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The Precarious Absence of Disability Perspectives in Planning Research

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Abstract
One in five people in the world are said to have some type of disability. Disability is not merely individuals' compromised capability in navigating the built environment, but rather the 'misfit' of capabilities with how a given living environment is organized. Planning, therefore, has a crucial role to play in responding to the needs of this significant population through changes to the built and social environment. However, discussion on planning theories and practices with a focus on persons with disability (PWD) has been limited to more specific realms of 'design,' and precariously absent in broader planning research. This systematic literature review aims to inform potential directions for planning scholarship by exploring the current and historic planning research investigating the needs of PWD. We compiled relevant papers from five prominent English language planning journals, some of which are long-standing (*Town Planning Review*, 1910–, *Journal of the American Planning Association*, 1935–). A very limited number of papers (n = 36) on topics related to PWD of any type have been published in the five journals throughout their existence, with even fewer focusing on the population. The sub-areas of planning these papers addressed include housing, transportation, land use, policy, and urban design. Many papers called for participation by PWD in the planning and decision-making processes, and some recent papers advocated for the production of evidence related to costs of creating accessible infrastructure. A critical look on some disciplinary divides and enhanced roles of planning research would be beneficial.

1. Introduction

The United Nations Convention on the Rights of Persons with Disabilities (United Nations, 2006) has renewed the member states' commitment to enhance the rights of persons with disabilities (PWD) at the federal level, prompting them to establish legislation that articulates how accessibility for PWD is achieved (Brolan, 2016). Local governments in many countries are now mandated to develop accessibility strategy plans, making a better understanding of issues related to PWD by planners not only timely but urgent. While the need to facilitate better living conditions for PWD in our built and social environment has been increasingly recognized by planners, how planning can play an effective role in addressing the needs of PWD has been unclear. In light of this knowledge gap, our article asked: What is the state of planning research pertaining to the needs of PWD, and how should the planning scholarship evolve on this topic?

2. Background

2.1. Disability and the Built Environment

The United Nations calls persons with disabilities (PWD) the world's largest minority group (United Nations Development Programme, 2018), making up over two bil-

lion people worldwide (Wagner, 2019). Trends in global population-aging—due to decreasing rates of fertility and mortality, with improved sanitation, diet and health care—is contributing to a greater number of individuals at risk of experiencing disability associated with chronic and non-communicable diseases (Higo & Khan, 2015; Lee, Lau, Meijer, & Hu , 2020).

Disability is a global term used to encompass problems with bodily functions, body structures, activity limitations, and participation restrictions (Patel & Brown, 2017). The medical model considers the root cause of disability as health-related conditions, which can (or should) be treated through medical procedures, rehabilitation, or personal accommodation (Goering, 2015). The understanding of disability has more recently evolved towards a social model, where disabilities experienced by individuals stem from barriers in one's social and built environment that prevent them from finding, moving through, and using a place, and from participating fully in social life in the community they live. Therefore, disability is not merely individuals' compromised capability in navigating the environment, but rather the 'misfit' of capabilities between individuals and how their living environment is organized (Hamraie, 2013). The social model of disability places the responsibility on those who design and construct these environments to eliminate barriers and enable equitable access for PWD (Pineda & Corburn, 2020). As such, PWD in this article is defined as persons who face barriers conducting their lives due to a mismatch of their physical and mental functional capacities and organization of the built and social environment (Hamraie, 2013). PWD often experience poorer health outcomes due to barriers in the built environment that hinder them from pursuing healthy lifestyles (Eisenberg, Vanderbom, & Vasudevan, 2017; Gray, Zimmerman, & Rimmer, 2012).

2.2. Research on Disability-Built Environment Relationships

A wide range of disciplines have explored barriers existing in the social and built environments that negatively influence the lives of PWD—including, gerontology (Lehning, 2012; Rosenberg, Huang, Simonovich, & Belza, 2013), disability studies (Imrie, 2012; Korotchenko & Hurd Clarke, 2014), urban geography (Wilton, 2000), health sciences and occupational therapy (Botticello, Rohrbach, & Cobbold, 2014; Clarke, Ailshire, Bader, Morenoff, & House, 2008), heritage (Heylighen, 2012; Pezzo, 2010) and tourism (Buhalis, Eichhorn, Michopoulou, & Miller , 2005; Pavkovic, Lawrie, Farrell, Huuskes, & Ryan, 2017). Many of these studies identify issues related to planning, including land use (Botticello et al., 2014; Clarke & George, 2005), neighbourhood composition (Ng, Qi Lim, Ying Saw, & Tan, 2020; Pineda & Corburn, 2020), transportation (Bjerkan & Øvstedal, 2020; Suen & Mitchell, 2000), housing (Harrison, 2004; Imrie, 2004), and public policy (Enders & Brant, 2007).

