Postgraduate Physiotherapy Training: Interest and Perceived Barriers to Participation in a Clinical Master's Degree Programme

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ABSTRACT

Purpose: To (1) assess whether physiotherapists in a large Canadian province support the offering of a clinical master's degree programme; (2) identify what sector of this population is interested in participating in a clinical master's degree programme; (3) identify the most common personal/professional reasons for enrolling; (4) identify the type of programme that would appeal; and (5) assess barriers to participation in such a programme.

Methods: The survey and accompanying cover letter explaining the study were sent by postal mail to all 2,552 physiotherapists registered with the College of Physical Therapists of British Columbia (CPTBC).

Results: The response rate was 17%; 90% of respondents support offering this type of physiotherapy degree in BC, and 14% reported that they were likely to enrol. Orthopaedics/manual therapy (41%) was the clinical area of most interest.

Conclusions: There is strong support for a clinical master's degree in orthopaedic manual therapy in BC. There is greater support for a part-time programme with an inter-professional component, using a combination of e-learning and classroom teaching to reduce travel time and time away from family.

Key Words: clinical, education, manual therapy, physiotherapy, postgraduate

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RÉSUMÉ

Objectif : (1) Évaluer si les physiothérapeutes dans une grande province canadienne appuient la possibilité que soit offert un programme de maîtrise clinique dans leur domaine; (2) identifier quel secteur de cette population serait intéressé à participer à un programme de maîtrise de ce genre; (3) préciser les raisons professionnelles/personnelles les plus invoquées pour s'inscrire à un tel programme; (4) définir le type de programme susceptible de créer un engouement; et (5) évaluer les obstacles à la participation à un tel programme.

Méthode : Le sondage et la lettre de présentation donnant les détails de l'étude ont été envoyés par la poste à 2 552 physiothérapeutes agréés auprès du College of Physical Therapists of British Columbia (ordre des physiothérapeutes de la Colombie-Britannique), le CPTBC.

Résultats : Le taux de réponse a été de 17 %. Quatre-vingt-dix p. cent des répondants ont appuyé ce type de diplôme de physiothérapie en C.-B. et 14 % ont fait part de leur intérêt éventuel à s'y inscrire. L'orthopédie/la thérapie manuelle était le secteur clinique ayant suscité le plus d'intérêt (41 %).

Conclusions : L'idée d'une maîtrise en thérapie manuelle orthopédique en C.-B. fait l'objet d'un vaste appui. On est davantage favorable à un programme à temps partiel, avec composante interprofessionnel, qui ferait appel à une combinaison d'enseignement personnalisé par Internet et de cours magistraux, ce qui réduirait le temps de déplacement et le temps passé loin de la famille.

Mots clés : clinique, éducation, physiothérapie, post-universitaire, thérapie manuelle

INTRODUCTION

A physical therapy specialty is a prescribed area of physiotherapy practice within which it is possible for a physiotherapist to develop and demonstrate higher levels of knowledge and skill.¹ After completing an entry-level

degree, many physiotherapists participate in postgraduate programmes focused on gaining specialized skills and knowledge in a specific area of practice. Some typical physiotherapy clinical practice areas are orthopaedics/manual therapy, neurosciences, paediatrics, women's health, cardiorespiratory, and sports. A clinical master's

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degree is a postgraduate degree focusing on advanced clinical skills and evidence-based practice, rather than on preparation for a research career. Completing a clinical master's degree is one method of achieving the competencies required by those seeking clinical specialization; the core elements of the role of a clinical specialist are clinical expertise, teaching, evaluation, practice, and/or service development.²

There are a number of reasons to consider developing more clinical master's degree programmes in physiotherapy in Canada. First, clinical specialization may improve patient outcomes. A survey of 350,000 nurses conducted by the Nursing Credentialing Research Coalition (NCRC) in the United States³ identified numerous positive outcomes associated with specialist certification, including fewer adverse events in patient care, higher patient satisfaction ratings, more effective communication and collaboration with other providers, fewer disciplinary events, and fewer work-related injuries; similarly, many employers agree that certified physiotherapy specialists routinely manage patients with more complex patient conditions and that clinical outcomes are improved.⁴ Second, clinical master's degree programmes may provide a more obvious career structure or pathway for physiotherapists, if organized within the broader health and academic systems. For example, master's-level training has been identified as essential for development of consultants⁵ or extended scope physiotherapy practitioners,⁶ such as those in the National Health Service in the United Kingdom. A more obvious career pathway could improve retention and engagement of physiotherapists in the field,² critical at a time of physiotherapist shortages across the country. Further, the NCRC survey mentioned above found that nurses with specialist certification reported increased personal growth and professional satisfaction.³ Finally, clinical specialty programmes are important if we are to meet physiotherapists' needs for professional development of clinical skills and advanced clinical reasoning in their chosen practice area.⁷ While physiotherapists have access to a number of research-, administration-, or health services-related graduate degrees, clinical master's degree programmes in physiotherapy are lacking in Canada: the only such programme currently available is the one at the University of Western Ontario.⁸ By contrast, clinical physiotherapy master's degree programmes are available at numerous degree-granting institutions in Australia and the United Kingdom.⁹⁻¹³ Thus, Canadian degree-granting institutions could consider the development of clinical master's degree programmes. However, they must first establish whether there is strong support for such a programme and gain a clear understanding of the type of programme that will meet the needs of currently practising physiotherapists.

