

A Thematic Review of Existing Literature on Persons with Disabilities: Experiences, Opportunities and Challenges

¹. Afzal Khan Buledi ². Dr. Rashida Qureshi ³. Dr. Naheed Malbari

1. Ph.D. Scholar, Department of Social Sciences, Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology, Karachi, Sindh, Pakistan

2. Assistant Professor, Department of Social Sciences, Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology, Islamabad, Pakistan

3. Associate Professor, Department of Social Sciences, Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology, Karachi, Sindh, Pakistan

Corresponding Author Khanafzalkhan24@gmail.com

Abstract

Background: The present study offers a qualitative review of existing literature, elucidating the experiences, opportunities, and challenges that face the ‘persons with disabilities (PwDs)‘.

Methods: A thematic review was conducted to assess the benefits and challenges of persons with disabilities all around the world. Multiple online international databases were retrieved. A wide range of keywords was thoroughly searched on search engines to identify relevant research studies. With the application of inclusion-exclusion yardstick, 72 peer-reviewed studies were selected, with a timeframe from 2015 to 2021.

Findings: Subsequently, the secondary data was analyzed meticulously, resulting in several themes, e.g., accessibility, delivery of services, the attitude of people towards disability, social participation, assistive technological aids, multiple coping strategies, rehabilitation interventions, and social support. The research findings have congenial implications for health care professionals, rehabilitation personnel, and policy-makers.

Conclusion: The study suggests an inclusive strategy, consisting of social, political, economic, and religious measures at micro as well as macro levels to mainstream persons with disabilities. More rigorous research is needed to grasp the physiological, psychological, and social complexity of problems that besets persons with disabilities.

Keywords: Persons with disabilities (PwDs), disability, discrimination, assistive technologies, rehabilitation, coping strategies.

Introduction

Persons with disabilities (PwDs) have been defined as “those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers, hindering their full and effective participation in society on an equal basis with others” (WHO, Disability, 2006). World Health Organization (WHO) has defined the term, disability as “reflecting the consequences of impairment in terms of functional performance and activity by the individual, with some kind of disturbance at the level of the person” (1980) (shown in Figure 1).

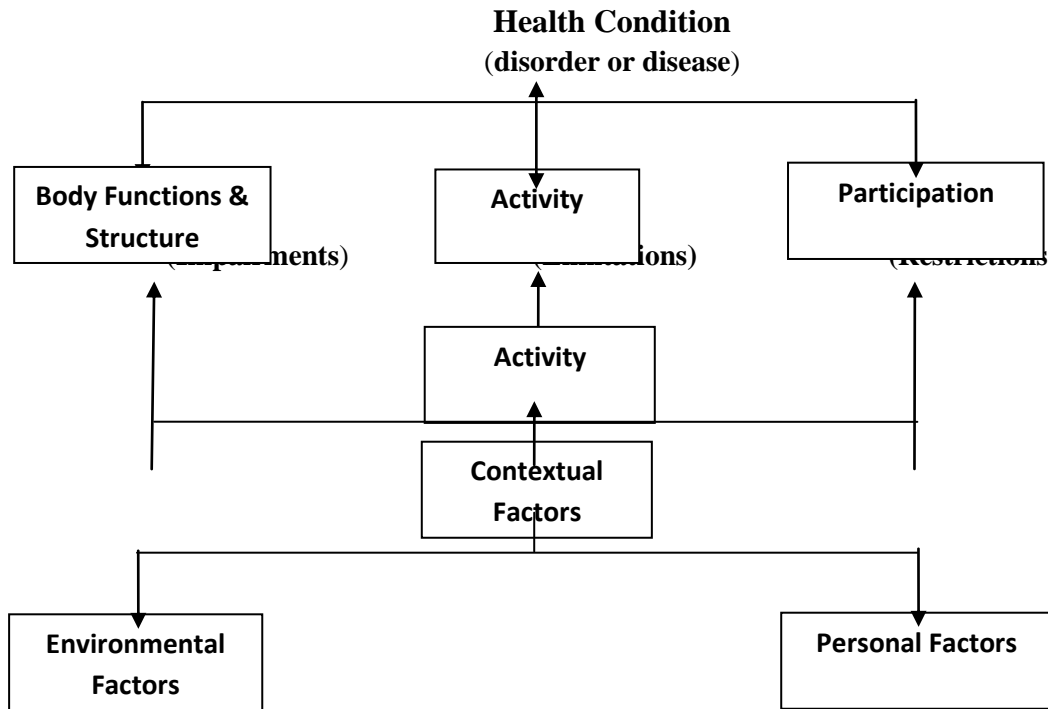


Figure 1: International Classification of Functioning, Disability & Health

The International Classification of Impairments, Disabilities and Handicaps (ICIDH) has categorically differentiated disease, impairment, disability, and handicap as the consequences of a disease. The disease is a self-limiting disorder that needs prevention to stop morbidity. The concept of disease has been defined as a sequence (showing in Figure 2) as under:



Figure 2: A sequence of disease

Impairments imply a loss or an abnormality of a psychological, physiological, or anatomical structure or function or a disturbance in an individual's biomedical status. A disability is the inability to perform a function and activity due to impairment, reflecting a disturbance at the level of a person. For impairment and disability, an individual encounters a disadvantageous position, hence can't execute a social role per his or her age, sex, and socio-cultural factors in society that is better known as a handicap (showed Figure 3):

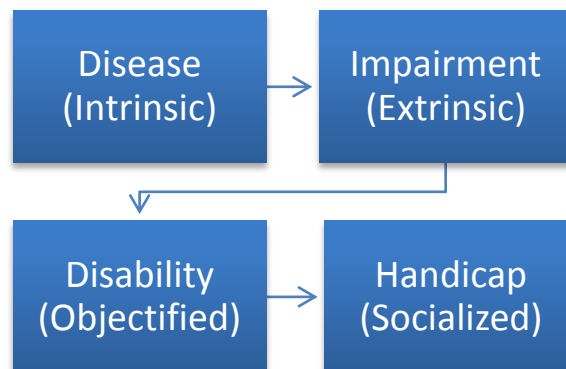


Figure 3: A Causal Model of Disease/Disorder

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Convention on the Rights of Persons with Disabilities (CRPD) reaffirms “the universality, indivisibility, interdependence, and the interrelatedness of all human rights and fundamental freedoms discrimination”. Article 1 of CRPD advocates for the promotion, protection, and realization of the full and equal enjoyment of all human rights and fundamental freedoms by all PwDs. Article 2 envisions an alternative form, means, and modes of communication (braille), all forms of language (sign or written), non-discrimination, reasonable accommodation, and universal design for the PwDs to live an independent and equitable life with others without any discrimination in society, leading to the full and effective realization of human rights and fundamental freedoms. Article 25 CRPD emphasizes the highest attainable standard of health without discrimination based on disability (CRPD, 2006).

Notwithstanding, the PwDs are subjected to manifold forms of discrimination on the spurious grounds of race, color, sex, language, religion, political or other opinions, national, ethnic, indigenous or social origin, property, birth, age, or another status (CRDP, 2006). Hence, the International Day of Disabled Persons is observed annually on 3rd December to sensitize the public on the disability issues, canvass support for the dignity, rights, and well-being of PwDs, and showcase the advantages to be emanated from the integration of PwDs.

There are more than one billion people, constituting about 15% of the global population, experience some form of disability worldwide, with up to 190 million (3.8%) people aged 15 years and older, 93 million children and 720 million adults, and the number is substantial; because everyone is predicted to encounter some form of disability sometime in life temporarily or permanently due to chronic health conditions (cerebral palsy, Down syndrome and depression) of PwDs and ageing populations in interaction with some personal (negative attitudes and limited social support) and environmental factors (inaccessible transportation and public buildings). The PwDs, with poorer health outcomes and a life in poverty, face limited access to education and work opportunities. They can't afford the health care services and are affected due to a dearth of adequate healthcare providers' skills (WHO, 2020b).

Recent shreds of evidence report disproportionate impacts of the COVID-19 pandemic on the PwDs. The quality of health services for the PwDs is always of poor quality or under-sourced which need to be scaled up to about primary health care, with a special focus on the rehabilitation interventional domain. During the COVID-19 pandemic, the statistics show people with a disability have developed severe symptoms of COVID-19 pandemic or even died from diseases, with poorer health outcomes irrespective of contraction of COVID-19 (WHO, 2020a; DESA & Disability, 2006).

Disability is a public health issue, affecting one in seven people across the world. It is a human rights issue as well as the PwDs are subjected to discrimination, abuse, prejudices, and denegation of autonomy. More importantly, disability is rampant in countries with low income and higher poverty, hence a development priority (WHO, 2020c). People with disabilities cannot enjoy essential health care, encountering a twofold paucity of health care providers' skills, fourfold bad treatment, and a three-fold lack of health care service (WHO, 2020a). Even, most health systems have failed to meet the needs of children with a disability which is increasing dramatically due to adverse demographic trends (WHO, 2020a).

Disability has frequently been glossed over in national strategies and action plans concerning the implementation and oversight of the CRPD, hence a flagrant infringement of Article 25 of CRPD. Sheer lack of policy-making and legislation, finance, service delivery, human resource, and data and

research is largely held as the main barriers to the full and equitable realization of quality and sufficient health care services that is the locus of WHO response. Consequently, United Nations Disability and Inclusion Strategy (UNDIS) came late to the fore, yielding a sustainable and transformative advancement on disability inclusion that permeates throughout the work of the United Nations (UN).