Design fields—e.g., architecture, urban design, landscape architecture, and industrial design—also present a mounting body of literature on accessible environments for PWD. Urban design, which is considered by some to be a subarea of planning or architecture, or a combination of the two (Abd Elrahman & Asaad, 2020; Gunder, 2011; Talen, 2011), has been more active in its inquiry on barrier-free environments for PWD (Evans, 2009; Hussein, 2005). 'Universal Design' and 'Design-for-All' are popular principles that propose the development and application of design standards that meet the needs of as many users as possible, regardless of age, gender, or ability (Hamraie, 2017). These principles are applicable to the broader built environment and systems that enable persons to use and navigate the built environment, such as wayfinding tools, transportation systems, and information technologies (Federing & Lewis, 2017; Hamraie, 2017).

Planning practitioners and academicians who do not focus on urban design appear to be relatively reticent about the issues related to PWD. Some argue that "people with disabilities have for too long been an invisible constituency for [architects and] planning practitioners" (Pineda, 2008, p. 111) and "despite great strides in legislative and regulatory approaches, just spatial perspectives of disability have not fully penetrated planning policy, practice, or research" (p. 120). McCormick, Schwartz, and Passerini (2019) also pointed out the "paucity of attention" by planning scholarship (p. 2). These statements suggest that the planning needs for PWD have, so far, been under-investigated.

3. Method

This study performed a systematic literature review to synthesize the planning scholarship focusing on issues and needs of PWD, and to identify ways to advance the area of planning research and practice. We chose five prominent and reputable journals which represent mainstream English language planning scholarship (See Table 1). Since there are a number of other journals that represent planning scholarship in the world, keeping the scope of this study to these five journals necessarily limits our ability to extend our observation beyond the scholarly works represented in the journals, which are essentially of the English-speaking world in the North. Likewise, we intentionally did not include journals that are focused on design as we aimed to articulate the state of planning knowledge beyond 'design problems.'

We used search engines including NovaNet (a consortium of academic library catalogues in Nova Scotia, Canada), Web of Science, and Google Scholar. Searches were conducted using keywords such as disab*, access*, handicap, impair*. We also included diseases that are common causes of disability and impairment such as dementia, autoimmune, and stroke as keywords. The research team screened results by title, abstract, and keywords to identify those relevant to planning and

Table 1. Journals reviewed.

Journal name	Dates in circulation	Number of all issues (as of August 2020)
Town Planning Review (TPR)	1910–present	385
Journal of the American Planning Association (JAPA)	1935–present	361
Journal of Planning Education and Research (JPER)	1981–present	140
Planning Practice & Research (PPR)	1986–present	140
Planning Theory & Practice (PTP)	2000–present	81

disability. The selection process yielded 36 articles. Each of these articles were read by at least two research team members to confirm they meet the criteria and to synthesize the contents. We identified subareas of planning that these papers focus on and their target population of interest. We then synthesized key issues in policy and planning practices addressing needs of PWD highlighted by the papers, while identifying historic trends where applicable.

4. Results

Out of the 36 papers, large proportions of those selected are studies from the US (16) and the UK (13), and the rest are from Canada (3), Australia (3), and New Zealand (1). Table 2 below summarizes the counts of papers published by the five journals from 1910—the conception of the oldest journal reviewed, *Town Planning Review*. The numbers are shown by: the early half of the 20th century (1910–1949), up to the 1990s when the Americans with Disabilities Act (1990) and the UK's Disability Discrimination Act (UK Government, 1995) were enacted, and every decade since (1990–1999, 2000–2009, 2010–present).