For these reasons, our primary objective in the present study was to survey physiotherapists practising in a large

Canadian jurisdiction, the province of British Columbia (BC), to (1) assess whether they support offering a clinical master's degree programme in their province; (2) identify the demographic factors of physiotherapists registered to practise in BC (original physiotherapy education, years in practice, type of practice) who are interested or not interested in participating in a clinical master's degree programme; (3) identify the most common personal/professional reasons for enrolling; (4) identify the type of programme that would appeal to physiotherapists practising in BC, including area of specialization, time frame, and format; and (5) assess barriers to participation in such a programme. We hypothesized that (1) there would be strong support for a clinical master's degree programme in BC; (2) physiotherapists early in their careers would be more likely to enrol in a clinical master's degree programme; (3) improving clinical skills would be the most common personal/professional reason for enrolling; (4) orthopaedic manual therapy would be the most popular area of clinical practice for this type of programme; and (5) physiotherapists would perceive lack of time and cost as the most important barriers to participation.

METHODS

Design

This cross-sectional study was approved by the University of British Columbia's Clinical Research Ethics Board.

Materials

The authors developed a questionnaire (see Appendix 1) and an accompanying cover letter explaining the study.

Participants and Procedure

The survey and cover letter were sent by postal mail to all 2,552 physiotherapists registered with the College of Physical Therapists of British Columbia (CPTBC). Twelve were returned to the office as undeliverable; thus the initial sample was composed of 2,540 physiotherapists. Because of the cost involved, no self-addressed envelopes were provided. Reminder notices were sent by e-mail, to all members of the Physiotherapy Association of British Columbia (PABC) who had provided an e-mail address ($n=1,536$) 6 weeks after the initial mailing, and to all CPTBC registrants in the organization's newsletter 12 weeks after the initial mailing. These are the common methods by which information is distributed to registered physiotherapists and members of PABC. We expected a response rate of approximately 20%, based on a similar previous study.¹⁴

Data Analysis

The response rate was calculated by dividing the number of respondents ($n=425$) by the number of questionnaires sent, excluding the 12 that were returned as undeliverable ($n=2,540$). We then expressed the number of respondents who supported offering a clinical master's degree, as well as of those who were likely or very likely to enrol, as percentages of the total respondents. Data were calculated as a percentage of (1) total respondents and (2) respondents who reported that they were "likely" or "very likely" to enrol in response to Question 6 ("On a scale of 1–5, how likely are you personally to enroll in a Clinical Masters program?"; see Appendix 1). A research assistant used content-analysis methods¹⁵ to code the text answers for why or why not respondents preferred a physiotherapy-only or an inter-professional programme (Question 12), using identified themes evident in the data. To develop a coding scheme, the research assistant first reviewed the comments for 50 randomly selected surveys/responses to this question. Similar comments were then grouped together, and a title was given to each category. The next step was to code each survey with one of these categories as the response to Question 12 prior to entering the data in the spreadsheet. It was rare that a response did not fit into one of the initially developed categories; in the odd case when this did occur, a new coding category was created.

The Spearman Rank Correlation test (Spearman's ρ) was used to assess the relationship between the degree to which a respondent was likely to participate in a clinical master's programme and (1) original level of physiotherapy education (i.e., bachelor's degree, master's degree); (2) number of years in practice; (3) number of years until retirement; and (4) amount he or she was willing to pay for such a programme. This test was also used to assess the relationship between current predominant practice area (Question 1f) and preferred practice area for a clinical master's programme (Question 11). The significance level was set at $p=0.05$ a priori.