Therefore, people with disabilities face higher unemployment than persons without a disability. Global data indicate lower employment rates for men at 53% and women at 20% compared to men without disability at 65% and women without disability 30%. The rates are higher in Organization for Economic Cooperation and Development countries, with 44% for PwDs in comparison to the people without disability at 75% (WHO, 2020a).

So, persons with disabilities undergo adverse living conditions without sufficient food, liveable housing, and access to clean drinking water and hygienic sanitation. Abject poverty and skyrocketing unemployment have increased additional costs of health care and assistive technology devices (WHO, 2020a). Forty percent of people with disabilities are unable to participate in community life due to a lack of services and support (WHO, 2020a).

Problem Statement

One billion differently-abled persons (DAPs), constituting fifteen percent of the total world population, suffer from one or the other form of disability (World Health Organization, 2020c). They face physical, social, psychological, financial, communication, information, legal, and attitudinal problems in accessing infrastructure and services which are generally meant for the general public in society (British Council Report, 2018). Thus, there is an urgent and humanitarian need to elucidate the evolving concept of disability and inform the practice, and policy for the professionals in rehabilitation, welfare, and medical fields.

Purpose Statement

The purpose of the current study is to identify the types of available shreds of evidence in the given field that elucidate key concepts or definitions in the existing literature, examine how research has been conducted on the topic under investigation, identify main characteristics that are relevant to the given concept and problems faced by PwDs and analyze knowledge gaps.

Research Questions

1. What are the types of available pieces of evidence in the given field?
2. What are key concepts or definitions in the existing literature?
3. How the research has been conducted on the topic under study?
4. What main characteristics or factors are relevant to the given concept?
5. What are gaps in knowledge?
6. What are the problems and opportunities for persons with disabilities?

Search strategies and data sources

Qualitative as well as quantitative studies have been used to analyze the previous data, with a period, ranging from 2015 to 2021. The resultant analysis has rendered a nexus of themes that explicate the phenomenon of PwDs. Initially, the study found 28 themes that were further coalesced to constitute 8 themes broadly at a later stage, generating a composite account of PwDs.

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Study selection

A total of 72 out of 328 research studies, comprising of quantitative & qualitative research design, with a special focus on the phenomenon of PwDs, have been included in the current study. The studies, meeting inclusion criteria with a time range from 2015 to 2021 and appearing in the peer-reviewed journals (e.g., Social Science Citation Index and Science Citation Index Journals) have been selected in the present study. Gray literature, including reports, working papers, government documents, snippets from newspapers, and research studies published in Emerging Citation Index Journals; have been excluded from current the study. Nonetheless, the study cited the material on the website of the World Health Organization. The books have not been interpolated in the formulation of themes.

The sources of data

To conduct a thematic analysis of the past literature on the PwDs, data has been gleaned from various electronic search engines and databases, e.g., Springer, Web of Science & ScienceDirect, Scopus, Google Scholar, International Electrical and Electronics Engineering (IEEE) Xplore, Academia, Multidisciplinary Digital Publishing Institute (MDPI), ResearchGate, Google Scholar, Taylor & Francis, Ingotmaylor, Palarch, NCBI, Elsevier, and Wiley (illustrated in Figure 4). The vast majority of studies have been undertaken in developed countries (illustrated in Figure 5). To shortlist relevant research studies on the question under study, some keywords were used, such as ‘especially or differently-abled persons’ ‘persons with different disabilities,’ ‘persons with different physical disabilities’ ‘physical disability, special people,’ ‘disability’ and ‘physically-challenged persons’. Reference lists of articles selected for inclusion were also manually reviewed to identify additional relevant articles.

