

Determinants of public personality in acceptance of people with disabilities' participation in physical activity.

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Abstract

Participation in physical activity for people with disabilities will improve their quality of life not only in terms of health but also in social relationships with others. For people with disabilities to be accepted in the community has been challenging, especially participation in physical activity since they still face social isolation from peers without disabilities. Previous studies have shown that, disparities exist in physical activity levels for people with and without disabilities. To understand this issue better, the present study aims to identify the dimension of the public's personality in its acceptance of participation in physical activity by people with disabilities. A close ended questionnaire was utilized in which the respondents were asked to select an answer from a list provided. The Mini-International Personality Item Pool (IPIP) Scale of the Big Five Model (BFM) of personality was adapted and adopted for the dimension of personality traits. Using fishbowl sampling, four public recreation parks located in Klang Valley were chosen to distribute the questionnaire. The questionnaire was collected from members of the public without disabilities during their resting time after participating in physical activity. Of the 460 questionnaires that were distributed, only 444 respondents successfully returned their completed questionnaire. An Independent t-test and correlation analysis (spearman's rho) was used to analyze the data. A t-test was used to identify the differences between gender in the acceptance of people with disabilities' participation in physical activity. Meanwhile, correlation analysis examined the relationship between the personality traits domain and public acceptance. The t-test result showed no significant differences in score between gender ($M = 5.75$, $SD = .449$) = .72, $p = .47 > .05$ for the personality traits construct meanwhile, there were significant differences between gender for the agreeableness dimension ($M = 5.58$, $SD = .698$) = 2.09, $p = .038 < .05$ and the intellect dimension ($M = 5.82$, $SD = .662$) = 2.17, $p = .030 < .050$ of the personality traits. Correlation coefficient showed that there was a low relationship (.234), $p = .001 < .05$ between the personality traits construct and public acceptance. Therefore, the null hypothesis was rejected. The findings showed that, the neuroticism dimension (.072), $p = .131 > 0.05$ of personality traits construct failed to reach a significant relationship between public acceptance. For future study, few recommendations were suggested, such as, using a different sample selection technique (organized physical activity event that includes people with disabilities and people without disabilities).

Keywords: - Social isolation, Quality of life, Inclusive physical activity, Regular exercise, Personality traits

Introduction

To encourage people with disabilities (PWD) to be actively involved in physical activity, many health promotion programs have recommended and focused on the need to enhance self-confidence, independent, and self-concept, and avoid social isolation from the wider society Lorena (2021). As they get older, PWD experience decline in balance, strength, and health. This situation can result in secondary impairment that can cause more negative effects than the existing disabilities which can undermine their movement. Engaging in sports and physical activity frequently can provide important health benefits and increase socialization in the community for PWD (Beresford & Clarke, 2010; Lui & Hui, 2009).

Exercise is a type of physical activity that is structured, planned and repetitive, and has the objective of maintaining and improving of physical fitness for those who get involved regularly (Jamie & Janet, 2008). Regular exercise is associated with decreasing cardiovascular risk factors by lowering blood pressure, improving glucose tolerance, reducing total body fat, and reducing the resting heart rate. Naturally, doing moderate physical activity that increases energy expenditure, such as walking, jogging, light exercise, and swimming has a similar impact and can promote physical fitness. According to Mawer et al. (2022) engaging in physical activity, such as, exercise for PWD can increase their physical fitness and improve their social life. The inclusion of students with disabilities in general physical education classes has been the focus of a growing number of previous studies.