The papers included a variety of approaches, including policy/practice reviews (12), case studies (8), literature reviews (5) and discussions (4). Only 20 of the 36 papers had PWD as a central topic of interest. On the average, these journals each have published 1.7 papers that focus on PWD per decade. Of these 20 papers, seven pertain to urban design, six to housing, five on aging populations or aging-in-place, four on social services (e.g., supportive and subsidized housing, community programming, rehabilitation services), three on transportation, three on the evaluation of policy and programs, and two on children. Disability was of peripheral interest to the rest of the papers, which merely acknowledge PWD as one of many target beneficiary groups (others being visible minorities, low income groups, seniors, immigrants, etc.). Table 3 presents a summary of the 36 papers.

Most papers described PWD in general terms such as 'disabled people,' 'handicapped' (in earlier years), or 'persons with physical disability.' Physical disability (mostly mobility disability) appeared most frequently as the focus in the literature (1, 3, 4, 6, 7, 9, 10, 14, 16, 21, 27, 29, 33–36). Visual impairment was also mentioned in several papers (3, 6, 7, 9–11, 27, and 36), but was the focus of only one paper (11). No other types of disability—such as hearing, and intellectual disability—appeared as their focus, if mentioned at all. Dementia and autism (medical terms and not conditions of disability or impairment per se) were also depicted in a few studies (29, 31, and 32), for which some planning needs—such as clearer signage and more intuitive street layouts—were identified.

Earliest papers tended to take the form of discussion (1–3) rather than empirical study, which may have been more common in planning scholarship in general at the time. The very first paper we found was by Meadows (1916), who advocated for planning to alleviate the challenges of returned soldiers who were "discharged, disabled, and deranged" (p. 72) in being reintegrated into society along with other community members. Lewis Mumford's paper in 1949 illustrates an earlier idea akin to '8 to 80' (Farrelly, 2014) and advocated for planners to facilitate "the provision of an environment suited to every phase of life and growth, from infancy to senescence" (Mumford, 1949, p. 5), also suggesting that housing for the 'crippled,' 'infirm,' and 'the old' is integrated into the community.

Several papers in the 1980s to early 2000s (8, 12, 13, and 17) addressed the issue of NIMBY-ism related to

Table 2. Counts of the papers that include PWD in their papers.

	TP (1910–)	JAPA (1935–)	JPER (1981–)	PPR (1986–)	PTP (2000–)	Sum (sum of papers with PWD focus)
1910–1949	2	—				2 (1)
1950–1989	1	5	—	1		7 (6)
1990–1999	1	1	2	2		6 (3)
2000–2009	1	2	2	1	2	8 (3)
2010–present	—	3	2	5	3	13 (7)
Total	5	11	8	9	5	36 (20)

Table 3. Summary of reviewed papers.

Article	Country (Year)	Journal	Type of paper	Target population	Area of planning
1. Meadows, D. = "A Letter from the Front: Town Planning after the War" *	UK (1916)	TPR	Discussion	Veterans (discharged, disabled, deranged, returned soldier)	Housing
2. Mumford, L. = "Planning for the Phases of Life"	UK (1949)	TPR	Discussion	Population at different life-stages	Aging-in-place
3. Altshuler, A. A. = "Transit Subsidies: By Whom, for Whom?" *	US (1969)	JAPA	Discussion	Poor, physically handicapped, old	Transportation
4. Lawton, M. P. = "Planner's Notebook: Planning Environments for Older People" *	US (1970)	JAPA	Literature review	The very impaired, aging people,	Aging-in-place; housing; urban design disadvantaged older people
5. Muraco, W. A., Vezner, K. O., & King, J. A. = "Deconcentration of Community Mental Health Services under the Constraint of Concentrated Geographic Demand" *	US (1977)	JAPA	Geographic analysis	High risk mental health populations	Land use; location-allocation
6. Rosenbloom, S. = "Federal Policies to Increase the Mobility of the Elderly and the Handicapped" *	US (1982)	JAPA	Policy/practice review	Elderly and handicapped	Transportation; social services; aging-in-place
7. Borsay, A. = "Equal Opportunities? A Review of Transport and Environmental Design for People with Physical Disabilities" *	UK (1982)	TPR	Review of design practices for PWD	Blind and partially sighted, the deaf and the hard of hearing, and all other people with 'some kind of physical disability or handicap'	Transportation; urban design
8. Taylor, S. M., Hall, G. B., Hughes, R. C., & Dear, M. J. = "Predicting Community Reaction to Mental Health Facilities"	Canada (1984)	JAPA	Statistical modeling of community attitudes	Community members at large health facilities)	Social (attitudes toward mental
9. Bennett, T. = "Planning for Disabled Access" *	UK (1988)	PPR	Case study of planning practice	People with disabilities	Legislation; policy implementation
10. Thomas, H. = "Disability, Politics, and the Built Environment" *	UK (1992)	PPR	Literature review	Persons with disabilities	Accessibility for PWD
11. Amedeo, D., & Speicher, K. = "Essential Environmental and Spatial Concerns for the Congenitally Visually Impaired" *	US (1995)	JPER	Theoretical discussion	The congenitally visually impaired	Accessibility for PWD

Table 3. (Cont.) Summary of reviewed papers.

