education systems, such as Japan, Singapore, and Turkey, have made significant strides in implementing inclusive policies and practices. In contrast, developing countries, such as Pakistan, India, Iran, and Kazakhstan, face persistent challenges, including inadequate infrastructure, societal stigma, and limited faculty training.

This section presents an in-depth analysis of the key findings, categorized into four themes: the status of persons with disabilities (PwDs) and SwDs in HEIs, legislative and policy changes post-CRPD ratification, reasonable accommodations provided in HEIs, and the barriers hindering successful inclusion. Each theme is discussed in detail, drawing comparisons across countries to uncover common challenges and unique approaches. By understanding these dynamics, this study offers valuable lessons for enhancing IHE, in

developing and low-income countries such as Afghanistan, where systemic reforms are urgently needed.

Table 1. Summary of Articles Included in this Systemic Literature Review

No	Country	Authors/s (Year)	Contents
1	China	Shixin Huang et al. (2024)	<p>Title of the Study: Toward a Designated Pathway: Disabled Students' Ambivalent Educational Desire in China's National College Entrance Exam (NCEE).</p> <p>Purpose of the Study: To explore how disability education policies in China shape the higher education pathways of disabled students, particularly those from special schools, and examine their experiences with NCEE.</p> <p>SwDs in the study: Students with visual and hearing disabilities.</p>
2	China	W. Xiuli & K. E.Hock (2023)	<p>Title of the Study: A Qualitative Study of Higher Education Adaptation Problems of College Students with Disabilities in Inclusive Education.</p> <p>Purpose of the Study: To investigate the adaptation challenges faced by disabled college students in IHE settings in China.</p> <p>SwDs in the study: Physical and visual impairments.</p>
3	China	X. Wang & K. Takeda (2022)	<p>Title of the Study: Support Services for Students with Visual Impairments (SwVIs) Offered by Inclusive Higher Education Institutions in China.</p> <p>Purpose of the Study: To investigate the current support system for SwVIs in Chinese higher education institutions, comparing universities with and without special education colleges.</p> <p>SwDs in the study: Visually impaired students</p>
4	China	Michael Palmer (2020)	<p>Title of the Study: Lowering the Bar? Students with Disabilities (SwDs) in PRC Higher Education.</p> <p>Purpose of the Study: To analyze the legal and social challenges faced by SwDs in China's higher education system, and how effectively their educational rights and interests are protected under Chinese law.</p> <p>SwDs in the study: General disabilities (physical, mental, and sensory impairments).</p>
5	China	Yuexin Zhang et al. (2018)	<p>Title of the Study: Inclusive Higher Education for Students with Disabilities in China: What Do the University Teachers Think?</p> <p>Purpose of the Study: To explore university teachers' perspectives on IHE for SwDs in China.</p> <p>SwDs in the study: General disabilities, including physical, visual, and hearing impairments.</p>
6	India	Afaq Ahmad Mir & Abdul Waheed (2022)	<p>Title of the Study: Experiences of Students with Disabilities in Indian Higher Education: An Interpretative Phenomenological Study.</p> <p>Purpose of the Study: To explore the lived experiences of SwDs in Indian higher education and to examine the barriers and opportunities they face in inclusive education.</p> <p>SwDs in the study: Students with physical, visual, hearing, and speech impairments. speech and multiple</p>
7	India	Aditi Pandey (2021)	<p>Title of the Study: Roadblock on the Way of Disabled Students in the Higher Education</p> <p>Purpose of the Study: The study explores the issues and challenges faced by disabled students in India's HEIs. It examines the legal provisions, the new education policy, and the actual inclusivity in HEIs for disabled students.</p> <p>SwDs in the study: Visual impairment, Hearing impairment, Locomotor disability and Speech-related impairment</p>

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8	India	Suja Kurian Kunnath & Samuel N. Mathew (2019)	<p>Title of the Study: Higher Education for Students with Disabilities in India: Insights from a Focus Group Study</p> <p>Purpose of the Study: To explore the challenges, accommodations, and support systems needed for SwDs in higher education.</p> <p>SwDs in the study: Students with hearing impairment, cerebral palsy, and autism spectrum disorders</p>
9	India	Usha C (2018)	<p>Title of the Study: Access to Higher Education for Students with Disability in India: A Country in Transition.</p> <p>Purpose of the Study: To discuss the policies and provisions available for SwDs in higher education in India.</p> <p>SwDs in the study: A broad range of disabilities, including physical, visual, hearing impairments, and intellectual disabilities.</p>
10	India	Ratan Sarkar (2016)	<p>Title of the Study: Inclusive University: A Way Out to Ensure Quality, Equity, and Accessibility for Students with Disabilities in Higher Education.</p> <p>Purpose of the Study: To explore the need for restructuring Indian universities to make them more inclusive for SwDs by ensuring quality, equity, and accessibility in higher education.</p> <p>SwDs in the study: General disabilities, including physical, visual, and hearing impairments, as well as intellectual disabilities.</p>
11	Iran	Samaneh Sargazi et al. (2024)	<p>Title of the Study: Voices Unheard: Insights into the Lives of PwDs in Iran.</p> <p>Purpose of the Study: To assess the needs and challenges faced by PwDs in Iran and propose solutions to improve their quality of life, focusing on family, therapeutic, psychological, academic, and social problems.</p> <p>SwDs in the study: General disabilities, including physical, psychological, and social impairments.</p>
12	Iran	Elaheh Jarrahi et al. (2022)	<p>Title of the Study: Investigation of the Challenges Faced by Iranian Students with Learning Disabilities to Enter Universities.</p> <p>Purpose of the Study: To explore the challenges Iranian SwDs face when entering higher education and to identify solutions to overcome these barriers.</p> <p>SwDs in the study: Primarily students with learning disabilities, but the study also includes students with other physical and cognitive impairments.</p>
13	Iran	Davoud Tahmasebzadeh et.al (2022)	<p>Title of the Study: Lived Experience of Students with Physical Disabilities (SwPDs) from Participation in Inclusive Education.</p> <p>Purpose of the Study: To describe and understand the lived experiences of SwPDs in IHE, focusing on the barriers and supports they encounter.</p> <p>SwDs in the study: Students with physical disabilities, including those with severe disabilities.</p>
14	Iran	Laleh Nourian et al. (2022)	<p>Title of the Study: Digital Accessibility in Iran: An Investigation Focusing on Iran's National Policies on Accessibility and Disability Support.</p> <p>Purpose of the Study: To explore and assess Iran's national policies related to digital accessibility and support for disabled individuals.</p> <p>SwDs in the study: General disabilities, focusing on digital accessibility for individuals with physical and sensory impairments.</p>
15	Japan	Karina Dyliaeva et al. (2024)	<p>Title of the Study: Challenges to Inclusive Education for Students with Disabilities in Japanese Institutions of Higher Education.</p> <p>Purpose of the Study: To investigate the barriers and challenges faced by Japanese universities in implementing inclusive education policies for SwDs, focusing on faculty and staff experiences.</p> <p>SwDs in the study: General disabilities, including physical, learning, and sensory impairments.</p>

