FACILITIES AND SERVICES IN UNIVERSITI MALAYSIA SABAH: PRELIMINARY FINDINGS FROM THE PERSPECTIVES OF STUDENTS WITH DISABILITIES

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Abstract

The current study investigates the challenges and barriers of facilities and services for students with disabilities (SWDs) in Universiti Malaysia Sabah. This study used a grounded theory approach. This research had nine respondents participated (two male and seven female students). Data in this investigation were collected using indepth interviews and focus-group discussions and analysed with qualitative content analysis. Four critical challenges and barriers of facilities and services faced by SWDs in Universiti Malaysia Sabah were discovered as follows: a) accessibility, b) facility, c) student management, and d) mobility. This input may contribute to developing and improving facilities and services for SWDs in Universiti Malaysia Sabah.

Keywords: Student with disabilities, Facilities, Services, Grounded theory, Universiti Malaysia Sabah.

INTRODUCTION

Facilities and services for a person with disabilities (PWDs) in a university are essential because they have their rights for accessibility and independent living in a university setting. The value of a university will be enhanced by having facilities and services that meet the needs of the disabled. In 2012, the Ministry of Education (MOE) Malaysia issued a guide to improving teaching and learning for students with disabilities in all public universities [13]. To ensure more effective implementation, MOE once again launched the Dasar Inklusif OKU in November 2018. It informed the requirements of higher education institutions to provide a conducive learning environment for students with disabilities (SWDs) (January 2019). To ensure that SWDs can be educated well in a comfortable university environment. So, the MOE has reviewed the Action Plan 2012 and developed the Garis Panduan Pelaksanaan Dasar Inklusif Orang Kurang Upaya di Institusi Pendidikan Tinggi to assist higher education institutions in achieving their educational goals [13]. As one of the public universities in Malaysia, Universiti Malaysia Sabah (UMS) is an option for students with disabilities to pursue their studies. UMS currently has a small number of disabled students (physically disabled, visually impaired, and learning disability students). As a tertiary institution with SWDs, UMS will leverage and improve its existing facilities and services for the disabled. Although there are several facilities for the disabled already in place, it is undeniable that the facilities and services at UMS require further attention and actions. UMS needs to comprehensively improve its existing policies by considering the needs of SWDs and be a more friendly university for SWDs. The question is, what is the facilities and services in UMS from SWDs? This study aimed to qualitatively explore the challenges and barriers of facilities and services in UMS from the perspective of SWDs.

a) Person with Disabilities

"Person with disabilities (PWDs)" include those who have long term physical, mental, intellectual, or sensory impairments which may hinder their full and effective participation in society [11, 15]. PWDs are categorized as: Visual impairment, Hearing disability, Physical disability, Learning disability, Speech impairment, Mental disability, and Multiple disabilities.

PWDs should be recognized for equal rights and opportunities practised by the non-disabled. The *Dasar Orang Kurang Upaya* is a step towards creating equal rights and opportunities for the disabled to participate in society fully. This policy also prioritizes human rights values such as honour, respect, and freedom, enabling them to live independently. The *Dasar Orang Kurang Upaya* advocates the following four objectives:

- 1. To recognize and accept the principle that PWDs have the same rights and opportunities for full participation in society.
- 2. To ensure that PWDs enjoy the right, opportunity, and equitable access under national law.
- 3. To eliminate discrimination against a person for their incapacity; and
- 4. To educate and increase public awareness of the rights of PWDs.

Similarly, the Ministry of Women, Family and Community Development also established an Action Plan for Persons with Disability 2016-2020 to realize this policy [11]. This action plan sets out the following ten core strategies:

- 1. To increase the accessibility of PWDs,
- 2. To empower the economy of PWDs,
- 3. To increase access of PWDs to education,
- 4. To increase access of PWDs to health,
- 5. To strengthen social services for PWDs,
- 6. To increases the participation of PWDs in the planning and decision-making process,
- 7. To improve the access of PWDs in the aspect of disaster risk management,
- 8. Research and development,
- 9. Advocation, and
- 10. Convention on the rights of PWDs.

