Perceptions of Disability among University Students

Saadiah Juliana Saadun^{1*,} Mohd Zulkifli Abdullah², Mohammad Shahril Mohamed Besir³, Aziz Jamal⁴, Noor Zaihan Mat Hasan⁵, Nor Azzura Nordin⁶ & Jazmin Qistina Imran Nanang⁷

¹Faculty of Business and Management and Disability Unit Services, Universiti Teknologi MARA, Malaysia ^{2,3,4,5,6} Faculty of Business and Management, Universiti Teknologi MARA, Malaysia ⁷ PMCare, Sdn. Bhd, Malaysia *saadiah2861@uitm.edu.my, m.zulkifli@uitm.edu.my, shahrilbesir@uitm.edu.my, aziz2903@uitm.edu.my, norzaihanmh@uitm.edu.my, azzura344@uitm.edu.my, j.qistina27@gmal.com

Abstract: Perceptions of disability are important constructs that influence not only the well-being of people with disabilities but also the moral compass of society. Negative attitudes toward disability can lead to social exclusion and isolation of people with disabilities, whereas positive attitudes promote social inclusion. The present study was conducted to examine the main predictors of disability perceptions among university students, provided that understanding these factors can help develop effective interventions to improve students' attitudes toward peers with disabilities and reduce intergroup prejudice. Using 110 responses from university students at a public university, the study found that knowledge and exposure contribute significantly to perceptions among university students. Management of the university plays a critical role in shaping positive perceptions by facilitating meaningful interactions with people with disabilities, promoting disability awareness and education, and creating an environment that values diversity.

Keywords: Disability, Perceptions, Knowledge, Exposure, Experience, Higher Institution.

1. Introduction and Background

Disability refers to a condition or impairment, whether physical, mental, cognitive, or developmental, that hinders, impedes, or limits a person's ability to perform particular duties or actions and engage in typical daily activities and interactions. It can manifest as a restriction or limitation in terms of a person's physical and social functioning. Disabilities may affect mobility, vision, hearing, cognition, communication, and mental health, amongst other aspects of a person's life. Some disabilities may be visible, whereas others may be concealed or difficult to detect. The World Health Organization (WHO) describes disability as the interaction between a health condition and personal and environmental factors. Transportation inaccessibility, inaccessible public buildings, and negative social attitudes are environmental factors that may cause barriers for individuals with disabilities. To enable the full and effective participation of people with disabilities in society on an equal basis, it is essential to resolve these barriers and promote inclusivity. It is crucial to recognize that disability is a broad and diverse concept that encompasses a variety of conditions and experiences. Even if they have the same type of disability, each person with a disability has specific needs and skills. It is worth noting, that disabilities can be present at birth, acquired later in life due to a variety of factors, or be the result of injuries or chronic health conditions. Understanding and addressing the needs of people with disabilities is crucial for promoting inclusiveness, accessibility, and equal opportunities for all members of society.

2. Literature Review

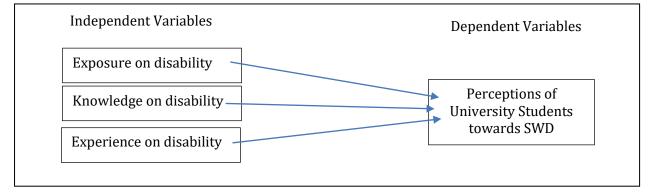
In Malaysia, the Persons with Disabilities Act 2008 (Act 685) concentrates on the rights and well-being of people with disabilities. While the act does not outline specific provisions about access to education, it does include broader aspects that indirectly affect education. About this act, in November of 2018, the Ministry of Education published what is known as the Inclusive OKU or the Disability Inclusion Policy. The directive was communicated to all twenty of Malaysia's public universities and colleges that offer higher education. These actions are consistent with the zero-reject policies (ZRP) that the government has decided to put into place and are meant to enhance the implementation of the Education for All Policy in Malaysia. Despite the movement to ensure a greater number of students with a disability (SWD) engage in higher education, the challenges faced by them throughout their educational journey are not alien. The term SWD will be used solely when referring to students with disabilities.

