

Barriers to Occupational Balance in Daily Living: Perspectives of university students with physical disabilities

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Abstract

Occupational balance, the perspective of engaging in the right mix of meaningful daily activities, is crucial for health and well-being. University students with physical disabilities (SWPD) often face barriers that limit functional performance, participation, and independence. This qualitative study explored these barriers among ten SWPDs from five Malaysian public universities using semi-structured interviews and thematic analysis. Five themes emerged: Occupational Performance Challenges, Functional Mobility Limitations, Functional Status Constraints, Limited Occupational Participation, and Occupational Deprivation and Withdrawal. In summary, findings highlight that occupational barriers among university SWPD extend beyond environmental constraints to include performance challenges, functional limitations, and participation restrictions.

Keywords: Occupational Balance; Occupational Barriers; Physical Disability; University Students

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1.0 Introduction

Occupational balance (OB) is a core concept in occupational therapy and a key determinant of health and well-being. It refers to the subjective experience of having a meaningful distribution of time and engagement across self-care, productivity, and leisure activities (Larsson, 2024; Huertas-Hoyas et al., 2025a). For university students, maintaining balance across these domains supports academic performance, social relationships, and personal growth (Yaman & Bilsel, 2024).

Students with physical disabilities (SWPD), however, often encounter disruptions to everyday routines during the transition into and through higher education. These disruptions restrict their ability to participate fully in daily occupations and create risks of occupational

Nomenclature

OB	Occupational Balance
SWPD	Students with Physical Disabilities
ICF	The International Classification of Functioning, Disability and Health
ADL	Activity of Daily Living

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imbalance (Kibret et al., 2025). Although inclusive education and accessibility have received increasing attention, evidence shows that many students continue to face challenges in sustaining routines and participation in higher education (Kibret et al., 2025).

Furthermore, barriers often occur not only at the structural level but within everyday occupations themselves, including fatigue, difficulties in self-care, and withdrawal from meaningful roles, all of which contribute to occupational imbalance (Guszkowska & Dąbrowska-Zimakowska, 2022; Brown et al., 2024). Research further demonstrates that disruptions to daily routines in university life are associated with poorer mental health, heightened stress, and reduced subjective well-being (Guszkowska & Dąbrowska-Zimakowska, 2022; Huertas-Hoyas et al., 2025b).

Therefore, prior studies have documented accessibility issues and institutional supports rather than lived experiences of individuals, and fewer have examined how barriers in daily occupations specifically influence OB, particularly in the Malaysian context (Kibret et al., 2025). This study aims to explore SWPD's OB in higher education. Therefore, the study's objective is to understand the occupational barriers experienced by public university SWPD in their daily occupations and the implications for OB.

2.0 Literature Review

2.1 Occupational Balance in Higher Education

Occupational balance is defined as the subjective experience of having the right mix and amount of occupations that are personally meaningful (Larsson, 2024). OB is strongly linked to mental health, resilience, and academic performance among students (Brown et al., 2024; Yaman & Bilsel, 2024; Huertas-Hoyas et al., 2025a). For instance, Huertas-Hoyas et al. (2025b) found that higher OB was associated with lower levels of depression, anxiety, and stress in university students. Similarly, Guszkowska and Dąbrowska-Zimakowska (2022) reported that declines in OB during the COVID-19 pandemic were linked to reduced psychological well-being. These findings highlight that disruptions in OB directly affect student health and functioning. For students with disabilities, achieving balance is often disrupted by the demands associated with managing health and functional limitations, in addition to their academic responsibilities (Brown et al., 2024; Yaman & Bilsel, 2024).

2.2 Daily Occupations of Student Life

The International Classification of Functioning, Disability and Health (ICF) identifies daily occupations as self-care, mobility, productivity, and leisure (World Health Organisation, 2001). As for students, the ability to participate in these domains forms the basis of role fulfillment and identity (Yaman & Bilsel, 2024). Research indicates that meaningful engagement in daily occupations supports academic development, well-being, and social participation, whereas disruptions such as fatigue, limited rest, or reduced social interaction contribute to occupational imbalance and stress (Guszkowska & Dąbrowska-Zimakowska, 2022; Yaman & Bilsel, 2024). For SWPDs, difficulties in managing everyday routines often create tension in balancing roles and responsibilities.