b) Students with Disabilities

"Students with disabilities" refer to individuals with either physical, learning impairment or both, including, but not limited to, persons with visual, hearing, orthopaedic/physical, speech, and specific learning disabilities. Also included is a person with chronic health problems and individuals who are mentally ill. The terms "students with disabling conditions," "students with handicapping conditions," and "students with special needs" are used synonymously [10].

c) Facilities and Services for Persons with Disabilities in Universiti Malaysia Sabah

Universiti Malaysia Sabah (UMS) was established on November 24, 1994. UMS is one of Malaysia's public universities located in Kota Kinabalu, Sabah. UMS has two branches, namely the Faculty of Sustainable Agriculture in Sandakan Campus and Labuan International Faculty of Finance in the Federal Territory of Labuan. Since its establishment, UMS has undergone significant changes in student enrollment, lecturers and staff, management, courses and programs being offered, and infrastructure developments. In terms of infrastructure, UMS is always striving to provide the best facilities and services for all. Among the facilities and services provided in UMS are transportation (e.g., bus) and buildings infrastructures (e.g., library, laboratories, advanced equipment etc.) as well as services (e.g., counselling, finance, and banking services). However, as a

university that has SWDs, these facilities and services are somewhat inaccessible. For instance, the Center for Postgraduate Study building does not have elevators, making it difficult for visually impaired students to go upstairs safely. Additionally, the stairs were constructed without tactile blocks, which are essential for SWDs.

As mentioned earlier, UMS has implemented several facilities for PWDs, including ramps, toilets, elevators, parking lots, and wheelchairs (Figure 1 to 4). However, many facilities and services are inaccessible or not available to the PWDs, especially SWDs. Thus, the barriers of facilities and services in UMS from the perspectives of SWDs are duly explored.



Figure 1 Wheelchair in the lobby of the Faculty A



Figure 2 Ramps in the main entrance of the Faculty A



Figure 3 Elevator available at the Faculty A



Figure 4 Toilet for a person with disabilities located at the Faculty A

In 2019, the Ministry of Education issued Guidelines for implementing Inclusive Policy in Higher Educational Institutions to achieve inclusive education as desired by MOE [13]. This guideline is an effort towards:

- 1. Establishing a disabled-friendly infrastructure that meets the latest standard of universal design code,
- 2. Providing conducive teaching and learning environments for all categories of disability and adhere to the universal design of teaching and learning,
- 3. Create an environment of love, respect, and happiness,
- 4. Providing a conducive living environment to all categories of disability,
- 5. Create a culture of caring community for PWDs,
- 6. Ensuring the inclusion of PWDs in all activities and programs on/off-campus, and
- 7. Providing career development programs for PWDs.

This guideline also set out nine aspects, including:

- 1. Strategic planning,
- 2. Services units for PWDs,
- 3. Environment.
- 4. Equipment supports,
- 5. PWDs' safety in emergencies,
- 6. PWDs counselling and emotion,
- 7. Industrial development, job opportunities and practical training,
- 8. Health and social support, and
- 9. Volunteerism.

Based on this guideline and *Undang-undang Kecil Bangunan Seragam 1991* (Malaysian Standard), existing facilities and services in UMS need to be improved or created for PWDs, especially those with visual impairments, hearing loss, physical disabilities, and speech impairments. Being a student with a disability is not an easy task. Many things come to mind, such as the type of services offered by the university. It is to facilitate their movement towards life as a student. There is no denying that higher educational institutions in Malaysia do provide infrastructure for PWDs. However, there are facilities and services for PWDs that needs to be improved or created. Research [2] agrees that the University of Malaya (UM) has better accessibility infrastructure for SWDs but still needs improvement to achieve a friendly university status for PWDs. Facilities provided for PWDs, especially those visually impaired in Malaysia's public universities, requires further improvements to its existing facilities [14]. Limited facilities and services may affect the quality of life of SWDs.

