Continuing Professional Development Needs of BC Physical Therapists

Summary Report

August 2014

UBC CPD
CONTINUING PROFESSIONAL DEVELOPMENT
FACULTY OF MEDICINE

a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA
Department of Physical Therapy
Faculty of Medicine

PHYSIOTHERAPY ASSOCIATION OF BRITISH COLUMBIA

CPTBC
College of Physical Therapists of British Columbia

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Acknowledgements

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Advisory Committee Membership

Presented below (in alphabetical order) are the Advisory Committee members for the Needs Assessment study. Details on the involvement of the Advisory Committee are described in the Methods section of this report.

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List of Abbreviations

Table 1: List of Abbreviations

Abbreviation	Definition
BC	British Columbia
CIHI	Canadian Institute for Health Information
CPA	Canadian Physiotherapy Association
CPD	Continuing Professional Development
CPTBC	College of Physical Therapists of BC
CPTE	Continuing Physical Therapy Education program (University of Saskatchewan)
HA	Health Authority
HCP	Health Care Provider
IMS	Intra-muscular stimulation
IP(E)	Interprofessional (Education)
KII	Key Informant Interviews
NDT	Neuro-developmental treatment
OT	Occupational Therapist/Occupational Therapy
PABC	Physiotherapy Association of BC
PT	Physiotherapist/Physiotherapy
QAP	Quality Assurance Program
UBC	University of British Columbia
UBC CPD	UBC Division of Continuing Professional Development
UBC Dept. of PT (UBC PT)	UBC Department of Physical Therapy

Table 2: List of Terms

Terminology	Definition
More frequently	Aggregate of “often” and “always”
Less frequently	Aggregate of “seldom” or “never”
Recent graduates	Graduated 2010 or later
Early-career	Graduated 2000-2009
Mid-career	Graduated 1990-1999
Late-career	Graduated 1989 or earlier
Urban	Population 10,001 and over
Rural	Population 10,000 and under

Executive Summary

A. Background

Little data exists about the relationship between British Columbia (BC) physical therapists (PTs) and their lifelong learning needs, specifically with respect to how continuing professional development (CPD) relates to the profession of physical therapy. This suggested that a comprehensive needs assessment was needed in order to fully understand matters including, but not limited to:

- Current practices, attitudes and beliefs toward CPD, including areas of practice interest, practice gaps (knowledge and/or skills), preferred means of learning, and who PTs look to for providing education
- Identification of the barriers and enablers to participating in CPD amongst BC PTs, particularly with respect to demographic characteristics.

The University of British Columbia (UBC) Department of Physical Therapy (UBC PT) partnered with the UBC Faculty of Medicine Division of Continuing Professional Development (UBC CPD) and a number of key stakeholders interested in the CPD of PTs to conduct a province-wide needs assessment of the CPD needs of PTs in BC.

Purpose

The intended focus was to better understand the CPD needs of PTs in BC by performing an inventory of CPD needs. The end goal was to develop a strategy to build capacity through faculty development for quality clinical education in BC in order to support recruitment and retention of new graduates and clinical education instructors, and ultimately enhance CPD programming and patient care.

Research Questions

The research questions that drove all phases of the study (literature review, key informant interviews, and the needs assessment survey) were:

1. What is the current CPD landscape for PTs in BC?
    a. What is the inventory of practice expertise in BC?
    b. What are the current practices, attitudes, and beliefs of PTs towards continuing education, CPD, and lifelong learning?
    c. What are PTs' learning needs? Specifically, what are their areas of interest, perceived practice gaps (knowledge and/or skills), and preferred learning format?
2. What factors influence the landscape of CPD for PTs?
    a. What is the inventory of CPD courses in BC?
    b. What are the barriers to PT participation in CPD?
    c. What are the enablers to increasing participation and engaging PTs in CPD?
3. What strategies and educational approaches can improve CPD activities that meet the need of PTs in BC?

B. Methods

A multi-stage process was undertaken to create the province-wide needs assessment. First, literature reviews, environmental scans and key informant interviews were conducted to determine the issues related to PT participation in CPD activities and to inform the development of the survey instrument. Next an Advisory Committee was formed to provide high level direction on the development, implementation, and engagement for the province-wide needs assessment.

In the Fall of 2013, the 58 question online survey was emailed to all registered PTs in BC – a total of 3,560 PTs. Five hundred and fifty-seven (557) surveys were completed yielding a 16% response rate. The survey data was analyzed using descriptive statistics, chi-square tests, effect sizes and content analysis. Please see the **full report and appendices** for more details on the literature review, environmental scan and key informant interviews.

C. Survey Findings

Demographic Profile of PTs

The demographic characteristics of PTs that participated in this survey were comparable to the 2012 Canadian Institute for Health Information (CIHI) data on PTs in BC across a number of characteristics including gender, age, size of population of practice location, year of completion of PT training, and those working in the public or private sector. Noticeable differences in demographic characteristics that were observed between this needs assessment and the CIHI data included PTs in this needs assessment having a higher level of education obtained in physiotherapy, higher full-time versus part-time working status, and higher percentage of PTs who were international graduates. Overall, demographics collected in this study confirm a representative sample of PTs in BC was surveyed.

Further demographic details were analyzed to investigate differences between key demographic groups and various significant results were found. Female PTs worked more frequently in the public sector and male PTs worked more frequently in the private sector. Of those PTs with lower participation in CPD (ten hours or less per year), half never travelled for CPD and location of CPD was an influencing factor in their participation. However, location of practice (rural or urban) was not associated with the level of their participation. It should be noted that PTs' level of participation in CPD activities is associated to their age, with the majority of PTs who participated in one to ten hours of CPD in a typical year being 35-49 years of age.

Differences were found between part-time and full-time PTs that participated in this survey with most part-time PTs being female and slightly older, with approximately one-third in each age category (compared to full-time PTs with half under age 40 and about one-quarter in each of the other age groups). More full-time PTs had a Master's degree (just over one-third compared to less than a quarter of part-time PTs), whereas more part-time PTs had a Bachelor's degree (almost three-quarters compared to about half of full-time PTs), however, this may be due to age because the PT education requirements changed from a Bachelor's to a Master's degree in the early 2000s. Full-time PTs were more likely male (almost all compared to about two-thirds of female PTs working full-time). Additionally, about half of part-time PTs participated in less CPD (one to ten hours) whereas full-time PTs (more than three-quarters) were more likely to participate in more CPD (30 or more hours).