2.3 Barriers to Occupational Participation

Studies highlighted that students with disabilities in higher education encounter diverse barriers, including mobility restrictions, functional limitations, fatigue, and self-care demands, all of which limit engagement in meaningful activities (Brown et al., 2024; Kibret et al., 2025). These barriers not only compromise functional independence but also constrain opportunities for social interaction and personal growth, increasing the risk of withdrawal from valued occupations. Guszkowska and Dąbrowska-Zimakowska (2022) further demonstrated that reductions in social and leisure participation were associated with declines in both students' OB and well-being. However, research suggests that these barriers are often overlooked in university policies, which tend to focus more on structural accessibility than on the lived experiences of daily occupations (Kibret et al., 2025).

3.0 Methodology

3.1 Data Collection

This qualitative study employed purposive sampling to recruit participants from selected Malaysian public universities. Ethical and institutional approval were obtained prior to data collection through the institutional review board and the Disability Support Units, respectively. Recruitment was facilitated via official emails, meetings, phone calls, and a messaging application (WhatsApp). Eligible participants were identified and contacted for participation invitation, being provided informed consent, and they preferred the online interview via the Google Meet platform option rather than face-to-face. Interview sessions were scheduled flexibly to accommodate participants' routines and accessibility needs. All interviews were conducted by the primary researcher, an occupational therapist. Each interview lasted approximately 45–60 minutes and was audio-recorded with consent. Confidentiality and secure data management were maintained. The data were collected through semi-structured interviews, using guided questionnaires as the data collection tool, developed in line with the study objectives and grounded in the International Classification of Functioning, Disability and Health (ICF) framework (WHO, 2001). The ICF's core domains of Activity and Participation provided a structured lens for exploring students' lived experiences and occupational engagement.

3.2 Data Analysis

Data were analysed thematically using NVivo software following Braun and Clarke's (2006) six phases. The researcher was actively involved in all stages, beginning with familiarisation through repeated reading of transcripts and listening to recordings. Initial codes were generated inductively and organised in NVivo, guided by the research objectives and the ICF framework. Codes were then clustered into potential themes, which were reviewed, refined, and clearly defined to reflect the lived realities of SWPDs. Subthemes were developed as necessary to capture the diverse experiences of participants.

Trustworthiness was ensured through verbatim transcription, prolonged data engagement, and inclusion of participant quotations for credibility. Dependability and confirmability were strengthened through collaborative analysis with a second researcher, an academician and senior lecturer experienced in qualitative research, with ongoing discussions to refine themes and reduce bias. Transferability was ensured by detailed contextual descriptions, and reflexivity was maintained to ground interpretations in participants' perspectives.

4.0 Findings

4.1 Participants' Profile

Table 1 presents a total of ten undergraduate SWPDs who were recruited from public universities across Malaysia. Data saturation was achieved after the tenth participant, as no new insights emerged from subsequent interviews. The sample comprised six males and four females, ranging in age from 21 to 30 years, with the majority between 21 and 24 years (n = 8). The majority identified as Muslim. The sample reflected diverse physical disabilities, including cerebral palsy (n = 3), amputation (n = 2), leg length discrepancy (n = 1), tetra-amelia (n = 1), and other lower extremity impairments (n = 3). Three students reported using assistive devices, while the remaining participants ambulated without additional support. Next, the participants were represented from public universities across different regions of Malaysia and levels of study, living either in college hostels or family homes.

Table 1. Summary of participants' profiles

Pseudonym (Participant)	Age Group	Gender	Religion	Type of Disability	Assistive Aid Use in Ambulation	Housing status	University Location	Study level (year)
P1	21 – 24	Male	Muslim	Spastic Diplegia (Cerebral Palsy)	Custom shoes (insole)	College (with friends)	Selangor	Degree (third year)
P2	21 – 24	Male	Muslim	Leg length discrepancy (left side)	None	College (with friends)	Perlis	Diploma (final year)
P3	21 – 24	Male	Muslim	Lower extremity impairment	None	College (with friends)	Terengganu	Degree (final year)
P4	25 – 30	Female	Muslim	Tetra-amelia (absent all limbs)	Intermittent wheelchair	College (with friends)	Selangor	Degree (first year)
P5	21 – 24	Female	Muslim	Mild Cerebral Palsy	None	College (with friends)	Selangor	Degree (third year)
P6	21 – 24	Male	Muslim	Cerebral Palsy (Pelvic)	None	College (alone)	Negeri Sembilan	Degree (first year)
P7	21 – 24	Male	Christian	Lower Extremity Amputation	Prosthetic leg	Family house (with parents)	Sarawak	Degree (second year)
P8	21 – 24	Female	Muslim	Lower extremity impairment	None	College (alone)	Sarawak	Degree (third year)
P9	25 – 30	Male	Muslim	Right Leg Amputation	Crutches	Family house (with parents)	Selangor	Degree (second year)
P10	21 – 24	Female	Muslim	Lower extremity impairment	None	College (with friends)	Selangor	Degree (second year)