RESULTS

The survey was completed and returned by 425 physiotherapists, for a response rate of 17%; 90% of returned surveys were complete (the incomplete surveys were returned by fax, and some pages were not transmitted or were unreadable). The questions about barriers to enrolment (Question 7), personal/professional goals relating to enrolment (Question 8), and preferred format for delivery of theoretical course content (Question 13b) asked participants to rank their responses; 81%, 89%, and 87% of respondents, respectively, ranked their responses to these questions, while the rest chose responses but did not rank them.

Ninety-one percent of respondents supported offering this type of physiotherapy degree in their province, and 14% reported that they were either "likely" or "very likely" to enrol (see Table 1). Data on original physiotherapy education, number of years' experience as a physiotherapist, and expected number of years until retirement are also presented in Table 1.

Orthopaedics/manual therapy (40.7%), paediatrics (10.8%), neurosciences (8.5%), gerontology (7.1%), and cardiorespiratory (3.5%) were the preferred practice areas for a clinical master's degree programme (see Table 2). Comparison of data for all respondent with data for those who said they were "likely" or "very likely" to enrol shows even greater support for orthopaedics / manual therapy as the practice area of most

Table 1 Respondent Demographics: Original Physiotherapy (PT) Education, Years of Experience Working as a Physiotherapist, Years Until Retirement, and Likelihood to Enrol in a Clinical Master's Degree Programme

Variable	Response	All Respondents ($n=425$) n (%)	Respondents "Likely" or "Very Likely" to Enrol ($n=58$) n (%)
Original PT education	Diploma	82 (19.3)	4 (6.9)
	Undergraduate*	283 (66.6)	46 (79.3)
	Graduate	51 (12.0)	8 (13.8)
Years of experience	<5	53 (12.5)	17 (29.3)
	5–10	71 (16.7)	18 (31.0)
	10–15	48 (11.3)	6 (10.3)
	15–20	54 (12.7)	6 (10.3)
	>20	183 (43.1)	9 (15.5)
Years until retirement	<5	63 (14.8)	0 (0.0)
	5–10	77 (18.1)	2 (3.4)
	10–15	65 (15.3)	13 (22.4)
	15–20	90 (21.2)	9 (15.5)
	>20	106 (24.9)	32 (55.2)
Likelihood to enrol	Very Likely	24 (5.6)	–
	Likely	34 (8.0)	–
	Possibly	127 (29.9)	–
	Not Likely	120 (28.2)	–
	Definitely Not	105 (24.7)	–

*Undergraduate degree in physiotherapy or physical therapy.

Table 2 Preferred Clinical Practice Area for a Clinical Master's Degree Programme

Clinical Area of Most Interest	All Respondents ($n=425$) n (%)	Respondents "Likely" or "Very Likely" to Enrol ($n=58$) n (%)
Orthopaedics / manual therapy	175 (40.7)	33 (56.9)
Paediatrics	46 (10.8)	6 (10.3)
Neurosciences	36 (8.5)	6 (10.3)
Gerontology	30 (7.1)	2 (3.4)
Cardiorespiratory	15 (3.5)	2 (3.4)
Women's health	8 (1.9)	0 (0.0)
Rehabilitation	5 (1.2)	1 (1.7)
Sports	4 (0.9)	1 (1.7)
General medical/surgical/acute	3 (0.7)	0 (0.0)
Community/home health	3 (0.7)	0 (0.0)

interest for this programme (56.9%). Table 3 shows the current predominant practice areas for the respondent population. There was a significant relationship between current practice area and practice area preferred for a clinical master's degree programme ($\rho = 0.28$, $p < 0.001$).

Most respondents (70.6%) preferred a part-time programme, and many (41.4%) preferred an inter-professional programme in which some or all courses would be open to other health care professionals (see Table 4). The most commonly reported reason for supporting a programme for physiotherapists only (as opposed to one that includes multiple disciplines) was to allow for more specialization and greater focus on physiotherapy-specific skills. The most commonly reported reason for supporting an inter-professional component was that the

views and experience of other health care professionals would enhance the programme. Of the 173 respondents who identified orthopaedics as their primary area of interest, 86 preferred a physiotherapy-only programme, 54 preferred an inter-professional programme, and 23 did not express a preference. The majority of respondents (59%) reported that they would be more likely to participate if courses from Canadian Physiotherapy Association (CPA) Division specialty programmes were included in or were given partial credit toward the clinical master's. Only 1% said they would be less likely to participate if partial credit was given for CPA Division courses; 31% reported that they would be "as likely" to participate, and 10% did not answer the question.

Respondents preferred a format using non-Internet study at home (35.3%); classroom study in Vancouver, the province's largest city (21.6%); and study online (17.2%) for delivery of theoretical course content. For in-person classroom sessions, "numerous intensive weekend workshops" were the most preferred format (42.8%; see Table 4).

