

## **THE ACCESSIBILITY FOR PEOPLE WITH DISABILITY AT SPORTS COMPLEX STADIUM TUANKU SYED PUTRA**

Nur Iman Yazin Affar, Al Hafiz Abu Bakar, Masshera Jamaludin, Ellail Ain Mohd Aznan, Siti Hannariah Mansor & Norfaezah Mohd Rosli\*

Faculty of Sports Science and Recreation, Universiti Teknologi Mara, Cawangan Perlis, Kampus Arau, 02600 Arau, Perlis, Malaysia

\*Corresponding Author: [faezah\\_rosli@uitm.edu.my](mailto:faezah_rosli@uitm.edu.my)

**Published online:** 25 April 2024

**To cite this article (APA):** Yazin Affar, N. I., Abu Bakar, A.-H., Jamaludin, M., Mohd Aznan, E. A., Mansor, S. H., & Mohd Rosli, N. (2024). The Accessibility for People with Disability at Sports Complex Stadium Tuanku Syed Putra. *Jurnal Sains Sukan & Pendidikan Jasmani*, 13(1), 9–15. <https://doi.org/10.37134/jsspj.vol13.1.2.2024>

**To link to this article:** <https://doi.org/10.37134/jsspj.vol13.1.2.2024>

### **ABSTRACT**

This study assesses the accessibility for people with disabilities Sports Complex Stadium Tuanku Syed Putra. In twenty-first century, people with disabilities still facing challenges in reaching public spaces. The absence of adequate sports facilities was a major barrier for participation in physical activity and sports for people with disabilities. This study adopted questionnaires from Norfaezah (2017) measurement scale entitled the Accessibility at Recreational Park Instrument (ARPI) which were issued to 133 people with disabilities around Perlis. Using Statistical Package for Social Science, the hypotheses were statistically analysed using Mann-Whitney Test, at  $p < 0.05$  level of significant. Results show that among the accessibility features offered at Sports Complex Stadium Tuanku Syed Putra with the highest mean value goes to ease to access while the lowest mean value goes to lighting. In addition, the outcome indicates that respondents concur that the most crucial accessibilities feature with highest mean value is access routes while the lowest mean value is signage. The result showed there are gender-specific differences in the significance of lighting, signage, and access routes for people with disabilities. In future, the researcher may conduct a study on the accessibility offered at other recreation parks in Perlis. The governing body may utilize the findings to improve recreation parks in Perlis yet making it accessible to everyone.

**Key Words:** *People with Disabilities, Accessibilities, Recreational Park*

### **INTRODUCTION**

According to the World Health Organization (2022) over 1 billion out of 8 billion population in the world are estimated to experience disability. About 15% of the world's population, with up to 190 million (3.8%) people aged 15 years and older having significant difficulties in functioning, often requiring health care services.

There is significant enhancement every year on the total number of people with disabilities registered under Jabatan Kebajikan Masyarakat (Department of Social Welfare) in Malaysia. On 31 May 2021, there were 579 150 people registered as people with disabilities. About 1.8% of the Malaysian population can be classified as people with disabilities (OKUrightsmatter, 2022).

People living with disabilities are 16–62% less likely to meet PA guidelines than people without disabilities and are at even greater risk of serious health problems associated with inactivity than the general population (Martin Ginis et al., 2021). It is clearly seen in communities where it is rarely seen people with disabilities involved PA. Most recreation parks or public parks are usually anticipated by people without disabilities.

Behind the numbers are the life stories of persons with disabilities, their everyday challenges faced, barriers to participating in roles and activities that are expected of non-disabled people within our community, prejudice and discrimination faced in many aspects of life, including education, healthcare, employment, etc. Barrier to recreation participation can be categorized into which are intrinsic barriers, environmental barriers and interactive barriers (Smith, 1996).

The environmental barriers that are most frequently faced by people with disabilities are lack of architectural structures (e.g., ramps, elevators), inadequate or poor visual, tactile or acoustic signalling, and lack of adapted transportation. Architectural barriers are a lack of accessibility in buildings or urban infrastructure. It pushes disabled people not only for mobility, but also the capacity to use existing resources (Smith, 1996).

North Caroline State University College of Design (1997) stated universal design can be defined as a product and environment which is usable by everyone, to the greatest extent possible without any specialized design for a certain group of people. It is a design of a building that can be accessed, grasped, and utilised to the greatest extent possible by anyone, regardless of their age, aptitude or impairment. Fitri et al. (2022) mentioned physical access to spaces and amenities or considering aspects of universal design can allow everyone to engage in whatever they desire. It can also mean any sport or club a friendly, encouraging environment where everyone is welcome and can fit in offers accessibility is very general yet become the main factors for people with disabilities to leave their place and go to their destination.