Article	Country (Year)	Journal	Type of paper	Target population	Area of planning
12. Takahashi, L. M., & Dear, M. J. = "The Changing Dynamics of Community Opposition to Human Service Facilities"	US (1997)	JAPA	Assessment of NIMBY attitude toward mental health facilities	Community members at large	Social (NIMBY attitudes)
13. Takahashi, L. M. = "Information and Attitudes toward Mental Health Care Facilities: Implications for the Addressing the NIMBY Syndrome"	US (1997)	JPER	Assessment of NIMBY attitude toward mental health facilities	Community members at large	Social (NIMBY attitudes)
14. Imrie, R. = "Challenging Disabled Access in the Built Environment: An Evaluation of Evidence from the UK" *	UK (1997)	TPR	Policy/practice review	Disabled people	Accessibility for PWD; social
15. Gleeson, B. J., & Memon, A. = "Community Care: Implications for Urban Planning from the New Zealand Experience"	New Zealand (1997)	PPR	Assessment of NIMBY attitude toward community care	Community members at large	Social; policy
16. Light, J. S. = "Separate but Equal? Reasonable Accommodation in the Information Age" *	US (2001)	JAPA	Historical practice review/discussion	Population with physical disabilities	Accessibility for PWD; technology; social
17. Walker, R., & Seasons, M. = "Planning Supported Housing: A New Orientation in Housing for People with Serious Mental Illness" *	Canada (2002)	JPER	Practice review/ discussion	Persons with serious mental illness	Housing; social
18. Harris, N., & Thomas, H. = "Planning for a Diverse Society? A Review of the UK Government's Planning Policy Guidance"	UK (2004)	TPR	Policy/practice review	A diversity of population groups (gender, disability, race & ethnicity, children & young people, older people)	Policy
19. Booth, C. = "Managing Diversity and Mainstreaming Equality: Reflections on Initiatives in the Planning Inspectorate"	UK (2006)	PTP	Case study/ practice review	A diversity of population groups (race, gender, disability, age, sexuality)	Policy implementation
20. Gibson, K. J. = "The Relocation of the Columbia Villa Community"	US (2007)	JPER	Case study on a public housing	Residents of public housing	Housing; social
21. Smith, S. K., Rayer, S., & Smith, E. A. = "Aging and Disability: Implications for the Housing Industry and Housing Policy in the US" *	US (2008)	JAPA	Statistical projection of housing needs	Elderly people with disabilities	Aging-in-place; housing

Table 3. (Cont.) Summary of reviewed papers.