4.2 Barriers to Occupational Balance

As shown in Fig. 1, five overarching themes emerged that illustrate the barriers experienced by SWPDs. Each theme comprises several subthemes, which are presented below with supporting participant narratives.

4.2.1 Occupational Performance Challenges

Students described challenges in performing basic activities of daily living (BADL) such as toileting and dressing, particularly when environmental facilities lack accessibility features.

One participant shared the struggle of using squat toilets:

"I can squat, but only for a short time... I have also fallen before because the floor was slippery" (P8).

Similarly, difficulties with dressing in public settings were noted when no seating was available:

"If I want to try on trousers in a fitting room without a chair, it's definitely a problem" (P7).

Instrumental activities of daily living (IADLs) also posed barriers, particularly in laundry, carrying meals, and performing religious practices, as those activities required additional time and effort. Most participants experienced difficulty with religious activities, such as ablution and prayer, as they were physically painful and sometimes inaccessible, forcing them to rely on alternatives, including praying while seated on chairs or making early preparations.

In addition, students described the need for assistance, especially when handling heavy or liquid items, as one participant noted:

"If I carry soup, I must walk slowly to avoid spilling... so I usually depend on my sibling" (P3).

Another participant described that laundry tasks were also demanding:

"When I bring my laundry, I need help because it is heavy and hard to balance" (P5).

Disabilities also affected academic tasks, including classroom engagement, with students adapting in effortful ways. One student who wrote with her foot described how this slowed her academic performance:

"I usually write using my foot... it is slower compared to others, and writing for long periods causes discomfort like cramps" (P4).

In addition, participation in leisure was frequently constrained, either by dependence on others or reduced pace of activity. Some avoided going to malls alone due to safety concerns, while others described difficulties keeping up in physically demanding recreation. One student explained:

"I have never gone to the mall alone... I always go with someone because I need to hold on when walking" (P10).

Other participants say hiking is a challenge to participate in. They are able to participate, but it is a struggle to maintain the engagement until the endpoint. One reflecting on hiking at a slower pace, added:

"I usually finish about an hour later than a typical person" (P9).

