Knowledge, Attitudes, and Current Practices of Canadian Physiotherapists in Preventing and Managing Diabetes

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ABSTRACT

Purpose: To describe the knowledge, attitudes, and current practices of Canadian physiotherapists in preventing and managing diabetes. **Methods:** Members of the Canadian Physiotherapy Association were recruited by email to participate in a Web-based survey. The survey contained 40 items in four domains: demographics and education, attitudes and beliefs, current practices, and knowledge of diabetes. A descriptive analysis was completed for all the response variables from the survey. **Results:** A total of 401 physiotherapists from 10 provinces and 2 territories participated. Respondents were most confident in providing education about exercise and had decreasing confidence in providing education about managing secondary complications, weight management, blood sugar control, and nutrition, respectively. Only 32.4% of participants offered diabetes management counselling, citing lack of training. Knowledge was generally good, except for activity guidelines. **Conclusions:** A significant proportion of physiotherapists lack confidence in providing key aspects of care to patients with diabetes. Gaps in clinical practice and knowledge of activity guidelines were also observed. This study highlights the need to review entry-level physiotherapy training and to develop continuing educational opportunities in this area.

Key Words: attitudes; diabetes mellitus; health knowledge; survey.

RÉSUMÉ

Objectif : décrire les connaissances, attitudes et pratiques actuelles des physiothérapeutes canadiens relativement à la prévention et à la gestion du diabète. **Méthodes :** un sondage a été mené sur le Web auprès de participants recrutés par courrier électronique parmi les membres de l'Association canadienne de physiothérapie. Le sondage comprenait 40 questions appartenant à quatre domaines différents : démographie et formation, attitudes et croyances, pratiques actuelles et connaissances sur le diabète. Une analyse descriptive a été effectuée pour toutes les variables-réponses du sondage. **Résultats :** au total, 401 physiothérapeutes provenant des 10 provinces et des 2 territoires ont participé. Le niveau de confiance des répondants était à son plus haut quand il s'agissait de fournir à leurs patients de l'information sur l'exercice, mais il diminuait progressivement quand il s'agissait de les guider dans la gestion des complications secondaires, du poids, de la glycémie ou encore de la nutrition. Seulement 32,4% des participants offraient des conseils sur la gestion du diabète, les autres invoquant leur manque de formation. De façon générale, le niveau de connaissances était bon, sauf à l'égard des lignes directrices en matière d'activité physique pour les diabétiques. **Conclusion :** une proportion significative de physiothérapeutes n'a pas la confiance nécessaire pour offrir certains aspects essentiels de la prise en charge des patients diabétiques. Des lacunes ont aussi été observées dans la pratique clinique auprès de ces patients et dans la connaissance des lignes directrices en matière d'activité physique. L'étude met en évidence la nécessité de revoir la formation de base des physiothérapeutes et de développer la formation continue dans ce domaine.

Diabetes mellitus (diabetes), which includes three main subtypes—type 1, type 2, and gestational—is a chronic disease that can lead to serious complications, including neuropathy, retinopathy, nephropathy, cardiovascular disease, and lower limb amputations.^{1,2} As of 2008–2009, almost 2.4 million Canadians were living with diabetes

and its complications,³ and this number is expected to continue to grow by approximately 7% each year.² This growing epidemic further affects Canadians as a result of the growing cost to the health care system, in which, in 2000, primary management alone accounted for \$769.4 million in health care spending.³ In the same year, hospital

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services, which were required to treat unstable glycemic levels (complications of diabetes leading to acute events), required an additional \$350.1 million.³ These costs are predicted to greatly increase as the prevalence of all types of diabetes in Canada continues to rise.³

These figures are particularly important given the significance of multi-morbidity, defined as the coexistence of two or more chronic conditions. Diabetes is the most frequent condition listed in multi-morbidity indices, and the existence of multiple chronic conditions has been shown to be strongly associated with increased mortality risk and is a predictor of future functional decline.^{4–6} Given the impact of diabetes on Canadians, it is imperative that health care professionals give those living with diabetes the tools to optimally manage it and delay the onset of complications.

