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Mini Review

The Effects of Societal and Structural Barriers on Participation among Individuals with Physical Disabilities

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ABSTRACT

The 2008 Physical Activity Guidelines recommend that the more than 53 million people living with a physical disability in the United States to participate in regular physical activities consisting of both aerobic and anaerobic components, if possible. Also, if individuals with physical disabilities are unable to meet the recommended physical activity guidelines, they are encouraged to do as much as their physical disability permits. Despite the recommended guidelines, several individuals with physical disabilities do not participate in regular physical activities. Prior research suggests that several societal and structural barriers in sport and exercise environments often negatively affect individuals with physical disabilities. Thus, it is essential for family members, healthcare practitioners, rehabilitation/recreational teams, and community leaders to encourage individuals with physical disabilities to conquer barriers that restrict participation.

The 2008 Physical Activity Guidelines recommend for the 53 million people living with a physical disability in the United States, at least 2-hours and 30-minutes a week of moderate-intensity aerobic physical activity (i.e., brisk walking; wheelchair propulsion) OR 1-hour and 15-minutes vigorous-intensity of aerobic physical exercise (i.e., jogging, wheelchair basketball) OR a combination of moderate-and-vigorous of weekly aerobic physical activity). The Physical Activity Guidelines also recommend aerobic physical activity that can be performed at least 10-minutes throughout the week. Regarding anaerobic physical exercise, individuals with physical disabilities are encouraged to perform moderate to high intensity anaerobic physical exercise involving all major muscle groups for at least two or more days, if possible (i.e., resistance bands; adapted yoga). If individuals with physical disabilities cannot meet the recommended guidelines, they are encouraged to avoid inactivity and participate in a regular activity according to their abilities.[1] Also, before participating in physical activities, individuals with physical disabilities should consult with a doctor about their abilities. Despite the physical activity guidelines, only 38% of individuals with physical disabilities participate in an aerobic physical activity program than 54% of individuals without physical disabilities. Only 14% of individuals with physical disabilities meet the aerobic and anaerobic guidelines compared to 23% of individuals without physical disabilities.[2] So, why are many individuals with physical disabilities not participating in physical activities? Prior research suggests that several societal and structural activity barriers frequently prevent individuals with physical disabilities from participating in physical activity. For example, obstacles concerning disability, environment, social, professional knowledge, training, and education have hindered several individuals with physical disabilities from participating in physical activity.[3] Therefore, the purpose of this article is to provide a mini-literature review regarding the effects of societal and structural barriers on participation among individuals with physical disabilities. This review's first objective is to identify societal and structural barriers found in sport and exercise environments. The second objective is to demonstrate how barriers prevent participation. Lastly, the third objective is to propose recommendations for individuals with physical disabilities, family members, health practitioners, rehabilitation/recreational teams, and community leaders to encourage individuals with physical disabilities to overcome societal and structural barriers.

DISABILITY

Disability is a condition of either the body or mind and impairment that causes difficulties for a person with the condition that limits activity and restricts participation. Many disabilities, includ-

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ing muscular dystrophy, Down syndrome, autism spectrum disorder, attention-deficit/hyperactivity disorder (ADHA), traumatic brain injury, spinal cord injury, diabetes, multiple sclerosis, and spinabifida, may affect functions such as cognition, mobility, vision, hearing, and behavior.[4]

Three Dimensions of Disability

According to the World Health Organization (WHO), as cited by the Center for Disease Control and Prevention (CDC),[4] disability consists of three dimensions: impairment, activity limitation, and participation restrictions. Impairment involves an individual's body structure and function as well as the mental functioning. Also, impairments can be structural in that problems exist involving internal or external parts of the body. Furthermore, impairments may be functional in that an individual may experience a partial or complete body part's function. Activity limitation involves a person's difficulty in seeing, hearing, walking, or problem-solving. Lastly, participation restrictions consist of problems in doing normal daily activities, participating in social and recreational activities, and acquiring health-related services.