No	Country	Authors/s (Year)	Contents
16	Japan	Y. Nakano, T. et al. (2024)	<p>Title of the Study: Creation of a New Professional Position of "Assessor" in Japanese Institutions of Higher Education: Introduction to the University of Tsukuba's Assessor.</p> <p>Purpose of the Study: To introduce and examine the newly established professional position of "assessor" in Japanese higher education institutions, designed to assess and provide appropriate accommodations for students with developmental disabilities.</p> <p>SwDs in the study: Developmental disabilities, including ADHD, Autism Spectrum Disorder (ASD), and Specific Learning Disorder (SLD).</p>
17	Japan	Simon Pryor et al. (2023)	<p>Title of the Study: Barriers to Education for Special Educational Needs (SEN) Students at Japanese Universities.</p> <p>Purpose of the Study: To identify the barriers faced by SEN students in Japanese universities, with a focus on interactions with English language faculty.</p> <p>SwDs in the study: SEN students, including those with learning, physical, and intellectual disabilities.</p>
18	Japan	Aya Fujiwara et al. (2022)	<p>Title of the Study: Support Systems for a University Student with Severe Disabilities: A Case Study.</p> <p>Purpose of the Study: To examine the support systems available to a university student with cerebral palsy, focusing on the challenges faced and the strategies used to provide physical care and academic accommodations.</p> <p>SwDs in the study: Students with severe physical disabilities (specifically cerebral palsy).</p>
19	Japan	Yoshimi Matsuzaki et al. (2020)	<p>Title of the Study: Reasonable Accommodation and Information Accessibility by Various Formats: The Difference Between Braille, Sign Language, and Speech Format.</p> <p>Purpose of the Study: To investigate the differences in comprehensibility among various formats used for information accessibility—such as Braille, sign language, and speech format—for SwDs in Japanese higher education institutions.</p> <p>SwDs in the study: Students with visual and hearing disabilities.</p>
20	Kazakhstan	Arman Assanbayev & Tsediso Michael Makoelle (2024)	<p>Title of the Study: Practices Promoting the Inclusion of Adult Students with Disabilities in the Classroom: A Case of a TVET College in Kazakhstan.</p> <p>Purpose of the Study: To explore the practices promoting the inclusion of adult students with disabilities in Kazakhstani Technical Vocational Education and Training Institutions (TVETIs).</p> <p>SwDs in the study: Visually impaired students and those with physical disabilities.</p>
21	Kazakhstan	Zehra Altinay et al. (2023)	<p>Title of the Study: Examining Sustainable Development Goals for Current Situation of Inclusive Education Policies and Practices in Kazakhstan Universities</p> <p>Purpose of the Study: To evaluate the current state of inclusive education in Kazakhstan universities in alignment with SDGs and to identify challenges in implementing inclusive policies.</p> <p>SwDs in the study: Various disabilities, including physical, sensory, and intellectual impairments.</p>
22	Kazakhstan	Sergey Malinovskiy et al. (2023)	<p>Title of the Study: Barriers and Facilitators of Access to Higher Education in a Weakly Institutionalized Context: Perceptions of Disabled Students</p> <p>Purpose of the Study: The study explores the barriers and facilitators of access to higher education for disabled students in Kazakhstan, particularly in the context of weak institutional support and infrastructure.</p> <p>SwDs in the study: Mobility, visual, hearing, and neurological impairments.</p>

No	Country	Authors/s (Year)	Contents
23	Kazakhstan	Guldana Ispambetova et al. (2018)	<p>Title of the Study: Accessibility of Inclusive Higher Education through the Eyes of Students with Disabilities.</p> <p>Purpose of the Study: To assess the accessibility of higher education for SwDs in Kazakhstan, focusing on their lived experiences and the barriers they face in achieving equal educational opportunities.</p> <p>SwDs in the study: Visual impairments, musculoskeletal disorders, and somatic diseases.</p>
24	Malaysia	Nur Haziqah Muhamad Zaki & Zurina Ismail (2021)	<p>Title of the Study: Towards Inclusive Education for Special Need Students in Higher Education from the Perspective of Faculty Members: A Systematic Literature Review.</p> <p>Purpose of the Study: To systematically review the challenges and issues faced by faculty members in creating an inclusive campus environment for students with special needs (SNS) in Malaysian higher education institutions.</p> <p>SwDs in the study: General disabilities, including physical, learning, and sensory impairments.</p>
25	Malaysia	M. S. Zainal & Low Hui Min (2021)	<p>Title of the Study: The Presence of Students with Disabilities in Higher Education: Exploring the Direction of Malaysia Local Public Universities.</p> <p>Purpose of the Study: The purpose of this study is to explore the current state of higher education for students with disabilities (SwDs) in Malaysia's public universities, analyzing the trends, challenges, and national efforts made to support SwDs.</p> <p>SwDs in the study: students with various disabilities</p>
26	Malaysia	Yusmarhaini Yusof et al. (2020)	<p>Title of the Study: Improving inclusion of students with disabilities in Malaysian higher education.</p> <p>Purpose of the Study: To examine the experiences of SwDs in Malaysian universities and to highlight the role universities play in eliminating barriers to access and increasing campus participation for SwDs.</p> <p>SwDs in the study: Mobility and visual impairments.</p>
27	Malaysia	Syed Muhammad Rafy Syed Jaafar et al. (2020)	<p>Title of the Study: Inclusion Setting for Disabilities in Higher Education: A Systematic Review of Issues and Challenges in Disabilities Research.</p> <p>Purpose of the Study: To systematically review the issues and challenges faced by SwDs in higher education institutions in Malaysia and to propose ways to create a more inclusive and supportive environment.</p> <p>SwDs in the study: General disabilities, including mobility, vision, and hearing impairments.</p>
28	Pakistan	Ayesha Altaf et al. (2023)	<p>Title of the Study: Challenges Confronted by Differently-Abled Students in Inclusive System of Education at Higher Level.</p> <p>Purpose of the Study: To examine the challenges faced by differently-abled students in the inclusive education system at the higher education level in Pakistan.</p> <p>SwDs in the study: General disabilities, including physical, visual, speech, and hearing impairments.</p>
29	Pakistan	Sajjad Hussain, Uzma Shahzad and Itbar Khan (2020)	<p>Title of the Study: Challenges to Learners with Disabilities in the Higher Education Institutions in Pakistan: A Review.</p> <p>Purpose of the Study: The study aims to investigate the challenges faced by SwDs in Pakistan's HEIs. It also evaluates government efforts and policies to promote equal opportunities in HEIs.</p> <p>SwDs in the study: General disabilities, including physical, visual, speech, and hearing impairments.</p>
30	Pakistan	Abdul Hameed & Qurrat-ul-Ain (2020)	<p>Title of the Study: Challenges Faced by Higher Education Institutions in Including Students with Hearing Impairment.</p> <p>Purpose of the Study: To identify and document the academic challenges faced by SWHI in HEIs in Pakistan, and to examine the preparedness of HEIs to accommodate these students.</p>

No	Country	Authors/s (Year)	Contents
			SwDs in the study: Students with hearing impairments.
31	Pakistan	S. Ashraf & Muhammad Ishaq (2020)	<p>Title of the Study: Enabling Inclusion of Students with Visual Impairment at Higher Education Level: Perspectives of Visually Impaired Students.</p> <p>Purpose of the Study: To explore the enabling factors for the inclusion of SwVIs at HEIs in Pakistan and to highlight differences in views among students from different institutions.</p> <p>SwDs in the study: Students with visual impairments.</p>
32	Singapore	Elinor Lim et al. (2023)	<p>Title of the Study: Autistic Students' Experiences, Opportunities, and Challenges in Higher Education in Singapore: A Qualitative Study</p> <p>Purpose of the Study: The study aimed to explore the experiences, opportunities, and challenges faced by autistic students in higher education (HE) in Singapore. Additionally, it sought to understand the perspectives of non-autistic students.</p> <p>SwDs in the study: The study focuses on autistic students.</p>
33	Singapore	Sheila K. W. Amnestia et al. (2023)	<p>Title of the Study: Higher Education with Disabilities Policy: Ensuring Equality Inclusive Education in Indonesia, Singapore, and United States</p> <p>Purpose of the Study: The purpose of this study is to explore the policies and practices surrounding inclusive education for SwDs in Indonesia, Singapore, and the United States.</p> <p>SwDs in the study: Students with physical, emotional, mental, intellectual, or social disabilities.</p>
34	Singapore	Damaris D.E. Carlisle (2022)	<p>Title of the Study: Disability Support for Students with Special Educational Needs (SEND) at Institutes of Higher Learning in Singapore: A Historical Perspective to Developments in Education Policy.</p> <p>Purpose of the Study: The purpose of the study is to examine the evolution of educational policies, and the support systems developed for SEND in Singapore's higher learning institutions, providing a historical analysis of policy changes.</p> <p>SwDs in the study: Students with special educational needs and disabilities, including physical, sensory, and learning disabilities.</p>
35	Singapore	Damaris D.E. Carlisle (2022)	<p>Title of the Study: See me, hear me: Successes and challenges of students with invisible disabilities at university in Singapore.</p> <p>Purpose of the Study: The study aims to explore the lived experiences of students with invisible disabilities studying at universities in Singapore, focusing on the challenges and successes they encountered during their first year.</p> <p>SwDs in the study: Students with invisible disabilities, including those with learning differences such as dyslexia, ADD, ASD, and mental health conditions.</p>
36	Singapore	Meng Ee Wong (2014)	<p>Title of the Study: Support for Students with Visual Impairment in Higher Education in Singapore: Considering University Publicity Materials Conveying Disability Services and Support.</p> <p>Purpose of the Study: To explore the state of support services provided to SwVIs in higher education institutions in Singapore and analyze the effectiveness of university publicity materials in conveying these services.</p> <p>SwDs in the study: Students with visual impairments.</p>
37	Turkey	Ahmet Üstün & Elif Demir (2023)	<p>Title of the Study: Accessibility to Higher Education for Persons with Disabilities in Turkey.</p>