According to Duignan et al. (2023) there are various unique barriers that are often faced by people with disability to participate in exercise. There is a significant relationship between accessibility and people's disability participation. Environmental barriers have restrained people with disabilities from getting involved with physical activities (Norfaezah, 2017). Most recreational areas or public parks are inaccessible for certain impairment and do not really provide in need facilities.

Numbers of research of inaccessibility issues in Malaysia had been reported and need to be improved. A lot of finding inaccessibility issues were always been discussed, such as low quality facilities in public parks in Malaysia (Sakip, Akhir & Omar, 2014), facilities in commercial complex (at Ampang, Selangor) was found challenged for wheelchair user and people with limited abilities especially in term of mobility opportunities (Hashim et al, 2012) and the route in training facilities in Malaysia is slippery and had many poles that obstruct people with disabilities (Fitri et al. (2022). Thus, this study aims to evaluate the accessibilities for people with disabilities at Sport Complex Stadium Tuanku Syed Putra, Kangar, Perlis.

## **METHODOLOGY**

### ***Research Design***

The type of research that is used for this study is known as descriptive research. The design chosen for this study is survey research that involved questionnaire surveys. The quantitative research used the survey design to evaluate accessibility for people with disability at Sports Complex Stadium Tuanku Syed Putra. The questionnaire has been distributed to 8371 people with disabilities in Perlis. This questionnaire was divided into three sections: Section A is related to the respondent's demographic data, Section B is to evaluate the accessibilities for people with disability at Sports Complex Stadium Tuanku Syed Putra, and Section C is to evaluate people with disabilities perception on the importance of the accessibilities (Lighting, access routes, ease to access, signage, and toilet) at Sports Complex Stadium Tuanku Syed Putra. Section B & Section C are using the Accessibility at Recreational Park Instrument (ARPI) (Norfaezah, 2017).

### ***Population & Sample***

According to Gravetter and Forzano (2018), it is not practical or conceivable to obtain measure from the population expenses, time and accessibility factors. Total number of people with disabilities in Perlis. Total people with disabilities except for visual category and mental category is 6617. Total people with disabilities above 18 years old is 4623. However, some respondents are not involved in this study as they never visit in Sport Complex Stadium Tuanku Syed Putra, Kangar, Perlis. According to Hair et al. (2019), 100 samples is accepted in most research situation. Thus, 120 samples had been chosen to represent this study with additional 20% of numbers as in case of any possible things that might happen.

### ***Data Collection Procedure***

The researcher get permission and approval from faculty and the UiTM Research Ethical Committee with reference number REC/420/2023 before collecting data. A hardcopy and softcopy link (Google form) of the questionnaire will be delegated to all ten Pertubuhan Pemulihan Dalam Komuniti (PPDK) in Perlis. All respondents have experienced attended Sport Complex Stadium Tuanku Syed Putra, Kangar, Perlis. Respondents were not required to write their names on the questionnaire for confidentiality purposes. Respondents were given three weeks to submit their questionnaires.

### ***Instrument***

The researcher used a questionnaire to obtain information in a quantitative field study. The research instrument to assess the accessibility availability has been adopted from Norfaezah (2017), the Accessibility at Recreational Park Instrument (ARPI). The reliability reading range for this instrument ranges from 0.75 to 0.87. Each accessibility question has two possible answers. The ARPI is a compilation of two variables which are accessibility and importance of accessibility for people with disabilities. This questionnaire will be divided into three sections: Section A, Section B and Section C.

Section A is demographic data where respondent is required to answer the demographic questionnaire that encompass eight items including gender, age, races, types of disabilities, marital status, educational level, occupation and how frequently visit the Sports Complex Tuanku Syed Putra.

For Section B and Section C, the instruments were adopted Accessibility at Recreational Park Instrument (ARPI). This ARPI was adapted with reference to the Malaysia Guidelines, Malaysian Standards MS 1184:2002 (Access for Disabled Person to Public Buildings) and MS 1331:2003 (Access for Disabled Person to Outside Buildings) so that its suits to the Malaysian Standard and in line with Person with Disabilities Act 2008.

Section B is to determine the accessibility provided at Sports Complex Stadium Tuanku Syed Putra which consist of 26 items. There are two possible answer to respond to the noticeable of five components (lighting, access routes, signage, toilet and ease to access) of accessibilities at Sports Complex Stadium Tuanku Syed Putra which is Yes or No.