The research by Block and Obrusnikova (2007), reviewed ten year period from 1995 to 2005 and their findings were favorable toward inclusion that involved students with and without disabilities together in physical education classes. However, in their study, the most prevalent barriers to including students with and without disabilities together during physical education class and school time are related to the differences in personality traits related to their attitude. Peer acceptance is not easily achieved when some students are perceived as being different from others if they were not exposed to these differences from the start of their time at school (Ong & Aida, 2017). In the United States, because of the Americans with Disabilities Act (1990), PWD have legal rights to get involved in physical activity and community recreation activities without any restriction (Smith et al., 2005). The service providers may not prevent PWD from participating solely based on their disabilities. They need to create a good service for both PWD and able-bodied people to make sure they can be involved together in physical activity without any restrictions. To develop a socially integrated society, legislation plays a critical role for PWD to seek the opportunity and to choose their physical activity without any barriers and exercise their right to be included in society.

In Malaysia, PWD have been categorized as a special population that needs specific care from the responsible organization. Therefore, the Government of Malaysia has taken the initiative to develop the act known as the Persons with Disabilities Act 2008. This Act was introduced to the public on July 7, 2008. In this law it was stated that, PWD were accorded the same and equal status as the able-bodied people not only in the education sector, health sector, accessibility (public transport, recreation parks, buildings) but also in the sport sector (Islam, 2015). Section 32, of the Persons with Disabilities Act 2008 focuses on recreation, leisure, and sport (physical activity). It states that, PWD shall have the same right to involved in physical activity as people without disabilities. Nowadays, leisure, sport, and recreation have made PWD seek a variety of types of physical activity options and get involved in community life without any restrictions (Robertson & Long, 2019). Several approaches have been implemented by the Malaysian government to foster more physical activity participation among PWD but there is still less participation among PWD, somehow, family, society, and peers have not fully supported them to get participate in physical activity together. Family members become more protective toward their children with disabilities, especially parents, who may be afraid that, their child will be not able to participate in physical activity because of the restrictions caused by their health condition (Vee & Rosila, 2022).

PWD often feel excluded from or rejected by society because of their differences. Thus, they have to confront stress and anxiety and have physical health problems more than others. Van Wely et al. (2010) reported that, to influence more active lifestyles among children with disabilities, parental motivation, support and being a role model for them are crucial. In the literature, it is possible to find numerous programs concerning the diagnosis of social acceptance of PWD. One of the intrinsic factors that influence public acceptance towards PWD in communities was personality of publics. In addition, according to Wilson and Dishman (2015), people's personality traits are different from those of others and represent behaviors, cognitions, and emotions. The personalities of people without disabilities are multidimensional, and therefore, may result from the influence of diverse factors. Independently of whether such examinations concern individual variables or social factors, most studies concerning the attitudes of members of the publics toward PWD are conducted with questionnaire methods which refer to declared, explicit personality traits such as a personality test known as the NEO-Personality Inventory (NEO-PI) which was developed by McCrae and Costa (1987).

According to Aida et al. (2016) social disability treated as a personality variable is related to attitudes toward disabilities, and the need for social approval is positively associated with acceptance of PWD. According to Field et al. (1997), there are internal factors (personality traits) that increased public acceptance toward PWD's participation in physical activity and community. Several studies support the view there are five primary factors of personality known as The Big Five Model (BFM) (McCrae & Costa, 1987). The five dimensions derived from ratings by psychological staff members, self-ratings, and ratings by peer. The factors of the BFM known as extraversion, conscientiousness, neuroticism, intellect, and agreeableness emerged.

However, studies on the relationship between personality traits and public acceptance are still lacking (Ong & Aida, 2019). Neuroticism includes traits such as depression, anxiety, anger, upset, and insecurity. A person who scored highly in this trait tends to be easily rejected by others in close relationships (Paweł & Zbigniew, 2021). Agreeableness tends to manifest in being sympathizing, pleasant, cooperative, compliant, and caring. Those who are score high in this trait have a high risk of exploitation by others because of their kindhearted and gentle nature. They also have a greater concern for other people (Kusnierz et al., 2020). Conscientiousness usually embodies organization, carefulness, and responsibility. This dimension tends to reflect a greater investment in long-term planning, which can maximize benefits in situations where long-term planning leads to better outcomes. Intellectual ability is characterized by imagination, engagement, and intelligence in ideas. Those who score highly on this dimension tend to embrace universalistic attitudes with a tolerance for all people (Kusnierz et al., 2020; Ong & Aida, 2019). Finally, individuals who score highly on extraversion tend to be more assertive, talkative, outgoing, and energetic. These individuals enjoy and like being around people more than being alone (Ana et al., 2021). They are also known as a friendly person. The NEO-PI developed by McCrae and Costa (1987) was used as a guideline in studying the personality traits of individuals. The present research also utilized the BFM as a measurement of the personality of members without disabilities toward the participation of PWD in physical activity as the independent variables.