Attitudes and Beliefs

CPD and Career Development

Findings showed that PTs who responded to the survey see CPD as important for remaining up-to-date with PT practice. Additionally, although PTs were never directly asked about regulation of CPD, in comments provided numerous PTs suggested that CPD should be mandatory for the PT profession. This finding was particularly striking because there is currently no formal requirement or guidance structure for CPD participation for PTs in BC or other Canadian jurisdictions.

The Essential Competency Profile for Physiotherapists in Canada (2009) outlines the physiotherapist role of a "scholarly practitioner." A key competency within this role is for PTs to "incorporate lifelong learning and experiences into best practice," and the document further suggests an enabler to this competency is for PTs to engage "in professional development and lifelong learning activities (e.g., actively participates in the acquisition of new knowledge and skills; integrates new knowledge, skills and behaviours into practice)." Although this needs assessment revealed the majority of PTs were either not or only slightly familiar with the PT Essential Competency roles, findings demonstrate the PT professionals in BC intrinsically believe that CPD is important to their practice.

Workplace Support of CPD

Just over one-half of PTs were satisfied with the level of support they received from their workplace to participate in CPD; however satisfaction levels were higher for PTs working in the private sector compared to those in the public sector. Over three-quarters of PTs in the private sector indicated they paid the entire cost associated with CPD participation themselves in comparison to approximately one-third of PTs in the public sector who indicated the same – a sign that private-based PTs absorb greater financial costs to participate in CPD. Adding to the complexity of interpreting the data on workplace supports are the findings related to specific supports workplaces currently provide, and supports that PTs prefer to receive. For example, a substantially higher cohort of public-based PTs indicated their workplace currently supported CPD participation by[1]: allowing CPD participation during work hours (paid time), providing in-house CPD, and providing funds for CPD. Furthermore, when asked what supports they would prefer their workplace provide, a substantially higher cohort of PTs in the public sector indicated they preferred more workplace supports in comparison to their colleagues working in the private sector who did not indicate as high a preference for workplace support – possibly due to private PTs having different expectations than public PTs.

With regards to whether there was a statistically significant correlation between paid workplace support and CPD participation, more PTs whose workplace allowed CPD participation as 'unpaid' time participated in activities such as clinical hands-on courses, and peer study/practice sessions in comparison to those who were allowed to participate during work as 'paid time.'

1 NOTE: the survey provided a pre-determined list of supports (current and preferred) that PTs were asked to select all that applied to them.

Organizational Roles in CPD

PTs were asked to indicate the roles various organizations should play in terms of funding, developing content, organizing and delivering, setting standards, and promoting CPD. Across these various roles, responses often indicated more than one organization was thought to have a role, with no single organization emerging as having principal responsibility.

With respect to funding, a higher percent of PTs identified the Health Authorities as having a role over the other organizations. This particular belief appeared to be driven by PTs in the public sector with over three-quarters of public-based PTs identifying Health Authorities as having a role compared to only one-half of PTs in the private sector selecting the same. Interestingly, there also appeared to be an association between year of graduation from PT training and belief in organizational role in funding, as more recent grads believed that the CPTBC and the PABC have a role in funding CPD.

With respect to developing content, both the UBC Department of Physical Therapy and knowledge experts were seen as having roles. PABC, independent CPD providers, and the CPA were seen as having a role in organization and delivery of CPD. When it comes to setting standards in CPD, substantially more PTs identified the CPTBC in comparison to other organizations. With respect to promoting CPD, more PTs identified the provincial and national physiotherapy associations (PABC and CPA) as having roles in promoting CPD.

Focusing on promotion of CPD, survey findings revealed that a high percentage of PTs turn to the provincial and national associations to find out about upcoming CPD. However, the data also revealed more PTs in the private sector turn to the aforementioned associations to find out about CPD activities compared to PTs in the public sector who are more likely to turn to the Health Authorities. This can be explained by the lower percentage of PTs in the public sector who are members of the professional association compared to almost all PTs in the private sector who are members.

Participation in CPD

Formats

PTs utilized a variety of educational formats when participating in CPD. More commonly used formats included self-study (e.g. conducting literature reviews, accessing clinical resources), clinical hands-on courses, lectures, online sessions (e.g. live webinar), and conferences. The specific frequency (i.e. weekly, monthly, etc.) of participation varied across activity formats listed in the survey, however, self-study stood out as the activity PTs participated in most frequently (i.e. just under one-half participate weekly or twice per month). By comparison, PT participation in traditional forms of CPD such as clinical hands-on courses and conferences occurred less frequently (i.e. twice per year or yearly). The frequency of attending activities that were lectures or online sessions was mixed. Of note, approximately one-half of PTs indicated they did not participate in activities such as certification-based courses, teleconferences, videoconferences, recorded vodcasts, mentoring, peer study, or journal clubs. In interpreting PTs' CPD usage and frequency levels, it is important to realize frequency of participation may be impacted by the availability of CPD offered in BC (and nearby jurisdictions) and the format in which they are delivered.

The demographic characteristics that had an impact on CPD participation levels included: more recent graduates (i.e. graduated in 2010 or later) participated in certification-based courses, clinical hands-on courses, and peer study/skills practice sessions more than PTs who were early-career (i.e. graduated 2000-2009), mid-career (i.e. graduated 1990-1999,) or late career (i.e. graduated 1989 or earlier). A possible explanation for this may be that PTs at the later stages of their career are more likely to have developed and established their skill sets in PT and completed associated certification requirements and their engagement in CPD may focus less on skill development and more on knowledge maintenance with respect to staying up-to-date with best practice methods.

Additionally, more PTs in the private sector participated in certification-based courses and clinical hands-on courses compared to PTs in the public sector. Conversely, more PTs in the public sector participated in CPD-based lectures and teleconferences. Possible explanations for these findings are provided by the demographic profile of PTs. Over three-quarters of PTs in the private sector identified their primary area of practice to be musculoskeletal/orthopaedics. In contrast, the primary area of public-based PTs' practice was spread across a number of areas including general practice, musculoskeletal/orthopaedics, neurology, cardiovascular/respiratory, etc. It would be expected that PTs in the private sector, who the data showed mostly focus on musculoskeletal/orthopaedics would seek certification-based and clinical hands-on courses to further skills in this area of practice, while public-based PTs, who showed varied in areas of practice, would participate in lecture and teleconference-based CPD offerings that may focus on a broader range of topics.

There were no statistically significant differences between PTs that practiced in rural areas (population 10,000 or under) and those that practiced in urban areas (population 10,001 or over) with respect to frequency of participation in CPD. Further, when asked what barriers limit participation in CPD, there also were no statistically significant differences in the attitudes of rural and urban-based PTs. This suggests that the geographic location of PTs is not a factor that hinders participation in CPD. That said, there were other areas where differences in attitudes between rural and urban-based PTs were observed, which are discussed in other sections.