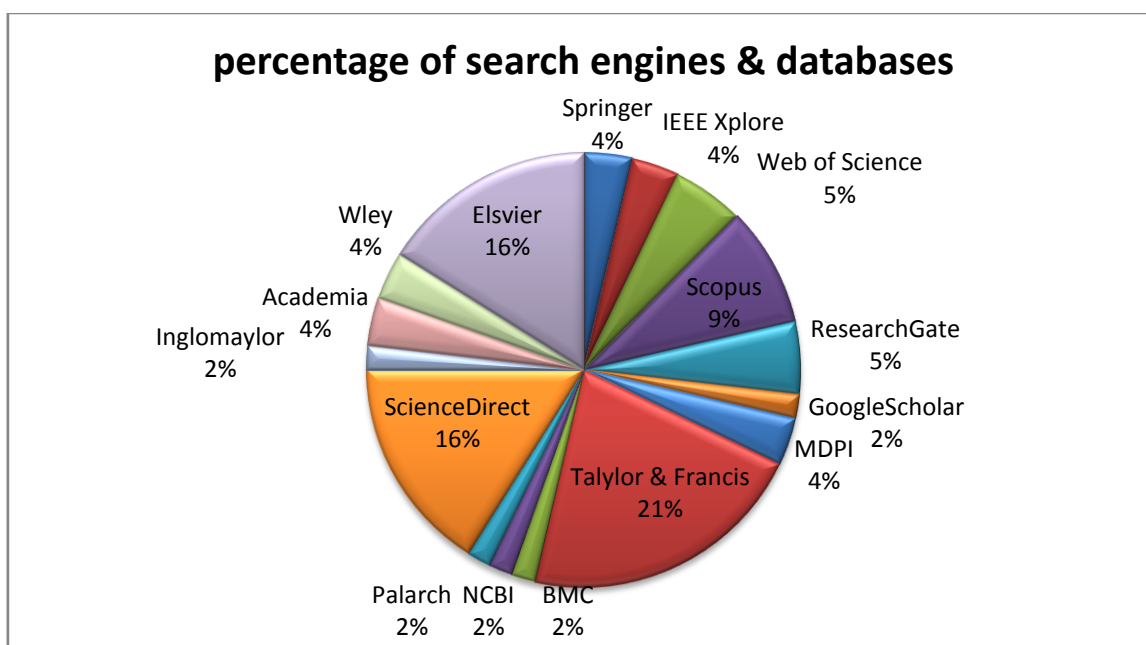


Figure 4: Pie chart of the percentage of search engines & databases

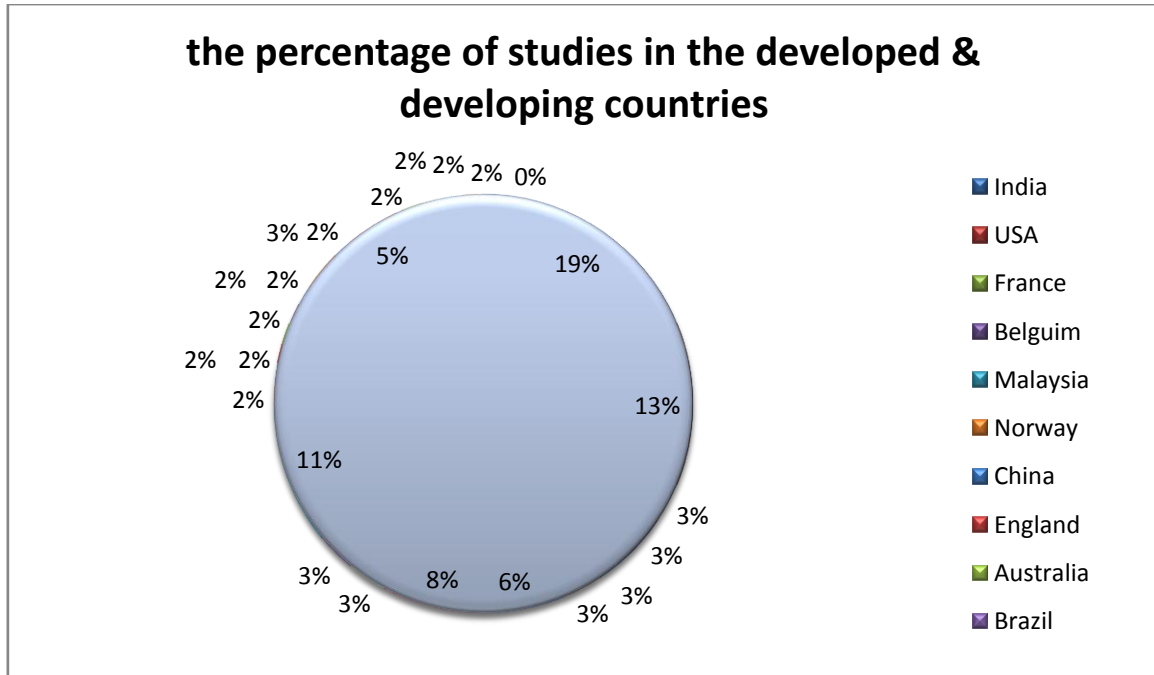


Figure 5: Pie chart of the percentage of studies in the developed& developing countries

Data Selection and Extraction

Initially, the study found 328 studies for thematic analysis. Of which, 256 studies were excluded outrightly for irrelevance, redundancy, and low graded stuff. Thus, the study finalized 72 studies for inclusion in the research study. At the outset, the present study found 28 themes. After a deep analysis, 8 themes were extracted from the data because similar themes were merged to formulate broad ones. An exhaustive analysis was done to extract data, with the formulation of 8 broad themes. To represent the data extraction process visually, a pie chart has been used (showing in Figure 6):