Material & methods

In this study, Klang Valley was selected because of its relatively greater affluence and its recreational parks suitable for PWD to participate in physical activity. In addition, based on the statistics table, Klang Valley has one of the highest population densities and is representative of other part of Malaysia. Moreover, in Klang Valley many of the recreational parks are user friendly to PWD, so, PWD can easily access them and the public who visit these recreational parks will feel close to them. Thus, the public are more exposed to PWD which increased their willingness to accept PWD's participation in physical activity. Therefore, four instead of nine public parks located in urban areas were chosen using fishbowl techniques. Based on the Department of Statistics Malaysia, there are approximately 3.35 million adults in Klang Valley comprised of Malay, 1.64 million (49.0%), Chinese, 1.28 million (38.3%) and Indian, 0.43 million (12.7%) (Department, 2020). At first, it was decided that the subjects for the questionnaire must be over 18 years old. However, after considering those respondents with university-level education, the cut-off age level was set at 20 years old and above. Using the table proposed by the Baumgartner and Hensley (2004) study a total sample size of 384 respondents for the population of 3,350,000 adults in Klang Valley was enough for the current study but an additional 20% (76) were added to the sample to avoid missing any data. With that, the total number of respondents came to 460 but only 444 of the questionnaires were returned. Of the total respondents, 225 were Malay, 176 were Chinese and 59 were Indian.

The questionnaire used in this study has been adapted, adopted, and developed from previous similar studies which are found to be reliable and will achieve the objectives of this study. Some questions were modified to make them simple and easy to understand by the respondents. A closed-ended questionnaire was utilized in this study. The set of questionnaires consisted of three parts. Part A comprised six items about demographic profiles such as gender, age, marital status, occupation, race, and educational level). Part B consisted of twelve items of personality traits. The items measuring personality traits were adapted and adopted from the Mini-International Personality Item Pool (IPIP) Scale of the BFM, which measured the five dimensions of Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Intellect Donellan et al. (2006), using a 7-point Likert Scale ranging from 1 (very inaccurate) to 7 (very accurate). Meanwhile, Part C were rated the items in each scale on a 7-point Likert Scale ranging from very probably not (1) to definitely yes (7). This section consisted of six items adapted from the previous literature by Bebetos et al. (2013). In this study, one type of statistical technique was used to analyze the data which are Statistical Package for the Social Sciences program version 28.0. Descriptive analysis, t-test, and correlation (Spearman's rho) will be used to analyze and evaluate the data obtained from the respondents.

Results

Confirmatory factors analysis was assessed to further examine the internal consistency of the personality. In the analysis, 20 items representing the 5 dimensions of personality traits produced results that marginally fitted with the data. To improve model fit, eight items were discarded due to low factor loadings. Hence, only twelve items were retained to represent the five dimensions of personality traits. Table 1 below shows the descriptive analysis used to evaluate and analyze the data collected in this study. The result indicated that, the respondents with 'conscientiousness' possessed the highest personality mean scores of (5.99±.611) followed by intellect (5.74±.676), agreeableness (5.65±.689), and extraversion (5.51±.677). The data showed that respondents would be less likely to possess trait of neuroticism (4.93±.582). According to Table 1, personality traits constructs showed a mean score of (5.76±.751) and public acceptance construct mean score of (5.21±.700).