<u>Number of Hours</u>

Most PTs spent one to ten hours in a typical year participating across each of the CPD activity formats listed in the survey, with between 33% and 61% of PTs spending one to ten hours in: online live sessions (e.g. webinars), lectures, recorded sessions (e.g. vodcasts), peer study/skills practice session, conferences, self-study (e.g. literature review, accessing clinical resources), and live videoconferences. Substantially more of the PTs with higher CPD participation hours (i.e. 31+ hours) were in full-time practice in comparison to those working part-time. Several factors were listed that influenced PTs' participating across various CPD formats including: time availability (e.g. external social/family responsibilities that must be balanced), ability to backfill PT staffing to attend CPD, timing and duration of CPD (e.g. on a weekend, weekday, etc.), location of CPD (i.e. how much travel is required and the associated costs of travelling), and the relevance of available course topics to PTs' respective area(s) of interest.

Travel for CPD

The environmental scan conducted at the beginning of the study revealed most CPD in BC was located in urban centres (i.e. the Lower Mainland or in Victoria). This was corroborated by the survey findings, which showed approximately two-thirds of PTs travelled over 100 km at least once within the past three years to participate in CPD. Further analysis revealed almost one-half of rural PTs had to travel more than 100 km 76% to 100% of the time to attend CPD activities, whereas less than one-quarter of urban PTs travelled the same frequency. This suggests a greater onus for rural-based PTs to travel in order to access CPD programming, in comparison to urban-based PTs.

Costs of CPD

Although, as previously mentioned, findings showed more rural-based PTs travelled a greater percentage of time to access CPD, there were no significant differences between rural and urban-based PTs with respect to expenses they expected to pay to access CPD. These expenses included payment for a one-day CPD activity of clinical content, lost income (per day), and travel and accommodation expenses. Interestingly, many of the qualitative comments from rural PTs indicated their location of practice was a barrier because travel and expenses are higher when coming from rural areas and less CPD courses are available locally, yet many rural PTs continue to travel to attend courses in spite of these barriers.

With respect to PTs in the public and private sector, there also were no statistically significant differences in attitudes towards expenses expected to pay for a one-day CPD activity of clinical content or for travel and accommodation expenses. Despite this finding, there were differences observed in the extent to which cost of CPD (i.e. registration, travel) was seen as a barrier to CPD participation between public and private-based PTs. Specifically, more PTs in the public sector indicated the cost of CPD (i.e. registration and travel) was more frequently a barrier to participation in comparison to PTs working in the private sector, despite more PTs in the public sector having workplaces that supported them by providing funds for CPD.

Differences were observed with respect to expected lost income (per day). Specifically, just under two-thirds of PTs in the private sector expected to experience lost income of $301 or more per day when participating in CPD, compared to substantially fewer (less than one-quarter) of public-based PTs who felt the same. Looking at PTs' barriers to participating in CPD, it was surprising to find a similar number (approximately just over one-half) of both public and private-sector PTs who found the cost of CPD (i.e. loss of income) to be more frequently a barrier to CPD participation. This indicates a substantial percentage of both public and private sector PTs find the cost of CPD (i.e. loss of income) to be a barrier that may impact CPD participation, however, the data also showed that more private-sector PTs expect the loss to be greater compared to PTs in the public sector. This difference likely comes from the fact that public PTs often get more workplace support for attending CPD during work hours (paid), while private PTs must take time off from clinical practice to attend CPD.

CPD Preferences and Learning Needs

Format

This survey asked PTs about their preferences and learning needs, including what formats of CPD they prefer. Preference levels were higher for clinical hands-on courses, followed by self-study (e.g. conducting literature review and accessing clinical resources), mentoring, self-paced online activity (i.e. online module), small group sessions (e.g. journal club), and lectures. The specific findings on preference levels suggest PTs have a higher preference for activities that are individually-based or that have smaller participant sizes, in comparison to larger formats such as conferences. These are arguably a comparison between CPD that is more focused on skills development (i.e. activities with smaller participant sizes offering more hands-on approach) versus CPD that is more focused on knowledge dissemination (i.e. activities that are larger-sized focused on transferring knowledge).

The findings identified differences in preferred CPD formats according to PTs geographic location, sector of practice, and year of graduation. For example, urban PTs showed a higher preference for lectures in comparison to rural PTs. Additionally, rural-based PTs demonstrated higher preference for live videoconferences and live online sessions (e.g. webinars) in comparison to urban-based PTs, possibly because of the ease of access from rural locations without needing to travel.

With respect to sector of practice, although overall preference level for clinical hands-on courses was high for all PTs, preference levels were moderately higher for PTs in the private sector. Further, PTs in the public sector had higher preference levels for conference and lectures.

Graduation year from PT training appeared to influence preferred CPD formats, with the more recently graduated PTs having higher preference for clinical hands-on courses and mentoring CPD.

Interpretation of the above findings on CPD format preference needs to consider the occasional disconnect between how an individual prefers to engage in CPD, versus the realities of what formats are available within the context of their practice or geographic location, and how frequently those formats are made available.

Identifying Learning Needs

Findings identified influences on how PTs identified their learning needs. Specifically, over three-quarters of PTs indicated the following factors as influential in their decision making regarding CPD: reflective practice, collegial discussions, patient encounters, and emerging practice. Few PTs indicated that processes such as the CPTBC self-report or workplace performance reviews influenced their determination of learning needs.

As the majority of influences on identifying learning needs were internally motivated, these findings support the notion that most PTs have an intrinsic desire to learn and that few participate in CPD as a reactionary response to external drivers or requirements.

Barriers to CPD

Within this needs assessment, the cost of CPD was found to be a barrier for the majority of PTs, with registration and travel more of a barrier than loss of income from participating in CPD. The majority of PTs also found social/family obligations and professional obligations (e.g. work commitments or time away from practice) to be barriers to participating in CPD. By comparison, less than one-half of PTs indicated factors such as the availability of CPD that matched interest, length/duration of CPD, or the availability of childcare were barriers to CPD participation.

More mid-career PTs (i.e. graduated 1990-1999) found social/family obligations to be a barrier to CPD participation in comparison to early-career (graduated 2000-2009), late-career (graduated 1989 or early) and recent graduates (graduated 2010 or later). Approximately one-third of early-career and mid-career PTs found the availability of childcare to be a frequent barrier, whereas few recent graduates or late-career PTs indicated the same.