Article	Country (Year)	Journal	Type of paper	Target population	Area of planning
22. Gilroy, R. = "Places that Support Human Fourishing: Lessons from Later in Life"	US (2008)	PTP	Literature review	Older persons	Aging-in-place; urban design
23. Bevan, M. = "Planning for an Ageing Population in Rural England: The Place of Housing Design"	UK (2008)	PPR	Literature review	Older persons in rural areas	Housing, Aging-in-place
24. Manville, M., & Williams, J. A. = "The Price Doesn't Matter If You Don't Have to Pay: Legal Exemptions and Market-Priced Parking"	US (2012)	JPER	Policy/practice review	The public (pay parking users)	Transportation; other (misuse of disable parking placard)
25. Hockey, A., Phillips, J., & Walford, N. = "Planning for an Ageing Society: Voices from the Planning Profession"	UK (2013)	PPR	Policy/practice review	Older population	Policy implementation; aging-in-place; urban design
26. O'Brien, E. = "Planning for Population Ageing: Ensuring Enabling and Supportive Physical-Social Environments—Local Infrastructure Challenges"	Australia (2014)	PTP	Case study/ practice review	Older population	Aging-in place; infrastructure; policy implementation; urban design
27. Whitzman, C. = "Partnerships for Disability-Inclusive Road Development in Papua New Guinea: Unusual Suspects and Equivocal Gains" *	Australia (2015)	PTP	Case study	Persons/people with disabilities	Multisector partnerships; policy implementation; urban design
28. Loukaitou-Sideris, A., Levy-Storms, L., Chen, L., & Brozen, M. = "Parks for an Aging Population: Needs and Preferences of Low-Income Seniors in Los Angeles"	US (2016)	JAPA	Participatory needs assessment	Low income seniors	Parks; aging-in-place; urban design
29. Staples, J., & Essex, S. = "Design, Disability and the Planning Challenge: The Reality of Living with Severely Disabled Children" *	UK (2016)	PPR	Participatory needs assessment/ practice review	Families that include severely disabled family members	Accessibility for PWD; housing
30. Mondschein, A., & Moga, S. T. = "New Directions in Cognitive-Environmental Research"	US (2018)	JAPA	Literature review	Diverse populations groups	Urban design
31. Biglieri, S. = "Implementing Dementia-Friendly Land Use Planning: An Evaluation of Current Literature and Financial Implications for Greenfield Development in Suburban Canada" *	Canada (2018)	PPR	Policy review/ feasibility assessment	Older persons with dementia	Accessibility for PWD; policy implementation; land use; urban design
32. Bowkett, A., & Norman, H. = "NHS Healthy New Towns Programme"	UK (2018)	PTP	Program report	Those with long-term conditions	Aging-in-place; health(care) systems

Table 3. (Cont.) Summary of reviewed papers.

Article	Country (Year)	Journal	Type of paper	Target population	Area of planning
33. Loukaitou-Sideris, A., Wachs, M., & Pinski, M. = Toward a Richer Picture of the Mobility Needs of Older Americans" *	US (2019)	JAPA	Case study/ needs assessment	Low-income inner city-living older adults	Aging-in-place; transportation; urban design
34. McCormick, L., Schwartz, A., & Passerini, C. = "Housing for People with Disabilities: A Review of State Olmstead and HUD Consolidated Plans" *	US (2019)	JPER	Policy/practice review	People with disabilities	Housing; Accessibility for PWD
35. Baldwin, C., & Stafford, L. = "The Role of Social Infrastructure in Achieving Inclusive Liveable Communities: Voices from Regional Australia" *	Australia (2019)	PPR	Case study/ needs	PWD and seniors	Aging-in-place; Accessibility for PWD; urban
36. Adams, D., & Ward, L. = "Disability, Terror and Safety in the City: Charting Individuals' Spatio-Temporal Encounters with Counter-Terrorism Measures in Birmingham, UK" *	UK (2020)	PPR	Case study/ design practice review	People with cognitive, physical, or motor impairments, vulnerable people	Urban design; CPTED; Accessibility for PWD

Notes: * = Papers with PWD as a focus (20).

mental health institutions, reflecting the trend of deinstitutionalizing social services at the time. These papers asked questions about how to locate services associated with mental illness, which are often considered by community members as undesirable. Lack of access to mental health services due to NIMBY attitudes could hinder persons with mental disabilities from participating in social life in the community. These studies, however, focused on characterizing types of population groups having NIMBY-attitudes instead of persons with mental illness or disability per se.

Papers in the 1980s and 1990s offered some insightful accounts of challenges in legislation and policy related to PWD and accessibility—especially in the UK and the US, reflecting their earlier start in establishing versions of disability rights legislations than other countries. Some of the main criticisms towards practices of enhancing accessibility in the built environment were—and have been since—weak enforcing power of regulations (6, 14, 15, and 26) and the narrow definition of PWD primarily as wheelchair users (10, 14, and 29). Planners' reluctance to take a stronger stance to developers to push the accessibility agenda was also observed by several papers (9, 14, 23, and 31). For example, Bevan (2009) observed, in the context of housing regulations by the UK government, "any imposition of new standards in the current financial climate would be politically heroic" (p. 246). Biglieri (2018), again in the context of accessible housing provi-

sions, also acknowledged the need for policymakers to maintain the "delicate balance" (p. 277) to "not scare the developers" (p. 284). Such attitudes were indicated by various authors as a product of socio-political influences (10, 14, 15, 18, 19, and 29). Several papers also pointed out fragmented efforts to accommodate PWD by different governmental departments, such as transportation and social services, and housing and mental health services (6, 9, 15, 17, 27, 29, and 32).