Social-Relational Model of Disability

The social-relational model defines disability as creating unequal social relationships that negatively affect the psycho-emotional well-being assigned as impaired. Additionally, the term disability imposes upon individuals through disabling restrictions accepted through social relationships and interactions. Consequently, disability occurs through barriers and impairment consequences that prevent individuals from doing daily living activities.[5]

Within the social-relational model, there involve four contexts in which an individual may experience disability. An individual may experience restrictions from everyday physical and social influence as a result of physical impairment. For example, an individual may experience chronic pain (regular physical) and the need for social support (social). An individual also may experience restrictions from negative experiences of cultural constructions of disability. For example, an individual without a disability may view an individual with a disability as despondent. Lastly, an individual may experience restrictions from structural disablism restrictions such as opportunities and services such as gaining access to inaccessible buildings. As a result, if individuals with physical disabilities are continually experiencing negative interactions with the social and built environment, they may limit their abilities and evade participation.[6] Therefore, it is necessary to examine the effects of societal and structural barriers on participation among individuals with physical disabilities through the social-relational model.

Societal and Structural Barriers

Previous research has identified several societal and structural that may restrict individuals with physical disabilities from participating in physical activities.

Participating in Wheelchair Sports

Haslett et al[6] investigated the experiences and opinions of individuals with physical disabilities participating in wheelchair rugby through the social-relational model. The researchers were interested in exploring the interaction of barriers and facilitators have upon participating in wheelchair rugby. The participants consisted of ten male athletes, of which nine had a spinal cord injury. Also, eight athletes indicated as having an acquired disability. Nine participants also stated that they had played sports before the injury. Additionally, participants had played wheelchair rugby ranging from 1.5 to 19-years, of which seven had played at the international level.

The researchers conducted semi-structure done-to-one interviews based on the social-relational model components to collect data concerning experiences and opinions. The researchers also formulated questions such as (e.g., how do you think that different impairments restrict participating?) that pertain to the influences of immediate effects of impairment. Furthermore, researchers posed cultural and societal-relational questions such as (e.g., do stigmatize attitudes affect participation in Wheelchair Rugby?), as well as (e.g., how does access to sport facilities influence participation?).

Concerning the data analysis and results, the researchers used a deductive thematic approach. Four superordinate themes and their corresponding sub-themes materialized from the study. The four superordinate themes and their respective sub-themes were the following:

- Impairment effects (physical body, needs, and requirements, classification)
- Social attitudes and discourse (attitudes of others, media representation)
- Opportunities and accessibility (structural barriers, perceptions of inequality)
- Psychological well-being (independence, the rugby wheelchair)

The impairment effects superordinate theme describes how participation is influence by day-to-day experiences of living with a physical disability. The physical body sub-theme references how participants indicate secondary health conditions and physical health benefits due to participation in disability sport. For example, several participants indicated that health conditions frequently restrict participation. All participants also suggested that participating in wheelchair rugby provided several benefits about doing activities of daily living. The needs and requirements sub-theme refers to how the lack of time, finance, transport, and support may influence participation. For example, participants indicate there are few wheelchair rugby clubs in the country. Also, participants indicated that the lack of transportation and employment for some individuals with physical disabilities affect the ability to participate. The classification sub-theme reflects why participants believe that the eligibility criteria to play wheelchair rugby can promote or deny participation. Several participants indicated that wheelchair rugby what the "ideal" sport for some individuals with physical disabilities. However, other participants stated that there is a lot of uncertainty regarding which athletes can play wheelchair rugby.

The societal attitudes and discourse superordinate theme

describe how participation is influence by societal attitudes and cultural representations of disability. The attitudes of others sub-theme refer to participants representing why societal attitudes influence participation. For example, participants suggested that inappropriate remarks by the general public expressing sympathy or misidentification are discouraging. The media representation sub-theme relates to the participants' perceptions regarding how participation is influence by the media. Participants described how media coverage, such as the Paralympics, has provided wheelchair rugby players with enormous exposure. Similarly, according to the participants, wheelchair athletes are often portrayed in a condescending 'superhuman' stereotype by the media.