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38	Turkey	Yelkin Diker Coşkun et al. (2021)	<p>Purpose of the Study: To evaluate the accessibility of higher education for PwDs in Turkey, focusing on the effectiveness of current policies, infrastructure, and support services at Turkish universities.</p> <p>SwDs in the study: Students with physical, sensory (visual and hearing impairments), and intellectual disabilities.</p> <p>Title of the Study: Brief Overview into Inclusive Settings in Higher Education in Turkey.</p> <p>Purpose of the Study: To review the current state of inclusive education in higher education in Turkey, examining the accessibility challenges faced by students.</p> <p>SwDs in the study: General disabilities, including physical, sensory (hearing and visual impairments), and learning disabilities</p>
39	Turkey	Halil İbrahim Çınarbaş & Rabia Hos (2020)	<p>Title of the Study: Access to Higher Education for Visually Impaired Students in Turkey: Disclosure, Inclusion, and Oppression of Two Pre-service Teachers.</p> <p>Purpose of the Study: To explore the experiences of two visually impaired pre-service teachers in a Turkish university, focusing on their disclosure of disability, accessibility challenges, and the dynamics of inclusion and oppression within higher education.</p> <p>SwDs in the study: Students with visual impairments.</p>
40	Turkey	A. Aşkın Kurt et al. (2016)	<p>Title of the Study: Opportunities for Students with Disabilities in Higher Education Institutions in Turkey: Where Is ICT?</p> <p>Purpose of the Study: The study aims to examine the services provided by state universities in Turkey for SwDs, focusing particularly on the role of Information and Communication Technologies (ICT) in these services.</p> <p>SwDs in the study: General disabilities, including physical, sensory, and learning disabilities.</p>
41	Turkey	Nilay Kayhan et al. (2015)	<p>Title of the Study: Opinions of University Students with Disabilities on Current Regulations and Adaptations at Higher Education Institutions.</p> <p>Purpose of the Study: To analyze the academic and social regulations and adaptations made for SwDs at Turkish higher education institutions, based on their opinions and experiences.</p> <p>SwDs in the study: Students with hearing impairments, visual impairments, autism spectrum disorder, and orthopedic disabilities.</p>
42	UAE	Clara Morgan (2023)	<p>Title of the Study: Fitting and Misfitting in Higher Education in the UAE.</p> <p>Purpose of the Study: To explore the dynamics of inclusion and exclusion for SwDs in higher education in the UAE. The study focuses on how higher education institutions either "fit" or "misfit" SwDs, shaping their educational experiences.</p> <p>SwDs in the study: General disabilities, with a focus on mobility, visual, and learning impairments.</p>
43	UAE	Clara Morgan (2023)	<p>Title of the Study: The Experiences of Disabled People in the United Arab Emirates: Barriers to Participation in Higher Education and Employment.</p> <p>Purpose of the Study: The study aims to analyze the barriers that disabled people face in accessing higher education and employment in the UAE, within the framework of CRPD.</p> <p>SwDs in the study: The study focuses on various types of disabilities, including visual, hearing, and mobility impairments, with specific attention to how D/deaf and hard-of-hearing.</p>
44	UAE	Mohammed Alzyoudi et al. (2021)	<p>Title of the Study: Inclusive Higher Education in UAE: Will Perceived Knowledge of Inclusion Impact Positively on University Students' Attitudes Towards Learning With Peers With Disabilities?</p> <p>Purpose of the Study: The purpose of this study was to assess the relationship between perceived knowledge of inclusive education and</p>

No	Country	Authors/s (Year)	Contents
			university students' attitudes towards learning alongside peers with disabilities. SwDs in the study: The study focused on university students with disabilities, including those with sensory, physical, or cognitive impairments.
45	UAE	Muna Alhammadi et al. (2014)	Title of the Study: Students with Vision Impairments (SWVI) in the UAE Higher Education System. Purpose of the Study: The study explores the educational challenges faced by SWVI in UAE higher education institutions. SwDs in the study: Students with vision impairments (SWVI).
46	UAE	Eman Gaad & Mishal Almotairi (2013)	Title of the Study: Inclusion of Students with Special Needs within Higher Education in the UAE: Issues and Challenges. Purpose of the Study: To explore the current status of inclusion for students with special needs in the higher education sector in the UAE, highlighting the challenges and opportunities for improving support for these students. SwDs in the study: General disabilities, including physical, cognitive, and sensory impairments.

Authors will present the findings relevant to each research question as follows:

Status of PwDs and of SwDs in HE system of these countries.

The status of persons with disabilities (PwDs) and students with disabilities (SwDs) in HEIs varies significantly across the ten countries studied, reflecting disparities in disability prevalence, societal attitudes, and the integration of inclusive practices.

Globally, the World Health Organization (WHO) estimates that 16% of the population lives with some form of disability (WHO, 2022). However, disability prevalence in the studied countries is often reported at significantly lower rates, apart from Turkey. In 2016, the prevalence of disability in Turkey was 16.2%, which is consistent with the global estimate (Sümer & Daloglu, 2022). In contrast, disability rates based on available statistics in other countries were significantly lower: Japan reported 7.6% in 2018 (MHLW, 2018); China reported 6.3% in 2006 (CNBS, 2006); Iran reported 4.2% in 2015 (CHRI, 2018); Kazakhstan reported 3.7% in 2020 (Malinovskiy et al., 2023); Singapore reported 3% in 2020 (Amnesti et al., 2023); India reported 2.2% in 2011 (Pandey, 2021); Malaysia reported 1.6% in 2020 (Azizi et al., 2021); Pakistan reported 2.5 in 1998 but 0.48% in 2017 (Arsh & Darain, 2019); and the UAE reported 1.7% in 2016 (MOCD, 2016).

The observed disparities in disability prevalence across the ten studied countries are shaped by a combination of definitional, methodological, cultural, and systemic factors. Different countries adopt varying definitions of disability and use inconsistent data collection methodologies (Casebolt, 2021; Me & Mbogoni, 2006). For instance, Japan and Turkey apply comprehensive frameworks that align with global standards, whereas Pakistan, India and UAE rely on outdated practices, resulting in significant underreporting (Arsh & Darain, 2019; Kumar et al., 2012; Ramadass et al., 2018; Saad & Borowska-Beszta, 2019). Additionally, stigma surrounding disability in many societies, particularly in Iran and Pakistan, discourages families from acknowledging disabilities publicly, further suppressing prevalence figures (Ahmed, 1995; Kamali, 2011; Samadi, 2008). Limited awareness and access to diagnostic services exacerbate the issue, especially in rural areas of developing nations like India, Kazakhstan, Iran and Pakistan (Ibrahim & Bhutta, 2013; Shams et al., 2024). These diagnostic gaps leave many disabilities unrecognized and unreported. Furthermore, demographic and health-related factors also contribute to variations (Kamali, 2011). Younger populations, such as those in Pakistan, report lower disability prevalence

due to the absence of age-related conditions commonly observed in older populations (Khalid et al., 2023). Differences in life expectancy and health conditions, coupled with economic and policy constraints, further amplify the inconsistencies in disability prevalence data across these nations.