Reliability analysis was carried out to validate and operationalize the related variables which included the personality traits dimension, personality traits construct and public acceptance construct. The results indicated that, the respondents were quite willing to accept PWD's participation in physical activity. The reliability analysis for public acceptance construct indicated a high level of the threshold value of Cronbach's alpha ($\alpha = .903$). In addition, results of Cronbach's alpha ($\alpha = .765$) for the personality trait construct after eight questions were deleted were not much differ than twenty questions ($\alpha = .861$). Thus, Cronbach's alpha obtained from the twelve items was still above the acceptable level.

Table 1: Mean, standard deviation, and Cronbach's alpha

Dimensions/ Constructs	Mean	SD	Cronbach's alpha (α)
Intellect	5.74	.676	.731
Extraversion	5.51	.677	.710
Agreeableness	5.65	.689	.701
Neuroticism	4.93	.582	.693
Conscientiousness	5.99	.611	.712
Personality Traits	5.76	.751	.845
Public Acceptance	5.21	.700	.903

Table 2 shows that an Independent Sample t-test conducted to identify the differences between gender in public acceptance of the participation of PWD in physical activity. There was no significant difference at the $p = .270$, which is greater than $.05$, so we rejected the null hypothesis. In addition, result shown, Females (5.27 ± 1.118) more favourable to accept PWD participation in physical activity compared with Males (5.14 ± 1.292)

Table 2: Independent Sample T-Test for Gender

	Group	N	Mean (SD)	t	df	Sig (p<.05)
Public Acceptance	Male	198	5.14 (1.292)	-1.106	442	.270
	Female	246	5.27 (1.118)			

Correlation analysis (Spearman's rho) was performed on the personality traits construct and the public acceptance construct. This analysis was employed to explore the strength of the relationship between personality traits with public acceptance construct. Table 3 below shows that, the correlation coefficient was $.234$. Then, it can conclude that public personality traits were significantly low and directly related to acceptance of PWD's participation in physical activity since the significance level was $.001 < p = .050$. Therefore, the null hypothesis was rejected.

Table 3: Correlation Analysis between Personality Traits Construct and Public Acceptance Construct

Public Acceptance Construct	Personality Traits Constructs	
	Correlation Coefficient	.234
Sig. (2 tailed)	.001	
N	444	

Discussion

In the present study, it was observed that the personality traits of 'conscientiousness' (5.99 ± 611), intellect (5.74 ± 676), agreeableness (5.65 ± 689), extraversion (5.51 ± 677) were identified as the dominant personalities of public which could influence their level of acceptance of PWD's participation in physical activity while, neuroticism traits (4.93 ± 582) have a low influence the public's level of acceptance. In other words, members of the public with higher agreeableness, intellect, conscientiousness, and extraversion will demonstrate more acceptances of PWD's participation in physical activity. Three of the identified personality traits namely, agreeableness, conscientiousness and intellect are consistent with Ong and Aida (2019) study. In their study, agreeableness had the highest association with the level of public acceptance. This personality trait was related to higher levels of interested and sympathy and emphasizing with PWD. This finding was contradicted by the current study in which conscientiousness traits have the highest relationship with public acceptance. These empirical findings and theoretical links showed that individuals who score highly in this trait are more likely to be more careful, reliable, ordered, self-disciplined, hard-working, well organized, systematic and responsible so, they tend to treat PWD well (Aida et al., 2016; Kusnierz et al., 2020). Perhaps, if males get contact directly with PWD through works or daily life they that will increase their positive attitudes and acceptance of PWD similarly to females. In addition, gender differences in personality were found in many studies but the results of the research were inconsistent (Kusnierz et al., 2020).