The opportunities and accessibility superordinate theme describe how participation is influence by socio-environmental factors. The structural barriers sub-theme explains how participants' perceptions of adverse reactions in conjunction with the built environment restrict participation. For example, participants stated that individuals with physical disabilities have limited opportunities to participate in sports because of inaccessible environments. The perceptions of inequality sub-theme refer to discrimination being an influence on the involvement according to participants. Participants suggested that abled-bodied athletes are the beneficiaries of preferential treatment. Expressly, participants indicated in comparison to non-disabled athletes, and there are perceived inequalities concerning high unemployment rates, non-interest from politicians, and lack of corporate sponsorship. On the other hand, other participants indicated that disparities do not exist within their sport.

The psychological well-being superordinate theme describes how psychological well-being is influence by autonomy and self-reflections. The internalizing negative stereotypes sub-theme refers to participants 'self-restrictive behavior restricts internalizing different forms of social oppression. For example, participants indicated that individuals with spinal cord injuries refrain from participation and choose to remain indoors. Also, participants indicated that some individuals with spinal cord injuries decide not to participate because they feel a sense of "inferiority" and no longer consider themselves part of the community-at-large. Moreover, participants suggested that some individuals choose not to participate because their focus is on striving to walk again. The independence sub-theme refers to why an increase in autonomy can facilitate participation according to participants' perceptions. For example, all participants indicated that participating in wheelchair rugby provided more independence. Participants also stated that they could communicate comparable experiences and sentiments by way of participating in wheelchair rugby. The rugby wheelchair sub-theme refers to how the rugby chair encourages participation according to participants' descriptions. For example, participants indicated that individuals who participate in wheelchair rugby have a sense of empowerment, more self-efficacy, and less stress.

In conclusion, the study results suggest several benefits of playing wheelchair rugby for individuals with physical disabilities. However, the results indicate that structural and societal barriers and facilitators limit individuals with physical disabilities from wheelchair rugby.

Participating in Physical Exercise in Fitness Centers

Richardson, Smith, and Papathomas[7] conducted a similar study involving twenty-one individuals with physical disabilities. The researchers were interested in examining whether the gym could provide an environment to endorse acceptable health practices for individuals with physical disabilities and identify perceived barriers and facilitators in the gym setting. The researchers used purposeful sampling to recruit 18 individuals with physical disabilities who experienced exercising in a gym. The participants' age ranged from 23 and 60-years-old (13 males, eight females). The data collection and analysis consisted of face-to-face interviews, video conferencing, mobile methods, and thematic analysis.

The results revealed four themes of gym experiences: experiencing enhanced wellness, perceived conflict between gym values and disability, influences of a previous gym user identity, and psycho-emotional disablism experiences.

Concerning the theme for experiencing enhanced wellness, participants stated their overall wellness and quality of life could improve by regularly attending the gym. In the gym, participants believe that improved health can be accomplished in three ways: physical improvement, enhanced social life, and psychological recite. Participants believed they would physically improve if they were to go to the gym. Thus, the participants would demonstrate an improvement in function, a reduction in pain, and improved fitness that augmented independence. Also, participants had more opportunities to meet people and develop friendships. Lastly, participants indicated that going to the gym provided a psychological respite because they experienced less stress concerning their disability.

For the theme for perceived conflict between gym values and disabilities, three sub-themes emerged that suggest the gym environment is a barrier that restricts individuals with physical disabilities from participation. The three sub-themes are the following: not aligning to cultural gym values, narrow interpretations of health, and clients with a disability as aspirational role models. Participants noted that images were portraying as muscular, healthy, and esthetically pleasing individuals with high value concerning the not aligning to cultural gym values sub-theme. Thus, the participants had feelings of being excluded. Regarding the limited interpretation of health sub-theme, participants stated the gym did not provide alternative health arrangements. For example, in the gym, common slogans promoting pain as necessary to achieve good health were important.