The literature also revealed that poverty, illiteracy, and unemployment are more common among PwDs than among the general population in these countries (Ahmad et al., 2022; Assanbayev & Makoelle, 2024; Huang et al., 2024; Sümer & Daloğlu, 2022; Tahmasebzadeh Sheikhlari et al., 2022).

Education is a fundamental human right for all individuals including PwDs, according to the signatories of the UN Declaration of Human Rights (Universal Declaration of Human Rights, 1948). Higher education is particularly important for PwDs as it significantly improves their quality of life and expands their career opportunities. This provides them with the necessary skills and qualifications to secure and maintain employment, earn a higher income, and achieve greater independence (Moriña, 2017b). Despite the CRPD's emphasis and efforts by many countries to promote IHE for SwDs, the proportion of SwDs enrolled in higher education remains below 1% in most countries studied. Notable exceptions include Turkey, where the enrolment rate for SwDs is 6.2 (Sümer & Daloğlu, 2022), Singapore with 3–5 (MOE, 2024), and Japan at 1.79% (JASSO, 2024). These figures remain significantly lower than the overall percentage of PwDs in these nations, except Singapore. In contrast, in the United States, 21% of undergraduates and 11% of postbaccalaureate (postgraduate) students report having a disability (NCES, 2023), whereas in the United Kingdom, 13% of the student population has SwDs (Department for Education, 2019). Further details in this regard on SwDs in targeted countries from this study can be found in Table 2.

Table 2. Ten Asian countries with details about SwDs/PwDs statistics and regulations.

No	Country	Year ratified the CRPD	Law or policy adopted which support Inclusive HE, following the CRPD	PwDs % of the total population (year)	SwDs % of all HE students	Types of SwDs accommodated in HEIs
1	China	2008	Regulation on Education for Persons with Disabilities (2017)	6.34% (2006)	0.15% (2017) 1.6% (2020)	HI, VI, PD, SLD and ID
2	India	2007	The Rights of Persons with Disabilities Act (2016)	2.2% (2011)	0.56% (2015) 0.20% (2022)	HI, VI, PD, LD, cerebral palsy, and mental illness.
3	Iran	2009	The Comprehensive Law for the Protection of the Rights of Persons with Disabilities (2018)	4.2% (2015)	0.8% (2020)	HI, VI, PD.
4	Japan	2014	Act on the Elimination of Discrimination against Persons with Disabilities (2016)	7.6 % (2018)	1.79% (2023)	HI, VI, PI, Mental disorders, developmental disorders, Multiple disabilities, health impairment, and other impairments
5	Kazakhstan	2015	On amendments and additions to certain legislative acts of the Republic of Kazakhstan on issues of inclusive education (2019)	3.7% (2020)	0.27% (2020)	HI, VI and musculoskeletal system impairments

6	Malaysia	2010	Persons with Disabilities Act (2008)	1.6% (2020)	0.24% (2019)	HI, VI, PD, SLD, LD, mental health problems, and multiple impairments
7	Pakistan	2011	Policy for Students with Disabilities at HEIs in Pakistan (2019 amended in 2021)	2.5 (1998) & 0.48% (2017)	--	HI, VI and PI
8	Singapore	2013	overarching vision for students with special needs in our IHLs (2014)	3% (2016)	3% -5% (2019 - (2023)	HI, VI, PI, or learning and behavioral difficulties
9	Türkiye	2009	Regulations on the Solidarity and Coordination of the Individuals with Disabilities in the Institutions of Higher Education (2010, amended in 2013 and 2014)	16.2% (2016)	6.4% (2020)	HI, VI, PI, Autism and Unknown disabilities.
10	UAE	2010	Federal Law No. 29 of 2006 Concerning the Rights of People with Disabilities, (amended in 2009)	0.25 (2016)	--	--

Note. HI= Hearing Impaired, VI= Visually Impaired, PD/PI= Physically Disabled or impaired and/or Locomotor disability or impaired, SLD= Speech Language Disabled, ID= Intellectual Disability, LD= learning Disability.

As shown in Table 2, the types of disabilities accommodated in HEIs vary significantly across countries. Physical disabilities are the most commonly represented in enrolment data, largely due to their visibility and more straightforward diagnostic criteria. Visual and hearing impairments are addressed with differing levels of success. For instance, countries like Turkey and Japan provide comprehensive accommodations including Braille materials and sign language interpreters, while these supports are less frequently available in nations such as Iran, Pakistan, and Kazakhstan (Assanbayev & Makoelle, 2024; S. Hussain et al., 2020; Jarrahi et al., 2019; Matsuzaki et al., 2020; Sümer & Daloğlu, 2022). Intellectual and developmental disabilities remain underrepresented in HEIs, primarily due to societal stigma and the limited availability of institutional support for cognitive impairments. Similarly, invisible disabilities—conditions such as mental health disorders, neurodiversity, and learning disabilities—are gaining recognition in countries like Turkey, Singapore, Malaysia, and Japan. However, they are still largely overlooked in others, reflecting gaps in awareness and the lack of targeted interventions to support students with less visible conditions.

Relevant changes in legislative framework following CRPD

This section evaluates the legislative and organizational changes adopted post-CRPD ratification, highlighting both progress and persistent challenges.

The CRPD, adopted by the United Nations in 2006, is a landmark international treaty aimed at promoting and protecting the rights of PwDs. It seeks to ensure that PwDs enjoy full and equal rights in all aspects of life, including education, employment, and social participation. The CRPD explicitly obligates States Parties to establish “an inclusive education system at all levels and lifelong learning” and mandates that “PwDs are not excluded from the general education system on the basis of disability” (Huang et al., 2024;

United Nations, 2006). All ten countries in this study have ratified the CRPD, marking a pivotal step toward shaping inclusive education policies.

India ratified the CRPD in 2007, subsequently enacting the Rights of Persons with Disabilities (RPWD) Act in 2016. This legislation adopts a social perspective on disability, significantly broadening its definition to include 21 categories, such as autism spectrum disorder, cerebral palsy, thalassemia, and muscular dystrophy, among others (Mir & Waheed, 2022). The Act also mandates a 5% reservation for PwDs in government and government-aided HEIs, an increase from the previous 3%, and introduces a five-year age relaxation for PwD students seeking admission (Usha, 2019). Despite these progressive measures, the inclusion of SwDs in HEIs remains limited. A 2015 survey conducted by the National Centre for Promotion of Employment of Disabled People revealed that only 0.56% of SwDs were enrolled in HEIs, despite the provision of the earlier 3% reservation (Usha, 2019). These findings highlight significant gaps in the implementation of inclusive education policies. India's National Education Policy (NEP) 2020 further emphasizes the importance of creating an equitable and inclusive educational system for all, including students with disabilities. The NEP outlines measures for developing accessible infrastructure, providing equitable accommodations, and ensuring the availability of assistive devices and learning materials to support SwDs in HEIs (Ministry of Human Resource Development, 2020). While these policies reflect a strong commitment to inclusion, bridging the gap between policy and practice remains a critical challenge.