Almost half of respondents (46.1%) said they would pay between \$10,000 and \$15,000 for this type of programme, but there was no significant relationship between likelihood to enrol and the amount a respondent was willing to pay ($\rho = 0$, $p = 0.93$). Importantly, of those who said they were "likely" or "very likely" to enrol, almost 85% were willing to pay either \$10,000–\$15,000 (55.2%) or \$15,000–\$20,000 (29.3%). Top-ranked

Table 3 Current Predominant Practice Area

Current Predominant Practice Area	Respondents (<i>n</i> = 425) <i>n</i> (%)
Orthopaedics / manual therapy	229 (53.9)
Paediatrics	34 (8.0)
Cardiorespiratory	30 (7.1)
Gerontology	20 (4.7)
Neurosciences	20 (4.7)
Community/home health	19 (4.5)
General medical/surgical/acute care	13 (3.1)
Rehabilitation	7 (1.6)
Women's health	3 (0.7)
Sports	2 (0.5)

Table 4 Preferred Format for a Clinical Master's Degree Programme

Variable	Response	All Respondents (<i>n</i> = 425) <i>n</i> (%)	Respondents "Likely" or "Very Likely" to Enrol (<i>n</i> = 58) <i>n</i> (%)
Full time (10 months)	Yes	84 (19.8)	17 (29.3)
Part time (2–3 years)	Yes	300 (70.6)	42 (72.4)
Physiotherapists only	Yes	140 (32.9)	20 (34.5)
Inter-professional	Yes	176 (41.4)	26 (44.8)
Cost/amount willing to pay	\$10–15K	196 (46.1)	32 (55.2)
	\$15–20K	79 (18.6)	17 (29.3)
	\$20–25K	20 (4.7)	2 (3.4)
	\$25–30K	7 (1.6)	1 (1.7)
	\$30–35K	2 (0.5)	0 (0.0)
	None of the above	70 (16.5)	4 (6.9)
Preferred methods of delivering theory:			
Study at home (non-Internet)	ranked #1	73 (17.2)	8 (13.8)
Online self-study	ranked #1	150 (35.3)	28 (48.3)
Teleconference	ranked #1	4 (0.9)	0 (0.0)
Videoconference	ranked #1	14 (3.3)	0 (0.0)
Classroom in Vancouver	ranked #1	92 (21.6)	15 (25.9)
Classroom elsewhere	ranked #1	52 (12.2)	6 (10.3)
Other	ranked #1	11 (2.6)	1 (1.7)
Preferred classroom / "face-to-face" format:			
Weekday daytime	Yes	79 (18.6)	11 (19.0)
Weekday evenings	Yes	89 (20.9)	17 (29.3)
Weekends	Yes	54 (12.7)	10 (17.2)
Alternate weekends	Yes	124 (29.2)	20 (34.5)
Numerous intensive weekend workshops	Yes	182 (42.8)	29 (50.0)
Numerous intensive weekday workshops	Yes	72 (16.9)	11 (19.0)
Summer school	Yes	54 (12.7)	10 (17.2)
Full-time daytime programme	Yes	56 (13.2)	8 (13.8)

Table 5 Highest-Ranked Barriers to Participation in a Clinical Master's Programme and Personal/Professional Reasons for Participating

Barrier	Respondents Who Ranked This Item #1 (n = 425) n (%)	Respondents "Likely" or "Very Likely" to Enrol Who Ranked This Item #1 (n = 58) n (%)
Lack of time	91 (21.4)	11 (19.0)
Family commitments	81 (19.1)	16 (27.6)
Cost or lack of financial support	52 (12.2)	15 (25.9)
Geographical location	40 (9.4)	9 (15.5)
Other*	64 (15.1)	2 (3.4)
Personal/Professional Reason for Participating		
Enhanced clinical skills	246 (57.9)	37 (63.8)
Fulfilment of a personal goal	47 (11.1)	7 (12.1)
Promotion or professional advancement	25 (5.9)	6 (10.3)
Increased job satisfaction	22 (5.2)	3 (5.2)
Increased income	16 (3.8)	1 (1.7)
Move to a different area of interest	12 (2.8)	2 (3.4)

*Being "close to retirement" and "age" were the two most commonly reported "other" barriers.

barriers to participation in a clinical master's degree programme included lack of time, family commitments, and cost or lack of financial support (see Table 5). Enhancing clinical skills was by far the most highly ranked personal/professional reason for participating (Table 5).