Section C is to evaluate people with disabilities perception on the importance of the accessibilities (lighting, signage, toilet, ease of access and access routes) at Sports Complex Stadium Tuanku Syed Putra. The questionnaire used a Likert scale question, and the scale ranged from (1- very unimportant, 2- unimportant, 3- neutral, 4- important, 5- very important).

All three sections of the questionnaire were bilingual as adopted from ARPI (back to back translation with checked by linguistic experts) which are Bahasa Malaysia and English to provide better understanding for respondents, since the respondents were from different races.

### ***Data Analysis***

Data collected has been analyzed by using the IBM SPSS Statistics Version 26 for Windows. In addition, the difference of importance of accessibilities (Lighting, Access Routes, Ease to Access, Signage, and Toilet) at Sports Complex Stadium Tuanku Syed Putra among people with disabilities between gender groups were analysed using descriptive statistic and Mann-Whitney Test. All the data were presented in mean and standard deviation ( $M \pm SD$ ).

## RESULTS

Table 1 represents more male respondents which are 81 (60.9%) than female respondents which are 52 (39.1%). Most respondents come from age 22 – 29 which are 52 (39.1%) respondents while the least come from age 50 years old and above which is 1 (0.8%) respondent. For age 18 – 21 which are 48 (36.1%) respondents, age which are 30 – 39 with 19 (14.3%) respondents and age which are 40 – 49 with 13 (9.8%) respondents. As for races, the majority of respondents were Malay which are 126 (94.7%), whereas Chinese which are 6 (4.5%) and Others (Example: Siamese) which is 1 (0.8%).

As for the category of disability, learning disability showed a lot of participation with amount 99 (74.4%) respondents. The other categories are physical disability with amount 16 (12%) respondents, multiple with amount 9 (6.8%) respondents, speech disability with amount 5 (3.8%) respondents and hearing disability with amount 4 (3%) respondents. Most of respondents are single which are 115 (86.5%) respondents, whereas married which are 18 (13.5%).

In terms of level education, most respondents were from Others (Example: specialize course certification) which are 93 (69.9%) respondents while the other respondents were from SPM which are 36 (27.1%) respondents, Degree which are 3 (2.3%) respondents and STPM which is 1 (0.8) respondent. The majority of respondents are unemployment with amount 90 (67.7%) respondents while the minority respondents are students with amount 3 (2.3%) respondents, whereas employment respondents are 40 (30.1%). As for the frequency of respondent used the Sports Complex Tuanku Syed Putra were Others (Example: 1 time a month and else) are 96 (72.2%) respondents, 1 time a week are 26 (19.5%) respondents, 2 times a week are 10 (7.5%) respondents and 3 times a week is 1 (0.8%) respondent.

**Table 1.** Respondent Demographic Profile

|  | <b>Demographic Profiles</b>                       | <b>Frequency</b> | <b>Percent</b> |
|--|---|------------------|----------------|
| Gender   | Male  | 81               | 60.9           |
|  | Female  | 52               | 39.1           |
| Age  | 18 – 21   | 48               | 36.1           |
|  | 22 – 29   | 52               | 39.1           |
|  | 30 – 39   | 19               | 14.3           |
|  | 40 – 49   | 13               | 9.8            |
|  | 50 Years Old and Above                            | 1                | 0.8            |
| Races  | Malay   | 126              | 94.7           |
|  | Chinese   | 6                | 4.5            |
|  | Others  | 1                | 0.8            |
| Category of Disability                                       | Learning  | 99               | 74.4           |
|  | Speech  | 5                | 3.8            |
|  | Physical  | 16               | 12             |
|  | Hearing   | 4                | 3              |
|  | Multiple  | 9                | 6.8            |
| Marital Status   | Single  | 115              | 86.5           |
|  | Married   | 18               | 13.5           |
| Level of Education   | SPM   | 36               | 27.1           |
|  | STPM  | 1                | 0.8            |
|  | Degree  | 3                | 2.3            |
|  | Others (Example: Specialize course certification) | 93               | 69.9           |
| Occupation   | Student   | 3                | 2.3            |
|  | Employment  | 40               | 30.1           |
|  | Unemployment                                      | 90               | 67.7           |
| How frequently you used the Sports Complex Tuanku Syed Putra | 1 time a week                                     | 26               | 19.5           |
|  | 2 time a week                                     | 10               | 7.5            |
|  | 3 time a week                                     | 1                | 0.8            |

|  |    |      |
|--|----|------|
| Others (Example: 1 times a month and else) | 96 | 72.2 |
|--|----|------|

Table 2 shows the mean scores for access routes were the highest mean score of all five with 22.51 and a standard deviation (3.096). This result showed that most respondents agree that access routes are very important in Sports Complex Stadium Tuanku Syed Putra. The lowest mean score of all five is signage with 8.20 and standard deviation (1.438). It shows that most respondents agree that signage are least important in Sports Complex Stadium Tuanku Syed Putra.