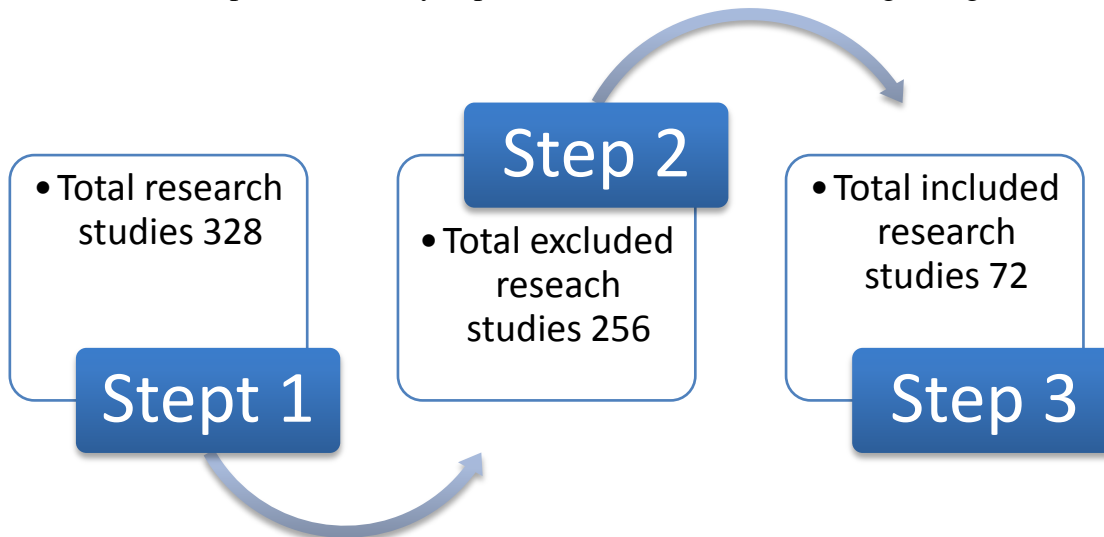


Figure 6: Inclusion-exclusion process chart for Research Studies

A cursory view of characteristics about existing literature

A large chunk of research studies (illustrated in figure 7) is quantitative (n=51) with 21 qualitative studies. The themes that have been generated scrupulously from the thematic analysis of past literature reviews are delivery of services, social participation, assistive technologies, coping

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strategies, rehabilitation, and social support to name a few (illustrated in figure 8). The vast majority of research studies belong to broad topic areas as social participation (n=19) and the least to delivery of service (n=3). The themes that have been emanated from the thematic analysis are expounded step by step as under:

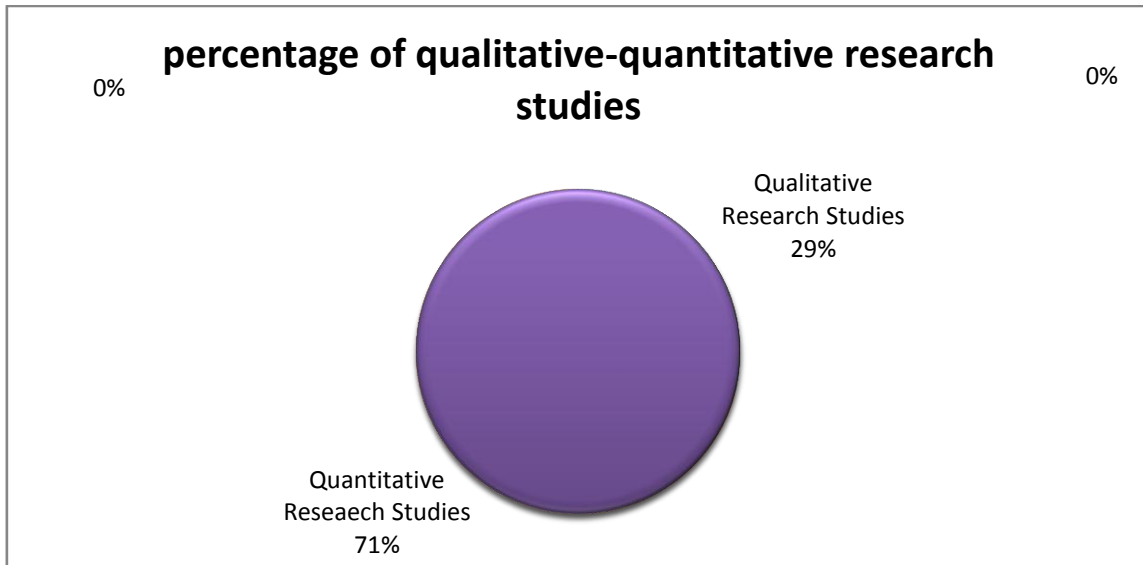


Figure 7: Percentage Pie chart of Qualitative-Quantitative Research Studies

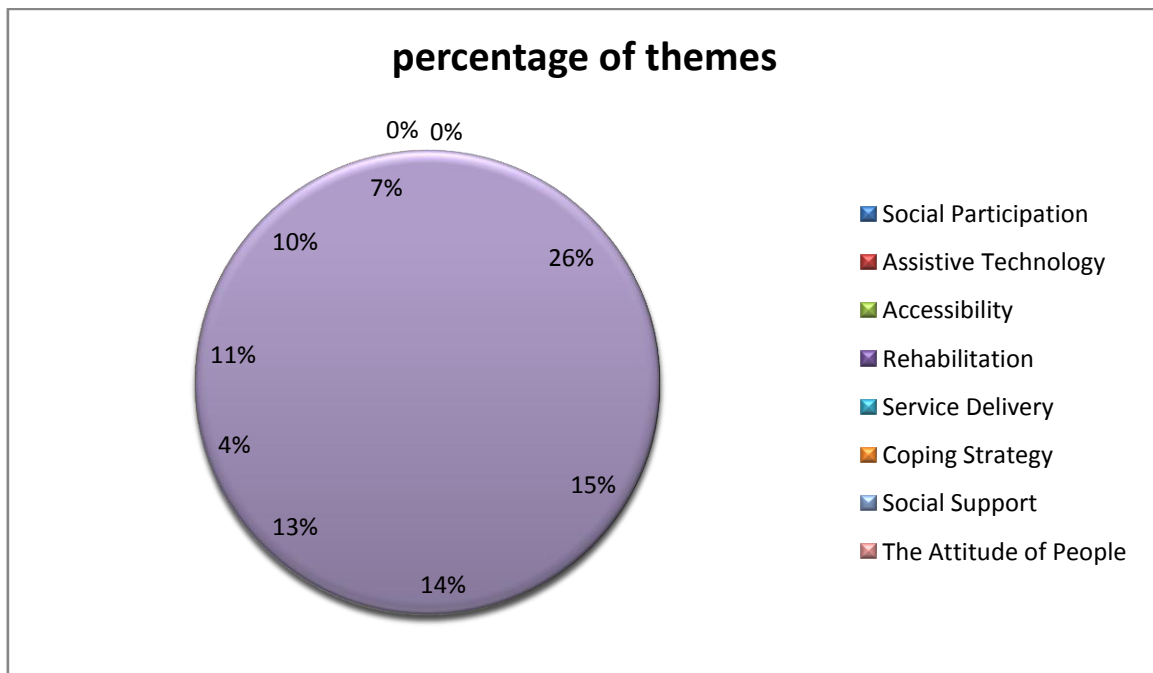


Figure 8: Pie chart of Theme Percentage

Findings

Accessibility

A study suggested a gesture and voice-based android mobile application to communicate for persons with visual disabilities (Kaur & Dhindsa, 2020). Another study found a significant impact of modern technologies in the development of learning and social skills among children with autism spectrum disorder (Khowaja et al., 2020). An experimental study noticed a higher level of satisfaction among the persons with physical disabilities (PwDs) about an autonomous vehicle, with some concerns about the high price, convenience, access, and safety (Cordts et al., 2021). A China-based study found mobile social networking applications as a social connector and predictor of wellbeing in the PwDs, hence leading to digital integration through virtual friendships (Kim & Zhu, 2020). A study noted the electronic participation of persons with disabilities in disaster management during natural calamities through social media in India (Alathur et al., 2021). Another research study found a home-based-android calling mechanism, with a Zigbee communication interface and Bluetooth for PwDs to call an attendant for help (Khera et al., 2016). A study identified physical and structural barriers to access hospital buildings, improper signage, a lack of parking, and transportation for the PwDs (Ramjan et al., 2016). An Ethiopian phenomenological study identified a plethora of obstacles facing PwDs to access pharmacy services, with inaccessible transportation, cumbersome physical infrastructures, and communicative barriers (Dagnachew et al., 2021; see Vrabete et al., 2020). Awaiss & Ameen (2015) revealed a lack of access to the libraries, trained supporting staff, and alternative sources of reading for PwDs.

Assistive Technologies

Multiple studies elaborated a smart wheelchair concept for PwDs to live an independent life and participate fully and effectively in social life activities through accessibility (Kadam & Diwate, 2016; see Lodhi et al., 2016; Indhu et al., 2018; Gris  et al., 2019; Arulmurugan, 2020 & Wang et al., 2021). A study showed an Arduino bell for persons with visual disabilities to detect a person at the door (Kumar et al., 2021). Another study reported commonplace techniques of object, face, and text to voice recognition as instrumental in helping persons with visual impairments to recognize objects, motion, barriers, and spatial locations to live an autonomous life (Anandh, 2021). A study reported a reduction of depression among persons with cerebral palsy due to a gaze-controlled technology, enabling them to interact, participate and lead autonomously in different social contexts (Karlsson et al., 2017). A research study presented a home-based android automation system in India for PwDs to operate home appliances (Saxena & Chaturvedi, 2018). A study found a brain-controlled robotic car for people with paralysis and a physical disability (Mahaboob Basha et al., 2020).