The students' perceptions of disabled people are affected by their exposure to disability, knowledge, and personal experiences with disability-related issues. Positive exposure, accurate knowledge, and meaningful experiences tend to cultivate empathetic, inclusive, and accepting attitudes (Scior, 2015). In contrast, limited exposure, ignorance, and negative experiences may contribute to misunderstandings, stigma, and negative perceptions (Hunt, 2004). Campbel (2003) in his study highlighted educational institutions play a crucial role in shaping positive perceptions by facilitating meaningful interactions with disabled individuals, promoting disability awareness and education, and fostering environments that celebrate diversity. The mentioned approaches can contribute to a more inclusive and supportive campus environment for all students, regardless of their abilities, by cultivating empathy, understanding, and a commitment to inclusivity. To further discuss the role of exposure to fostering a culture of inclusivity and sensitivity toward students with disabilities, this factor is highlighted by many (Mel Ainscow, 2020; NorAzizi, 2018; Amar, 2008). As faculty members, staff, and fellow students become more familiar with disability-related issues, they are better equipped to create an inclusive and supportive environment for disabled students.

An increase in exposure can assist in the reduction of stigmas and beliefs that are connected with certain disabilities (Marshall, 2019) and encourage empathy and understanding (Babik, 2021) among non-disabled students and staff. By experiencing the challenges faced by their disabled peers, individuals may become more compassionate and willing to offer support and accommodations. This awareness can drive advocacy efforts to improve accessibility and implement necessary accommodations (Chan, 2020), improve and expand their support services for disabled students (Abreu, 2017), develop self-advocacy skills (Roberts, 2016) and create more opportunities for disabled students as they transition into their careers (Benz, 2000). Apart from exposure, Hasnah (2010) highlighted knowledge of disability helps educators and school staff to understand the individual needs of students with disabilities. Misconceptions and prejudices are challenged as a result of people's interactions with people who have impairments (Ahmad, 2017) which in turn leads to a campus culture that is more accepting of those who have different skills and strengths. This includes recognizing the specific challenges they may face in learning and participation and tailoring teaching approaches and accommodations accordingly.

Educators and peers who are knowledgeable about disabilities (Nor Azizi, 2018) are better equipped to adopt inclusive teaching and learning practices. They can use a variety of instructional and learning methods, materials, and technologies to accommodate different learning styles and ensure that SWD can access the curriculum (Ahmad, 2017). Personal experiences with a disability meanwhile, depicted by Yusof (2020), can inspire individuals to become advocates for disability rights and inclusion. These results are like those reported by Hosshan (2020), individuals who have encountered barriers firsthand may be motivated to work toward positive change and equal opportunities for all. Although, experiences with disability are frequently highlighted as a common condition that has a considerable impact on the attitudes of individuals toward disability in general, Honey (2011) asserted positive experiences may lead to greater understanding, empathy, and acceptance of diversity, while negative experiences could reinforce stereotypes or misconceptions. Based on the above literature, the three factors that are expected to directly affect the perceptions of university students toward SWD are illustrated in the conceptual framework below.

Figure 1: Proposed	Conceptual	Framework
--------------------	------------	-----------



3. Research Methodology

A cross-sectional research design was used to examine the association between exposure, knowledge, and experience on perceptions of university students toward disability. Data were collected through digital platforms or e-questionnaires that were personally administered to the respective students at UiTM Puncak Alam, Selangor, Malaysia. A list of students from the Bachelor of Health Administration in the UiTM Puncak Alam Campus served as the sampling frame. A total of 110 students responded to the questionnaire. The questionnaire was adapted from an established questionnaire and the items were modified and aligned with the research questions of the current study. The items of exposure were adapted from the (Wang, 2021; Roca-Hurtuna & Sanz-Ponce, 2023 & Babik & Gardner (2021), knowledge (Han, Park & Bang, 2023; Akin & Huang 2019), experience and exposure (Roca-Hurtuna & Sanz-Ponce, 2023; Montemayor & Haladjian, 2017). The questionnaire utilized closed-ended questions with a fixed range of possible answers using a 5-point Likert scale with the following values: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree to measure all variables. The items were modified to get the required responses to answer the research questions. The collected data were analyzed using statistical software, i.e., SPSS Version 26. The study applied both descriptive statistics (mean and standard deviation) and correlational study.

4. Results

This section presents sets of results relating to the profile of respondents' experiences towards network operators, the characteristics of the total sample, and the comparison of participants regarding their experience based on demographic and geographic characteristics (gender, age and level of semester).

Profile of Respondents: Table 1 displays a summary of the characteristics of the total sample of Bachelor of Health Administration students who participated in the study.