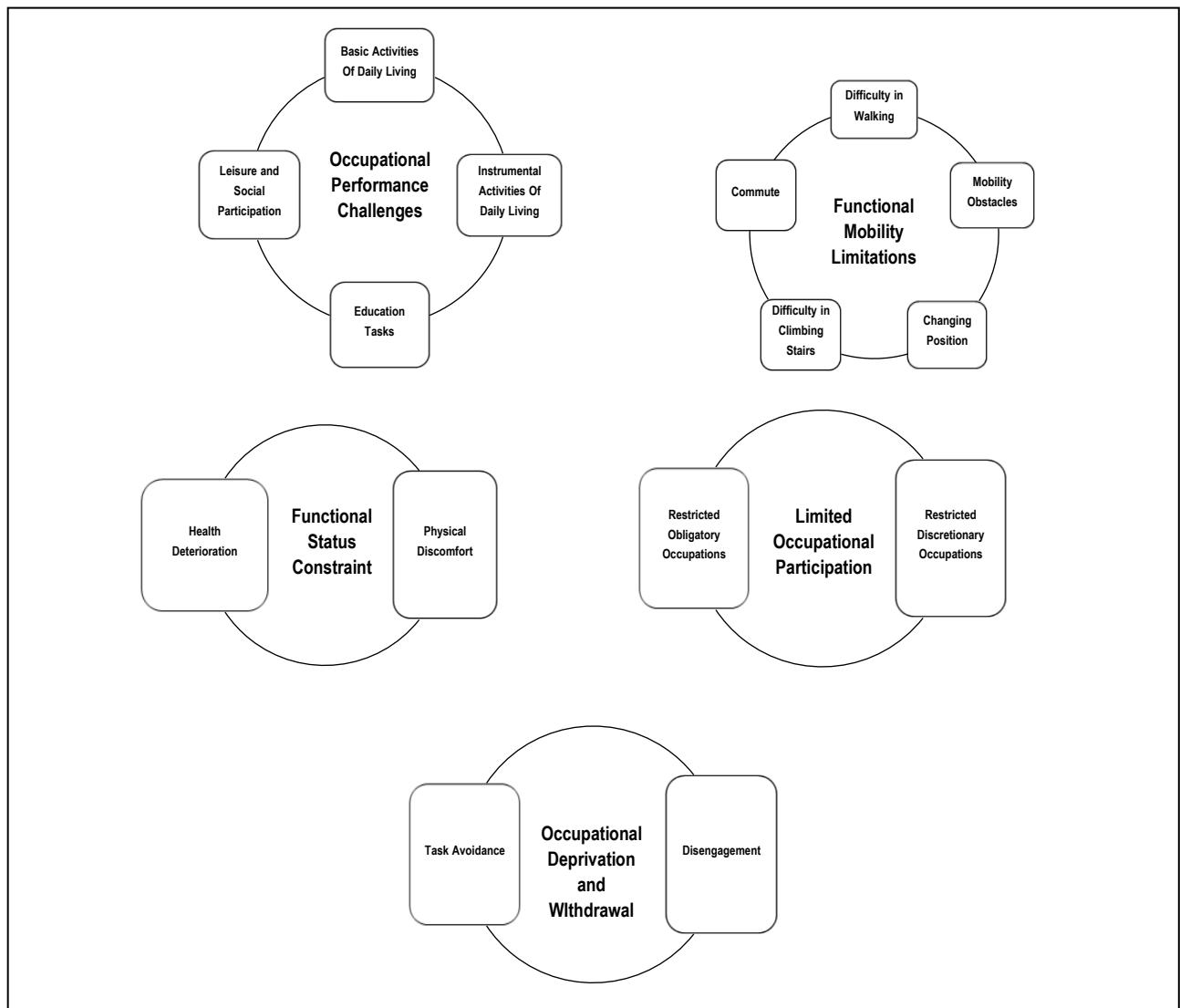


Fig. 1: Barriers to Occupational Balance among University Students with Physical Disabilities

4.2.2 Functional Mobility Limitations

Mobility challenges were among the most prominent barriers. Students described difficulty with walking, positional changes, and commuting around university spaces, especially in crowded environments. As one participant noted:

"Sometimes I bump into people in crowded places because I cannot walk straight" (P5).

Environmental mobility obstacles such as uneven pavements or drains often exacerbated these difficulties, for example:

"Crossing uneven pavements affects my balance, I have to walk slowly, step by step" (P3).

Additionally, mobility obstacle is often associated with balance issues, which often heighten fall risk, as one participant expressed: "Even a small hole on the road makes me feel like I will trip" (P6).

Everyday tasks that required changing position, like bending, squatting, or lifting, were also challenging in daily life. Thus, climbing stairs was consistently reported as hazardous for the majority of students, with reliance on handrails:

"I always hold the handrail... if not, I might fall because my balance is not strong" (P2).

Participants reported having a limit when participating in climbing stairs, for example:
"Climbing stairs is the most challenging... after one flight, I already feel tired" (P1).

Moreover, commuting added further strain, particularly due to struggles with long walking routes and accessing buses during peak times, and discouraged independency. One participant explained:
"Waiting in line for the bus is already an issue. When the bus is full, people don't notice my disability, and it is very challenging to maintain balance in the bus, even with holding onto the handrail" (P5).

4.2.3 Functional Status Constraints

Health deterioration and physical discomfort further restricted occupational engagement. Students described physical discomfort such as persistent pain, fatigue, and episodes of cramp that constrained their ability to sustain occupations. As one explained:
"I usually use my right hand, because when I use the affected left side, it feels burdensome and uncomfortable, cause my hip feels painful" (P10).

Episodes of physical discomfort limited activity engagement and sometimes led to withdrawal. For instance, one participant explained:

"If I get too tired, all my body feels in pains and I cannot continue my activities for the day" (P9).

