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Using Ecological Models of Health Behavior to Promote Health Care Access and Physical Activity Engagement for Persons With Disabilities

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access to care, patient engagement, patient-/relationship-centered skills, disability and health, health care planning or policy, clinician–patient relationship

Introduction

In 2015, federal health care costs reached $3.2 trillion, making it a major contributor to the national debt (1). With such a high cost, the nation's health is expected to be among the best in the world; however, health care–induced spending, when combined with ongoing systemic challenges in the industry, is not improving the overall life expectancy of the US population (1). Further, the US health care system is not adequately coordinating care for patients with complex conditions, including people with disabilities (PWD), which may contribute to health disparities within this population (2). People with disabilities receive fewer treatment services than persons without disabilities, including preventative care such as screenings, vaccinations, and promotion of physical activity (PA) from health care professionals (HCPs) (3).

Health care professionals serve as gatekeepers to general health needs, including opportunities for PA. Health care professionals are involved with health care access and PA promotion and may be able to decrease health disparities that exist for PWD through the implementation of the ecological model of health behavior (EMHB) in clinical practice. The EMHB is a framework that emphasizes multiple levels of behavior that can be systematically addressed at each level to develop comprehensive health behavior interventions (4). The EMHB is used by public health professionals to address behavior change for communities they serve; however, health behavior interventions can be a low-cost initiative that HCPs can implement into their practice (5). The purposes of this article are (1) to explore the empirical experience of PWD within health care and PA arenas and (2) to provide future care implementation strategies for HCPs as informed by the EMHB.

Background

People with disabilities fare worse on a variety of health indicators compared to persons without disabilities (3). Despite public health's mission to encompass health promotion for everyone, PWD self-report "poor" or "fair" health at quadruple the rate of people without disabilities (3). This health disparity is related to several factors including access to health care, associated costs, and likelihood to seek out preventative care (3). Combined these factors reduce the amount of treatment and preventative services that PWD receive. Reports also indicate that PWD engages in less PA when compared with people without disabilities (6). Decreased PA among PWD is often due to common barriers, such as lack of clear information and support (6), which results in reduced health care and PA opportunities for PWD.

Health care professionals may play an important role in facilitating increased access to health care and PA. The general public often regards HCPs as trusted and amiable experts in their respective fields—this includes HCPs having useful information, resources, and recommendations for PWD and their families that can help promote PA. However, HCPs do not consistently provide information, resources, and recommendations that promote PA for PWD (6).

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Because of the trust placed in HCPs, as well as their direct impact on patient care, they are ideal advocates for equity in health care and PA promotion (7).

The EMHB incorporates constructs from multiple models to provide a comprehensive framework. This allows for better integration of multiple theories when addressing environment and policy changes in communities. It is important for communities to support and promote healthy choices through educational and motivational strategies because they directly influence their community members (4). Making changes in health behaviors require individuals to focus on various aspects in their life; this makes the EMHB a good framework for HCPs to use when creating a plan of care. The EMHB has a long history within behavioral and social sciences and is meant to analyze relationships and behaviors between multiple levels of the physical and social environment (4). There are several variants of the EMHB, but in general, the levels consist of individual, interpersonal, organizational, community, and policy.

The first level, *individual*, concerns knowledge, attitudes, and skills directly related to the individual (4). The *interpersonal* level concerns exchanges and interactions within an individual's network; both primary, such as family and close friends, and secondary groups that are larger and broader. The *organizational* level is focused on social institutions that serve as established authorities and offer generally recognized and accepted purposes. The *community* level includes relationships that organizations form with each other. These relationships commonly exist in coalitions and conglomerates. Finally, the *public policy* level contains all regulatory legislature, spanning from local municipalities to the federal government. Ideally, all 5 levels are considered when integrating and using this model. In addition to the levels, there are 4 principles to consider when utilizing the EMHB: (1) Multiple levels of factors influence health behaviors, (2) Influences interact across levels, (3) Multilevel interventions are most effective in changing behavior, and (4) Ecological models are most powerful when they are behavior specific (4). The EMHB has several applications to address the identified disparities in health care and PA promotion for PWD.

Implications and Practical Applications

Implementing the EMHB can enhance an HCPs plan of care and help decrease current health disparities that exist for PWD (8). The following are suggestions for each level of the EMHB based on previously identified disparities.