Another pertinent subject raised by a few authors in more recent years was the cost of accessible infrastructure and services. O'Brien's (2014) case study, for instance, found that city councils often have limited ability to provide community amenities "primarily due to disparities in the extent and standard of infrastructure provision and discrepancies in their fiscal positions" (p. 231). While Staples and Essex (2016) also spoke of a similar issue of financial limitation in governments, they pointed out that the real issue is the lack of evidence for housing needs (market) for persons with disabilities and therefore, "planners did not possess the confidence to impose conditions or obligations or refuse planning applications…(without incurring costs against the Council at appeal)" (p. 343). Biglieri's (2018) study was the only one discerning the projected cost of accessible (dementia-friendly) development, using a proforma analysis, based on scenarios that employ some accessible urban design and land use-related recommendations

in empirical studies. She found that the profits from more accessible development were not substantially reduced.

Actively engaging PWD in research and practice was another prominent issue appearing in many studies. Of the 20 papers focusing on issues related with PWD, 14 suggested that planners should engage PWD in the process of designing space, developing accessibility standards and policies, or implementing services that cater to the group. Only a half of the papers actually conducted their studies involving PWD (9, 20, 27, 29, 33, 35, and 36). Five of the seven (27, 29, 33, 35, and 36) were published in the last decade. Three studies conducted a survey targeting PWD (9, 20, and 29), and four took a more participatory approach, directly engaging PWD using walkalongs and photovoice interviews (27, 33, 35, and 36).

The last two decades have seen some increase in volume of research relevant to disability and PWD, partially due to an increasing number of studies on aging-in-place. About a half (10) of the papers published since 2000 discussed a wide range of challenges faced by an aging population. However, with a few exceptions (21 and 26), these studies viewed their challenges more broadly beyond the declining physical mobility and cognitive ability of older adults, from economic conditions after retirement (2, 6, 22, 25, 28 and 33), their desire to keep their social networks intact (2, 4, 22, 23, 25, 28, 32, 33, and 35), to needs for a more comprehensive healthcare system embedded in communities (2, 4, 22, and 32).

5. Discussion

Our study investigated the state of planning research and practice focusing on the needs of PWD and explored possible future directions to advance planning scholarship in the area through a systematic review of five prominent planning journals. Planning encompasses a wide range of subject matters concerned with human conditions in urban (and non-urban) environments, where planners seek to improve these conditions through configuration of land use, transportation infrastructure and networks, and provisions of fundamental needs such as housing, food and health services, while seeking "to balance the conflicting demands of social equity, economic growth, environmental sensitivity, and aesthetic appeal" (Fainstein, 2020, p. 1). As such, problematization of built environmental barriers experienced by PWD and the social inequity they produce is well within the key interests for planning. Given the rapid population aging and the already significant proportion of PWD in the world, better understanding the experience of PWD and disability perspectives in how to create more equitable built and social environment is not only desirable but urgent for planning practitioners and researchers.

However, there seems to be a clear lack (or 'paucity') of attention to the issues related to PWD by planners. Our findings confirm the claim at least in the scholarly works represented by the five mainstream planning journals of the English-speaking world. Collectively, these

five journals, including long-standing journals established in early 1900s, have published merely 36 papers of any relevance to PWD. Out of them, only 20 had PWD as the central topic. Put another way, on average, fewer than two papers focused on PWD have been published per decade by the journals. For many papers that did mention PWD, they are simply one of the vulnerable population groups in society, along with other groups such as visible minority groups, low income families, and older residents, for whom planning should ensure more equitable distribution of benefits from services.

5.1. Gaps and Agendas in Research

While the total counts were low, the papers we reviewed did point to several important insights and identified critical gaps in research. First, there is a clear absence of discussion around the experiences of PWD in planning, perhaps due to a general perception by planners that disability needs are design needs (Lawton, 1970; Thomas, 1992). On the contrary, challenges experienced by PWD would encompass not only those of navigating physical space, but also of their day-to-day interaction with other people (with or without disability) in the community, obtaining employment, and fighting discrimination by services. A more holistic understanding of the 'lived experience' by PWD would be necessary to inform planning solutions that address these challenges beyond the design needs, even if the planning solutions may remain within the confines of spatial (re)configuration of built spaces. For example, barriers in obtaining employment due to mobility restriction could be reduced if places of work and places of residence are closer in proximity and connected with accessible transportation infrastructure. Policies that encourage mixed housing developments for different types of families across incomes, ages, and abilities, strategically located across communities, could enhance social interactions across groups, reduce stereotypes of 'the others,' and foster inclusiveness.