One participant explained how sudden health issues interfered with her ability to complete academic requirements:

"When I am unwell, it affects me with leg pain, fever, and back pain, which disrupts my work assignment." (P5)

Some linked changes in health with greater mobility challenges, such as weight gain, increase the difficulty in mobility:

"The doctor said I must lose weight, because it may impact in mobility and causing leg pain due to the weight pressure to withstand" (P8).

4.2.4 Limited Occupational Participation

Both obligatory and discretionary occupation participation were constrained due to limited health functioning and impairment. For instance, a student with the absence of limbs reported dependence on others for essential daily tasks:

"When I have to use the ATM, I must ask others to help, even give them my PIN" (P4).

Social and recreational engagement was also restricted by accessibility barriers, as one participant explained:

"I cannot join many of the clubs and campus activities because I cannot move around like the others" (P6).

Consequently, students often describe their participation as partial or passive, rather than full engagement.

4.2.5 Occupational Deprivation and Withdrawal

Over time, persistent barriers contributed to gradual withdrawals from meaningful occupations, leading to experiences of occupational deprivation. Some participants reported deliberately avoiding tasks they perceived as unsafe:

"If the drain is too wide, I will look for an alternative path to avoid it." (P6).

While others described disengaging from activities that demanded prolonged standing, with one student noting:

"I cannot stand long during presentations... it often being cut short, for me to take a break" (P3).

Domestic tasks in house cleaning, such as laundry, were also reduced or avoided due to physical strain:

"I do not do laundry... without my prosthetic leg, it is a problem" (P4).

Such withdrawal contributed to feelings of isolation, loss of identity, and a reduction in well-being. As barriers accumulated, students emphasised the need for supportive environments to restore meaningful participation and OB.

5.0 Discussion

5.1. Occupational Performance Challenges

SWPDs experienced challenges in performing both basic and instrumental activities of daily living (BADLs and IADLs), often need assistance and adaptations to complete tasks. These difficulties significantly affected self-care, academic, and leisure activities, highlighting the pervasive impact of physical limitations on daily functioning, as it directly reduces students' task performance, independency and autonomy, self-esteem, and ability to participate fully in university life. These findings are consistent with recent studies, which show that limitations in ADLs predict unmet needs and reduce participation (Kim et al., 2024). Similarly, it is leading to diminished quality of life and occupational imbalance (Khanzada et al., 2023). Other researchers emphasise that barriers in everyday occupations such as bathing, mobility, or meal preparation, along with reliance on others for academic or self-care support, contribute to occupational imbalance and loss of autonomy (Hammell, 2020; Kim & Lee, 2022). Our study's findings also highlight the specific environmental aspects that exacerbate these challenges among Malaysian university students.

5.2. Functional Mobility Limitations

Functional mobility emerged as a persistent concern among SWPDs. Participants reported difficulties in walking, maintaining balance, changing positions, climbing stairs, and navigating complex campus environments, which are worsened by environmental features of uneven pavements, steep pathways, and crowded spaces, increasing the physical effort and safety risks associated with daily mobility. In Malaysian universities, where hilly campuses are common, managing long commutes and transportation options adds further strain, thus increasing the physical and psychological burden of participation, which creates an imbalance in occupational patterns. These barriers align with previous findings that mobility restrictions are persistent barriers to occupational engagement, particularly where institutional support is inadequate (Alamri et al., 2022). Restricted mobility can affect efficiency and confidence in completing daily tasks, even if students remain motivated to participate. In occupational therapy terms, functional mobility is a fundamental performance skill

for engagement across all domains of occupation, and when it is restricted, participation in education, self-care, and social life is diminished (Donnelly et al., 2020). Recent Malaysian evidence supports that students with disabilities remain only partially satisfied with accessibility, with wheelchair users reporting the most significant difficulties (Chan et al., 2023). Similar studies in Canada and Malaysia highlight how inaccessible buildings, uneven walkways, and limited transport directly restricted academic occupations (attending lectures), social occupations (peer interactions), and even self-care occupations (accessing bathrooms) (Yusof et al., 2020; Bishop, 2021). Overall, these findings highlight that functional mobility challenges are not merely physical limitations; they are shaped by the interaction between individual capabilities and environmental constraints, reinforcing the importance of mobility within the occupational therapy framework.