Individual Level

Health care professionals can empower PWD by using clear communication and providing information related to individual's health status and benefits of seeking out preventative care and engaging in PA (9).

Interpersonal Level

Health care professionals can promote PA and provide general support and information for PWD to create a strong network of family and friends (10). This may help increase PA engagement and utilization of preventative services by diminishing barriers to access, such as reliable transportation.

Organizational Level

Health care professionals can contribute to interprofessional care, which may help decrease costs for PWD because care will not be repetitive across HCPs (8,9). This is important because the layering effect of social and economic disadvantages creates systemic obstacles that make it difficult for PWD to access health care and subsequently health promotion by HCPs (3).

Community Level

Health care professionals can have a role in forming partnerships with community centers to help increase access to health care services via monthly pro bono clinics. Health care professionals can also create PA groups within communities as a way for PWD to increase PA engagement as well as provide a support system within the community (9). This concept can be enhanced by HCPs being integrated in the communities they serve and ensuring they have readily available information about groups in the area.

Public Policy Level

Health care professionals can advocate for policy change at various levels. People with disabilities may be reluctant to schedule appointments with HCPs without private health insurance coverage or eligibility for Medicaid. It may be advantageous to create health insurance policies that take the cost of increased provider visits and preventative care into consideration (8). This may ensure that PWD receives the care they need. Making these changes would require a collective effort of HCPs and PWD advocating for changes in insurance reimbursement.

It is clear that equitable opportunities for health care and PA access are not available for PWD. Health care and PA are not reserved for individuals who are able-bodied; making a change in the health care system will require the help of many people. It may be beneficial to start with HCPs—individuals who are leaders in the health care sector. Using the EMHB, HCPs can actively change the ways they provide care while becoming allies and advocates to decrease health disparities for PWD.

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References

1. Dzau VJ, McClellan MB, McGinnis JM, Burke SP, Coye MJ, Diaz A, et al. Vital directions for health and health care: priorities from a national academy of medicine initiative. JAMA. 2017;317:1461-70.
2. Reichard A, Stransky M, Phillips K, Drum C, McClain M. Does type of disability matter to public health policy and practice? Californian J Health Promot. 2015;13:25-36.
3. Krahn GL, Walker DK, Correa-De-Araujo R. Persons with disabilities as an unrecognized health disparity population. Am J Public Health. 2015;105:S198-S206.
4. Sallis JF, Owen N, Fisher EB. Ecological models of health behavior. In: Glanz BKR, Viswanath K, eds. Health Behavior and Health Education: Theory, Research and Practice. Jossey-Bass; 2008:591.
5. Milstein B, Homer J, Briss P, Burton D, Pechacek T. Why behavioral and environmental interventions are needed to improve health at lower cost. Health Aff (Millwood). 2011;30:823-32.
6. Martin Ginis KA, Ma JK, Latimer-Cheung AE, Rimmer JH. A systematic review of review articles addressing factors related to physical activity participation among children and adults with physical disabilities. Health Psychol Rev. 2016;10:478-94.
7. Carroll DD, Courtney-Long EA, Stevens AC, Sloan ML, Lullo C, Visser SN, et al. Vital signs: disability and physical activity—United States, 2009-2012. MMWR Morb Mortal Wkly Rep. 2014;63:407-13.
8. Golden SD, Earp JAL. Social ecological approaches to individuals and their contexts: twenty years of health education & behavior health promotion interventions. Health Educ Behav. 2012;39:364-72.
9. Ma PHX, Chan ZCY, Loke AY. The socio-ecological model approach to understanding barriers and facilitators to the accessing of health services by sex workers: a systematic review. AIDS Behav. 2017;21:2412-38.
10. Baron SL, Beard S, Davis LK, Delp L, Forst L, Kidd-Taylor A, et al. Promoting integrated approaches to reducing health inequities among low-income workers: applying a social ecological framework: approaches to reducing health inequities. Am J Ind Med. 2014;57:539-56.

Author Biographies

Winston Kennedy is a licensed physical therapist and Ph.D. candidate at Oregon State University. Dr. Kennedy promotes equity and inclusion for people with disabilities.

Robert Fruin graduated with a BS in Kinesiology from Oregon State University. He will be pursuing a medical degree where he aims to included aspects of equity and inclusion in his training.

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