



Physical Activity Preferences for People with Type 2 Diabetes

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Summary

This article summarizes physical activity preferences among people with type 2 diabetes. The author suggests that tailoring physical activity programs to participants' preferences may increase physical activity behaviour and influence quality of life among those with type 2 diabetes.

Type 2 diabetes (T2D) is a serious health concern. The World Health Organization (WHO) reports that nearly 313 million people worldwide currently live with T2D, and projects that this chronic disease will be the seventh leading cause of death by 2030 (WHO, 2013).

In Canada, more than 9 million people live with diabetes or pre-diabetes, of which about 90% are T2D (Canadian Diabetes Association, 2013). T2D also creates a significant economic burden on our health care systems (Public Health Agency of Canada, 2011).

Engaging in healthy lifestyle habits such as eating right, not smoking, and getting regular physical activity (PA) can help prevent and manage this chronic disease (CDA, 2013). Despite the encouraging evidence of health benefits gained from both aerobic activity and strength exercise, most people with T2D do not engage in these activities. In Canada, 65% of those with T2D are physically inactive, according to the CDA's guidelines for PA (Sigal et al, 2013).

Study Objectives and Design

Drawing from a national sample, this study's main objective was to determine the PA preferences of Canadian adults with T2D. Differences in PA preferences were assessed according to age and sex.

This study was a secondary analysis of the Canadian Aerobic and Resistance Exercise in Diabetes (CARED) study. The CARED study was a descriptive, cross-sectional survey that examined attitudes and behaviours of adults (18+) living with T2D, in regards to aerobic and resistance exercise.

Follow-up interviews were conducted with a subsample of 14 participants. Interview questions further explored participants':

- PA preferences;
- understanding of the CDA guidelines for PA; and
- understanding of terms related to PA.

Discussion and Findings

We found that most of the participants "preferred" or "maybe preferred" to receive PA counselling.

We also found that the preferred method of receiving counselling was "face-to-face" from an exercise specialist affiliated with a diabetes centre.

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This finding needs to be researched further to determine the reasons for preferring face-to-face counselling. The implications of providing every person diagnosed with T2D with face-to-face counselling are immense, when considering cost, feasibility, and effectiveness.

Recent research into different methods of information delivery have found that using the internet to deliver PA information may be just as effective as face-to-face delivery (Steele, Mummery, & Dwyer, 2007). Using the internet to disseminate PA information or advice has the potential to reach more people and reduce delivery and/or counselling costs over the long term.

Consistent with other research on PA preferences, the majority of participants in our study preferred to:

- engage in moderate-intensity activity;
- do different activities each session;
- be supervised or instructed; and
- take part in activities that are recreational in nature (McGowan et al, 2013; Bélanger, Plotnikoff, Clark, & Courneya, 2012; Trinh, Plotnikoff, Rhodes, North, S., & Courneya, 2012; Stevinson et al, 2009; Philip et al, 2014).

Walking was the most preferred activity, which is consistent with studies of other clinical groups (McGowan et al, 2013; Bélanger et al, 2012; Trinh et al, 2012; Stevinson et al, 2009; Philip et al, 2014). Given that walking is a low-cost activity and easy for most people to do, it's a good choice for adults with T2D and a good option for practitioners to recommend.

When examining the differences between men and women, a greater proportion of women preferred to engage in PA with companions. Evidence suggests social support is more consistently related to PA adherence for women than men, especially if the source is family (Marcus & Forsyth, 2002; King et al, 1998).

Another finding consistent with other research was that more men than women preferred moderate- or vigorous-intensity activities over mild-intensity (Marcus & Forsyth, 2002; King, Blair, & Bild, 1998).

Women were more likely to prefer structured or scheduled sessions that were supervised or instructed. Some studies indicate structured workplace PA programs are effective for increasing PA rates for women (White & Ransdell, 2003), whereas other studies report women's adherence rates are better when participating in activities near their home, on their own, with some instruction (White, Ransdell, Vener, & Flohr, 2005; Oman & King, 1998; King et al, 2003). Regardless of location, the notion that women prefer scheduled, instructed PA is supported.

Conclusion

Physical activity is an important part of effectively managing T2D. Health professionals and practitioners should try to tailor PA programs to reflect some of the differences we found in this study, rather than using a generic "one-size-fits-all" approach. Making an effort to meet the needs, interests, motivation, and current level of physical activity may help to increase PA adherence over time. This means practitioners should develop specific programs for a variety of settings, intensities, structures, and types of activity. 

Key Term

Type 2 Diabetes is when the pancreas does not produce enough insulin or the body does not effectively use the insulin that is produced. This leads to high levels of glucose in the blood, which can damage organs, blood vessels and nerves (CDA, 2014).

About the Author

Cynthia Forbes is a PhD student in the Behavioural Medicine Lab in the Faculty of Physical Education and Recreation at the University of Alberta, in Edmonton. She earned a BSc in Human Kinetics from St. Francis Xavier University in Antigonish, Nova Scotia. She recently completed her MSc in Health Promotion at the University of Alberta. Her research interests include physical activity determinants among cancer survivors in Atlantic Canada, and the use of web-based applications to increase their physical activity levels.



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