Primary management of diabetes includes monitoring blood glucose levels, managing pharmacological needs, counselling on nutrition, and providing education.^{7,8} Physical activity is also key^{9–11} because it increases the muscular uptake of glucose and shifts metabolism to favour using carbohydrates.^{7,12} For example, the “Physical Activity and Diabetes” chapter in the Canadian Diabetes Association’s (CDA’s) Clinical Practice Guidelines (CPG) for 2013 recommends that individuals with diabetes partake in at least 150 minutes of moderate to high-intensity aerobic physical activity per week, spread over at least 3 days, with no more than 2 consecutive days without exercise.⁸ Resistance training is also recommended, using major muscle groups, at least twice per week.^{7,8} Similar recommendations apply to individuals with impaired glucose tolerance to prevent or delay the onset of type 2 diabetes.⁷

Physiotherapists practice in a variety of settings and often spend significant amounts of time with patients. This, combined with their training in prescribing exercise, promoting health, preventing disease, and supporting the development of self-management skills, makes them ideal candidates for identifying the need for, and providing education on, managing diabetes.^{13–17} Despite this, the efficacy of physiotherapist-led interventions for managing diabetes lacks strong evidence to support it.

Previous studies have explored the attitudes and practices of physiotherapists regarding numerous health issues, including obesity,¹⁸ dietary supplements,¹⁹ role modelling,²⁰ smoking cessation,²¹ and promotion of physical activity,²² but no literature exists on the knowledge, attitudes, and current practices of physiotherapists with regard to how to prevent and manage diabetes and diabetes-related conditions. The purpose of this study was to investigate the knowledge, attitudes, and current practices of Canadian physiotherapists in preventing and managing diabetes (both type 1 and type 2).

METHODS

Study design

We conducted a cross-sectional study of practicing Canadian physiotherapists using a Web-based questionnaire. We selected a Web-based module to make distribution and access easier and to keep the cost low.²³ To ensure readability and ease of completion, we pilot-tested the questionnaire with a convenience sample of three physiotherapists from a variety of clinical backgrounds, who also held positions in education or research. The questionnaire was then modified on the basis of their feedback. Our study was given ethical approval by the Hamilton Research Ethics Board on May 16, 2013 (REB no. 13–316-S). Authors KD, SD, and CP completed this study with a colleague (DD) as a component of the McMaster MSc(PT) program requirements under the supervision of co-authors BV and VD.

Questionnaire development

We performed a literature search, but no questionnaires existed pertaining to physiotherapists and diabetes; therefore, we designed our own questionnaire (see Appendix 1 online). To better explore how Canadian physiotherapists work with people with diabetes, we chose a KAP (knowledge–attitudes–practice) survey as the basis for the questionnaire. A KAP survey examines the behaviour of a target population, specifically what they know (knowledge), their beliefs (attitudes), and their actions (practice) in regard to a particular topic.^{22,24,25}

We developed the questionnaire to collect the following data: respondents’ demographic and educational background (13 items), attitudes and beliefs about the role of physiotherapists in preventing and managing diabetes (10 items), current clinical practices (11 items), and knowledge of diabetes (6 items). We also reviewed literature that examined other emerging practice areas for physiotherapists, such as smoking cessation, dietary supplements, and obesity, to ensure that all necessary domains were included.^{18–21}

In each domain, we developed questions using the Comprehensive *International Classification of Functioning, Disability and Health (ICF)* Core Set for Diabetes Mellitus²⁶ as well as the CPG and other educational material from the CDA.^{9,27} These questions were further refined using feedback from a certified diabetic educator and the pilot group of three physiotherapists of varying backgrounds.

We chose to use a Likert scale because it is an accepted and valid format for self-reported survey research^{26,28} assessing attitudes, beliefs, and behaviour.²⁸ With respect to data analysis and response bias, there is no difference between 5-point and 7-point Likert scales,²⁹ and the 5-point scale requires a shorter response time than the

7-point scale.³⁰ We therefore chose the 5-point scale to increase the probability of participants completing the survey. To avoid a lengthy survey and limiting response rate, we chose not to specify subtypes of diabetes (i.e., type 1, type 2, and gestational). The length of the survey and the questions it asked were based on recommendations from published sources.^{31–34} The final questionnaire consisted of 41 questions and took 10–15 minutes to complete.

Our demographic and educational background questions were designed to establish the responding physiotherapists' practice setting, patient population, percentage of patient population with diabetes, entry-level education and continuing education, experience working with persons with diabetes, and personal and familial interactions with persons with diabetes.