China ratified the CRPD in 2008, marking a significant step toward fostering an inclusive education system (Wang & Takeda, 2022a). In the years following ratification, several regulations aimed at enhancing accessibility and providing reasonable accommodations for SwDs were introduced. A landmark event occurred in 2015 when graduates of special schools were granted the right to take the National College Entrance Exam, commonly known as the "Gao Kao," with disability-specific accommodations. This reform symbolized a pivotal shift in China's commitment to IHE (Huang et al., 2024; Zhang et al., 2018). Further progress was made with the 2017 revision of the Regulations on the Education of Persons with Disabilities, which replaced the original 1994 regulations. These updates represented a critical step toward aligning domestic legislation with the principles of the CRPD. The revised regulations addressed key challenges, particularly those related to the transition from pre-university special education to higher education. Provisions within the regulations emphasized enhanced accessibility, inclusive infrastructure, and accommodations to support SwDs in HEIs. Despite these advances, the regulations retain elements of "special treatment" thinking, which reinforces a segregated approach rather than full inclusion. Additionally, enforcement challenges persist, limiting the overall effectiveness of these reforms in meeting the diverse needs of SwDs (Palmer, 2020). According to China's Ministry of Education, SwDs accounted for only 1.6% of total higher education enrolment in 2020, reflecting ongoing barriers to equitable participation (Xiuli & Hock, 2023).

Following its ratification of the CRPD in 2009, Turkey implemented significant legislative reforms to promote IHE for SwDs. Among the most impactful changes was the introduction of the Disabled Students Counseling and Coordination Regulations in 2006 by the Higher Education Council, subsequently revised in 2010 and 2014 (Kurt et al., 2016). These regulations mandated the establishment of Disabled Student Units (DSUs) at universities. The DSUs provide academic, social, and administrative support for SwDs, ensuring equal opportunities by addressing their unique needs through accessible infrastructure, accommodations, and support mechanisms (Kayhan et al., 2015). Universities in Turkey are also required to offer physical services and Information and Communication

Technology (ICT) tools to enhance SwDs' digital literacy and participation (Kurt et al., 2016). Despite these advancements, challenges persist, including difficulties in coordinating efforts among institutions and integrating inclusive policies into university operations comprehensively (Sümer & Daloğlu, 2022).

Iran ratified the CRPD in 2009 (Kamali, 2011) and introduced the Law to Protect the Rights of the Disabled in 2018, replacing the earlier 2004 Comprehensive Law on Protection of the Rights of Persons with Disabilities (Nourian et al., 2022). The new law emphasizes accessibility in education and other public services, aiming to ensure that PwDs have equitable opportunities in employment, healthcare, and education. In higher education, the law mandates reasonable accommodations to enable SwDs to participate fully in academic activities. However, its implementation faces notable challenges, including enforcement gaps and lingering perceptions of "special treatment" rather than full integration into mainstream education (Tahmasebzadeh Sheikhlari et al., 2022). While the law also requires physical accessibility, it lacks provisions for critical technological adaptations, such as accessible learning management systems and digital materials, which are essential for effective participation in modern educational environments (Nourian et al., 2022). Addressing these gaps is crucial for realizing the inclusive education goals outlined in the CRPD.

The UAE ratified the CRPD in 2010 (Morgan, 2023a) and has since introduced several legislative measures to enhance the inclusion and rights of PwDs. One of the earliest steps was the enactment of Federal Law No. 29/2006, which emphasized the importance of inclusive education (Gaad, 2019). An amendment in 2009 replaced the term "people with special needs" with "people with disabilities," aligning national terminology with international standards and clarifying the scope of services. In 2017, the UAE adopted the term "people of determination," signalling a shift toward recognizing the abilities and potential of PwDs rather than focusing on their limitations (Morgan, 2023b). Despite these legislative advancements, challenges persist in higher education.

Before the ratification of the CRPD in 2010, Malaysia took a proactive approach to disability inclusion with the introduction of the Persons with Disabilities Act and the establishment of the National Council for Persons with Disabilities in 2008 (Yusof et al., 2020). Building on this foundation, the Malaysian Ministry of Education launched the Inclusive OKU or Disability Inclusion Policy in November 2018, distributing guidelines across 20 public HEIs to promote inclusive education (Zaki & Ismail, 2021). A key provision of the policy is the requirement for HEIs to establish dedicated Disability Support Offices (DSOs), distinct from general welfare services. These offices are tasked with providing tailored support to SwDs, helping them navigate academic, social, and administrative challenges in higher education (Syazwan Zainal & Hui Min, 2021). This initiative aims to institutionalize support structures for SwDs, ensuring that their needs are addressed more comprehensively. The Malaysian government has also emphasized the adoption of Universal Design (UD) and Universal Design for Learning (UDL) principles to eliminate barriers in education for SwDs. These frameworks aim to create accessible and inclusive learning environments that accommodate a diverse range of abilities and learning styles (Yusof et al., 2020). Despite these progressive measures, several challenges persist.

In Pakistan, the National Policy for Persons with Disabilities (2002) laid the groundwork for inclusive education by advocating the right to education for PwDs. The policy emphasized the importance of infrastructure improvements, assistive technologies, and reasonable accommodations to make higher education accessible to PwDs (Ahmad & Yousaf, 2011). Following Pakistan's ratification of the CRPD in 2011, several legal reforms

and policies were introduced to advance inclusivity in higher education (S. Hussain et al., 2022). The Special Citizens Act (2008) was a significant step in ensuring public and private spaces, including educational institutions, were accessible to PwDs. It also mandated the provision of accessible transportation and infrastructure. More recently, the Islamabad Capital Territory (ICT) Right of Persons with Disabilities Act (2020) adopted a human rights-based approach to disability, focusing on the full inclusion of PwDs across all societal sectors (Ayub, 2022). To support SwDs specifically in HEIs, the Higher Education Commission (HEC) introduced a policy in 2019 aimed at reducing barriers and fostering an inclusive environment. This policy included measures quotas for admissions, accessible curricula, specialized tutoring, and appropriate assessments to accommodate the needs of SwDs (Higher Education Commission, 2019). While these efforts reflect progress, challenges remain, particularly in the areas of enforcement, infrastructure development, and societal attitudes.

Singapore ratified the CRPD in 2013 (Wong, 2014), building on a series of strategic initiatives outlined in the Enabling Masterplans, which were implemented in phases to progressively enhance support and resources for PwDs. The Enabling Masterplan 2012–2016 emphasized lifelong learning and improving transition planning from schools to HEIs, addressing key gaps in the educational journey of PwDs (Carlisle, 2022a). The current Enabling Masterplan 2030 envisions Singapore as an inclusive society by 2030. This plan focuses on enhancing lifelong learning to adapt to evolving economic conditions, promoting independence for PwDs, and fostering an inclusive social and physical environment. It underscores the importance of structured educational support and accessibility, with specific funding allocated for assistive technologies to bridge gaps in educational access (Amnesti et al., 2023). To further support SwDs in higher education, Disability Support Offices (DSOs) were established in 2014 across all publicly funded universities in Singapore. These offices provide accommodation, such as exam modifications, learning aids, and financial assistance, through the Special Education Needs Fund (Carlisle, 2022b). Singapore's proactive approach, combining structured policy implementation, centralized support services, and targeted funding, highlights its commitment to fostering an IHE system. However, as the country progresses toward its 2030 vision, continued efforts to raise awareness and integrate inclusive practices across all HEIs will be crucial for achieving sustainable inclusion.