A substantially higher cohort of PTs working part-time found social/family obligations and the availability of childcare to be frequent barriers to participation. By comparison, a higher cohort of PTs working full-time found professional obligations to be barriers to participation. These findings indicate that scheduling of CPD needs to consider work schedules for full time PTs and external competing interests for part time PTs.

Further analysis of the data did not yield any statistically significant differences in the attitudes of urban and rural-based PTs with respect to the extent to which factors listed in the survey were barriers to participation.

Enablers to CPD

Influential Factors

There were several factors the majority of PTs reported that frequently influenced their decision to participate in CPD. These included: topic area/learning objectives, an intrinsic desire to learn, desire to extend/change skills and knowledge or area of practice, a belief that CPD improves practice, desire to fill a gap in knowledge, the location of the CPD activity, and factors about the presenter.

There were no statistically significant differences in the attitudes of public and private-sector PTs with regards to the extent to which topic area influenced participation. As reported earlier, more PTs in the private sector preferred clinical hands-on courses and more PTs in the public sector preferred conferences and lectures. These differences suggest that format of CPD is as important, if not more important than topic/content of CPD delivered.

The location of CPD was frequently a barrier for a slightly larger cohort of PTs working part-time, than those working full-time. Further, rural and urban-based PTs shared similar attitudes in the extent to which the location of CPD influenced participation.

The results showed credentialing/certification offered influenced approximately one-third of PTs to participate in CPD, with approximately half of PTs early in their career being influenced by this factor. This suggests that credentialing/certification opportunities appear to be a higher driver for early-career PTs.

Impactful CPD

When asked what CPD topics had the most impact on their practice over the past three years, the most commonly identified clinical topics included orthopaedic/musculoskeletal/neuromuscular, neurology, acupuncture and IMS, sports/exercise, or paediatrics, with a smaller number of professional topics mentioned (e.g. research methods or leadership skills). Further, when asked to rate their level of interest in participating in certain CPD activities, most PTs indicated they were moderately or very interested in CPD on clinical content (e.g. spinal manipulation, treatment of stroke) and/or enhanced skills in evidence-informed practice. In comparison, interest in participating in CPD on professional content, educating/supervising PT students, or on boundary issues were considerably lower.

When asked what made a CPD activity impactful on their practice, the most common response was that the activity had clinical relevance or practical application. Other reasons frequently cited included the format content was delivered in, positive factors about the presenter (e.g. level of expertise or presentation skills), and that the CPD activity was evidence-based. The fact that CPD with clinical relevance was seen as the most impactful is consistent with the fact that clinical topics were seen as more popular than professional content topics.

Use of technology

The majority of PTs were proficient at an intermediate or expert level in technologies such as computers, tablets, and smartphones. These technologies were often used in clinical practice, with over two-thirds using technology to access education online, to access protocols or guidelines, and to access evidence of effectiveness of interventions.

Additionally, many qualitative comments indicated the importance of technology in learning and CPD attendance. Webinars and online courses were seen as important (especially for those practicing in rural areas) because of ease of access with no cost or travel requirements.

Finding out about CPD

When asked how they found out about upcoming CPD, over one-half of PTs relied on PABC, colleagues, independent course providers, and/or the CPA. Additionally, almost all PTs identified email as a preferred method for finding out about upcoming CPD activities.

Payment for CPD

Almost all PTs directly absorb at least some of the cost (i.e. tuition/registration fees) associated with CPD , with slightly more than one-half paying CPD tuition/registration costs themselves and just under one-third sharing payment with their workplace. Few PTs indicated their workplace paid the entire cost associated with CPD participation. In general, PTs working in the private sector were more likely to pay tuition/registrations fees for CPD activities they attended with their own money than those working in the public sector, while those in the public sector were more likely to share payment with their workplace. Interestingly, PTs in the private sector, who paid for more CPD with their own money and received less financial support from their workplaces, were more satisfied with workplace support of CPD than PTs working in the public sector who paid with less of their own money and received more financial support from their workplaces.

Further Involvement in CPD

PTs' involvement in CPD included slightly more than one-third being involved in teaching or supervising a PT student, and one-quarter were involved in developing, organizing, and/or teaching CPD. PTs involved in teaching or supervising a PT student were more likely to be working in the public sector and in full-time practice. They were also more likely to be working in a general hospital, rehabilitation hospital, or a hospital facility. PTs in their early, mid or late career were more likely to be involved in teaching or supervising a PT student in comparison to recent graduates, and there were no statistically significant differences between rural or urban-based PTs in their involvement in teaching or supervising a PT student.

The scope of roles for those involved in developing organizing, or teaching CPD mostly focused on teaching/facilitating education, organizing/developing educational activities, mentoring, and providing in-services or case studies in the workplace.

In interpreting the above findings, it is important to note few PTs described their primary role as education-based, with most indicating clinical practice (i.e. direct patient care) as their primary role. This suggests PTs involved in teaching or organizing CPD activities are doing so above and beyond their primary physiotherapy role. This is an indication that there are opportunities to grow capacity within the PT profession in BC to increase the number of PTs acting as clinical educators in teaching or supervising PT students.

These results indicate that faculty development is an important component for the physiotherapy profession, and in particular within the auspices of supporting those PTs who are involved in teaching/supervising PT students, and/or developing, organizing, teaching CPD.

Interprofessional Education Opportunities in CPD

PTs were engaged and interested in attending CPD with other health care professionals (HCPs). One-third frequently participated in CPD with other HCPs such as occupational therapists, physicians, nurses, massage therapists, or chiropractors on clinical (e.g. orthopaedics/ musculoskeletal/neuromuscular, neurology, sports/exercise, etc.) and professional (e.g. business skills, client management, communication skills, etc.) content areas. Further, most PTs were interested in participating in CPD with other HCPs in the future, an indication of the opportunity to integrate domains within the Canadian Interprofessional Health Collaborative Practice Competency Framework (e.g. fostering interpersonal and communication skills, patient-centred care, and collaborative practice) into CPD programming.

The findings also showed that while the majority of PTs in the public and private sectors were interested in attending CPD with other HCPs, interest levels for public-based PTs (who often worked in a hospital setting with a greater presence of other HCPs) were not substantially higher than those in the private-sector. This is an indication that interest in participating in CPD with other HCPs is not primarily influenced by working in the same setting as other HCPs, but rather, an intrinsic interest within the BC physiotherapy profession to engage in professional learning with colleagues in other disciplines.