We found a statistically significant inverse relationship between years of experience and likeliness to enrol ($\rho = -0.36$, $p < 0.001$) and a statistically significant positive relationship between both years to retirement and original physical therapy education and likeliness to enrol in a clinical master's degree programme ($\rho = 0.47$, $p < 0.001$, and $\rho = 0.17$, $p = 0.001$, respectively).

When asked whether they were aware of the CPA specialization process (which is currently under development), 37% of participants responded "yes," 39% "no," and 19% "somewhat." For those likely or very likely to enrol in a clinical master's degree programme, the results were similar: 34.5% said "yes," 43% "no," and 21% "somewhat." Many respondents (43% of all respondents and 45% of those likely/very likely to enrol) did not answer the question asking whether they had considered participation in the CPA specialization process; a further 21% of all respondents and 36% of those likely or very likely to enrol answered "yes," while 35% and 19% of these groups, respectively, said "no."

DISCUSSION

Our results suggest that physiotherapists in BC support the offering of a clinical master's degree in physiotherapy in their province and that physiotherapists who have been in practice for 10 years or less should be the target audience for this type of programme.

Thus, curricula should ensure the inclusion of material essential to the success of less experienced physiotherapists.

Supporting hypothesis 4, our results also show that the vast majority of respondents (41% of all respondents and 57% of those "likely" or "very likely" to enrol) were most interested in a clinical master's degree programme in orthopaedic manual therapy. Paediatrics, neurosciences, and gerontology were the next most preferred practice areas for this programme. This ranking mirrors some of the clinical practice areas in which clinical postgraduate physiotherapy degree programmes are offered in Australia,^{10,11} which may suggest similarities in the needs of patients, clinicians, and/or health systems in Canada and Australia. It is notable that CPTBC data collected in the same year as the present survey show the following distribution of clinical area of practice for physiotherapists whose primary responsibility is direct patient care: 34% in orthopaedics, 3% in early childhood intervention, 5.8% in neurology, 5.8% in gerontology, and 2.3% in respirology and cardiology combined.¹⁶ When compared with the current predominant practice area reported by our participants (see Table 3), these figures suggest that a higher percentage of physiotherapists practising in orthopaedics, paediatrics, and cardiorespiratory participated in our study. This may indicate that the specialization needs of physiotherapists working in these practice areas are not being met by courses currently available.

Our finding that 41 % of respondents preferred a programme in which some courses would be open to health professionals from other disciplines outside physiotherapy (see Table 4) is also novel. Current programmes are typically physiotherapy specific and enrol physiotherapists only, which may be appropriate given that the primary personal/professional reason for enrolling was "enhanced clinical skills" (see Table 5). Nevertheless, our data show strong support for the inclusion of other health professionals in some courses, so that viewpoints can be shared and knowledge can be exchanged between disciplines. Inter-professional education can promote integrated and collaborative patient-centred care,¹⁷⁻¹⁹ which has been shown to increase patient safety and satisfaction.²⁰⁻²² Graduates of a clinical master's degree programme will be recognized as clinical specialists, acting as resources and educators to other health care team members to achieve a high standard of patient care. Thus, the inclusion of some inter-professional education could improve graduates' skills in collaboration and teamwork.

The majority of respondents (70.6%) preferred a part-time programme, but the majority of current programmes are delivered full time or have very limited places for individuals who want to pursue the degree part time. Further, respondents preferred numerous weekend workshops for in-person classroom sessions.

This finding is not surprising, since this has been and continues to be the most common format used in Canada for postgraduate clinical education in physiotherapy; this result may reflect either a preference for a format that physiotherapists are already accustomed to or a need to continue to work while completing a postgraduate degree. Since the vast majority of participants (59%) responded that they would be more likely to enrol in a clinical master's programme if given partial credit for CPA Division courses already completed, programme developers may wish to consider allowing participants to earn partial credit or to use division courses as programme prerequisites. For example, postgraduate courses run by CPA Divisions (such as Orthopaedics or Neurosciences) often use a hierarchical structure, in which the first level must be completed as a prerequisite to subsequent levels. These introductory specialization courses may also be appropriate as prerequisites to a clinical master's degree programme in some areas of practice, allowing the master's programme to provide even more focus on the acquisition of higher-level skills and knowledge.