**Table 2.** The Importance of Accessibilities Provided for People with Disability at Sports Complex Stadium Tuanku Syed Putra

| Factor         | N   | Mean  | SD    | Ranking |
|----------------|-----|-------|-------|---------|
| Lighting       | 133 | 13.32 | 2.127 | 3       |
| Signage        | 133 | 8.20  | 1.438 | 5       |
| Toilet         | 133 | 18.03 | 2.293 | 2       |
| Ease to Access | 133 | 9.63  | 2.344 | 5       |
| Access Routes  | 133 | 22.51 | 3.096 | 1       |
| <b>TOTAL</b>   |     | 71.69 | 8.237 |         |

Table 3 shows the outcomes of mann-whitney test to compare the importance of lighting, signage, toilet, ease to access and access routes between males and females. The result shows that there are significant differences on compare the importance of lighting, signage and access routes between males and females. There was a significant difference in score level for males (Mean Rank = 74.85) and females (Mean Rank = 54.77) ; p= 0.001, two-tailed for the importance of lighting. There was a significant difference in score level for males (Mean Rank = 59.35) and females (Mean Rank = 78.91) ; p= 0.002, two-tailed for the importance of signage. Lastly, there was a significant difference in score level for males (Mean Rank = 72.72) and females (Mean Rank = 58.09); p= 0.022, two-tailed the importance of access routes.

**Table 3.** The Importance Factors of Accessibilities Component at Sports Complex Stadium Tuanku Syed Putra between Genders

|                | Group  | N  | Mean Rank | Sum of Ranks | p-value      |
|----------------|--------|----|-----------|--------------|--------------|
| Lighting       | Male   | 81 | 74.85     | 6063.00      | <b>0.001</b> |
|                | Female | 52 | 54.77     | 2848.00      |              |
| Signage        | Male   | 81 | 59.35     | 4807.50      | <b>0.002</b> |
|                | Female | 52 | 78.91     | 4103.50      |              |
| Toilet         | Male   | 81 | 70.06     | 5675.00      | 0.223        |
|                | Female | 52 | 62.23     | 3236.00      |              |
| Ease to Access | Male   | 81 | 68.56     | 5553.50      | 0.548        |
|                | Female | 52 | 64.57     | 3357.50      |              |
| Access Routes  | Male   | 81 | 72.72     | 5890.50      | <b>0.022</b> |
|                | Female | 52 | 58.09     | 3020.50      |              |

## DISCUSSION

### *The Importance of Accessibility for People with Disability at Sports Complex Stadium Tuanku Syed Putra*

From the outcome, the researcher identified the importance of accessibilities provided for people with disability at Sports Complex Stadium Tuanku Syed Putra. The researcher conclude that most respondents agree that seats are provided at Sports Complex Stadium Tuanku Syed Putra. However, the respondents also agree that the seats are not provided along the foothpath. It can be related because most of the seats provided in Sport Complex Stadium Tuanku Syed Putra are only available at the stadium areas.

### ***The Difference Between Importance Factors of Accessibilities (Lighting, Signage, Toilet, Ease of Access and Access Routes) among People with Disabilities at Sports Complex Stadium Tuanku Syed Putra between Genders***

According to the result, it was found that there was a significant difference on the important of lighting among people with disabilities at Sports Complex Stadium Tuanku Syed Putra between male and female. This result represented that gender groups really do have an effect on the importance of lighting. Specifically, the results indicate that male have higher tendency towards importance of lighting at Sports Complex Stadium Tuanku Syed Putra. According to Westrop et al. (2019) male and female participation in physical activity differs significantly where females are less likely to engage in physical activity than males. This may be related to the fact that most male are more active in physical activity and may be aware of the importance of lighting in public places.

According to the result, it was found that there was a significant difference on the important of signage among people with disabilities at Sports Complex Stadium Tuanku Syed Putra between male and female. These result shows that gender groups really do have an effect on the importance of signage. Specifically, the results show that female have higher tendency towards importance of signage at Sports Complex Stadium Tuanku Syed Putra. According to the Ahmad Zamil (2008) specific requirements for signage should be highlighted based on the needs of people with impairments. This result represents female are more aware in small details rather than males.