Before Japan ratified the CRPD in 2014 (Pryor et al., 2023), significant steps were already underway to enhance inclusivity in higher education for SwDs. A major legislative milestone was the enactment of the Act for Eliminating Discrimination Against Persons with Disabilities (AEDD) in 2013, which came into effect in 2016. This Act introduced legal obligations for national and public universities to accommodate SwDs on an equal basis and encouraged private universities to adopt similar anti-discrimination policies (Nakano et al., 2024). The AEDD, in conjunction with the CRPD, established a legal foundation for promoting an anti-discriminatory climate within higher education institutions, mandating reasonable accommodations for SwDs. However, compliance among private universities remained voluntary, leading to uneven implementation across institutions. Recognizing these challenges, the AEDD was revised in 2019 to strengthen its provisions. The revised Act, which came into effect in 2024, extends the legal mandate for reasonable accommodations to all higher education institutions in Japan, including private universities (Funakoshi, 2024). These legislative changes reflect Japan's continuous commitment to fostering inclusivity and aligning its educational policies with the principles of the CRPD. Despite these advances, challenges persist, particularly in ensuring consistent enforcement across all institutions and addressing disparities in resource allocation.

Kazakhstan ratified the CRPD in 2015 (Assanbayev & Makoelle, 2024), signaling a commitment to advancing the rights of PwDs, particularly in education. Building on earlier initiatives, the State Program for the Development of Education (2011–2020) identified the development of inclusive education as a key national goal (Ispambetova et al., 2018). Subsequently, amendments to the Law on Education further strengthened these efforts by ensuring equal rights for PwDs across all educational levels. Key legislative changes include the prioritization of inclusive education at all stages, the establishment of quotas for SwDs in HEIs, and mandates for the provision of essential infrastructure and support services. Universities are required to offer psychological and social support as well as assistive technologies to ensure SwDs have equitable access to higher education (Altinay et al., 2023). Despite these legislative advancements, significant challenges remain in institutionalizing inclusive practices. Many SwDs encounter barriers during their transition to higher education, such as limited access to support services, inadequate infrastructure, and insufficient training for educators (Malinovskiy et al., 2023). Addressing these issues requires stronger enforcement of existing policies, increased funding for inclusive education initiatives, and targeted capacity building to equip institutions with the resources and expertise necessary to support SwDs effectively.

In conclusion, the ratification of the CRPD has driven significant legislative reforms across the studied countries, aiming to promote inclusivity in higher education for students with disabilities (SwDs). Nations such as India, China, Turkey, Singapore, and Japan have introduced transformative policies, including the establishment of DSOs, adoption of anti-discriminatory laws, and provision of financial support and assistive technologies. These measures demonstrate a strong commitment to ensuring reasonable accommodations, enhancing accessibility, and fostering inclusive learning environments. However, despite these advancements, persistent challenges remain. Issues related to enforcement of policies, inadequate infrastructure, limited faculty training, and societal awareness continue to hinder the full inclusion of SwDs in higher education. Countries such as Iran, Pakistan, Malaysia, the UAE, and Kazakhstan have also made progress in adopting inclusive education frameworks. Yet, similar obstacles in the implementation and institutionalization of these policies underscore the need for greater focus on resource allocation, capacity building, and monitoring mechanisms to achieve meaningful progress.

Provision of reasonable accommodations and challenges for SwDs in HEIs

This section presents findings from the literature on the provision of reasonable accommodations and the challenges in fostering inclusion for SwDs in HEIs across ten Asian countries. The analysis is grouped according to the progress made and the challenges faced by each country in promoting accessibility and inclusion

(1) Countries with Advanced Legal Frameworks but Gaps in Implementation

China, India, Turkey, and Malaysia have well-established legal frameworks aimed at ensuring the inclusion of SwDs in higher education. However, these countries face challenges in achieving consistent and widespread implementation of these policies across HEIs.

Historically, SwDs in China were limited to entering specialized institutions through the Separate Exam and Admission scheme, which restricted their academic opportunities specifically to special education colleges and universities offering Special Education-related Majors. Since 2015, SwDs have been entitled to take the National University Entrance Examination (Gao Kao) with reasonable accommodations, such as Braille exam papers,

exemptions from hearing tests in the English exam, and extended exam durations tailored to individual needs (Huang et al., 2024). China has also made strides in creating barrier-free physical environments with ramps and tactile pavements and providing educational support, including assistive technologies and sign language interpreters since the regulation of the construction of a barrier-free environment in 2012 (Wang & Takeda, 2022b). Moreover, although adaptation of course content and examinations for SwDs is mandatory, but challenges persist, particularly in training faculty to adequately support SwDs and in offering a full range of academic majors to these students (Wang & Takeda, 2022a; Zhang et al., 2018).

The Rights of Persons with Disabilities (RPWD) Act mandates a 5% reservation for SwDs and provisions for accessible infrastructure and assistive technologies, such as Braille materials and text-to-speech software. Accommodations like scribe services, extended exam time, and sign language interpreters are available in some HEIs. However, many institutions lack basic accessibility features, such as lifts and accessible toilets, particularly in rural areas (Pandey, 2021). The primary challenge lies in the inconsistent implementation of policies rather than the absence of legal frameworks (Kunnath & Mathew, 2019). This reflects the need for increased focus on facilitating policy implementation and societal sensitization toward disabilities, which hampers the effectiveness of existing frameworks designed to support SwDs.

Turkey's Higher Education Law and Disabled Persons Law require reasonable accommodations for SwDs, with DSUs established at 118 universities (Coşkun et al., 2015). DSUs offer a range of services, including physical accommodations, such as wheelchair ramps, handrails, elevators, specialized toilet systems, and designated parking areas. Additionally, psychological support is provided by professionals, whereas social support services include consciousness-raising activities, orientation, accommodation, transportation, health services, scholarships, economic aid, and employment assistance. Academic support, including access to ICT equipment and software, is also available. Despite improvements in physical infrastructure, such as ramps and elevators, the provision of educational materials in Braille, screen readers, and sign language interpreters remain inconsistent across institutions, resulting in gaps in support for SwDs (Kurt et al., 2016).

Malaysia's Public Higher Education (PHE) system is tasked with improving educational access and support for SwDs, including the establishment of DSOs. By 2025, PHE institutions are expected to create inclusive campus environments that ensure equitable access to education for SwDs (Zaki & Ismail, 2021). While accommodations, such as ramps, assistive technologies, and Braille materials, are available, gaps persist in digital accessibility and physical infrastructure, particularly in smaller institutions (Jaafar et al., 2020).

Despite substantial legislative progress, these countries face challenges related to infrastructure development, technological adoption, and faculty training, underscoring the gap between policy and practice. It is recommended that these countries focus on addressing the gaps between policy and practice by improving faculty training and ensuring broader access to assistive technologies.

(2) Countries with developing frameworks and significant barriers

Iran, Pakistan, and Kazakhstan have made efforts to formulate inclusive education policies, but substantial barriers continue to hinder accessibility and the consistent inclusion of SwDs in HEIs.

In Iran, SwDs encounter considerable barriers to education exacerbated by gender inequality and inadequate infrastructure. Academic environments are often inaccessible with limited institutional support and persistent social stigma (Jarrahi et al., 2019; Sargazi et al., 2024). While students with physical disabilities demonstrate strong internal motivation and benefit from informal social support networks, they still face disabling academic environments and organizational neglect (Tahmasebzadeh Sheikhlari et al., 2022). These factors highlight substantial gaps in reasonable accommodations for SwDs in Iran, which require improvements in infrastructure, institutional support, and social attitudes to foster greater inclusion.

In Pakistan, the positive attitudes of teachers and peers, accessible classroom environments, adapted instructional materials, flexibility in assessments, and the use of modern instructional technology have facilitated the inclusion of visually impaired students (Ashraf & Ishaq, 2020). However, gaps in the availability of library resources, instructional materials, and institutional support exist. In particular, students with hearing impairments struggle with reading comprehension, communication, and socialization owing to a lack of sign language interpreters and notetakers (Ain, 2021). Generally, SwDs face numerous challenges related to reasonable accommodation in higher education. Key issues include attitudinal barriers, inadequate facilities, and insufficient educational resources, such as assistive technologies and accessible infrastructure (Altaf et al., 2023). Adapted study materials and assessment systems are often unavailable, which contributes to academic difficulties (Hameed & Ain, 2020). Overall, support, including specialized funding, trained educators, and institutional resources, is inadequate (Ayub, 2022). Furthermore, the implementation of policies supporting PwDs, particularly in rural areas, is weak, leaving significant gaps in access to education, healthcare, and employment (S. Hussain et al., 2020). These studies call for increased government attention, improved inclusive education policies and improved institutional support systems to address these challenges.