The results showed that there are no significant differences at the ($p > .05$) level in public acceptance of PWD's participation in physical activity score by the gender. Furthermore, females were more likely to accept PWD's participation in physical activity rather than males. This study was consistent with (Dorota et al., 2022; Wang et al., 2021) who, in the previous study, stated that females evidenced more acceptance and good attitudes toward PWD compared to males. Positive attitudes have the closet relationship with acceptance of PWD either in society or participation in physical activity. According to Rojo-Ramos et al. (2022), peers' negative attitudes toward PWD such as feeling uncomfortable because of their differences or physical limitations, avoiding eye contact, or using avoidant body language. Therefore, it can lead to low self-confidence among PWD to mix with society and especially participate in physical activity. In addition, females' more positive attitudes toward PWD were due to the nature of women's responsibilities and work. To be specific, women are more likely to choose human service professions such as teachers and care services workers, therefore, they have more opportunities for involvement with PWD, which could lead to more acceptance of them (Ziru et al., 2021).

The relationship between personality traits and public acceptance in the current study was significant ($p < .05$). It showed that personality traits influence public acceptance of PWD's participation in physical activity. There is a very low coefficient value of $.270$. This indicated that the relationship between personality traits and public acceptance was weak. This result is consistent with the study by Wilson and Dishman (2015) who, in their study stated that the associations between personality traits in physical activity are small (weak). This study is also supported by René et al. (2017) who found that personality traits also showed small effects on the public acceptance. Furthermore, previous research has linked personality factors with certain attitude (cognitive, affective, and behavioral) characteristics. Specifically, neuroticism, positive emotion in extraversion, and

competence and self-discipline in conscientiousness were associated with the willingness to accept PWD in physical activity (Cristina et al., 2022). Significant associations between the BFM personality traits and physical activity have been observed in numerous studies (Wilson & Dishman, 2015). In the context of public acceptance of PWD's participation in physical activity, only a few studies examined the relationship of public personality traits and public acceptance.

Conclusion

In summary, several interesting findings emerged from the data collected for this study. A greater understanding of the dimension of public personality traits that led to public acceptance of PWD is a valuable insight into the planning and organizing of any programs. In addition, it also can be a guideline to various responsible bodies such as government agencies, recreation practitioners, policy makers and private organizations in providing effective interventions and strategies to increased public acceptance towards PWD especially participation in physical activity. Besides that, adequate service and facilities provided for PWD to participate in physical activity should help to increase the opportunities for PWD to involved in physical activity together with the wider society. Consequently, it will provide a platform for society to have more opportunities to get close, recognize and understand what they need in their life. In addition, all the facilities provided must be user-friendly and follow the standards recommended in the accessibility guidelines by American Disabilities Act (Smith et al., 2005)

In Malaysia, we have government agencies such as the Social Welfare and Department of Malaysia and the Malaysia Paralympic Council that are responsible for PWD not only for education, accessibility, and facilities but also for recreation. They will mastermind in introduction of several approaches to promoting inclusion programs such as Sports Days for PWD that increase exposure and awareness for the public without disabilities to be more agreeable to meeting PWD's needs. Instead of relying on a responsible body, society itself also needs to change its attitude and create more openness to accepting PWD. In that way, with the current study that explores the public's personality traits, the results revealed members of the public with the conscientiousness traits will be more responsible and careful people and when the responsible body organizes an event including PWD, the public will give their support and care when dealing with PWD. To gain a wider and more representative view of the public's acceptance of PWD, future studies need to expand it by collecting data from the public located at the rural areas. Furthermore, the future studies on public acceptance can identify other factors that are related to this area.

Conflicts of interest: No conflicts of interest are declared by the authors.