Expertise in CPD

PTs provided the names of PTs they felt had clinical and/or teaching expertise in specific areas of practice. This generated an inventory of expertise in CPD across a number of clinical areas, with the most frequently mentioned areas of expertise being: orthopaedic/musculoskeletal/neuromuscular, neurology, and pediatrics. Frequently mentioned experts were Carol Kennedy, Diane Lee, Deb Treloar, Libby Swain, and Linda-Joy Lee. Several other areas of expertise and identified experts are provided within the report. It is important note that these results may be based on what is available and familiar to PTs. Along these same lines, while the most frequently mentioned experts work in orthopaedics, it is important to ensure that less mentioned specialty areas are not overlooked and to realize the lack of experts in those fields is an indication that more work may be needed within the physiotherapy profession to grow faculty capacity in those areas.

D. Synthesized Findings and Recommendations

Synthesized findings and recommendations are directed towards stakeholder organizations involved in the development and delivery of CPD for physiotherapists in British Columbia. They are grouped into six categories, addressing key findings from the Needs Assessment results.

1. Centralizing CPD

The UBC Faculty of Medicine (FoM) has a mandate to provide and support all departments and divisions of health care professionals (e.g. physicians, physiotherapists, occupational therapists, etc.) within the FoM. There is also a high priority for interprofessional learning within FoM's mandate.

1.1 Consider how one common neutral provincial body could support CPD for PTs by formalizing links between PT organizations and an academic institution.

> **1.1.1 Discuss** the potential to create networks to share processes and resources (e.g. developing content, sharing contact lists, databases and registration systems, videoconferencing facilities, learning venues, evaluation tools, etc.) as a more efficient and centralized way of providing CPD for PTs.
>
> **1.1.2 Recruit** a CPD coordinator in the UBC Faculty of Medicine's Division of Continuing Professional Development specifically for Physical Therapy CPD, with the goal of effectively and efficiently coordinating this collective effort.

2. Standards in CPD

Note: There are no formal CPD requirements for physiotherapy professionals across Canada, however, a large number of PTs who completed this Needs Assessment suggested that CPD should be more regulated and be required for licensure similar to other health professions.

2.1 Form a provincial working group to explore outlining CPD expectations and requirements for physiotherapists that would include representatives from CPTBC, PABC, CPA, and other identified stakeholder groups, including practicing PTs.

> **2.1.1 Clarify** and educate PTs on the continuing competency requirements and standards for PTs in BC and develop metrics to allow PTs to gauge appropriateness of their current level of CPD participation in a typical year for their area of practice.
>
> **2.1.2 Explore** the possibility of establishing standards for CPD content in order to facilitate evaluation of learning across a diverse landscape of CPD providers and courses.

2.2 Clarify the expectations of PTs associated with participation in the CPTBC's Quality Assurance Program (QAP) and how CPD can be a tool to drive professional focus.

> **2.2.1 Offer** in-person and technology facilitated information sessions (e.g. 'Town Hall' Meetings) and engagement strategies to create awareness and increase familiarity with aforementioned expectations and further address questions, concerns, or comments PTs may have about the QAP.

3. Strategies to Engage Physiotherapists in CPD

3.1 Increase the geographic distribution (i.e. 'close to home') of in-person CPD offered beyond the lower mainland or Victoria to facilitate local PT participation and reduce costs and time associated with travel for CPD.

3.2 Increase the availability of CPD activities which are shorter in duration and align with PTs schedules in order to facilitate increased participation.

3.3 Emphasize the direct practical benefits for learners and their patients to increase interest and participation.

3.4 Communicate with PTs through email and realize that PTs look to PABC, colleagues, independent course providers, and the CPA to find out about CPD opportunities.

3.5 Encourage workplaces in the private and public practice domains to investigate how they can better support PTs participation in CPD (e.g. increasing staff and locum coverage).

> **3.5.1 Facilitate** opportunities for PTs to participate in CPD during work hours (e.g. 'lunch and learn' sessions) to address any professional obligations that may hinder participation.

3.6 Establish learning networks across areas of clinical interest to allow PTs to create collegial networks so evidence-based knowledge and skills continues to be integrated into practice.

3.7 Expand opportunities for PTs to participate in CPD on clinical topic areas with other health professionals (e.g. OTs, physicians, nurses, etc.), which focuses on content that:

> **3.7.1 Promotes** active participation among healthcare professionals; enhances patient safety; fosters respect, communication, and understanding professional roles.

3.8 Develop readily accessible tools to support PT documentation of CPD learning needs as they are realized through reflective practice, collegial discussions, practice encounters, and/or emerging practice areas.

3.9 Connect PTs to reputable online resources where they can access clinical practice protocols, guidelines and evidence about effective (i.e. best practice) interventions.

> **3.9.1 Continue** current efforts to support those less experienced with technology with clear, concise, and easy to access tutorials on engaging in technology-based CPD.

4. Designing CPD Responsive to Needs of Physiotherapists

4.1 Share findings on PTs top preferred content areas with CPD educators and encourage providers to continue to integrate these identified needs into educational programming.

- Clinical: orthopaedics/neuromuscular/musculoskeletal; neurology; sports/exercise; pain management; paediatrics.
- Professional: clinical skills (e.g. charting); business skills (e.g. financial management, managing office staff, searching for literature, etc.), communication skills (e.g. conflict management, etc.); as well as client management (e.g. motivating clients, managing difficult clients, etc.).

4.1.1 Consider the relevant clinical content as perceived needs that CPD educators can use to draw PTs into interest in other topics that are considered more of an unperceived need (e.g. communication skills, etc.).

4.1.2 Investigate the possibility of a formal accreditation structure and process to accredit CPD courses for PTs (e.g. awarding study credits) which may be required for licensure.

4.2 Design and evaluate impactful evidence-informed CPD programming that:

4.2.1 Demonstrates the clinical relevance, practical usage of lessons learned or describes how practice will be improved.

4.2.2 Utilize speakers identified in the province-wide survey that PTs viewed as experts in areas of physiotherapy as a way to engage PTs in CPD.

4.2.3 Continue building this inventory in order to increase the number of champions engaged in educational delivery for PT students and practicing PTs.

4.3 Ensure format of CPD is tailored to meet learning preferences for PTs and follows best practices in continuing education (e.g. adult learning principles).

4.3.1 Continue to utilize CPD formats such as clinical hands-on courses, conference, and expand CPD offerings to include lesser utilized formats (e.g. live and recorded online sessions) that are readily accessible for the individual PT.

5. Funding Strategies

5.1 Encourage professional organizations such as PABC and CPTBC to advocate at the government levels for CPD funding for PTs in order to support programs and subsidize individual costs and level the playing field amongst all health care professionals.