In Kazakhstan, the ratification of the CRPD has driven improvements, but infrastructure for SwDs is still lacking, particularly in rural areas. Teaching staff lack inclusive training, and physical infrastructure is inadequate (Assanbayev & Makoelle, 2024). Universities face difficulties in providing assistive technologies (Braille printers and speech synthesizers), architectural setups do not fully meet accessibility requirements, and social stigma is prevalent (Ispambetova et al., 2018; Malinovskiy et al., 2023).

These countries are developing more robust accommodations for SwDs. However, they face significant challenges in terms of physical accessibility, technological support, and the availability of resources, such as Braille materials and sign language interpreters. Progress has been slow, and widespread awareness is still developing. These countries must prioritize infrastructure development, expand technological support, and enhance institutional capacity to improve accessibility and inclusion.

(3) Countries with Well-Developed Systems but Need for Further Refinement

Japan and Singapore have relatively mature systems for supporting SwDs but face challenges in refining their practices to achieve consistency across all HEIs.

Japan has established accommodations such as Braille and screen readers for students with visual impairments, sign language interpreters for hearing impairments, and accessible physical environments (Matsuzaki et al., 2020). The complexity of the Japanese writing system makes Braille adaptation challenging. There is also a shortage of sign language interpreters, and digital accessibility needs to be improved. Students with severe disabilities, such as cerebral palsy, are also successfully included in universities; however, these students

face challenges in receiving physical care while on campus. The current support systems at Japanese universities are underdeveloped to provide physical care services for severe cases (Fujiwara et al., 2022). Research has also highlighted the growing need for specialized personnel (assessors) in Japanese universities to assess students with developmental disabilities and determine necessary accommodations. Universities like Tsukuba have pioneered the role of "assessors" to conduct psychoeducational assessments and tailor accommodations for SwDs, highlighting a promising model for other institutions (Nakano et al., 2024). This role involves conducting psychoeducational assessments and collaborating with the faculty to implement reasonable accommodations for SwDs. Despite the near-perfect facilitation of SwDs in Japan, research has found that SwDs face significant barriers, including negative attitudes from teachers and peers, lower academic expectations, and lack of access to inclusive teaching practices (Pryor et al., 2023). Faculty members often have limited training in working with SwDs, which further exacerbates these challenges (Moskvina et al., 2019).

Singapore's Enabling Masterplans guide HEIs in providing accommodations such as assistive technology (screen readers, Braille) and DSOs. Singapore is leading the creation of disability-friendly institutions, with approximately 60% of its universities having specialized DSUs (Amnesti et al., 2023). Research has also revealed that the available information on university websites is often inconsistent and lacks depth, and universities are required to provide more comprehensive disability support, improve communication, and collect more data to ensure that policies meet SwDs' needs. Students with invisible disabilities face challenges ranging from attitudinal barriers to systemic hurdles. Support services have improved; however, negative stereotypes and a lack of understanding persists (Carlisle, 2022b). Another study found that students with autism in Singapore face significant social isolation, largely because of societal pressures to conform to social norms and a lack of understanding from non-autistic peers. Challenges related to the disclosure of diagnoses, self-advocacy, and access to appropriate support were also highlighted (Lim et al., 2023). Further developments in assistive technologies and mental health services are recommended.

These two countries have relatively mature systems to support SwDs. However, they still face challenges, particularly in ensuring that accommodations are consistently provided across all institutions. Both countries must focus on faculty training, raising awareness among peers, improving digital accessibility, and providing comprehensive support for SwDs to sustain their leadership in inclusive education.

(4) Countries with Progressive Policies and Growing Infrastructure

The UAE has made commendable progress through national policies and on-the-ground initiatives aimed at fostering inclusion for SwDs in HEIs.

Based on the inclusive education mandate of the UAE Federal Law No. 29 most universities offer some form of disability support (assistive technology, Braille materials, ramps, and elevators). Morgan (2023a) found that many SwDs experience "misfitting" owing to inadequate accommodations, lack of awareness among faculty, and inaccessible physical environments. These misfits create barriers that prevent the full participation of SwDs, even in institutions that claim to be inclusive. In another study, Morgan (2023b) concluded that PwDs in the UAE face significant barriers to inclusion in higher education and employment. These include a lack of accessible learning support such as sign language interpretation and weak enforcement of disability rights in the workplace. This highlights that, although the UAE has made legislative efforts, these laws lack the necessary enforcement to ensure equal opportunities for PwDs. In general, the negative attitudes of

peers, insufficient teacher training, and social attitudes toward SwDs also create barriers to inclusion (Alzyoudi et al., 2021; Morgan, 2023b).

The UAE's efforts are commendable but further focus on consistent application of accommodations across all institutions, enhanced training, and social integration is essential for fostering an inclusive education system (Alhammedi, 2014; Alzyoudi et al., 2021).

The findings reveal varied progress across the ten countries in promoting reasonable accommodations and inclusive practices in HEIs. While countries with advanced legal frameworks, such as China, India, Turkey, and Malaysia, struggle with implementation gaps, those with developing frameworks, like Iran, Pakistan, and Kazakhstan, face more systemic barriers. Japan and Singapore are ahead in fostering inclusivity but require further refinements, and the UAE shows promise in developing infrastructure and policies. Across all countries, consistent policy enforcement, improved faculty training, and expanded access to assistive technologies are critical to achieving equitable inclusion for SwDs.

Discussion(s)

The findings of this study underscore the complexities of implementing IHE across ten Asian countries post-CRPD ratification. While legislative advancements have laid the groundwork for equitable access, significant disparities persist in policy implementation, infrastructure development, and societal attitudes. Research has demonstrated that each student with a disability in higher education encounters distinct and varied obstacles (Arifin et al., 2023). To provide a clearer synthesis, the discussion is structured around four overarching themes: 1) Legislative Progress and Implementation Gaps, 2) Barriers to Access and Inclusion, 3) The Pivotal Role of Institutional Support, and 4) The Imperative of Universal Design and Faculty Training.

1. Legislative Progress and Implementation Gaps

The ratification of the CRPD has catalysed reforms in all ten countries, with notable legislative frameworks like India's RPWD Act (2016) and Turkey's Disabled Student Units (DSUs). These frameworks emphasize accessible infrastructure, reasonable accommodations, and anti-discrimination measures. However, the effectiveness of these policies varies significantly. Countries such as Japan and Singapore have demonstrated consistent enforcement, supported by robust funding and institutional commitment. In contrast, countries like Kazakhstan, Iran, India, and Pakistan face weak enforcement mechanisms and financial constraints, undermining the impact of legislation. The persistent gap between policy and practice highlights the need for better oversight, resource allocation, and capacity building to ensure that legislative intent translates into meaningful change.

The comparative analysis reveals striking differences in the approaches and outcomes of IHE implementation. Turkey, Singapore, and Japan demonstrate relatively higher enrolment rates of SwDs, supported by comprehensive policies and institutional frameworks. Countries like Iran, Pakistan and Kazakhstan face systemic challenges, including financial constraints, weak policy enforcement, and insufficient training for educators. These differences underscore the importance of tailoring strategies to the socio-economic and cultural contexts of each country, while fostering cross-country collaborations to share best practices.