Delivery of Services

A study noticed an unskilled workforce, insufficient health service infrastructure, inadequate funds, scanty disability data, dearth of legislation, and unawareness about disability-friendly social norms and geo-topography in the implementation of the Global Disability Action Plan (2014-2021) regarding physical medicine and rehabilitation in Pakistan (Khan et al., 2017). Women of childbearing age with physical disabilities reported a lack of access to maternity facilities, adaptive types of equipment, basic information, and reluctant attitude of health care service providers during pre and postnatal times (Gerritsen et al., 2021).

Coping Strategies

A study noticed positive (social participation) as well as negative (social escapism) coping strategies among children with physical disabilities (CWPDs) to deal with social, physical, and emotional problems (Abraham, 2018). A Chinese study reported a moderating impact of thankfulness and compassionateness as positive coping strategies among the bullied PwDs (Zhang & Wang, 2019). Another study noticed a higher meditative impact of positive coping strategies on deteriorating health due to a negative body image among Chinese college students with physical disabilities (Xu & Liu, 2020). A Lahore-based survey reported a positive prediction of active distractive coping strategy in the mothers of children with autism (Munir et al., 2020). An Islamabad-based study emphasized a need for more recreational services for the parents of children with intellectual disabilities than the parents with children with hearing impairments because cognitive abnormalities are oppressive (Imran Haider et al., 2020; see Ishtiaq et al., 2020). A study found the same coping strategies in the adolescent siblings of people with or without a physical disability to negotiate their life (Waris Nawaz et al., 2021). More recently, a USA-based study noted lower depressive symptoms due to pleasant interventions on older adults with a physical disability (Bamonti & Fiske, 2021).

Rehabilitative Interventions

A systematic review found institution-based rehabilitation (e.g., a hospital) superior to home-based rehabilitation, including physiotherapeutic and physical exercises, and training for PwDs (Gelaw et al., 2020). A study noted adaptive interventions by community health workers to meet the needs of racial and ethnic immigrants, especially through the use of culturally relevant metaphors, images, and a buildup of trust in the health community workers (Bague et al., 2021). Another study reported positive impacts of home-based physical rehabilitation on PwDs (Edgren et al., 2015). A Brazilian study noted a higher therapeutic impact of ear acupuncture and cupping therapy in the rehabilitation of PwDs (Moura et al., 2021). Another Brazil-based study observed a significant impact of sports activities in the rehabilitation of PwDs, e.g., loss of leg mobility (Mendes & Fernandez, 2021). A study noted a lack of medical and physiotherapeutic rehabilitation for children with physical disabilities during the COVID-19 lockdown (Cacioppo et al., 2020). A study discovered a lack of community-based adapted physical activity and sports (APAS) programs due to inadequate funds and less motivation for the rehabilitation of PwDs (Declerck et al., 2021). A physical rehabilitation-focused study ascertained higher levels of self-esteem, motivation power, social support, and consequential low depressive symptoms in patients with cerebral palsy, traumatic brain injury, and stroke through virtual reality-based video games (Syed & Kamal, 2021). A study emphasized the use of technological interventions by caregivers to promote participation in physical activities among children with physical disabilities (Wingo et al., 2020).

Social Participation

A study indicated social, personal, and environmental barriers to full and effective participation in physical activities and exercise in PwDs (Bloemen et al., 2015; see Piškur et al., 2015; Wright et al., 2019; Manaf et al., 2021). An England-based study showed reduced social participation in activities of daily living due to the COVID-19 outbreak in older adults with a physical disability (Steptoe & Gessa, 2021). A study identified a dearth of opportunities, social support, and built environment as factors, precluding participation in physical and recreational activities by PwDs (Bonnell et al., 2021;

Lebrasseur et al., 2021). The veterans with physical disabilities reported pleasant participation experiences, higher life quality, social integration, rapport, social interaction, independence as a result of the adapted physical and social environment (Shirazipour & Evans, et al., 2017). A research study cited resilience as preliminary to social participation in social activities by adolescents with physical disabilities (Kim & Park, 2021). Another study reported a lack of social knowledge as an obstacle in the participation of physical activities regarding PwDs (Ginis & West, 2020). A research study underlined models for the measurement of psychometrics and its visual representation in assessing the effects of environmental factors on the participation PwDs (Magasi et al., 2015). A systemic review showed a lack of adequate education and training programs, for recreational professionals, trying to boost the participation of PwDs in physical activities (Gunter et al., 2019). A Lahore-based study found a moderating impact of participation in physical and recreational activities by older adults with disabilities thereby enabling them to execute daily living activities (Mahmood et al., 2020). Another study recorded the development of autonomy, competency, and social unity because of participation in physical activities by adolescents with disabilities (Bentzen & Malmquist, 2021). A study showed significant effects of regular leisure-time physical activity on emotional wellbeing and participation in social activities (Kim et al., 2021). A USA-based study described negative public attitude, a lack of political will, unemployment, and corporate sponsorship's indifference, inaccessibility of the built environment, and psychology-bodily problems as barriers in the participation of physical sports and exercise activities of PwDs (Perkins, 2020). A survey recorded a higher level of impact of the education system on social support and quality of life of students with orthopedic disabilities in an inclusive education system compared to special and regular education systems (Sultan & Scholar, 2020). Another study cited financial constraints as a big barrier for the para-athletes to afford costly wheelchairs to partake in (Berardi et al., 2021).