5.2 Develop a provincial framework involving employers, physiotherapy organizations, and the government to explore funding strategies and models to support PT participation in CPD similar to other healthcare professionals including medicine (e.g. Physician Master Agreement), pharmacy, nursing, etc.

5.3 Mitigate high costs to the individual learner who participates in CPD activities (e.g. tuition) by:

5.3.1Exploring ways to provide lower costs delivery models (technology-enabled learning).

5.3.2 Working more with non-profit organizations with an educational mandate over independent course providers.

6. Linkages between Faculty Development and CPD

6.1 Realize there are key linkages between faculty development and CPD in terms of ensuring that clinical faculty supervising PT students are up to date with clinical practice.

6.1.1 Offer CPD and faculty development to clinical faculty in order to enhance skills of PTs already involved in teaching or supervising PT students.

6.1.2 Support PTs teaching and supervising PT student(s) in an ongoing way by providing paper-based and online tools and resources.

6.1.3 Recognize that there is an opportunity to provide faculty development in order to draw and engage the large percentage of PTs who are not currently involved teaching PT students.

6.1.4 Identify experienced PTs who may be interested in acting as supervisors for students and mentors for PTs new to practice and focus these efforts in rural areas in order to build capacity.

E. Summary

This needs assessment of CPD for PTs in BC is the first of its kind and provides a thorough overview of the CPD landscape, attitudes, and practices towards CPD. Most of the PTs thought CPD was important for practice with many suggesting it should be made mandatory as a requirement for licensure for the profession. Overall, more PTs preferred CPD in the format of clinical hands-on courses and self-study, with urban-based PTs preferring lectures, and rural-based PTs preferring live videoconferences and webinars. More than half of PTs indicated barriers to attending CPD included cost of CPD (i.e. registration, travel), social/family obligations, professional obligations, and cost of CPD (i.e. loss of income). No significant differences in barriers were observed between rural and urban-based PTs; however, more PTs in the public sector found the cost of CPD (registration, travel) to be a barrier to CPD than PTs in the private sector. Elements that motivated over two-thirds of PTs to participate in CPD were topic area/learning objectives, an intrinsic desire to learn, extend/change skills and knowledge or area of practice, belief that CPD improves practice, to fill a gap in knowledge, the location of the CPD activity, and the presenter. Over three-quarters of PTs identified their CPD learning needs through reflective practice, collegial discussions, patient encounters, or emerging practice. Qualities of CPD that PTs find impactful to practice are clinically relevant, evidence-based, and utilize effective presenters and formats. Approximately one-third were involved in teaching or supervising a PT student. Over three-quarters of PTs indicated they were interested in participating in CPD with other health care practitioners in the future. Most PTs had access to technology in clinical practice; however, less than one-half use it in clinical practice to access patient charts, clinical decision aids or to conduct patient assessments.

This study gave insight into implications and directions to meet CPD needs of PTs. The results offered suggestions for improving the organization and delivery of CPD for PTs in BC including: developing and making more CPD available, tailoring the format of CPD to match learning preferences and needs, increasing the geographic distribution of CPD offered, using technology to make CPD more accessible, encouraging workplaces to consider how they can better support PTs participation in CPD, increasing the availability of CPD activities that are shorter in duration, expanding interprofessional learning opportunities, offering mentorship to foster reflection and informal learning spaces, considering professional content such as practice management and dealing with challenging patients so that CPD is not solely focused on the clinical, and establishing a collaborative network of organizations that offer CPD as shared model to increase efficiencies and create standards.

While much information was collected through this needs assessment, there is room for further study and investigation into data that was not collected such as ways to improve CPD for PTs as well as how patient outcomes are impacted. Following-up with key stakeholders and the recommendations is an important step in improving CPD for PTs in BC.

1. Background and Introduction

Little data exists about the relationship between physical therapists (PTs) and their lifelong learning needs. Not much is currently known about the perspectives British Columbia (BC) PTs have with respect to continuing professional development (CPD) as it relates to their profession. This suggested that a comprehensive needs assessment was needed in order to fully understand matters including, but not limited to:

- Current practices, attitudes and beliefs toward CPD, including areas of practice interest, practice gaps (knowledge and/or skills), preferred means of learning, and who PTs look to for providing education; and
- Identification of the barriers and enablers to participating in CPD amongst BC PTs, particularly with respect to demographic characteristics.

The University of British Columbia (UBC) Department of Physical Therapy (UBC PT) partnered with the UBC Faculty of Medicine Division of Continuing Professional Development (UBC CPD) and a number of key stakeholders interested in the CPD of PTs to conduct a province-wide needs assessment of the CPD needs of PTs in BC.

Purpose

The intended focus of the needs assessment project was to better understand the CPD needs of PTs in BC. The objective was to perform an inventory of CPD needs with the end goal of developing a strategy to build capacity through faculty development for quality clinical education in the province in order to support recruitment and retention of new graduates and clinical education instructors, and ultimately enhance CPD programming and patient care.

The end result of the project is the development of this comprehensive final report based on the data yielded from the survey, which includes:

- A detailed summary of all findings;
- An inventory of PT expertise around the province; and
- A set of action oriented recommendations to address the project objectives.

Research Questions

The research questions that drove all phases of the study (literature review, key informant interviews, and the needs assessment survey), were as follows:

1. What is the current CPD landscape for PTs in BC?
    a. What is the inventory of practice expertise in BC?
    b. What are the current practices, attitudes, and beliefs of PTs towards continuing education, CPD, and lifelong learning?
    c. What are PTs' learning needs? Specifically, what are their areas of interest, perceived practice gaps (knowledge and/or skills), and preferred learning format?
2. What factors influence the landscape of CPD for PTs?
    a. What is the inventory of CPD courses in BC?
    b. What are the barriers to PT participation in CPD?
    c. What are the enablers to increasing participation and engaging PTs in CPD?
3. What strategies and educational approaches can improve CPD activities that meet the need of PTs in BC?

2. Methods

2.1 Preliminary Work

2.1.1 Literature Review and Environmental Scan

Prior to conducting a province-wide, comprehensive needs assessment survey to determine the issues and details related to PT participation in CPD activities in BC, there was a need to assess the literature surrounding PT CPD and gain a better understanding of the current PT CPD landscape provincially, nationally, and internationally.