2. Barriers to Access and Inclusion

SwDs encounter various obstacles that hinder their access to quality education, including discrimination, inadequate accommodation, and inaccessible infrastructure. (Amnesti et al., 2023). These barriers can be broadly categorized as social, emotional, and physical. They are often exacerbated in low- and middle-income Asian countries such as Iran, Pakistan, Kazakhstan, and India, where SwDs may be perceived as burdens and the biomedical model can limit their academic and disciplinary choices (Ain, 2021). In contrast, developed countries such as Japan, Singapore, and Turkey have approached SwDs in higher education using a rights-based approach, adjusted policies and environment, and provided the required accommodations/arrangements as stipulated in the legislation and universal traits. DSOs are established at most of the universities in these countries (Amnesti et al., 2023; Moskvina et al., 2019; Sümer & Daloğlu, 2022; Yusof et al., 2020).

Even in developing countries with strong legislative frameworks, challenges remain in physical and digital accessibility (Kurt et al., 2016; Nourian et al., 2022; Tahmasebzadeh Sheikhlari et al., 2022). While advanced economies like Japan have made significant strides in creating accessible environments, countries such as Kazakhstan and Pakistan struggle to provide even basic accommodations like ramps and elevators. Access to assistive technologies remains limited in many developing nations, exacerbating educational inequities for SwDs. Addressing these challenges requires sustained investments in infrastructure, technology, and faculty training, particularly in rural and underserved areas (Assanbayev & Makoelle, 2024).

Cultural stigma and societal perceptions of disability remain pervasive barriers in several countries. In India, Pakistan, and Iran, negative societal attitudes discourage families from seeking higher education for SwDs, while institutional biases further limit opportunities for inclusion. Countries like Singapore have initiated public awareness campaigns to foster positive attitudes, but these efforts need to be scaled up across the region. Changing societal perceptions requires targeted advocacy, community engagement, and inclusive representation in educational and media narratives.

Studies also reveal that although the academic achievements and experiences of students with and without physical disabilities are notably similar, the gap in social inclusion and involvement in extracurricular activities remains wide. Accessibility rather than ability explains the academic differences between students with and without disabilities (Bonela, 2014).

3. The Pivotal Role of Institutional Support

The establishment of Disability Support Offices (DSOs) is a crucial step toward providing support to SwDs and implementing reasonable accommodations. These offices play a key role in addressing physical, social, academic, and attitudinal barriers in learning environments (Amnesti et al., 2023; Sümer & Daloğlu, 2022; Syazwan Zainal & Hui Min, 2021). Accommodation and the need for special services are determined on a case-by-case basis by DSOs (Moskvina et al., 2019; Nakano et al., 2024). However, the level of support and consistency in implementation varies across countries and institutions. While some universities offer comprehensive services, others lack the resources or capacity to provide adequate assistance. Furthermore, higher-level learning institutions do not typically identify or diagnose disabilities, placing the onus on students to disclose their needs and seek support.

Nevertheless, based on the law and regulations, universities are required to provide ramps for wheelchair access, elevators, toilets, parking, signaling systems, tactile ground surfaces (guide strips and warning indicators), accessible classroom and lecture halls, Braille prints, sign language translators, recorded lectures, caption videos, scribes, notetakers,

extension for assignments and exams, and course substitutions (Moskvina et al., 2019; Sümer & Daloglu, 2022). By contrast, infrastructural facilities within institutions, attitudes toward PwDs, transportation facilities, and a lack of support services hinder the entry of SwDs into higher education in most developing Asian countries (Bonela, 2014). Inaccessible campus buildings, notice boards, writing boards, reading materials, non-availability of assistive devices, and non-availability of science subjects in HEIs were the main problems reported by visually impaired students of developing countries, such as Pakistan (F. Hussain, 2022; S. Hussain et al., 2020). These barriers limit students to a small number of theory-based subjects.

4. The Imperative of Universal Design and Faculty Training

Studies emphasized that to create truly inclusive higher education environments, the principles of Universal Design (UD) and Universal Design for Learning (UDL) must be adopted (Zaki & Ismail, 2021). Applying UD to campus environments allows multicultural perspectives to thrive. UD aims to create accessible instructions, services, IT, and physical spaces for all (Burgstahler & Cory, 2015), while UDL utilizes flexible design with new media to benefit diverse learners (Meyer & Rose, 2005). Literature review by Cumming and Rose (2022) show that UDL fosters high satisfaction rates among students and instructors while enabling access to learning without the need for individual accommodations. Astuti et al., 2023 extend the UD/UDL literature by designing and field-testing an interactive, device-agnostic web platform whose screen-reader-compatible pages and voice-note submission option enable students with visual impairment to engage fully with course content, while captioned videos guarantee equivalent access for students with hearing impairment—demonstrating how inclusive instructional design can translate universal-design principles into two-way online learning.

Moreover, numerous educationalists have highlighted the importance of professional development programs and training for faculty are essential to raise awareness of disabilities, relevant legislation, and effective accommodation strategies (S. Hussain et al., 2020), Lecturers themselves echo this need: in a recent Indonesian study, many faculty members—particularly those in departments that had never enrolled a student with a disability—asked for concrete guidance on designing accommodative curricula and disability-responsive learning programs, stressing that “appropriate socialization and training are highly required” (Ashar et al., 2023). To meet such demand, training must adopt a rights-based approach, remain accessible and affordable, and speak directly to disability-related needs. Parallel reforms in curriculum design are also essential; an inclusive curriculum that embeds flexible course content, teaching strategies, and assessment methods can minimise the need for individual accommodations (Fossey et al., 2017). Because tertiary education is a key route to professional life, all staff should be involved in creating campus-wide inclusiveness, and systematic training in inclusive pedagogy has proven indispensable for enabling diverse learners to succeed (Lyner-Cleophas et al., 2014; Moriña et al., 2015).

CONCLUSION

This study examined post-CRPD progress toward IHE in ten Asian countries, revealing pronounced disparities driven by socio-economic capacity, policy enforcement, and institutional culture. Advanced economies such as Japan and Singapore have built comprehensive support systems, while developing contexts—including Pakistan, Iran, and Kazakhstan—continue to wrestle with inaccessible infrastructure, limited funding, and persistent stigma. Our systematic comparison confirms that legislative reform alone is

insufficient: sustained investment in campus accessibility, staff development, and positive disability attitudes are essential if the promise of the CRPD is to be realized region-wide.

This review has several limitations. First, we drew primarily on English-language, peer-reviewed sources dated 2013-2024; substantial scholarship published in Arabic, Kazakh and/or Russian, Japanese, Malay, Persian, and Turkish was beyond our linguistic scope and may contain locally innovative practices that remain under-represented. Second, although the ten countries were chosen to give broad geographic coverage, they cannot reflect the full diversity of Asia's 40-plus higher-education systems. Third, most included studies focused on policy frameworks and institutional structures, leaving the lived experiences of SwDs under-explored. Finally, the cross-sectional nature of much of the data limits inferences the long-term sustainability of recent reforms.

Despite these constraints, our analysis offers the first multi-country synthesis of post-CRPD IHE reforms in Asia, mapping both common barriers (e.g., inaccessible infrastructure, inconsistent accommodations, stigma) and context-specific enablers (e.g., Disability Support Offices, universal-design policies, technology-based services). This holistic lens—linking legislation to organizational practice—can inform evidence-based policymaking in low-income and conflict-affected contexts such as Afghanistan, where inclusive frameworks are still emerging. We therefore recommend: (1) robust enforcement mechanisms for disability legislation; (2) sustained investment in accessible infrastructure and assistive technologies; (3) compulsory faculty development in inclusive pedagogy; and (4) regional knowledge-sharing consortia to scale proven practices.

Future research should tackle longitudinal evaluations of policy impact, investigate digital-access solutions, and apply intersectional analyses that account for gender, socio-economic status and rural-urban divides. Comparative work beyond Asia will further illuminate transferable strategies for achieving global equity in higher education. By clarifying what has worked, what remains elusive, and why, this study lays a foundation for closing the inclusion gap—and signals that the true measure of CRPD implementation will be the day when students with disabilities everywhere can thrive on equal terms.

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