Support services for PWDs – services that provide health and social care – are also essential to encourage their health and wellbeing [12]. Research [5] found that such services effectively address the comorbidities experienced by the disabled and can improve communication between customers other services. Often such services will encourage the participation of PWDs in the community by providing programs to increase their participation and involvement [6]. For PWDs in pursuance of their studies, this support is essential in ensuring equitable access to education [1]. The availability of support services for the disabled plays a vital role in ensuring self-determination and self-decision-making for PWDs and their family members [4].

Consequently, support services for the disabled can be a catalyst for their autonomy in providing they can work towards their goals in life [9]. With these supports readily available, PWDs will improve their quality of life in many aspects such as knowledge, social skills, and self-reliance. Without proper facilities and services, their movement and quality of life in university can be easily jeopardized. However, facilities provided in public universities are currently not friendly to the disabled, and they are not suitable for use [8]. A universal design approach can be implemented by integrating the best possible facilities for all groups.

UMS require a system of facilities and services that is accessible to everyone. As such, UMS should provide facilities and services that are friendly to PWDs studying at UMS. Compared with other universities with better infrastructure for PWDs, such as UM, UMS fare pretty far behind and needs critical improvements in providing infrastructure for PWDs. A qualitative approach was used to explore the challenges and barriers of facilities and services in UMS from the perspective of SWDs. The research question is what are the challenges and obstacles of facilities and services in Universiti Malaysia Sabah from SWDs? The current research aims to qualitatively explore the challenges and barriers of facilities and services in Universiti Malaysia Sabah from the perspective of SWDs.

METHODOLOGY

a) Research Design

This qualitative study engaged a grounded theory methodology (GTM), in-depth interview, and focus group discussion. The in-depth interview technique aimed to explore the challenges and barriers of facilities and services in Universiti Malaysia Sabah from the perspective of a single SWD. This research also used a focus group discussion (FGD) to obtain a comprehensive report on the challenges or barriers of facilities and services experienced by the group. FGD are an appropriate technique for generating theory through GTM. The number of participants in the FGD was 8. This investigation began with open-ended questions and structured questions. Below, Table 1 shows the open-ended questions and structured questions.

Table 1: Type of Questions in Investigation

Type of questions	Examples
Open-ended Question	 Can you tell me a bit about yourself? Can you tell me the challenges or issues you faced in UMS as a person with a disability?
Structured Questions	 What are the problems you faced in terms of accessibility? What are the challenges you experience in terms of mobility?

b) Participants

The respondents selected for this study enrolled at Universiti Malaysia Sabah, Kota Kinabalu, Sabah, during the first semester 2019/2020 academic session involving male and female undergraduate students. Nine undergraduate students (2 male and seven female students) aged between 22-25 years old were involved in this study. They are diagnosed with different kinds of disabilities.

c) Procedure

Permission to implement the study was obtained from Universiti Malaysia Sabah. Participants were selected using a convenience sampling method in which participants are chosen based on availability and willingness to participate. During interview and group discussion sessions, students were informed that participation in the study was voluntary and all the data obtained will be used confidentially. Students were then asked to fill in the consent form and endorse their agreement to participate in the study. The interview and group discussion took 80 and 120 minutes to complete, respectively.

d) Research Protocol

The research protocol consists of three sections, namely Part A (participant's personal information), Part B (participant's permission form to voice-record the interview and group discussion), and Part C (in-depth interview/focus group discussion guidelines). The development of interview and group discussion questions varied from using open-ended questions to structured questions. Both interviews and discussions were conducted face-to-face and in the Malay language. As suggested by [7], the researcher started the in-depth interview session with an open-ended question – "Can you

tell us [me] about yourself and your family?" The researcher formulated structured questions addressed to the next session during the session (focus group discussion). The structured questions developed from the special interview session were subsequently used in the focus group discussion session.

e) Data Analysis

The qualitative data were analyzed using qualitative content analysis and validated through triangulation and cross-check between research members (member check) [3].