The objective of this preliminary work was: i) to further understand how PTs already participate in CPD activities; ii) identify what PTs' CPD preferences were; iii) determine what influenced PTs to participate in CPD; and iv) explore what were the barriers and enablers to CPD participation. See Appendix B: Findings from Literature Review and Environmental Scan for further details on the findings for the literature review and environmental scan. Through the literature review it was found that no other needs assessments have been conducted in BC exploring CPD for PTs.

Literature Review

A search for peer-reviewed literature was conducted by UBC CPD between April 29th 2013 and May 17th 2013 using literature search engines such as PubMed, MEDLine, Google Scholar, Wiley Online Library, and *Physiotherapy Canada*, the peer-reviewed journal of the Canadian Physiotherapy Association (CPA). The search was mostly limited to sources published after 2005 and limited to Canada, Australia, the United Kingdom (UK), and the United States (US). To refine the search, the following keywords were used and combined in order to refine the search results:

- Allied Health Professions
- Attitudes in learning
- Barriers and enablers/facilitators
- Canada
- Clinical education
- Continuing Professional Development (CPD), or Continuing Education (CE)
- Competency in practice
- Lifelong learning
- Perceived and unperceived needs
- Physical Therapists/Physiotherapists
- Portfolio assessment

The literature review is largely limited to sources published after 2005 in Canada, Australia, UK, and the US. An additional six sources were provided by one of the needs assessment co-investigators that highlighted PT CPD or clinical support, in rural and remote areas in Canada and Australia. Four sources were peer-reviewed journals and two were government reports that were published in 2001 to 2009.

Literature Review Highlights

1. **Barriers** to PT Participation in CPD:
   a) **Prior professional commitments limit CPD activities.** For example, PTs who work in small units with restricted human resources, PTs with a high retention of long-term patients, and/or PTs in managerial positions.
   b) **Lack of time to attend CPD.** Many PTs see taking time for CPD activities as taking time away from patient care.
   c) **Cost associated with CPD.** This is especially relevant for those with fewer years of PT experience or those practicing in a geographically remote area.
   d) **Lack of available rural CPD activities.** PTs practicing in rural settings may not have local options available, or may not have the time or budget to travel to CPD activities.
   e) **Restrained CPD planning**. Organizations with budget pressures and limited human resources may tend to be over-cautious in CPD planning, resulting in the delivery of static CPD activities.

2. **Facilitators** to Increasing PT Participation in CPD:
   a) **CPD activities with measurable patient outcomes** that are marketed explicitly stating how the activity is relevant to PTs' everyday roles and operations.
   b) **CPD activities that offer credentialing** with well-defined and recognized clinical skills components, especially for less experienced PTs.
   c) **Employer support for CPD** in the form of monetary support or a structured CPD plan, outlining the allocation of human, physical, and temporal work resources to CPD.
   d) **Peer and multidisciplinary colleague awareness** and support for CPD activities.

3. **Physiotherapists' attitudes** towards CPD:
   a) **PTs agree that CPD is pertinent to their profession and improves the quality of patient care**.
   b) **PTs agree that CPD is not only beneficial to themselves but also to their employers**, although many employers still see CPD as a very individualized activity.
   c) **Rural PTs are positively impacted by CPD** by decreasing professional isolation and improving job satisfaction
   d) **PTs are often unable to find a direct and explicit link to patient outcomes** and some findings suggest that CPD may improve outcomes of professional practice but not necessarily patient care.
   e) **Some PTs are worried over the impact of external issues on regulatory changes in CPD**, which may be because the jurisdictional PT CPD landscape is young and still susceptible to significant changes.

4. **Strategies and educational approaches** that can improve PTs' engagement in CPD and meet their needs:
   a) **Skill-based courses** remain the predominant CPD learning activity, although studies suggest that this phenomenon is supply-driven as opposed to demand-driven.
   b) **CPD activities need to identify a specific target audience**, with marketing that includes explicit remarks on how the activity aims to improve PT practice outcomes as well as patient outcomes.
   c) **Online CPD** can offer advantages such as flexibility of timing, interaction in geographically dispersed areas, and decreased time lost to travel. However, such benefits may only be reaped if skills for and access to technology are sufficient.

d) **Informal CPD and PT self-assessment** can be facilitated by using well-defined documentation standards
e) **The use of a systematic CPD plan** could facilitate CPD participation and hone PTs' reflection skills that may result in creating demands for various CPD activities.

Environmental Scan

The environmental scan addressed the current CPD landscape for PTs in BC, Canada, Australia and the US. Specifically, it provided an inventory of courses and practice expertise in BC. The environmental scan highlights the information gaps which in turn can be addressed by the larger needs assessment.

The environmental scan was conducted by UBC CPD from April 16th 2013 to May 23rd 2013 and was based on a search of websites. The search was limited to educational activities from 2012 to 2013. After consultation with the project Co-Investigator, search efforts were directed mainly towards PT CPD in Canada, and then in Australia in order to compare and contrast the PT CPD landscape. A minor, peripheral search was conducted on American PT CPD.

To refine the search, keywords were extracted from an initial set of key research questions from the *UBC Department of Physical Therapy Needs Assessment on Continuing Professional Development for Physiotherapists in BC* proposal, which included:

- What CPD courses have PTs accessed in the last year or in the last five years?
- How do BC PTs currently access CPD?
- Who do PTs look for to provide CPD? What organizations deliver courses?
- How much do PTs currently expect to pay for CPD (courses, lecture, seminars, podcasts, etc.)?
- Most/least effective courses.

These research questions were subsequently refined with the pertinent aspect related to the environmental scan being to identify:

- What is the current CPD landscape for PTs in BC?
    - What is the inventory of practice expertise in BC?
- What factors influence the landscape of CPD for PTs?
    - What is the inventory of CPD courses in BC?

Search engines used included Google, Bing, and Yahoo. The following keywords were used and combined in order to refine the search results:

- Allied Health Professions
- BC, Canada
- Clinical education
- Continuing Professional Development (CPD), or Continuing Education (CE)
- Essential competencies in practice
- Hands-on workshop, conference, podcast, online learning
- Lifelong learning
- Physical Therapists/Physiotherapists
- Series, calendar of events

Searches were conducted on the websites of provincial PT associations and CPA and its divisions for CPD and CPD-related material such as newsletters or annual reports. Unfortunately, the Quebec Physiotherapy Association website was only available in French and not in English, so data could not be extracted. There was also a lack of CPD information found on the websites of the Pain Science, Leadership, Acupuncture, and Paediatric Divisions.

The Canadian Institute for Health Information (CIHI) website was used to gain a better understanding of the context of PT CPD and demographic information of the physiotherapist workforce in Canada and in BC.