5.3. Functional Status Constraints

Participants reported recurrent physical discomfort, including pain, cramps, fatigue, and health deterioration, which limited their capacity to sustain activities over time. Health issues such as limitations in strength, endurance, or mobility can restrict the ability to perform tasks, further interrupt routine tasks, and affect the safety and efficiency of completing academic and self-care activities, even when motivation and skill are present. These constraints are seen as crucial because physical capacity underpins occupational performance. In occupational therapy terms, functional status is a foundational component of performance; its compromise can hinder task completion and require compensatory strategies or support (Hammell, 2020). Our findings are consistent with previous studies showing that fatigue, pain, and other physical limitations reduce daily activity engagement among young adults with disabilities (Choi et al., 2022). Moreover, functional limitations interact with academic or environmental demands, increasing effort and strain during routine tasks (Kim & Lee, 2022). These findings highlight the importance of monitoring and addressing physical health within occupational therapy practice to support sustained engagement in meaningful occupations.

5.4. Limited Occupational Participation

Participants reported difficulties in occupational participation across academic, social, and leisure domains, with both obligatory and discretionary activities affected. Physical limitations and environmental barriers restricted engagement in routine tasks, extracurricular activities, and social interactions, leading students to modify or limit their participation. These restrictions are important because participation in meaningful occupations is central to OB, well-being, and personal development. This prioritisation reflects an imbalance in occupational patterns and may have implications for psychological well-being, autonomy, and self-efficacy (Kim & Lee, 2022). The findings align with previous studies, identifying that environmental inaccessibility remains a key barrier to participation in higher education (Law et al., 2020; Morris et al., 2021; Tan & Said, 2023). Similarly, students with disabilities reduce engagement in non-essential but meaningful occupations due to physical limitations, accessibility constraints, or social barriers (Lee et al., 2024; Liska et al., 2024). Overall, these findings highlight the interconnection between functional performance, environmental support, and participation. Addressing accessibility barriers and promoting supportive environments is essential to facilitate fuller engagement in both obligatory and discretionary occupations for SWPDs.

5.5. Occupational Deprivation and Withdrawal

A cumulative consequence of persistent barriers led to occupational deprivation and withdrawal, where students often avoided or disengaged from activities perceived as physically demanding, unsafe, or inaccessible, both within the university and home environments. These patterns reflect a reduction in opportunities for meaningful engagement, which is central to occupational health and well-being. Occupational deprivation occurs when systemic, environmental, or functional constraints prevent individuals from participating in valued occupations (Hammell, 2020). In this study, repeated exposure to physical, environmental, and contextual barriers led students to selectively withdraw from activities that previously contributed to identity, competence, and social inclusion. Over time, such withdrawal may reinforce occupational imbalance and limit opportunities for personal growth and skill development. The study findings align with prior research, which shows that prolonged exposure to barriers fosters sustained disengagement and exclusion from meaningful occupations (Backman, 2021). In the Malaysian context, systemic challenges, such as limited accessibility and insufficient institutional support that may amplify these effects, highlight the need for occupation-focused interventions that address both environmental and personal constraints (Amin et al., 2020). These findings highlight the interplay between individual functional limitations and environmental restrictions, emphasising that occupational deprivation is not merely a matter of personal choice but a product of broader structural and contextual factors.

6.0 Conclusion & Recommendation

Overall, these findings highlight that barriers among university SWPDs extend beyond environmental constraints to include performance challenges, functional limitations, and participation restrictions. These barriers compromise OB by narrowing participation, diminishing autonomy, and reinforcing withdrawal, ultimately shaping SWPDs' daily routines, occupational identity, and competence. This study is limited by its small sample size, focus on selected public universities, and reliance on participants' subjective experiences. Holistic intervention and addressing both individual capacities and environmental supports, occupational therapists and educators can enhance independence and meaningful participation, thus promoting OB, resilience, and overall quality of life for SWPDs. Future studies may adopt a mixed-methods study to examine the relationship between SWPDs' well-being and academic success across broader contexts.

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Paper Contribution to Related Field of Study

The results highlight the need for targeted interventions that go beyond accessibility measures, also to address functional support, health management, adaptive strategies, and opportunities for holistic participation in daily life. Addressing these barriers requires occupation-centered strategies that integrate personal skill development, psychosocial support, and systemic improvements in accessibility. Interventions should not only remove physical barriers but also empower students to adapt, engage, and participate meaningfully across academic, social, and personal domains.

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