RESULTS

a) Demographic Characteristics

A total of nine undergraduate students participated in this study. Two were males, and seven were females. Of these, six were sophomores' students, two were juniors' students, and one was senior. Participating students were from various majors, one from sociology anthropology, one marketing major, and one history major. Six students declined to disclose their major. As previously mentioned, they have different types of disabilities, including physical, visual, and learning disabilities.

b) Accessibility

It was found that accessibility was a significant obstacle among respondents. The theme of accessibility is powerful among them. The analysis shows that respondents experience many challenges in accessibility, including access to learning areas and facilities such as toilets, cafeteria/dining hall, and library.

• Access to learning

Access to learning is one of the challenges that most visually impaired and learning disability respondents experienced. Barriers to entry to education are reported into two, namely lecture and writing.

i. Lecture

Teaching methods in lecture hall/room using slideshow are a challenge for visually impaired students. They cannot see the slideshow clearly because of their disability. In addition, lecturers do not upload the teaching material—for example, lecture notes online before the lecture. R1 had trouble seeing the slideshow presented in front of the lecture hall due to his poor vision. He said that:

"I am okay with learning during lecture; however, the problem arises when I see the written notes that go with the slides. If the lecturer uploads the slides earlier, it is alright. But almost always, the lecturer will only upload the slides after the lecture. This is one of the problems I face." (R1-18)

One of the approaches to overcome vision problems by visually impaired students is to sit in front of the class. This way, they can see and read the slideshow more clearly. As illustrated by R5:

"Oh, I have poor vision. However, this problem affects me during the lecture only. It makes it hard for me to see the slide from afar. But, if I get closer, it is okay. That is the only problem I face." (R5-54)

However, not all visually impaired students can read the slides even when they sit in front of the class. Their vision impairment was reported to be more severe. This is experienced by R6, who was unable to see and read the lecture slideshow. She says that:

"Um... my difficulties were most or less the same as R5. The only difference is whenever I sit, I still cannot see anything during lecture (laugh)." (R6-62)

ii. Writing

For visually impaired students, writing is a significant challenge. They do not have access to facilities that can help them take notes in class. As such, writing is a problem that R7 faces in his learning, especially when attending lectures. He says that:

"I have a dyslexia problem. It is a handicap in learning. When I write, there are always instances when some letters are wrongly placed. Like when I have to write my matric number, the number '5' can sometimes change to 'S'." (R7-66)

• Access to the washroom

Access to washrooms is also a challenge among SWDs. Although washrooms for PWDs (*Tandas OKU*) are provided in UMS buildings, specific toilets are not suitable for SWDs. Remote and limited disabled-friendly toilets are proving to be a challenge for a student with physical disabilities, as experienced by R9. She mentioned that:

"Another difficulty is the washroom; it is very far. Our washroom feels really far." (R9-52)

"For the washroom, the disabled-friendly washroom is located at the centre location, right in the middle. It is far, you know, have you been to it?" (R9-122)

"The disabled-friendly washroom is far away right there at the centre location. Other than this, there is no other disabled-friendly washroom anywhere else. There should provide these disabled-friendly washrooms at other areas as well." (R9-124)

• Access to cafeteria/dining hall

Access to the cafeteria/dining hall is a significant challenge for SWDs. SWDs experience numerous challenges when buying food in the cafeteria/dining hall. The cafeteria/dining hall does not provide a particular passageway and counters for SWDs. With the lack of these arrangements, SWDs must stand in line with non-disabled students. Students with physical disabilities are more likely to feel uncomfortable or experience pain (e.g., foot pain) when standing for too long. R9 was one of the SWDs who experienced this, as she relates:

"The café is not so disabled-friendly. There is no designated path for us. It is all just free-for-all kind of lining up." (R9-74)

"There is no special area for us to make purchases. We are mixed in with the rest. If when we need to line up, we need to line up with the rest of the students." (R9-76)

"Yes, it is difficult for me because I cannot stand up for long like normal people could. Yes, it is painful to line up and stand up for long." (R9-78)

• Access to library

The third most challenging endeavour faced by SWDs is access to the library. The library is one of the most critical facilities for students. For SWDs, they face the problem of accessibility to the library. A significant disadvantage is that they cannot fully utilize the facilities and services available in the library, such as study rooms/spaces and reading materials. This study's analysis found that access to the study rooms/areas and reading materials are challenging for SWDs, especially for the physically disabled and visually impaired students.