References

- Aida, R., A., R., Ong, T., F., & Wahidah, T. (2016). Assessing The Attitude of Public towards Involvement of People with Disabilities in Physical Activity. . *Journal of Indonesian Physical Education and Sport*, 2(2), 10. <http://pps.unij.ac.id/journal/jipes/article/view/405>
- Ana, V. N., Claudia, M., Daniel, C. K., Dawn, L., & Marcantonio, M. S. (2021). Modelling The Contribution of The Big Five Personality Traits, Health Anxiety, and COVID-19 Psychological Distress to Generalised Anxiety and Depressive Symptoms During the COVID-19 Pandemic. *Journal of Affective Disorders*, 279, 7. <https://doi-org.ezaccess.library.uitm.edu.my/10.1016/j.jad.2020.10.053>
- Baumgartner, T. A., & Hensley, L. D. (2004). *Conducting and Reading Research in Health and Human Performance*. (4th ed.). McGraw-Hill.
- Bebetsos, E., Derri, V., Zafeiriadis, S., & Kyrgiridis, P. (2013). Relationship among Student's Attitude, Intention and Behaviour towards The Inclusion of Peers with Disabilities in Mainstream Physical Education Classes. . *International Electronic Journal of Elementary Education*, 5(3), 16.
- Beresford, B., & Clarke, S. (2010). *Improving The wellbeing of Disabled Children and Young People Through Improving Access to Positive and Inclusive Services*. Centre for Excellence and Outcomes in Children and Young People's Services (C4EO). <https://eprints.whiterose.ac.uk/73549/>
- Block, M. E., & Obrusnikova, I. (2007). Inclusion in Physical Education: A Review of The Literature From 1995-2005. *Adapted Physical Activity Quarterly*, 24, 22.
- Cristina, D. A., María, V. S., Alfonso, D., A., Natividad, G. R., Miguel, Y., Carmen, P., Carlos, P. I., Alberto, M., María, J., Jorge M. G., & A., J. A. M. (2022). Examining Association of Personality Characteristics and Neuropsychiatric Symptoms in Post-COVID Syndrome. *Brain Science*, 12(2), 13. <https://doi.org/https://doi.org/10.3390/brainsci12020265>
- Department, o., Statistics, Malaysia. (2020). *Population Clock by The State*. Government of Malaysia. <https://www.dosm.gov.my/v1/index.php?r=columnnew/populationclock>
- Donellan, M. B., Oswald, F. L., Baird, B. M., & Lucas, R. E. (2006). The Mini IPIP Scales: Tiny yet Effective Measure of The Big Five Factors of Personality. *Psychological Assessment*, 18(2), 11.
- Dorota, T., Anna, P., & Adam, S. (2022). Attitudes of Students of Social Sciences and Humanities towards People with Physical Disabilities (MAS-PL). *International Journal of Environment Research and Public Health* 19, 14. <https://doi.org/> <https://doi.org/10.3390/ijerph19031544>