VARIABLE	FREQUENCY	PERCENTAGE	
GENDER			
Males	7	6.4%	
Females	103	93.6%	
Total	110	100%	
AGE			
19-21	21	19.1%	
22-24	82	74.5%	
>25	7	6.4%	
Total	110	100%	
SEMESTER			
1	1	0.9%	
2	17	15.5%	
3	9	8.2%	
4	21	19.1%	
5	62	56.4%	
Total	110	100%	

 Table 1: Demographic and Semester Information About Students of Health Administration

Reliability and Correlation: Table 2 demonstrates the results of the reliability analysis that indicate that all items are reliable to measure the intended variables; exposure (α =.70), knowledge (α =.79), experience (α =.74) and perceptions ((α =.73). The results of the correlation analysis show that independent variables are significantly correlated with others indicating there are concurrent and convergent validity. The highest correlation (r=.358, p<.01) and most influential factor towards the perception of disability are found in knowledge, moderate relationship (r= .323, p<.0.1) in experience, the lowest correlation is found in exposure (r=.221, p<.05).

	Descriptive Statistics						
No	Variable	Mean	Std. Dev.	1	2	3	4
1	Exposure on Disability	3.9	0.63	(.703)			
2	Knowledge on Disability	3.6	0.71	.597**	(.790)		
3	Experience on Disability	3.2	0.63	.380**	.456**	(.743)	
4	Perception on Disability	3.6	0.58	.221*	.358**	.323**	(.725)

Table 2: Results of Reliability and Correlation

Notes: **. Correlation is significant at the 0.01 level (1-tailed); * Correlation is significant at the 0.05 level (1-tailed Cronbach's alphas in the parentheses along the diagonal; N=110

Regression Analysis: Table 3 illustrates the results of the regression analysis for this study. A multiple regression analysis was used to identify the student's perception of disability. The R2 of .161 denotes that 16.1% of the variance was explained by the three independent variables. Meanwhile, another 83.9% of the variance in the perception of university students towards disabled students is not explained by experience, exposure, and knowledge in this study. This indicates that there are other independent variables contributed by other factors that are associated with the perception of university students towards disability which are not included in this study and could further strengthen the regression equation. Thus, the F Change is 6.768 which indicate the model of analysis is fixed because the *F* change is more than 1. The adjusted R Square is used to compare the goodness-of-fit for regression models that contain differing numbers of independent variables.

Table 3: Results of Multiple Regression Analysis

Variables	Std Beta Coefficients	
Experience on Disability	023	
Exposure on Disability	.278**	
Knowledge on Disability	.206**	
R	.401	
R ²	.161	
Adjusted R ²	.161	
F value	6.768	
Sig. F value	.000	
Durbin Watson	1.969	

Notes: ** significant at the 0.05 level

Discussion: The findings from the study coincide with H2 (there is a significant relationship between knowledge and perceptions of disability) and are compatible with the study conducted by Hasnah, 2010; Ahmad, 2017 & Nor Azizi, 2018. The studies mentioned above show a critical shift in expectations about disability knowledge. Originally, respondents believed that knowing about disabilities was sufficient. However, the landscape has evolved to require people to move beyond mere knowledge to a more active understanding of how to effectively support people with disabilities. This shift reflects the increasing importance of practical, actionable knowledge that translates into inclusive practices (Yusuf, 2020). The consequences of failing to create inclusive environments are multifaceted. Not only does it lead to a distortion of knowledge about disabilities, but it also undermines the principles of equal opportunity and belonging for all students. Evans (2017) asserted when institutions fail to create an atmosphere that promotes diversity, students with disabilities may feel excluded, which adversely affects their academic and personal experiences. This underscores the importance of fostering an inclusive culture that goes beyond theoretical knowledge. The above-mentioned idea that positive experiences serve as catalysts for change is gaining momentum.

Interactions with people with disabilities provide opportunities for personal growth and understanding. Positive experiences challenge preconceived notions and stereotypes and offer insights into the strengths and perspectives of people with disabilities. These interactions serve as bridges to break down barriers of ignorance or misunderstanding and contribute to a more empathetic and open-minded society. When people have positive experiences with people from diverse backgrounds, such as interacting with SWD in respectful and inclusive ways, it can lead to various positive outcomes. For instance, positive experiences foster a

deeper understanding of the unique challenges and experiences of people with disabilities. These interactions provide valuable insights into the different perspectives and strengths of people with disabilities and break down barriers of ignorance or misunderstanding (Honey, 2011). The discrepancy between the weak relationship found by Marshall (2019) and the positive outcomes of exposure highlighted in other studies points to a crucial aspect: the quality and depth of exposure. Although exposure does not always directly correlate with improved cognition, the nature of the interaction is important. Passive exposure may not be enough; it is active engagement, meaningful conversations, and collaborative experiences that contribute to a more emphatic and open-minded society. Simply possessing knowledge about disabilities without being exposed to them can do little to reduce stigma (Nor Azizi, 2018). Therefore, it is worth noting that Institutions of higher education play a central role in shaping the attitudes and behaviors of students towards disability.