i. Access to the study rooms/spaces

Respondents reported that finding suitable study rooms and areas is difficult, even on the library's ground floor. Students are also unable to go upstairs and use the facilities and services due to their disabilities. Therefore, they only have access to facilities and services available on the ground floor. However, these facilities and services cannot be fully utilized by SWDs as they must sometimes compete with non-disabled students, as experienced by R9. She says that:

"Only ground floor available. It is not like I can go upstairs there." (R9-34)

"Library? Maybe they need to prepare and a special area for us SWDs because sometimes we find ourselves fighting for space with other students." (R9-132)

ii. Access to reading materials

Access to reading materials is also a challenge for SWDs. Students cannot search for books they need, and the attached labels are difficult to see. Reaching for books on the shelves is also a challenging endeavour. This problem is experienced by R1, who has a visual impairment. He says that:

"Um... for me umm, it is hard to see the labels on the books. Every section has its label, such as these collections are for history, these others are for journals. Sometimes I do not know which ones are for history and which ones are for anthropology. So, I have to scrutinize each section and every book. Through this slow method, I could know which ones are for anthropology and which ones are for history. It is very slow and difficult for me." (R1-138)

Based on R9 experience, she also reported that students with visual impairment could not find specific books. She related:

"Recently, I met a junior undergraduate in my history course. The undergraduate is visually impaired, so it was a very difficult ordeal just to find the correct book." (R9-120)

In addition, books on high shelves make it difficult for SWDs to reach. It may be challenging to get books on high shelves because of the SWDs' feet, as experienced by R9. She had to ask for help in finding books located on high shelves. She says that:

"It is usual for me. First, search for the book and locate it. But sometimes it is not at the said location, so I had to ask a friend for help or seek out a librarian to assist me." (R9-120)

Disorganized books at the library also complicate the searching process of reading materials, as experienced by R9, who have a physical disability. She says that:

"It is made even harder, with my physical impairment, that books are not where they said they are in the computer system. When I finally reach the location, sometimes it is not there. Yes, there are instances where books are not kept where they should." (R9-130)

c) Facility

It was found that university facilities were the second major obstacle experienced by the respondents. The theme of the facility was found to be quite common among SWDs. The analysis shows that respondents experience many challenges in accessing facilities provided in UMS, including washing machines, washrooms, and libraries.

Washing machine

For most students, the washing machine or laundry services is one of the more essential facilities to access. These infrastructure and services make it easier to wash their cloth efficiently, saving ample energy and time. For SWDs, this facility or service is equally essential as it is difficult to clean and wash their clothes due to their inability. R1, who has a visual impairment, stated that the washing machine is a necessity for him. He says that:

"Yes, I realize this also. There is this big problem with a washing machine. There is none at my block. I do not ask for this as an extra luxury item, but this item is an essential necessity." (R1-256)

• Toilet

Toilet or washrooms for PWDs are available throughout UMS, albeit in limited quantities. Washroom types also play an essential role for SWDs, such as the availability of a restroom with a bowl or squat configuration. As reported by R2, who have a disability on her leg, the washroom bowl configuration is more suitable for her. However, the limited washroom with bowl type in UMS makes it difficult for her. She says that:

"I can only use those washrooms with bowl configuration. It is that in UMS, there is, but sometimes these washrooms cannot be used. There is no water in the washroom. Even in the newly constructed lecture hall area, they lock the washroom up." (R5-152)

"Uh, among the places that I have been (laugh), Faculty B has our type of washroom. Other than that, at the Student Hostel also they have, but fewer." (R2-32)

"Unavailable, my block, Block E does not have this facility." (R2-34)

"I have a disability on my right leg. What I see that is difficult in UMS is I wish there is washrooms with the bowl configuration at all areas in UMS. It is alright if there isn't any disabled-friendly washroom, but

more importantly, I wish there is a bowl type washroom all across UMS. Also, in UMS, although there is a bowl type washroom, not all can be used. The bowl-type washroom is those that we can sit down (laugh)." (R2-28)