The attitude and belief questions related to the respondents' beliefs about the role of physiotherapy in preventing and managing diabetes, whether they felt adequately prepared to assess and treat patients with diabetes, the impact they believed diabetes has on patient involvement and rehabilitation outcomes, their confidence in treating patients with diabetes, and their current practices in assessing and treating people with diabetes as the chief complaint. The responses on the 5-point Likert scale ranged from "strongly agree" (5) to "strongly disagree" (1).

We focused the current clinical practice questions on the regularity of screening for diabetes, current blood glucose monitoring for and policies toward diabetic emergencies, counselling or education on managing diabetes, and patterns of referral to other specialists. These responses were also rated on a 5-point Likert scale using "always" (5) and "never" (1) as endpoints.

The foundational knowledge questions pertained to emergency management of low blood glucose, safe blood glucose levels for exercise, and current activity guidelines for persons with diabetes. One of the final questions asked about the usefulness of Web-based modules for continued learning.

Although it is outside the scope of this article, we also collected descriptive data about the participants (see Appendix 2 online).

Questionnaire distribution

The Canadian Physiotherapy Association (CPA) distributed the questionnaire to Canadian physiotherapists using a hyperlink in their biweekly email update on May 24, 2013. Between May and July 2013, every provincial and territorial physiotherapy professional association, except Quebec, distributed the hyperlink to their contact lists. The physiotherapy regulatory bodies of British Columbia, Alberta, New Brunswick, and Nova Scotia also distributed the survey hyperlink. We also sent similar emails to physiotherapists affiliated with academic physiotherapy programmes across Canada. Reminder emails

were sent once or twice during the survey period; the frequency varied on the basis of the email schedule maintained by each college and association. Unfortunately, the Saskatchewan, Northwest Territories, and Nunavut physiotherapy associations were unable to send out reminders during the time that the online survey was open.

In an effort to increase the response rate, we included an incentive.³² After participants completed the survey, they had the option to submit their name and contact information to win one of four \$25 gift certificates from a national coffee chain.

Statistical analysis

Using Microsoft Excel (version 2010; Microsoft Inc., Redmond, WA), we completed a descriptive analysis for all response variables. All questions on the questionnaire were mandatory; therefore, percentages reported in this article have been calculated to reflect total survey responses.

RESULTS

Respondent demographics

A total of 401 physiotherapists completed the questionnaire. Their average number of years of experience was 16.9, with a standard deviation of 10.7. The percentage of respondents with formal diabetes education, beyond entry-level physiotherapy education, was 8.9%. Other demographic information can be found in Table 1. Although we attempted a nationally representative sample, the geographic distribution of the respondents was skewed toward respondents from Ontario; this is shown in Table 2. The practice settings of the respondents are described in Table 3.

Response rate

The method of distributing the survey invitation made it difficult for the total number of individuals who received it to be accurately identified. However, on the basis of the CPA's schedule for sending out email updates, it can be determined that at least 10,284 people received an emailed link to the survey; the 401 responses give a response rate of 3.9%. Because the survey invitation was also distributed through four of the CPA's provincial and territorial colleges and not all registered physiotherapists are members of the CPA, it is expected that a greater number may have received the survey, thus decreasing the actual response rate.

Attitudes and beliefs

Of the physiotherapists who responded to the questionnaire, 82.1% thought that preventing and managing diabetes falls within the scope of their physiotherapy practice, and 88.7% believed that physiotherapists can play a role in preventing diabetes. All respondents believed that when working with patients who have diabetes, physiotherapists have a role in prescribing exercise. The majority agreed that physiotherapists can play a role

Table 1 Demographic Information on Respondents

Item	No. (%) of respondents (<i>n</i> = 401)*
Experience as a practising physiotherapist, y	
≤5	74 (18.5)
5–10	73 (18.2)
21–30	114 (28.4)
31–40	92 (22.9)
41–50	48 (12.0)
Entry-level physiotherapy education	
College diploma	28 (7.0)
Bachelor's in physiotherapy	261 (65.1)
Master's in physiotherapy	111 (27.7)
Doctorate in physiotherapy	1 (0.2)
Location where entry-level physiotherapy education was received	
Canada	368 (91.8)
Internationally trained	33 (8.2)
% of work week spent in direct patient care	
0–25	26 (6.5)
26–50	19 (4.7)
51–75	73 (1.8)
76–100	283 (70.6)
% of patients with diabetes	
0–25	148 (36.9)
26–50	154 (38.4)
51–75	84 (20.9)
76–100	15 (3.7)