We found that those respondents most likely to enrol do not prefer teleconference or videoconference formats. With improvements in technology, it is possible that videoconferencing facilities and capabilities may make teaching clinical skills from a distance more attractive. However, a previous study found that physiotherapists who had Internet access, especially those who had access both at home and at work, were more likely to be interested in computer-assisted learning;²³ since videoconferencing facilities are still relatively rare and hard to access, it is likely that many physiotherapists in BC will not see this as a feasible or preferred teaching method until they gain improved access. Thus, our respondents' lack of preference for videoconferencing as a method of course delivery (see Table 4) could be related to their lack of access and experience with this technology. Yet the use of videoconference technology to teach manual techniques is promising: a study comparing direct face-to-face teaching of hand assessment skills, including joint mobilization, with teaching using videoconferencing equipment found excellent performance with both techniques.²⁴

Our results suggest that a large number of respondents feel that they would be willing to pay CAD\$10,000–\$15,000 in total course fees for this type of education. This range is similar to the approximately \$12,000 and \$10,000, respectively, in course fees for the entry-level Master of Physical Therapy and post-entry-level Master of Rehabilitation Sciences already offered at the University of British Columbia (UBC) but more than the approximate \$8,000 for a 2-year research master's degree and far less than some other post-entry-level degrees in which a physiotherapist might enrol, such as an MBA programme (\$39,000) or a Master of Health

Administration (\$29,000) at UBC. This has implications for Canadians considering currently existing programmes (such as those in Australia and the UK), where fees for international students typically exceed CAD\$25,000, as well as for institutions looking at developing new programmes. Alternative and potentially cheaper methods of delivering course content and information exchange, such as online components (see Table 4), could help lower costs and may make such programmes more affordable for many physiotherapists. While there may be an increased cost for the initial development of these teaching formats, long-term costs for the institution may be reduced. Finally, while government subsidy or grants help to fund entry-level physiotherapy degree and research degree (MSc, PhD) programmes, they may not be available for postgraduate clinical degree programmes.

Our results also suggest that cost and lack of financial support is only the third greatest barrier to participation for all respondents, and the second greatest barrier for those respondents "likely" or "very likely" to participate in a clinical master's degree programme. Contrary to our hypothesis 5, family commitments ranked higher than cost, and this was the top-ranked barrier for those most likely to enrol (see Table 5). Other studies have also identified family commitments as a barrier to participation in continuing professional development for health care professionals,^{25,26} and the demands of caregiving for young children and elderly parents may be especially relevant to physiotherapists because of the high percentage of female practitioners in the profession. Investigation of more flexible methods of teaching and information exchange, such as online education,^{27,28} may have a greater impact than reducing programme fees on clinicians' likeliness to enrol. In summary, it appears that time away from family may be a more significant barrier than programme fees.

Supporting hypothesis 3, enhanced clinical skill was the most highly ranked personal or professional reason for enrolment in a clinical master's degree programme (see Table 5). Since physiotherapy is a "hands-on" discipline, the ability to improve and ensure excellence in clinical skills will likely always require considerable face-to-face teaching and feedback. The need for a flexible and accessible programme must be balanced with this requirement, and with the preferences and barriers noted above, to ensure a rigorous programme that ensures optimal patient care through excellent learning for the clinician.

The 17% response rate in our study is low compared to those of some previous studies of physiotherapists.^{29–31} Various factors may have contributed to this result. First, since a stamped return envelope was not supplied, some individuals may have chosen not to respond because of the cost of postage or lack of access to a fax machine. Further, research topic has been shown to affect

response rates,³² so individuals who felt the topic was unimportant or irrelevant to them may have chosen not to participate. Physiotherapists may be more motivated to respond to a study about direct access to care²⁹ (which more obviously affects their caseload and earning potential) or to a questionnaire specific to their area of special interest.^{33,34} Some previous studies with higher response rates involved only clinicians in a specific area of practice³³ or education,³⁵ rather than all registered physiotherapists in a large jurisdiction. Incentives have also been shown to positively affect response rates,³⁶ but we did not offer any incentives in this study, as we did not want to bias our sample.

To provide a more generalizable sample, we mailed our survey to all physiotherapists registered to practice in BC. However, this method has limitations. First, we could not send out the survey electronically, or even send a link to a free Web-based survey, because the CPTBC does not normally send out such invitations or information via e-mail; this also influenced our ability to follow up with CPTBC registrants using any method other than postal mail. Further, because we could not access their mailing list, we were able to send the follow-up reminder only 12 weeks later, with the next CPTBC newsletter, while PABC members received a follow-up reminder by e-mail 6 weeks after the initial mailing of the survey, as recommended by experts in survey methodology.³⁷ Sampling a smaller number of physiotherapists who were members of PABC might have yielded a higher response rate and allowed us to distribute and follow up by e-mail. A previous study of PABC members only, in which self-addressed postage-paid envelopes were not supplied, achieved a response rate of 39%.³¹

Despite the low response rate, our respondents appear to be a representative sub-sample of the larger physiotherapist population in BC. The respondent demographics are similar to the demographics of the whole physiotherapist population; further, 43% of respondents had been in practice for more than 20 years, consistent with reports suggesting that 46% of physiotherapists in this population are over age 45.¹⁶

Our study provides novel insights into the level of support for and specific interest in a clinical master's degree programme on the part of Canadian physiotherapists in the province of BC. We used primarily quantitative methods to address the goals of our study, but further investigation of barriers and personal goals using qualitative methods may provide further insight.