Moreover, there was a misuse of washrooms for PWDs, which saw it turned into storage areas as noticed by R2. She also stated that the toilets for PWDs at times had no water, no hose, sometimes even locked. She explained:

"This institution (UMS) does provide us with a disabled-friendly washroom. Just that sometimes these washrooms are turned into storerooms. I saw a few of these. Sometimes if it is open, it does not come with a water hose. There is always something not functioning. I rely on these disabled-friendly washrooms because not all washrooms I could use." (R2-30)

"Every place seems to have our kind of washroom, but alas, it cannot be used." (R2-38)

• Library

As mentioned earlier, the library is an essential facility for students. However, facilities and services in the library that are not disabled-friendly makes it difficult for PWDs. This study's analysis found that counter and bookshelves are sometimes themselves barriers for SWDs.

i. Counter

High library counters also make it difficult for PWDs. R8 reported that she had difficulty dealing (e.g., returning borrowed books) because the counter was too high for her. She must stretch significantly to put the books over the counter. She says that:

"Whenever I reach the library counter, I have to sort of stretch to my limits. When it is time to return the library books, I have no choice but to hold my breath and stretch my hands upward with the heavy book as much as possible." (R8-80)

ii. Bookshelves

High bookshelves similarly made it difficult for SWDs to reach the books, and they had to seek help from other students. R8, who has a physical disability, usually finds herself unable to get the books on higher shelves. She needs to ask other students for help. She says that:

"Um, okay. When I need a book from these higher shelves, I have to ask whoever is around to help me. Sometimes, there are these short step-stairs left around the area, and I would position it and climb it to get these books." (R8-86)

d) Student management

The third major obstacle faced by SWDs is UMS's student management. It was found that this problem was common among them. The analysis shows that the respondents experience some challenges in the form of unstandardized information of students with disabilities, hostel arrangements, financial support, the running of associations/secretariats for students with disabilities.

• Unstandardized information of students with disabilities

R1 stated that some lecturers do not realize that there are visually impaired students in their classrooms. At times, R1 must introduce himself and his disabilities to some of the lecturers. He says that:

"It is partly my fault also because, at times, I did not inform some of the lecturers of my disabilities. Some I did, but if I can avoid it, I would just be quieter and rely on my hearing only." (R1-126)

• Hostel

Student hostel management was further found to be one of the challenges experienced by respondents in which students are required to move from one hostel to another every year. It makes it difficult for SWDs to manage their things yearly (e.g., clothes, books, etc.). Students with physical disabilities must lift, move the items, and finding a place to store them. When the new semester opens, they must quickly move their belongings to a new room or hostel, as experienced by R9. She reported that:

"It's because we have to carry our belongings when we move. During semester breaks, we have to carry it all to the storerooms. This is a bit of a problem for us." (R9-220)

R2 also reported that:

"If in this institution, we SWDs are very likely to get hostel accommodation. However, why are we not confined to one room? Why do we have to pack our belongings and then make hassle arrangements to send them elsewhere again? Since we are confirmed to be getting hostel accommodation, there should be no need for us to move here and there. Can't they just let us stay in one room from year one to year three? Like my case, I have to move my belongings to the storerooms constantly." (R2-242)

• Financial support

Financial support is found to be one of the challenges experienced by R9. Although respondents receive financial support from the Ministry of Higher Education, it is not paid to students earlier. With this inefficiency, students cannot pay their tuition fees, resulting in debt to the university. Sometimes the amount is paid less than it should be. She says that:

"Yes, we receive financial assistance from the Ministry of Higher Education." (R9-232)

"This is an issue every semester. Some semesters we did not receive it at all. Sometimes when we finish the semester, only financial assistance arrives. When it arrives, it is wrongly calculated and allocated to us. It becomes more of a problem when we students ask for the fees invoice. This is especially dangerous for the third-year students who want to graduate and attend their convocation but could not because their fees are not settled. So, we have a difficult choice. If we want to graduate and attend our convocation, we have to find the money ourselves." (R9-234)

"... it is very slow." (R9-238)