Second, and related, little is yet known about differential needs by persons with a wider range of disabilities. Very few studies have been found (both within the five journal and elsewhere) that assess, for example, how persons with mobility and visual impairments navigate the built environment differently, or, as another example, how different combinations of housing and other services in the community would best accommodate older adults with dementia versus children with autism. Existing policies and regulatory tools are often inadequate for many PWD whose challenges are other than mobility disabilities, as their specific needs are often not well-articulated (Hammel et al., 2008; Sherman & Sherman, 2013). Likewise, mixing population aging and disability as a common issue also requires careful thought, as the more nuanced needs of PWD may be excluded from the discourse (Biglieri, 2018).

Many studies in our review advocated for engaging PWD in the process of developing policies and standards,

as they know best what about their surrounding environment works and does not work for their lives (Baldwin & Stafford, 2019; Hockey et al., 2013; Staples & Essex, 2016). Participatory research methods such as photovoice and walk-alongs can help break stereotypes and prevent further stigmatization by demystifying the lives of persons with various disabilities (Heylighen, 2012; Mahmood et al., 2012). However, researchers should also be careful with these methods, which can "reaffirm disability as an individual problem" (Barnes, 2011, p. 63) and inadvertently enhance stigma or over-simplify the barriers PWD experience (Nario-Redmond, Gospodinov, & Cobb, 2017). The principle of 'nothing about us, without us' will be a key ethical mechanism to ensure members of the disability community monitor and contribute to this body of research (Costanza-Chock, 2018).

Third, there is a substantial lack of evidence that clarifies the challenges and opportunities for private-public partnership in creating a more accessible and inclusive built environment—where market-driven distribution of goods and services is a reality. For private sector providers of services—from housing and transportation infrastructure to social and health services—there must be a viable market shown to ensure profitability. Some studies discussed the challenges of planners and policy makers in taking a strong stance on imposing more stringent accessibility standards on buildings (Bennett, 1988; Bevan, 2009; Biglieri, 2018; Imrie, 1997). Clearer evidence of demand could help them negotiate through sometimes delicate politics. Meanwhile, from the human rights perspective, both private and public sectors have a duty to accommodate until 'undue hardship.' What is considered as undue hardship for private businesses is ambiguous, and perhaps this too is determined by the market as well as the socio-political context. Papers like Biglieri's (2018) demonstrate valuable quantitative evidence that the making of accessible buildings is financially feasible for developers. Such evidence can clarify the assumed impossibility of overcoming the financial barriers for industries in building more accessible amenities. It can also inform planners on how to devise incentives and subsidies for accessible developments. Lastly, it is timely to assess the recent development of legislations in many countries and its impacts on subsequent accessibility plans in local jurisdictions.

Additionally, some papers pointed out that the efforts to address various needs by PWD have been fragmented across different units in governments such as social services, housing, and transportation, which do not necessarily operate in conjunction with a planning department. This fragmentation is also likely the result of historical lack of understanding of PWD experience and disability perspectives not only by planners but also by other institutions. Planners are in a unique position to coordinate the efforts across different units of government. Planning research should compile and compare different practices and governance mechanisms of coordinating the efforts, as well as how the different cultural, historic and socio-political context influence the way the divisions of tasks are devolved and negotiated across jurisdictions (Gurran, Austin, & Whitehead, 2014).

5.2. Limitation with the Scope of our Study

Our findings should be viewed with a caveat. The five journals chosen are well-established and represent major planning scholarly works primarily of the English-speaking world, but they are not representative of scholarly works in other regions such as other western countries, Asian countries or the global South. Nor do we claim so. It is also possible that the five journals are not wholly representative of scholarship of the English-speaking world. However, the same literature search method looking at some other planning journals published in English yielded similarly low numbers of publications—e.g., 0.7 papers per decade for *European Planning Studies* (1993–present); 1.3 papers per decade for *International Planning Studies* (1996–present); and 1.8 papers per decade for the *Journal of Planning Literature* (1985–present). The low number of publications does not seem unique to the five journals chosen, suggesting a broader lack of attention to the subject matter at least within journals published in English. The inquiry into how the needs of PWD and disability perspectives are addressed in non-English speaking regions should be a future agenda for research.