There was strong support for an inter-professional component, and this finding may warrant further investigation. Specifically, it may be important to clarify which health professionals physiotherapists prefer to learn with and to identify potential topics for inter-professional course curriculum development.

CONCLUSIONS

Support is strongest for a part-time clinical master's degree programme in orthopaedic manual therapy, using online learning for delivery of at least some of the theoretical course content and weekend workshops for in-person classroom teaching. Interest is highest among physiotherapists who have been practising for 10 years or less, and family commitments was ranked as the top barrier to participation by those most likely to enrol.

KEY MESSAGES

What Is Already Known on This Subject

Clinical specialty programmes are important if we are to meet physiotherapists' needs for professional development of clinical skills and advanced clinical reasoning in their chosen practice area, and thus ultimately improve patient care. Only one clinical master's degree programme is currently available in Canada, at the University of Western Ontario; in contrast, clinical master's degree programmes in physiotherapy are available at numerous degree-granting institutions in Australia and the United Kingdom.

What This Study Adds

Our cross-sectional study examining interest in and perceived barriers to participation in a clinical master's degree in physiotherapy in the province of British Columbia found strong support for offering a clinical master's degree in orthopaedic manual therapy in this province. Enhancing clinical skills is the most common reason to enrol in such a programme, and support is strongest for a part time programme with an inter-professional component, using a combination of e-learning and classroom teaching. Lack of time, family commitments, and cost or lack of financial support are important barriers to participation and should be considered in programme development.

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APPENDIX 1: QUESTIONNAIRE MAILED TO ALL PHYSIOTHERAPISTS REGISTERED TO PRACTISE IN BRITISH COLUMBIA

Clinical Master's Survey

We are conducting this survey on behalf of the UBC Division of Physical Therapy. Specifically, we want to know a bit about your physiotherapy practice, plans and interest in a potential Clinical Masters degree through UBC.

1. Please tell us a little about yourself
 - a. Which Health region do you reside in?
 - i. Vancouver Coastal
 - ii. Fraser Health
 - iii. Interior
 - iv. Northern
 - v. Vancouver Island
- [original survey included map of BC Health Regions here]
- b. What was your original level of Physiotherapy education:
 - i. Diploma
 - ii. Undergraduate Degree
 - iii. Graduate Degree

- c. Please list any other professional degrees, diplomas or certificates you have received since graduating as a Physiotherapist.
 - d. How many years of experience do you have as a Physiotherapist?
 - i. <5
 - ii. 5-10
 - iii. 10-15
 - iv. 15-20
 - v. >20
 - e. How many more years do you anticipate practicing before retirement?
 - i. 5
 - ii. 5-10
 - iii. 10-15
 - iv. 15-20
 - v. >20
 - f. What is/are the predominant area(s) of your current practice:
 - i. Orthopaedics (including manual therapy)
 - ii. Sports
 - iii. Women's health (Specify area(s): _____)
 - iv. Neurosciences
 - v. Cardiorespiratory
 - vi. General medical / surgical (Acute care)
 - vii. Gerontology
 - viii. Community / home health
 - ix. Rehabilitation
 - x. Education
 - xi. Administration
 - xii. Paediatrics
 - xiii. Other (please describe): _____
 - g. What do you hope will be the predominant area(s) of your future practice:
 - i. Orthopaedics (including manual therapy)
 - ii. Sports
 - iii. Women's health
 - iv. Neurosciences
 - v. Cardiorespiratory
 - vi. General medical / surgical (Acute care)
 - vii. Gerontology
 - viii. Community / home health
 - ix. Rehabilitation
 - x. Education
 - xi. Administration
 - xii. Paediatrics
 - xiii. Other (please describe): _____
 - h. Which of the following BEST describes your current practice type:
 - i. Urban, public practice
 - ii. Urban, private practice
 - iii. Rural, public practice
 - iv. Rural, private practice
 - v. Educational Institution
 - vi. Other (please describe): _____
2. Are you aware of / familiar with the Canadian Physiotherapy Association (CPA) specialization process which is being developed?
- a. Yes

- b. No (skip to Question 4)
- c. Somewhat

3. Have you considered participating in the specialization process through CPA? Yes No Why or why not?
4. What other formal education [certificate, diploma or degree granting program(s)] are you considering taking related to your PT career (if any)? What are you hoping to gain from this education and how does it relate to your career?