According to the result, it was found that there was a significant difference on the important of access routes among people with disabilities at Sports Complex Stadium Tuanku Syed Putra between male and female. These result shows that gender groups really do have an effect on the importance of access routes. Specifically, the results show that male have higher tendency towards importance of access routes at Sports Complex Stadium Tuanku Syed Putra. According to the Polko and Kimic (2022), there are significant differences in the perception of safety in urban parks for example access routes.

## **CONCLUSION**

A greater priority should be placed on encouraging people with disabilities issues to visit parks and organizing more social interaction events. That is why public parks must be accessible and useful by individuals of all ages, especially those with impairments. This evaluation of Sports Complex Stadium Tuanku Syed Putra is focusing on Lighting, Signage, Toilet, Ease to Access and Access Routes. These factors potentially contribute to leisure and physical activity engagement for people with disabilities. Thus, more thorough study of public parks in the Perlis area is necessary to ensure that the environment is accessible and beneficial by individuals of all abilities throughout their lives, optimizing chances for leisure activities.

## REFERENCES

- Ahmad Zamil, Z. (2008, December 4). Kemudahan golongan Kurang Upaya: kepentingan pada masa kini. <http://tamanmelayu2012.blogspot.com/2012/12/kemudahan-golongan-kurang-upaya.html>
- Duignan, M. B., Brittain, I., Hansen, M., Fyall, A., Gerard, S., & Page, S. (2023). Leveraging accessible tourism development through mega-events, and the disability-attitude gap. *Tourism Management*, 99, 104766. <https://doi.org/10.1016/j.tourman.2023.104766>
- Fitri, M., Zainal Abidin, N.E., Novan, N.A., Kumalasari, I., Haris, F., Mulyana, B., Khoo, S., & Yaacob, N. (2022). Accessibility of Inclusive Sport Facilities for Training and Competition in Indonesia and Malaysia. *Sustainability*, 14(21), 14083. <https://doi.org/10.3390/su142114083>
- Gravetter, F. J., & Forzano, L. B. (2018). *Research Methods for the Behavioral Sciences* (6th ed.). Cengage Learning.
- Hashim, A. E., Samikon, S. A., Ismail, F., Kamarudin, H., Jalil, M. N. M., & Arrif, N. M. (2012). Access and accessibility audit in commercial complex: effectiveness in respect to people with Disabilities (PWDs). *Procedia\_Social and Behavioral Sciences*, 50, 452-461.
- Martin Ginis, K. A., van der Ploeg, H. P., Foster, C., Lai, B., McBride, C. B., Ng, K., Pratt, M., Shirazipour, C. H., Smith, B., Vásquez, P. M., & Heath, G. W. (2021). Participation of people living with disabilities in physical activity: a global perspective. *The Lancet*, 398(10298), 443-455. [https://doi.org/10.1016/s0140-6736\(21\)01164-8](https://doi.org/10.1016/s0140-6736(21)01164-8)
- North Carolina State University College of Design. (1997). *The Seven Principles of Universal Design* (2.0, Vol. 4/1/9). <https://www.alberta.ca/assets/documents/tr/tr-universaldesign.pdf>
- Norfaezah, M.R. (2017). *Accessibilities of Public recreational Park for People with Disabilities*. (Unpublished master's thesis). Universiti Teknologi Mara.
- OKUrightsmatter. (2022, December 15). Disability data - OKU rights matter. <https://www.okurightsmatter.com/disability-data>
- Polko, P., & Kimic, K. (2022). Gender as a factor differentiating the perceptions of safety in urban parks. *Ain Shams Engineering Journal*, 13(3), 101608. <https://doi.org/10.1016/j.asej.2021.09.032>
- Sakip, S. R. M., Akhir, N.M., & Omar, S.S. (2014). User perception on accessibility of public park in Malaysia. In *2<sup>nd</sup> International Conference on Innovation and Technology for Sustainable Built Environment*.
- Smith, R. W. (1996). *Inclusive and special recreation: Opportunities for Persons with Disabilities*. McGraw-Hill Humanities, Social Sciences & World Languages
- Westrop, S. C., Melville, C. A., Muirhead, F., & McGarty, A. M. (2019). Gender differences in physical activity and sedentary behaviour in adults with intellectual disabilities: A systematic review and meta-analysis. *Journal of Applied Research in Intellectual Disabilities*, 32(6), 1359-1374. <https://doi.org/10.1111/jar.12648>
- World Health Organization. (2022, December 12). *Disability*. <https://www.who.int/news-room/fact-sheets/detail/disability-and-health>