*Percentage may not total 100 due to rounding

Table 2 Demographic Distribution of Respondents

Geographic area of work	No. (%) of respondents (<i>n</i> = 401)
Ontario	238 (59.4)
New Brunswick	47 (11.7)
Nova Scotia	45 (11.2)
Alberta	32 (8.0)
Newfoundland and Labrador	11 (2.7)
British Columbia	10 (2.5)
Quebec	6 (1.5)
Prince Edward Island	3 (0.7)
Yukon	3 (0.7)
Northwest Territories	2 (0.5)
Manitoba	2 (0.5)
Saskatchewan	2 (0.5)
Nunavut	0 (0)

in managing secondary complications (89.3%), weight (70.6%), and stress (59.4%), and fewer than half agreed that they have a role in controlling blood glucose (47.4%) and diet and nutrition (30.4%).

Of those surveyed, 23.7% indicated that their entry-level education had prepared them to effectively assess and treat persons with diabetes, 26.4% were neutral, and 49.9% thought that they had been inadequately prepared. However, only 23.9% of respondents believed that formal education was required for physiotherapists

Table 3 Respondents' Practice Settings

Area of practice	No. (%) of respondents (<i>n</i> = 401)
Outpatient facility, hospital-based	116 (28.9)
Outpatient facility, private practice	113 (28.2)
Acute care teaching hospital	82 (20.4)
Home care	54 (13.5)
In-patient rehabilitation centre	49 (12.2)
Community care hospital	39 (9.7)
Long-term care facility	26 (6.5)
Outpatient facility, non-hospital based, publicly funded	22 (5.5)
Academic institution	13 (3.2)
Complex care	12 (3.0)
School system	5 (1.2)
Hospice care	2 (0.5)

to work effectively with persons with diabetes. When asked directly, "Do you think that a Web-based learning module regarding the physiotherapy care of individuals with diabetes would be helpful?," 97.3% of respondents agreed.

Current clinical practices

A majority (63.0%) of respondents had a caseload of more than a quarter of patients with diabetes, 41.3% treated patients specifically for diabetes-related complications, and 32.4% provided counsel to patients about preventing or managing diabetes. Of those who did not provide counsel to patients about preventing or managing diabetes, the most common response given was lack of training (31.7%) and other reasons (33.1%). Of those who selected other reasons, the most common response (60.0%) was working on a team in which other members provided this service. A minority (8.9%) had formal diabetes education beyond entry-level physiotherapy education.

Most respondents (71.6%) reported screening for diabetes during initial assessment, and 46.6% reported asking about blood glucose control. However, 68.6% of respondents indicated that they did not ask patients to test blood glucose levels during assessment or treatment. Most respondents (64.3%) reported having a treatment plan or policy in place in case a patient experienced low blood glucose, and 65.0% of physiotherapists reported having experienced a situation in which a patient had had critically high or low blood glucose.

Knowledge assessment

Only 16.7% of all respondents indicated that they were aware of the CDA's 2013 CPG; despite this, a high proportion answered the questions in the knowledge domain correctly. Almost all the physiotherapists surveyed (94.3%) identified the correct measure for treating someone with acute low blood glucose (0.5 cup fruit juice), 71.1% knew the optimal level for minimum capillary blood glucose when participating in exercise (5.5

Figure 1 Self-efficacy of diabetes care provision in relation to knowledge testing.

mmol/L), and 80.5% were able to indicate the best type of exercise for individuals with diabetes (aerobic and resistance). However, fewer than half (46.6%) of the respondents knew the recommended amount of weekly aerobic activity (150 min).

When asked to identify the best type of exercise for individuals with diabetes, 100% of respondents who were not confident in their ability to educate people about exercise chose the correct response (aerobic and resistance). Conversely, 80% of respondents who were confident in this area were correct. The percentages of correct responses for the amount of aerobic exercise for those identifying themselves as confident and those identifying themselves as not confident in educating about exercise, were similar: 46% and 56%, respectively. The self-efficacy of respondents in relation to their knowledge testing questions is shown in Figure 1.

DISCUSSION

This was the first study to investigate the knowledge, attitudes, and current practices of Canadian physiotherapists with respect to preventing and managing diabetes. Compared with a national survey in 2011, the percentage of respondents with entry-level physiotherapy education at the diploma, bachelor's, or postgraduate level was similar ($\pm 10\%$) to that of the physiotherapy community as a whole, with a slightly greater number of respondents having a master's degree.³⁵ This may reflect Canada's transition to master's qualifications in the profession. At 8.2%, the proportion of internationally trained physiotherapists was approximately half that of the national survey results. The distribution of respondents among practice settings was also similar to that of the national survey data, further making this comparable to the general physiotherapist population: Fewer respondents worked in the private sector (113, or 28.2% respondents) compared with 36.9% surveyed

nationally and more respondents were in a hospital setting (59.1% compared with 39.7% surveyed nationally).