• Association/secretariat for a student with disabilities

Lastly, a special association/secretariat for SWDs has not yet been established in UMS. The university does not want to set this association/secretariat as it is considered less critical. Without such association/secretariat, the welfare of SWDs cannot be taken care of, as stated by R9. She says that:

"UMS do not have this type of association. So, in any matter in regard to disability, we have to tackle it ourselves. If there is such an association for us, we could list down systematically on certain items as one voice. Yes, this would be so helpful." (R9-238)

"(Laugh). Yes, we face numerous problems as UMS does not approve of us setting up an association for SWDs. One of the reasons given was that it is not every year that there are SWDs in UMS. So, the issue is, do we want to have the fire first before we establish a fire-fighting department or before." (R9-240)

"With an association for us, issues of SWDs may be given more priority. SWDs' welfare would also be taken care of. But, without any form of association for SWDs, we are being left out, and sometimes it seems we do not exist at all in this institution. We see numerous clubs being set up in UMS. Why not an SWDs' club?" (R9-246)

e) Mobility

Finally, mobility was found to be the fourth major obstacle for this study's respondents. The theme of mobility was found to be quite vital for them. Analysis shows that respondents experienced challenges in moving from one location to another. They encountered tactile blocks, road crossings, blurred signage, and inadequate ramps for students with visual impairment and physical disability.

• No tactile blocks

Tactile and guideline blocks inserted on the floor surfaces are essential to guide the blind. Without these tactile blocks, it is difficult for SWDs to move from one location to another, as experienced by R1. He described the following:

"In terms of moving from one place to another, I feel that, because there aren't any blind tiles, it is really difficult for me. If these blind tiles exist, it is like a directional tool for us. For now, if we want to go anywhere in UMS, it is difficult." (R1-18)

• Road Crossing

Roads in UMS also made it particularly difficult for visually impaired students to cross. A student who has this kind of disability cannot see the condition on the road. It is frightening to cross the street, as experienced by R1. He says that:

"When we have to cross the road, we have to actively find alternatives so that it is easier for us. Crossing roads can be quite scary, and yes, I do feel scared when I have to do this." (R1-18)

Atop the difficulty of crossing roads, getting on buses at campus also proved to be a challenge. It made it difficult for the R1 to take the bus. R1 says that:

"Crossing roads is a bit difficult, with all those cars. Sometimes when we are late for our lecture, we must take the bus. If we stick to taking the can, we will be late. But when we take the bus, we have no choice but to crossroads to the bus stops, and this is scary. There are at times a lot of cars here." (R1-22)

• Unclear signage

Another difficulty faced by the respondents is the unclear signage placed across the institution. It gives a lot of difficulty to a student with visual impairment, as stated by R1. He found it difficult to navigate to a location when the signage is too small for him. He says that:

"For me, it is more of the signboard, like names and areas. For example, if we want to go to this building here, if the words are big enough, then no problem. But the small ones are a bit hard to see." (R1-90)

R9, who have a physical disability, also reported on the signages. She has trouble finding specific lecture halls and noted no clear direction to find the location. She says that:

"Ha, if we need to find a lecture hall, for me, it becomes very tiring as I had to go round and round to find Lecture Hall 27, Lecture Hall 21. Sometimes, I have to turn one whole round at the Lecture Complex just to find a certain Lecture Hall." (R9-194)

"Yes, the new Lecture Complex is a problem. The old Lecture Complex is okay as it is just one row, so if we walk along with it, we could guess where certain lecture halls are. It is either this end or the other end. But with the new Lecture Complex, we end up turning in circles." (R9-196)

"Yes, it is a problem because it does not show whether the Lecture Hall is on the right or left, or if it is even in this area. Sometimes I have to walk to the end. Even for myself, it is a problem, so if those of us using wheelchairs or having problems with their eyesight, this will be a bigger problem." (R9-202)

• No ramp provided

Lastly, the ramp is vital for SWDs using wheelchairs. R9 voiced her concern for the disabled with wheelchairs as ramps are not provided at the hostel. The female block hostel did not have a ramp, making it difficult for female students with wheelchairs to enter the hostel.