5.3. Precarious Absence of PWD and Disability Perspectives

Why is there such a dearth of research focusing on PWD or disability perspectives in planning journals? Aside from a possible (mis)perception that disability needs are design needs, the absence of inquiries into PWD and disability perspectives may reflect the fact that PWD have been historically 'tucked away' in society and are still not as visible as other vulnerable groups (Pineda, 2008). It could also be because the medical view of disability still persists, and 'solutions' to remove barriers for the individual PWD are considered by planners as outside of their realm (Gleeson & Memon, 1997; Staples & Essex, 2016). The laments by some scholars for planners' general lack of interest and understanding for PWD and disability perspectives are not new. For instance, three decades ago, Bennett (1988) stated: "I have found nothing in the planning literature…beyond the overabundance of design guidance notes" (p. 8). Bennett further speculated, "perhaps…it has been regarded by the academics within planning as a development control issue and therefore unworthy of philosophical thought" (Bennett, 1988, p. 8). Imrie (1997) also observed: "It is difficult to escape the conclusion that planning for disabled people's access requirements is a marginal and ephemeral activity" (p. 425). Baldwin and Stafford (2019) also posited that practices rooted in contemporary planning thoughts such as New Urbanism and Smart Growth

lack consideration for equitable distribution of social infrastructures and how differentially "they influence the well-being and participation of diverse groups…such as children, seniors, and people with disabilities" (p. 19). Further, they pointed to planning's "very normative view of human bodies and subsequent solution making based on stereotypes" (p. 2). Some planning scholars who investigate the issues on PWD seem to opt for publishing their work in other disciplinary journals such as disability studies, which may be the result of such sentiments.

The issue of 'disciplinary divide' also warrants some attention as it may help unpack the state of planning scholarship related to the needs of PWD. In particular, the still-widely-contested boundaries between planning and urban design require revisiting. While urban design as a scholarly pursuit well aligns with the purpose of planning for many, there are inconsistent views as to whether urban design is part of planning, likely due to its practice sometimes being considered as commercial activities (Banerjee & Loukaitou-Sideris, 2011; Gunder, 2011). Universal design and design-for-all have been promising theoretical thoughts that propose ways to equalize the opportunities and rights to space by people of all ages and abilities (Hamraie, 2017), but it has had "little official standing in policy and decision-making process" (Baldwin & Stafford, 2019, p. 21) perhaps due to the 'poor cousin' status of design as a discipline. Baldwin and Stafford (2019) caution that "poorly planned and designed communities are often hostile towards marginalised groups" (p. 19). Kitchin (1998) criticizes planners more strongly of the "'design apartheid' whereby planners…are guilty of constructing spaces which 'lock' disabled people out" (p. 347). Strategies to improve the complex life conditions of PWD require in-depth design knowledge as well as understanding of political, social, and economic dynamics in our communities. Therefore, this divide likely does disservice to both, as it hinders them from developing holistic solutions to a complex problem at hand.

More broadly, what Fainstein (2020, pp. 1–2) describes as the planning's theoretical core "being somewhat amorphous…[without] any dominant paradigm or prescriptive approach," or what Banerjee (2011, p. 208) calls the "eclectic" nature of the planning field, may contribute to the lack of clear consensus as to which issues surrounding contemporary urban society warrant attention in mainstream planning discourse. Some regional differences in theoretical concepts and approaches—e.g., spatial planning is sometimes considered as more typically UK and European concepts (Allmendinger & Haughton, 2010); communicative and collaborative planning processes are more typical of North American approaches (Watson, 2016)—likely also influence the mechanisms through which planners in the respective contexts play a role (Banerjee & Loukaitou-Sideris, 2011; Madanipour, 2006) in addressing the multifaceted needs of PWD.

6. Conclusions: Moving Forward

Planning researchers and practitioners, therefore, must continue to question what knowledge, assumptions, and biases we may have toward PWD and experiences of disability that manifest through our environment. More broadly, planning scholarship can be strengthened by continuous questioning of self—on the processes through which certain knowledge is produced or a pursuit of certain knowledge is prioritised within the discipline. The development of critical discourse focusing on PWD can be a vehicle for such self-reflection.

Acknowledgments

Conflict of Interests

The authors declare no conflict of interests.

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