The discussion is made to highlight that beyond the curriculum, colleges and universities can create various opportunities for meaningful interactions between students and people with disabilities. These could include workshops, seminars, volunteer opportunities, and inclusive events. By encouraging active engagement, institutions create opportunities for students to apply their theoretical knowledge and develop a deeper understanding of diversity. Writing at this point of the discussion, it is worth highlighting the need for a holistic approach to promoting inclusion. It is not just about imparting knowledge, but also about promoting active participation and support. This approach is about recognizing the dynamic nature of disability awareness and the importance of lived experiences. By creating an environment that values diverse perspectives and encourages engagement, colleges and universities are helping to educate well-rounded individuals who are prepared to navigate a diverse world. In conclusion, as societal attitudes and perceptions change, continuous research becomes essential. The changing landscape of disability awareness requires ongoing research to understand how best to promote inclusion. This research can help educational institutions adapt their policies, curricula, and support systems to meet the changing needs and challenges of students with disabilities.

5. Managerial Implications and Recommendations

Promoting inclusion and supporting students with disabilities in higher education is essential to ensuring equal opportunity and creating a positive learning environment. By addressing the challenges faced by students with disabilities and implementing comprehensive solutions, higher education institutions can create a campus culture that honors diversity and empowers all students to succeed academically and socially. Concerning the inconsistencies between the knowledge and exposure to disability, Creating and developing policies that make inclusion of students with disabilities mandatory can be a proactive step toward promoting inclusivity and raising awareness in the higher education community. Such policies can help bridge the gap between knowing about and addressing disabilities and promoting a supportive and inclusive campus culture.

Conclusion

The present study aims to investigate the influence of three factors, including exposure, knowledge, and experience, on the perception of disability among university students. Based on the results of multiple regression analysis, three factors were found to significantly influence perception, namely exposure, knowledge, and experience. Since the Education-for-All policy includes the inclusion of people with disabilities in academia, it is important for educational institutions to not only take a proactive approach to integrate people with disabilities into the campus community but also to provide opportunities for mutual understanding and acceptance. Future research is needed to validate the findings by involving students from other universities so that the results can be generalized to other contexts.