"For those who use wheelchairs, it is hard to enter the hostel area because of all those stairs. There is not one lane for wheelchair users." (R9-80)

"In the female accommodation hostel, I have been there. Sadly, there are only stairs. So, it got me thinking, how does female SWDs, who use wheelchairs, how do they even go up the stairs." (R9-82)

DISCUSSION

This preliminary study indicated that existing facilities and services in UMS were found to be challenging for SWDs. SWDs faces four significant themes of challenges or barriers in accessibility, facility, student management and mobility. A lot of services and facilities are made available for everyone in the institution. Some of these facilities and services remain a challenge for SWDs.

Firstly, accessibility was reported to be a big problem among SWDs on campus. Accessibility issues such as access to learning, washrooms, cafeteria/dining hall, and library were problems for different disability groups (e.g., physical, visual, and learning disabled/impaired). These findings are very similar to those reported by [10], where she examined special needs students and their accessibility at higher education programs. She found that accessibility was a problem at both small and large universities across Canada. Accessibility is one of the critical elements in teaching and learning, particularly in higher education [16]. Education institutions should make accessibility one of the top priorities as this will encourage participation from all types of students. Exceptional teaching and learning facilities and technologies (e.g., Braille notes, softcopy handouts, computer, e-book etc.) should also be provided for SWDs as part of a conducive learning environment.

Second, facilities in UMS such as buildings and equipment that are not disabled-friendly can make SWDs feel uncomfortable. SWDs consequently reported such facilities and services in this study. This finding supports a previous study that similarly reported the lack of disabled-friendly facilities at higher education institutions [8].

Third, student management services were again barriers for SWDs with poor information management for students with disabilities, hostel arrangements, financial support system, and the

absence of an association/secretariat for students with disabilities. Improving and adding more special services will undoubtedly create a more conducive learning environment for SWDs. Their welfare could also be better-taken care of with a particular disabled services centre for SWDs management. In a previous study, the universities across Canada said the difficulty in identifying students with handicapped conditions [10]. Perhaps lecturers could require students to provide detailed information regarding the nature of the disability and the services SWDs may need (e.g., braille signage, stairs ramp, etc.). However, this matter may be explored further in a future study. The establishment of an association/secretariat for students with disabilities in UMS may be an excellent first step in addressing the welfares of SWDs (e.g., admission, medication, financial support etc.). Hill's research found that establishing an Office for Students with Disabilities improved facilities and services for SWDs [10].

Lastly, this study found that mobility elements such as tactile blocks, road crossings, signages, and ramps are barriers experienced by SWDs in UMS. The establishment of special mobility services (such as special transportation) for SWDs will significantly help their mobility on campus. Mobility improvements should be a priority in all places within the campus and provide them with barrier-free and easy access to buildings and facilities [16].

CONCLUSION

In examining some of the critical issues faced by SWDs at UMS, the most crucial question was, "will the university provide special education facilities and services for SWDs such as learning disabilities, other disabilities conditions or both?" With an increase in the enrolment of SWDs, it is a good time now to increase and improve disabled-friendly services. It is also crucial to note that facilities and services required by students with visual impairment differ from those with mobility impairment or learning disability. Future studies are needed to examine the specific type of facilities and services and the detailed availability of these facilities and services in UMS. Future studies could also investigate whether SWDs are satisfied with the current facilities and services at their institution. To respect the rights of SWDs, all facilities and services provided in UMS should be accessible for everyone – disabled and non-disabled students, academic and non-academic staff, as well as outsiders entering UMS. Finally, this preliminary information hopes to guide other researchers to study beyond the difficulties SWDs in UMS.

LIMITATIONS

The current study encounters certain limitations. The use of open-ended and structured questions during the interview and group discussion may be modified for future research. There could be other barriers and difficulties faced by SWDs that has not yet been uncovered. This study also used a small sample size of only nine participants, where most of them were female respondents. This study explored the challenges and barriers of facilities and services faced by SWDs in UMS only. Therefore, the findings from this study can't be generalized to other universities.

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