The following questions (5-14) relate to the proposed Clinical masters programme. A Clinical Masters degree is a post-graduate degree focusing on enhanced clinical skills and evidence based practice rather than on preparation for a research career.

5. Conceptually, do you support offering this type of physiotherapy degree in BC? Yes No Why or why not?
6. On a scale of 1-5, how likely are you personally to enroll in a Clinical Masters program?

1 = definitely not 2 = not likely 3 = possibly 4 = likely 5 = very likely

7. What barriers do you see to your enrolling in a Clinical Masters program that was based at UBC in Vancouver or Kelowna? (Please rank the importance of barriers with 1 being the most significant barrier).
 - a. Lack of time
 - b. Family commitments
 - c. Cost / Lack of financial support
 - d. Geographic location (of you and/or of the program)
 - e. Lack of employer support (e.g.: for time off, financial support)
 - f. Concerns re: personal ability to complete the course (e.g.: enrolling as a graduate student, lack of familiarity with technology such as the Internet for study, etc.)
 - g. Not interested
 - h. Other (please describe: _____)
8. If you personally were going to enrol in this type of program, what would your personal / professional goal(s) be? (Please rank the importance of goals with 1 being the most important goal for you).
 - a. Enhanced clinical skills
 - b. Increased job satisfaction
 - c. Increased income
 - d. Promotion or professional advancement
 - e. Move to a different area of interest in the profession
 - f. Fulfillment of a personal goal to undertake graduate study in an area of interest
 - g. Networking with other PTs or professional contacts
 - h. A stepping stone to further graduate study (please indicate further studies you are considering or may consider: _____)
 - i. Other (please describe: _____)

9. If components (courses) from CPA Division specialty programs were included or if partial credit was given toward the Clinical Masters, would you be MORE, LESS or AS LIKELY (same) to participate in a Clinical Masters program?
 - a. more likely
 - b. less likely
 - c. as likely
10. If you, personally, were going to take this type of program, would you prefer a full time (approximately 10 months) or part time (for 2-3 year) format?
11. If you, personally, were considering taking this type of program, what clinical area would most be of interest to you?
12. If you, personally, were considering taking this type of program, would you prefer to study in a "Physiotherapy only" program (i.e. all students would be licensed PT's) or in an Interprofessional program (i.e. some or all courses would be open to other health professionals), and why?
13. If a Clinical Masters degree were offered at UBC, it would likely be a 1-2 year program and involve both theoretical and practical components.
 - a. what would you be willing to pay in total course fees for this type of education:
 - i. \$10,000-15,000
 - ii. \$15,000-20,000
 - iii. \$20,000-25,000
 - iv. \$25,000-30,000
 - v. \$30,000-35,000
 - vi. none of the above
 - b. What format(s) would you prefer for delivery of theoretical course content? (Please rank your most preferred option with 1 being the most preferred option).
 - i. study at home (non-internet)
 - ii. on-line self study / on-line with interactive component (e.g.: web discussion group/ chat room)
 - iii. teleconference
 - iv. videoconference
 - v. classroom in Vancouver
 - vi. classroom elsewhere in the province (please indicate where: _____)
 - vii. other (please describe: _____)
 - c. Practical and possibly theoretical components of the program may be held in a classroom format. If you were required to attend face to face courses for all or part of the program, what format(s) would you prefer?
 - i. Weekday Daytime (part time, not every day)
 - ii. Weekday Evenings
 - iii. Weekends (one or more days each w/e)
 - iv. Alternate Weekends (biweekly, may involve 2 days plus Friday evenings)
 - v. Numerous Intermittent Intensive workshops (3-5 days including weekends)
 - vi. Numerous Intermittent Intensive workshops (3-5 days during the week)
 - vii. "Summer School" type format (attend full time for 6-12 week periods each summer).
 - viii. Full time daytime program for 9-10 months
 - ix. Other (please describe: _____)
14. Is there anything else you would like us to consider in designing a Clinical Masters program for BC?

Please submit your completed survey via fax to (604) 822-7624 or via mail to:

Physical Therapy Division
c/o Clinical Masters Survey
T-325 - 2211 Wesbrook Mall
Vancouver, BC V6H 2B5