References

- Abreu, M., Hillier, A., Frye, A. & Goldstein, J. (2017). Student experiences utilizing disability support services in a university setting. *College Student Journal*, 50(3), 323-328.
- Ahmad, N. A., Mohamad Kasim, N., Mahmud, N. A., Mohd Yusof, Y., Othman, S., Chan, Y. Y. & Aris, T. (2017). Prevalence and determinants of disability among adults in Malaysia: results from the National Health and Morbidity Survey (NHMS) 2015. *BMC Public Health*, 17, 1-10.
- Akin, D. & Huang, L. M. (2019). Perceptions of College Students with Disabilities. *Journal of Postsecondary Education and Disability*, 32(1), 21-33.
- Amar, H. S. S. (2008). Meeting the needs of children with disabilities in Malaysia. *Med J Malaysia*, 63(1), 1.
- Babik, I. & Gardner, E. S. (2021). Factors affecting the perception of disability: A developmental perspective. *Frontiers in Psychology*, 12, 702166.
- Benz, M. R., Lindstrom, L. & Yovanoff, P. (2000). Improving graduation and employment outcomes of students with disabilities: Predictive factors and student perspectives. *Exceptional Children*, 66(4), 509-529.
- Campbell, J., Gilmore, L. & Cuskelly, M. (2003). Changing student teachers' attitudes towards disability and inclusion. *Journal of Intellectual and Developmental Disability*, 28(4), 369-379.
- Chan, C. C., Yusof, Y., Ahmad Ramli, F. Z., Hillaluddin, A. H. & Mat Saad, Z. (2022). Physical accessibility in Malaysian higher educational institutions: Voices of students with disabilities. International Social Work, 00208728221094417.
- Ensimau, N. K., Hamzah, M. I., Yasin, M. H. M. & Nasri, N. M. (2022). The Implementation of Zero Reject Policy in Malaysia: A Systematic Review. *Proceeding of International Conference on Special Education in South East Asia Region*, 1(1), 243–260. Retrieved from https://educationcenter.id/journal/index.php/icsar/article/view/50
- Evans, N. J., Broido, E. M., Brown, K. R. & Wilke, A. K. (2017). Create campus environments that support students with impairments. *Disability Compliance for Higher Education*, 22(11), 1-5.
- Han, N., Park, S. Y. & Bang, J. B. (2023). Pharmacy Students' Attitudes toward Persons with Disabilities and Perceptions of Right to Self-Determination. *American Journal of Pharmaceutical Education*, 87(4).
- Hasnah, T., Muhamad, T., Yasin, M., Tahar, M. M. & Hamzah, N. (2010). Knowledge and Attitude of Peers towards Students with Disabilities in Malaysian Public Institute of Higher Education. ASEAN Journal of Teaching & Learning in Higher Education.
- Honey, A., Emerson, E. & Llewellyn, G. (2011). The mental health of young people with disabilities: impact of social conditions. *Social psychiatry and psychiatric epidemiology*, 46, 1-10.
- Hosshan, H. B. (2020). An exploration of the social participation of students with learning disabilities in inclusive education programs at Malaysian secondary schools (Doctoral dissertation, University of Sydney).
- Hunt, C. S. & Hunt, B. (2004). Changing attitudes toward people with disabilities: Experimenting with an educational intervention. Journal of Managerial Issues, 266-280.
- Jabatan Kebajikan Malaysia. (2023). Statistik Pendaftaran OKU. https://www.jkm.gov.my/jkm/index.php?r=portal/full&id=ZUFHVTB1NnJWM0EreGtwNC9Vb1hvdz 09
- Marshall, J., Doone, E. & Price, M. (2019). Cultural models of child disability: Perspectives of parents in Malaysia. *Disability and Rehabilitation*, 41(22), 2653-2662
- Mel Ainscow. (2020). Promoting inclusion and equity in education: lessons from international experiences, *Nordic Journal of Studies in Educational Policy*, 6(1), 7-16, DOI: 10.1080/20020317.2020.1729587
- Montemayor, C. & Haladjian, H. H. (2017). Perception and cognition are largely independent, but still affect each other in systematic ways: Arguments from evolution and the consciousness-attention dissociation. *Frontiers in Psychology*, 8, 40.
- Nor Azizi, A. A., Rabun, M. N. & Badarin, N. A. S. (2018). Are we disabled among the disabled? Disability awareness among University of Malaya students. *Journal of Administrative Science*, 15(1).
- Persons with Disabilities Act 2008. https://www.malaysia.gov.my/portal/content/30739
- Public Service Delivery and Local Government. Vulnerable Groups, Persons with Disabilities. https://www.malaysia.gov.my/portal/content/30739
- Roberts, E. L., Ju, S. & Zhang, D. (2016). Review of practices that promote self-advocacy for students with disabilities. *Journal of Disability Policy Studies*, 26(4), 209-220.
- Roca-Hurtuna, M. & Sanz-Ponce, R. (2023). The Perception of University Students towards People with

Disabilities and Their Labor Insertion. *Education Sciences*, 13(1), 79. MDPI AG. Retrieved from http://dx.doi.org/10.3390/educsci13010079

Roca-Hurtuna, M. & Sanz-Ponce, R. (2023). The Perception of University Students towards People with Disabilities and Their Labor Insertion. *Education Sciences*, 13(1), 79. Retrieved from https://doi.org/10.3390/educsci13010079

Scior, K. & Werner, S. (2015). Changing attitudes to a learning disability. *Posjećeno*, 20(2019), 2016-08.

Unicefhttps://www.unicef.org/malaysia/what-we-do/protection-violence/children-disabilities

- Wang, Z., Xu, X. & Han, Q. et al. (2021). Factors associated with public attitudes towards persons with disabilities: a systematic review. BMC Public Health 21, 1058 (2021). https://doi.org/10.1186/s12889-021-11139-3.
- Yusof, Y., Chan, C. C., Hillaluddin, A. H., Ahmad Ramli, F. Z. & Mat Saad, Z. (2020). Improving inclusion of students with disabilities in Malaysian higher education. *Disability & Society*, 35(7), 1145-1170.