Social Support

A study reported a lower level of depressive symptoms in the Chinese elderly due to social support (Xie et al., 2018; see Tariq et al., 2019 & Tariq et al., 2020). A Spanish study found social support as a psychological intervention, with a positive impact on the health wellbeing of people with some form of disability (Vega et al., 2019). Another study noticed a lack of support from other family members and fathers, leading to emotional stress, and social exclusion in female caregivers (Zuurmond et al., 2020). A study noticed a significant correlation between the perceived social support, gender status, coping strategies, and psychological well-being of students with a physical disability, with the higher psychological well-being of male students (Isaac et al., 2021). Another study reported lower social support and health care in the patients with a physical disability during the COVID-19 lockdown, with significant socio-psychological impacts (Dalise et al., 2021).

The Attitude of People

An Africa-based study noticed a negative attitude of African churches towards PwDs and a lack of ramps to access churches (Masango, 2019). A study found comparatively a more positive attitude towards PwDs at the workplace and a negative one in other social contexts, e.g., dating and marriage. However, the study reported a more positive attitude towards PwDs because of regular social contacts (Kalargyrou et al., 2021). A Jordanian study reported a negative attitude of people concerning beggary of PwDs irrespective of gender, age, and having a disabled family member characterized by a positive attitude of people with higher education (AlTarawneh, 2021). Another

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Serbian study noted higher levels of discrimination, social isolation, lower self-esteem, and internalized stigma in PwPDs (Vidojević et al., 2020). A study indicated a negative impact of socio-structural and environmental factors on the employment chances of the PwDs (Lindsay et al., 2015).

Discussion and Conclusion

The current study, aimed at a thematic analysis of the prevalent literature concerning the persons with disabilities (PwDs) published in peer-reviewed journals (2015 to 2021), is not adequate, with a selective focus on some particular themes, e.g., social participation, assistive technology, multiple coping strategies, rehabilitation interventions, the social support. The ratio of peer-reviewed studies, commensurate with the rapidly growing number of persons with disabilities, is less. The present study found a total of 72 studies for 1 billion PwDs who are increasing at great rapidity, hence scanty research and data on the PwDs. The analysis underlines an urgent need for conducting qualitative studies to generate a composite account of PwDs. In addition, most of the studies are predominantly situated in the developed countries and region without any attention to the problems of PwDs living in the undeveloped region that needs to be addressed urgently. Besides, the current study implies a lack of data disaggregated by type and severity of a disability, age, sex, education, race, ethnicity, and language. The present thematic analysis indicates that persons with disabilities are subjected to discrimination and inequalities in the enjoyment of full and equal human rights and fundamental freedoms per CRPD (2006). The study suggests a comprehensive approach, including social, political, legal, religious, and economic measures; with the prevention, early diagnosis, treatment, and rehabilitation methods to mainstream the persons with disabilities.

Strengths and Limitations

The current study is a mixture of qualitative-quantitative research about the design, illuminating and drawing a holistic picture of the problems of PwDs in all fields of life across the world. However, the study has a limited time frame, ranging from 2015 to 2021, with studies that show in the Social Science Citation Index, Arts & Humanities Citation Index, and Science Citation Index due to its high levels of editorial rigor and best academic practices, excluding the ones, appearing in the Emerging Sources Citation Index in Master Journal List under Web of Science Coverage.

Implications of the study

The outcomes of the present study are highly beneficial to the public policymakers, civil society, health personnel, and rehabilitation professionals to mainstream persons with disabilities of disability through legislation, lobbying, advocacy, treatment, and rehabilitation interventions for multiple disabilities.

Recommendations

All the signatory states should promote the full realization of all human rights and fundamental freedoms for all PwDs without discrimination and inequality based on disability by adopting all legislative and administrative steps for the execution of the rights. There is also a need for universally designed goods, services, equipment, and facilities with possible adaptations and affordable costs to address the specific needs of PwDs. Promotion of the training of professionals and staff working with PwDs is also inevitable. The PwDs be also included in the decision-making

processes to realize their economic, social, and cultural rights. Public awareness-raising campaigns are required to combat sex and age-based stereotypes and prejudices concerning PwDs. It is also highly important to promote sign languages, Braille, augmentative and alternative communication, and personal mobility skills to ensure independence for PwDs through assistive technologies, aids and devices.

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