On the contrary, there were limited opportunities for discourses among individuals with physical disabilities about experiencing pain as an invalidation compared to non-disabled individuals. Regarding the sub-theme for clients with a disability as aspirational role models, the participants noted that viewing other individuals with physical disabilities using the gym was a source of inspiration. The researchers also suggested that individuals with disabilities, considering one another in the gym, may support and accept. Thus, according to the researchers, the gym can become a more inclusive setting with several benefits because of individuals with physical disabilities.

The theme for influences of a previous gym user identity revealed two sub-themes: reclaiming a sense of self and unfavorable comparisons with a post-identity. These sub-themes told present and past experiences of participation among women who viewed their current state as a renewal use of gym and sense of self, whereas men negatively compared their current with the past.

The experience of psycho-emotional disablism theme revealed two sub-themes: disabling messages from physical equipment and disabling interactions within the gym environment. Concerning disabling messages from physical equipment sub-theme, participants expressed difficulties with structural barriers in the gym. A lack of access to entering and maneuvering, unstable inaccessible equipment within the buildings was among the participants' challenges. Also, many participants expressed problems with interacting with gym instructors who demonstrated a lack of sensitivity.

In conclusion, the study's findings show that there are several benefits of attending a gym for individuals with physical disabilities. However, as the evidence suggests, several barriers still exist that harm participation for individuals with physical disabilities. Researchers suggest that anembracing atmosphere is needed for other health perspectives in the gym for all individuals.

Recommendations for Overcoming Physical Activity Barriers

As the evidence suggests, societal and structural barriers affect participation in physical activities for individuals with physical disabilities. Accordingly, the following are recommendations provided to individuals with physical disabilities, family members, health practitioners, rehabilitation/recreational teams, and community leaders to encourage individuals with physical disabilities in conquering the barriers that impede participation.[1,2,8,9]

Individuals with Physical Disabilities and their Family Members

• Individuals with physical disabilities need to surround themselves with people who will continually encourage them, such as family members or friends.
• Seek physical activity (adapted) settings.
• Individuals with physical disabilities should engage in physical activities, along with their family members.
• Individuals with physical disabilities and their family members should seek competent professionals with physical activity programming for individuals with physical disabilities, typically with proper certification and degrees.
• Individuals with physical disabilities should connect with disability support associated with hospitals, communities, states, and networks *via* social media.
• Family members should advocate for disabled individuals for greater access.
• Family members and caregivers should facilitate encouragement, peer modeling, and persuasion to individuals to participate.

Health Practitioners

• Health practitioners should spread the message of the benefits of physical activity as a social opportunity.
• Health practitioners need to create mentoring networks.
• Health practitioners should use necessary interview skills with clarity, focus, and experiences for individuals with physical disabilities.
• Health practitioners should discuss the physical and psychological benefits of physical activity with individuals with physical disabilities.
• Develop in-service programs.
• Health practitioners should do the following steps to increase physical activity among individuals with physical disabilities.

  • Know the Physical Activity Guidelines
  • Discuss the physical activity
  • Discuss barriers to physical activity
  • Recommend physical activity options
  • Refer patient to resources and programs

Rehabilitation/Recreational Team

• The rehabilitation/recreational team should encourage patients to partake in physical activity by introducing sport into rehabilitation.
• The rehabilitation/recreational team needs to encourage individuals in rehab who have no prior sports activity experience.
• The rehabilitation/recreational team needs to promote healthy living and regular exercise health benefits, leading to effective therapy regimes after post-injury.
• The rehabilitation/recreational team should determine their physical activity program's inclusiveness, utilizing the Accessibility Instruments Measuring Fitness and Recreation Environments Manual (AIMFREE).

Community Leaders

Local communities should ensure that public parks, access to public recreation, and businesses abide by the Americans with disabilities Act.

CONCLUSION

In conclusion, despite the daily recommendations for physical activity, several individuals with physical disabilities do not participate in physical activities. Although there are several benefits for those individuals with physical disabilities who participate, societal and structural barriers in conjunction with disability and impairment may affect participation. To increase the involvement among individuals with physical disabilities, encouragement from family members, friends, health practitioners, rehabilitation/recreational leaders, and community leaders is essential.

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