Attitudes and beliefs

The majority of respondents believed that preventing and managing diabetes was within their scope of practice. Most believed that they could play a role in educating patients about exercise, preventing secondary complications, and managing weight. This aligns with the literature,⁴ suggesting that physiotherapists are experts in prevention and management and in promoting strategies to maintain and improve function or mobility.^{13–15,17} It is also in keeping with the *ICF* Core Set for Diabetes Mellitus, which includes multiple categories that align with the physiotherapy scope of practice.^{26,36} Examples are proprioceptive function, exercise tolerance functions, weight maintenance functions, structure of areas of the skin, fine hand use, walking, moving around, recreation and leisure, sports, and hobbies.^{26,36}

With regard to confidence, most respondents not only perceived a role for physiotherapists in, but were also confident about providing education on exercise, secondary complications, and managing weight. Conversely, 50% of all respondents did not perceive a role in, and were not confident about educating patients on controlling blood glucose, even though exercise is a key component of managing blood glucose and has been shown to be effective in lowering average blood glucose levels.^{37–40} Furthermore, given that most respondents thought that managing and preventing diabetes fell within the scope of physiotherapy, it is surprising that so many respondents lacked confidence in educating patients about controlling blood glucose through exercise. There appears to be a discrepancy between the perceived role of physiotherapists and their current practices with regard to prescribing exercise for managing diabetes; this warrants future review and study.

Another consistent finding was that more than half of the respondents believed that they had not received adequate entry-level education to prepare them for educating patients about preventing and managing diabetes. This is supported by the Canadian Council of Physiotherapy University Programs, which has suggested that diabetes education needs to be expanded in the entry-to-practice curriculum.^{15,41} Although most respondents thought that they were inadequately prepared, only a small proportion of them (8.9%) had pursued further formal diabetes education. This may be explained by the low proportion (23.1%) of respondents who thought that further formal training was required to effectively work with persons who had diabetes. Alternatively, this could reflect a lack of formal educational opportunities available to physiotherapists. This gap might explain why more than 97% of the respondents believed that a Web-based learning module on physiotherapy care for patients with diabetes would be beneficial.

Current clinical practices

Although respondents with extensive experience, formal diabetes education, or both, were more likely to screen for diabetes and test blood glucose, in general this practice was lacking. This represents a potential safety issue for patients and a liability issue for physiotherapists. If physiotherapists do not carry out these tests, they are missing an opportunity to provide further education to their patients. This highlights a need for a change in current practices and further diabetes education for current physiotherapists.

Knowledge assessment

An unexpected finding was that fewer than half of the physiotherapists knew the recommended amount of aerobic activity for individuals with diabetes. This amount not only applies to individuals with diabetes but is also consistent with the Canadian physical activity guidelines for everyone.⁴² Even fewer respondents (16.7%) were aware of the CDA's 2013 CPG; this demonstrates gaps in knowledge and the need to improve how this evidence is incorporated into physiotherapy practice.

Respondents' confidence levels were higher than their reported levels of knowledge, a finding that is supported by previous literature;⁴³ evidence exists of a strong relationship between self-efficacy and action.^{44,45} Our results suggest that confidence level, regardless of knowledge, is more likely to predict practice patterns related to managing diabetes in physiotherapy. Physiotherapists need to be educated, not just confident, in providing effective diabetes prevention and management.

To address knowledge gaps and ensure changes in practice, further education is needed as well as a greater awareness of standards and diabetes clinical practice guidelines among physiotherapists. Respondents consistently believed that their entry-to-practice education had not adequately prepared them to effectively manage

patients with diabetes. This suggests that a change should occur in the curriculum at the university level to help better prepare future physiotherapists for treating patients with diabetes. Along with this curriculum change, resources should be established to allow physiotherapists to pursue diabetes-specific continuing professional development opportunities.

