

Evidence Based Practice Day
Department of Rehabilitation Sciences, Recreation Therapy Program
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Obesity Management in Spinal Cord Injury through Leisure Time Physical Activity

Search Terms: “obesity” AND “spinal cord injury”; “physical activity” AND “spinal cord injury”; “leisure-time physical activity” AND “spinal cord injury”

Years: 2005-2013

Databases: SPORTDiscus with Full Text, CINAHL, MEDLINE, PsycARTICLES, Psychology and Behavioral Sciences Collection, PsycINFO

Number of Articles: 9

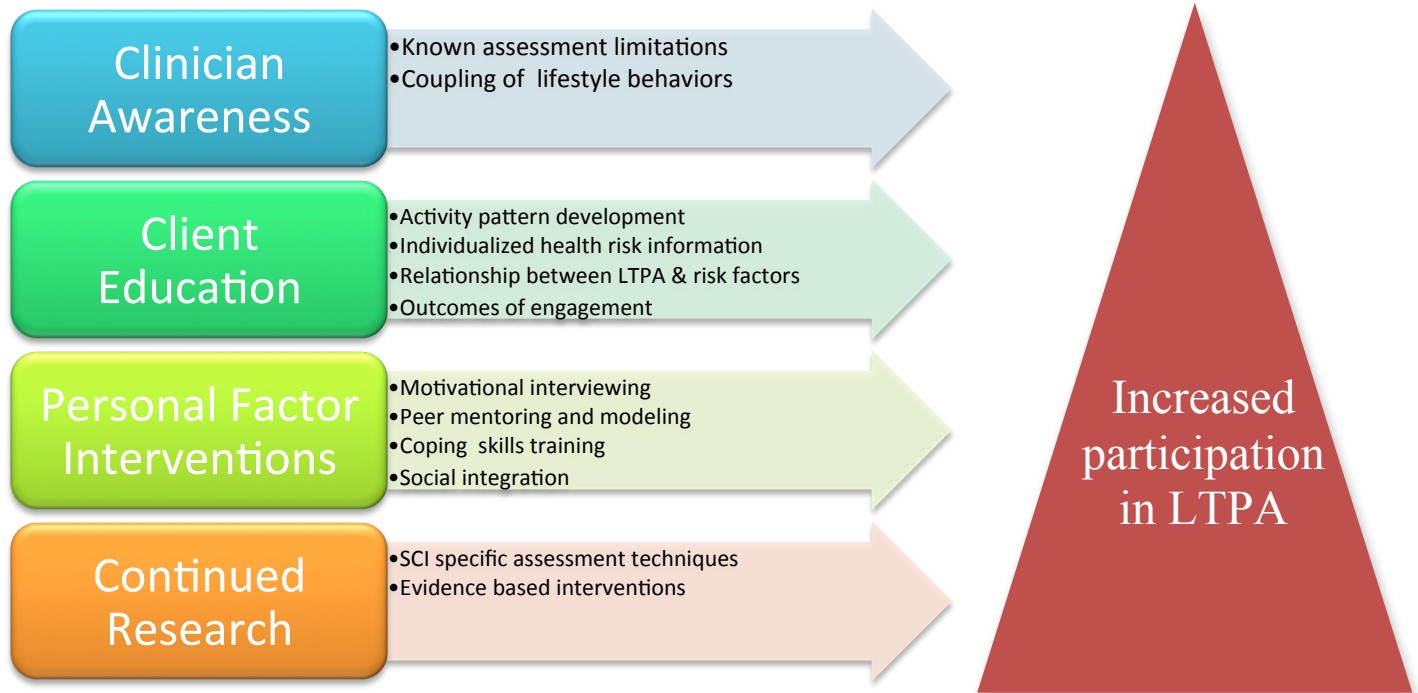
Summary of Research Findings:

The research on obesity management in the SCI population makes three things clear. First, obesity is under assessed, under managed, and under studied in the SCI population. The development of SCI specific assessment tools and diagnostic criteria is necessary to accurately identify obesity in the SCI population (Gater, 2007; Rajan et al., 2008). The current assessment tools (such as body mass index, ideal body weight, and waist circumference) provide limitations since they are either dependent upon a standing height measurement or a standing waist measurement and their able bodied cutoff points may not be sensitive enough to detect obesity in the SCI population (Rajan et al., 2008). Secondly, clinicians wishing to address obesity management with SCI clients must recognize the need to address lifestyle behaviors – such as adherence to a proper diet and physical activity levels – together; clinicians should not assume that participation in LTPA is automatically associated with a healthy diet. (Knight et al., 2012). Likewise, clinicians have to recognize the need for specific, individualized education regarding health risks for secondary chronic diseases such as obesity, cardiovascular disease, and diabetes and the relationship between such risk factors and participation in leisure-time physical activity (LTPA). (Bassett et al., 2011; Buchholz et al., 2012). And lastly, influencing client personal factors, such as intentions and social support, through targeted interventions will have the largest impact on increasing LTPA participation levels and maintaining an active pattern trajectory over time (Martin Ginis et al., 2012; Sweet et al., 2012). Furthermore, most of the current research available is based on the epidemiological data originally collected in Canada during the creation of the SHAPE-SCI, which measured LTPA participation using the The Physical Activity Recall Assessment for People with Spinal Cord Injuries, as well as, physiologic characteristics through physical measurements and blood draws (Martin Ginis et al., 2008). While this has led to numerous spin-off studies whose results have provided essential information on correlations between LTPA and a number of factors in the SCI population, it also highlights the drastic need for further, continuing research on activity in the SCI population – especially in the United States.

Knowledge Translation Plan:

The findings from the literature review indicate that there are four main areas that must be addressed in clinical practice to successfully manage obesity and promote increased engagement in LTPA in individuals with SCI: 1) clinician awareness, 2) client education, 3) personal factors, and 4) continued research. Recreational therapists (RT) treating clients with SCI in an inpatient rehabilitation setting need to be aware of the existing issues using able-bodied assessment techniques, definitions, and cutoff points for measuring obesity in the SCI population. Current assessment tools may not be sensitive enough to detect obesity in this population (Rajan et al., 2008). Thus, it is prudent for RTs working with SCI to be aware that obesity may be under or inappropriately diagnosed in this population. Likewise, it is necessary for clinicians to have a working knowledge of the coupled lifestyle behaviors that occur between physical activity and diet quality. Unlike in the able-bodied population, there is no significant relationship between participation in LTPA and adherence to a healthy diet (Knight et al., 2011). It is imperative that clinicians working with SCI not to assume that those who are more active necessarily consume better quality diets than those who are low-active or inactive (Knight et al., 2011). Due to short length of stay in inpatient rehab, RTs may not have an adequate length of time to implement an extensive weight management intervention. They can, however, plan individualized sessions to help explore leisure interests and increase leisure awareness, as well as provide client-specific education about the relationship between chronic disease risk factors, obesity, and the outcomes of engagement in LTPA (Bassett & Martin Ginis, 2011). While a weight management intervention may not be feasible, there are some targeted interventions – specifically those that address the personal factors of intentions and social integration – that RTs can

realistically implement during a short stay. Intentions for physical activity have been shown to increase through the use of motivational interviewing and peer modeling and can be sustained through coping planning interventions (Martin Ginis et al., 2012). Lastly, it is imperative that RTs take an active role in tracking outcomes and initiating continued, epidemiological research in these areas; without such initiatives it will become virtually impossible to develop physical activity guidelines and prescriptions for this specific population (Martin Ginis et al., 2008).



References:

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