- Field, S., Hoffmen, A., & Posch, M. (1997). Self-determination During Adolescence: A Development Perspective. *Remedial and Special Education*, 9.
- Islam, R. (2015). Right of The People with Disabilities and Social Exclusion in Malaysia. *International Journal of Social Science and Humanity*, 5(2).
- Jamie, M. H., & Janet, T. (2008). Promoting Physical Activity and Exercise in Older Adults with Developmental Disabilities. *Geriatric Rehabilitation*, 24(1), 10.
- Kusnierz, C., Rogowska, A. K., & Pavlova, L. (2020). Examining Gender Differences, Personality Traits, Academic Performance, and Motivation in Ukrainian and Polish Students of Physical Education: A Cross-Cultural Study. *International Journal of Environment Research and Public Health*, 17(16), 21. <https://doi.org/10.3390/ijerph17165729>
- Lorena, T. (2021). *Physical Activity Interventions and Assessing People with Intellectual Disabilities* Centerbury Christ Church University]. USA.
- Lui, K. C., & Hui, S. S. C. (2009). Participation in an Adherence to Physical Activity in People with Disability. *Hong Kong Physiotherapy Journal*, 27, 9.
- Mawer, T., Kent, K., Williams, A. D., McGowan, C. J., Murray, S., Bird, M. L., Hardcastle, S., & Bridgman, H. (2022). The Knowledge, Barriers and Opportunities to Improve Nutrition and Physical Activity amongst Young People Attending an Australian Youth Mental Health Service: a Mixed-Methods Study. *Mawer et al. BMC Health Services Research*, 1-15. <https://doi.org/https://doi.org/10.1186/s12913-022-08182-0>
- McCrae, R. R., & Costa, P. T. (1987). Validation of The Five Factors Model of Personality Across Instruments and Observes. *Journal of Personality and Social Psychology*, 52(1), 13.
- Ong, T., F., & Aida, R., A., R. (2017). Influence of Exposure on Public Acceptance towards Physical Activity Involvement of People with Disabilities (PWD): Exploring The Mediating Role of Attitude Using SEM Approach. *International Journal of Social Science*, 3(3), 836-853. <http://creativecommons.org/licenses/by-nc/4.0/>
- Ong, T., F., & Aida, R., A., R. (2019). Examining Public Acceptance towards Physical Activity Involvement of People with Disabilities (PWD) - A SEM Approach. *PERTANIKAJOURNALS*, 27(S3), 17-32.
- Paweł, P., & Zbigniew, P. (2021). Personality Determinants of Success in Men's Sports in The Light of The Big Five. *International Journal of Environment Research and Public Health*, 18(12), 10. <https://doi.org/10.3390/ijerph18126297>
- René, M., Sacha, E., & Adam, F. (2017). Within and Between Individual Variability of Personality Characteristics and Physical Exercise. *Journal of Research in Personality*, 69, 10. <https://doi.org/http://dx.doi.org/10.1016/j.jrp.2016.06.017>
- Robertson, T., & Long, T. (2019). *Foundation of Therapeutic Recreation*. (2nd ed.). Human Kinetics.
- Rojo-Ramos, J., VegaMuñoz, A., Contreras-Barraza, N., & Barrios-Fernandez, S. (2022). Female and Rural School Students Show More Positive Attitudes toward Disability during Physical Education Lessons. *International Journal of Environmental Research and Public Health*, 19, 9. <https://doi.org/https://doi.org/10.3390/ijerph19105881>
- Smith, R. W., Austin, D. R., Kennedy, D. K., Austin, D., & Kennedy, D. (2005). *Inclusive and Special Recreation; Opportunities for Person with Disabilities*. (5th ed.). McGraw-Hill.
- Van Wely, L., Becher, J. G., Reinders-Messelink, H. A., Lindeman, E., Verschuren, O., Verheijden, J., & Dallmeijer, A. J. (2010). Learn To Move 7-12 Year: A Randomized Controlled Trial on The Effects of a Physical Activity Stimulation Program in Children with Cerebral Palsy. *BMC Pediatrics*, 10. <http://www.biomedcentral.com/1471-2431/10/77>
- Vee, Y. C., & Rosila, B. M. H. (2022). Deaf Identity Construction in Malaysia. *Asian Journal of Social Science*, 50(2), 9. <https://doi.org/https://doi.org/10.1016/j.ajss.2022.02.001>.
- Wang, Z., Xu, X., Han, Q., Chen, Y., Jiang, J., & Ni, G. X. (2021). Factors Associated with Public Attitudes towards Persons with Disabilities: A Systematic Review. *BMC Public Health* 21.
- Wilson, K. E., & Dishman, R. K. (2015). Personality and Physical Activity: A Systematic Review and Meta Analysis. *Personality and Individual Differences*, 72, 13.
- Ziru, W., Xiaoli, X., Qiong, H., Yan, C., Jiayao, J., & Guo-Xin, N. (2021). Factors Associated with Public Attitudes towards Persons with Disabilities: A Systematic Review. *BMC Public Health*, 21(1). <https://doi.org/10.1186/s12889-021-11139-3>