To better address and reduce the impact of multimorbidity, physiotherapists should stay updated on best practices for diabetes care, acknowledge that change is necessary, and be willing to implement this change.⁴⁵ Barriers to implementing this new approach need to be identified, and there must be a method to sustain this change over time.⁴⁵

Limitations

Our study has several limitations that should be kept in mind when interpreting the results. Some relate to the cross-sectional design of the questionnaire—it captured an understanding at only one point in time, and there is a risk of bias due to variability in population characteristics between responders and non-responders. Other limitations concern the possible misinterpretation of some of our survey questions, the method of distributing the self-reported email survey, the inability to reach a representative sample in a set time frame, and the unequal representation of respondents.

In keeping with self-reported surveys, our study was subject to both recall and recruitment bias. To minimize recruitment bias and sampling error, we followed recommended practices: Recruitment was attempted through all physiotherapy regulatory bodies and professional associations in Canada, reminder emails were sent out periodically, and participants were able to enter a contest as an incentive.³⁴

We distributed the questionnaire using national, provincial, and territorial association email lists. This method entailed its own limitations. For example, it required recipients to subscribe to the email lists, and although attempts were made to contact all physiotherapists through provincial and territorial colleges, which require mandatory registration, the colleges' communications policies often made this impossible. The frequency of our reminder emails also depended on the established schedule of the professional associations we used. In addition, the members of one provincial and one territorial association could not be reached by the associations' emails; as a result, they did not receive the reminders from different sources as did members in other regions, which may have affected the response rate in those areas. We recognize a clearly disproportionate representation: New Brunswick, Nova Scotia, Ontario, Prince Edward Island, and Yukon were over-represented. There was also a difference in the representation of respondents in entry-level education, current practice setting, and proportion educated outside Canada. Finally,

the variety and overlap of the distribution lists prevented us from precisely calculating the response rate.

Web-based surveys have been shown to dramatically reduce the cost of survey research and facilitate distribution over large geographic areas; however, they have also been shown to result in consistently lower response rates. In addition, our method of distribution, a Web link in a multi-line email, may have further limited the response rate. These two methods may have affected the generalizability of our results.^{46,47}

A few questions in the survey may have been misinterpreted because some terms were not defined. Examples are “screening” for diabetes, “formal” diabetes education, and “counsel” provided for various areas of diabetes management. Not specifying diabetes type could also have affected the respondents’ answers. In addition, we did not evaluate how respondents would prefer to receive further diabetes education; only one question asked about the perceived helpfulness of a Web-based module. There are many other styles and formats for pursuing continuing diabetes education, developing confidence, and increasing skill; further research may seek to evaluate therapists’ preferences and the efficacy of different formats. We should point out that clinical skills such as enacting behavioural change and self-management support principles were not specifically evaluated, but they are important and effective in preventing and managing diabetes and warrant further research.⁴⁸ Also, practices regarding primary prevention were not surveyed. This is an important area of physiotherapy practice, and one that plays a role in preventing and managing diabetes; it is another potential area of future research.

CONCLUSION

This is the first study to examine the knowledge, attitudes, and current practices of physiotherapists regarding diabetes, and it reveals an apparent gap in these domains that must be addressed. Despite the lack of substantive literature related to physiotherapists specifically providing diabetes intervention, our results clearly show that Canadian physiotherapists regularly encounter this condition across multiple settings. Given the increasing prevalence of diabetes in Canada, it is essential that physiotherapists have the appropriate knowledge of and confidence in how to prevent and manage diabetes.

Additional research into the education and knowledge of new and existing physiotherapists would help to inform the direction of any future knowledge translation efforts. It remains unclear whether current practices are more influenced by knowledge at graduation or the practicality of applying them in clinical settings, where time or other resources are limited. Depending on these results, a review of the physiotherapy educational curricula or professional development regarding diabetes may be warranted.

KEY MESSAGES

What is already known on this topic

On the basis of the existing literature and the *International Classification of Functioning, Disability and Health* Core Set for Diabetes Mellitus, physiotherapists have a clear role and scope in providing diabetes care.^{13–16,26} Despite this, there is no published research on the attitudes, knowledge, or current practices of physiotherapists working with people with diabetes.

What this study adds

Our study found that most physiotherapists surveyed in Canada identify a role for themselves in preventing and managing diabetes; they are able to demonstrate knowledge to this effect but lack confidence in implementing it. There is also a perceived lack of entry-level training in how to prevent and manage diabetes. Our study identifies areas for additional research, including methods to implement and examine diabetes-related knowledge in entry to practice and practicing therapists.

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