Environmental Scan Highlights:

1. **PT CPD activities found in the environmental scan were predominantly skill-based**, hands-on, one to two day courses, although webinar series and interprofessional conferences were also available. Provincial PT associations, CPA Divisions, other public organizations and private companies organized and delivered CPD activities which addressed a variety of clinical areas, in particular orthopaedics.
2. **In BC:**
    a. **Almost all CPD activities were delivered in Victoria or the Lower Mainland**, with a focus on orthopaedics or sports medicine.
    b. **CPD activities were planned at least a year in advance** and were on average approximately $450-$550.
    c. **Of the 42 CPD activities found 47.6% were organized by private companies**. The relative abundance may be due to the appeal of credentialing and certification, particularly for PTs with a lower level of education.
    d. Little is known about both public and private employer funding of PT CPD, although PABC or Division members often have a discounted rate for CPD activities,
3. **Canadian universities may offer webinar series and annual conferences but lack a well-structured CPD strategy to address the diversity of PT needs.** While the University of Saskatchewan Continuing Physical Therapy Education (CPTE) office deserves attention as the only university-affiliated PT CPD office in Canada, it is equally important to investigate why other provinces do not have a similar CPD structure.
4. **There appears to be a lack of non-clinical skills or knowledge-based workshops across Canada.** Some CPD activities may not have been captured because they were informal and internally marketed, or they were interprofessional and outside the scope of the scan.
5. **Although we collected information regarding availability, more details are needed on attendance rates and popularity of workshops.** It is important to distinguish between the supply and demand of PT CPD

2.1.2 Key Informant Interviews

Based on the findings of the literature review and environmental scan, the Working Group decided to further explore topics by selecting key individuals in the PT CPD landscape to share their unique perspectives.

A total of four key informant interviews (KIIs) were conducted between May and July 2013. The key informants were from a variety of roles within the PT and CPD world. Interviewees included a program director for PT education, a director of rehab sciences in a health authority, a PT knowledge broker, and a director of interprofessional education.

The key informants added additional insight to the different needs of PTs depending on their demographics (i.e. geographical location and practice type) and the CPD activities they were involved with. The intent of KIIs was to contribute to a better understanding of the current landscape of CPD for PTs in BC, and the factors that influence the landscape. It helped to provide additional insights into barriers and enablers to participating in CPD, along with CPD needs, areas of interest, gaps in skills, and preferred learning formats. The data collected from the KIIs were thus used to better inform the Working Group to ensure that major themes were addressed and survey questions were developed to cover unique aspects of the PTs CPD needs.

Highlights of the comments provided across the four interviews are presented below.

General PT CPD landscape

- PTs are motivated to learn, this is part of the profession from an early stage
- PT courses are mostly hands-on and even conferences will have hands-on breakout sessions
- Webinars and online education have had huge increase in uptake over last few years
- CPD programs may be developed 18 months in advance to ensure complete programming with the support of a PT specific advisory committee
- CPD should promote a balanced approach and skills needed for practice
- CPD can be a vehicle to drive PTs' profession focus
- CPD could be linked to quality assurance program and help promote performance improvement
    - There is an opportunity to work with Colleges
- There are generational differences in PT expectations for content and delivery format and location and what CPD is needed to fill gaps in practice
- Private sector PTs are very specific about skills sought whereas public PTs may look for CPD appealing to a broader skill set (e.g. public PTs may not be as interested in CPD on business organization) – most differences may just be the type of patients (i.e. clients) seen
- Many new PT graduates want to come into a specialization
- There is no formal mandate for CPD for PTs in BC and other Canadian jurisdictions
- PT considerations for CPD participation
    - Cost – PTs will want to see tangible benefits of participation
    - Time – relevance and value of taking time to participate
    - Financial climate, what PTs can afford and how many courses the system can afford to deliver without saturating market
- PTs perceive employers have a role in enabling participation in CPD (e.g. provide backfill)
- University can play a role in CPD delivery if it fits in with their mandate

- UBCCPD, UBC Department of Physical Therapy, the College of Physical Therapists of BC, Physiotherapy Association of BC need to work together to coordinate CPD to meet needs of different interest groups
- Physiotherapy Association of BC has ~ 2,000 members and the College of Physical Therapists of BC has ~ 3,000 registrants
- Public PTs get some funding for CPD and education days to participate
- New grads generally want to be mentored
- Currently health authorities (HA) have in-services and/or guest speakers come to workplace

Suggested Questions for Inclusion in Survey

- How does your employer support your CPD participation (i.e. provide funding, give time to attend, actually delivers CPD, etc.)?
- How does your employer support professional development or student support?
- How are PTs supported in order to provide mentorship and training to students?
- How much do you know about your colleagues (e.g. OTs and PTs)?
- What would your patients say about your profession?
- What are the quality measures you have in place to ensure you are doing a good job?
- What resources would help you gauge how well you are doing?
- Include questions related to the special interest groups (see CPA for details) (e.g. for neurology are there specific neurology patients you treat you need more information on)?
- Include some future term/larger visioning type of questions
- Ask PTs if they are interested in being an advisor (i.e. student mentorship)
- Investigate what drives PTs to participate in CPD (e.g. speakers, how evidence is used in practice, topics?
- Investigate their current level of comfortable with technology – would they need tech training?
- Keep the survey short to avoid attrition
- Survey should ask how PTs find CPD, select programming and implement learning in practice
- What topics are you interested in learning about?
- What time of day, day of the week do you want to attend CPD?
- Look at subgroups of public and private, region they live in

Barriers to CPD

- Cost
  - Could be provided by Health Authorities, Divisions, or private employers working together
- Internal vs. external motivation, for example:
  - Few career opportunities in the public health system than previously, thus less motivation for CPD participation
- Time available to take part and lack of backfill for public PTs
- PT as a profession is very heterogeneous
- There can be a disconnect between what education format PT request (e.g. classroom teaching) and available evidence that it changes practice
- PTs may be less familiar with the different types of CPD that are more effective
- PT select CPD formats they are more comfortable with
- Varied levels of comfort with technology (e.g. PTs may not be sure they know how to use a webinar, possibly more of a problem for older PTs)
  - Physiotherapy Association of BC has resources to help PTs walk through tech support
- It can be a challenge for PTs to attend pro-d as there may not be enough coverage for their case loads

- Much research is not black and white, so if PTs want a definitive answer to a question and don't get it they can have a bad experience and not want to do more CPD – it needs to be broken down in to what is clinically useful, what can they apply at work tomorrow
- Need to access PTs that are less engaged in professional associations (i.e. not receiving newsletters or emails)
- Rural PTs have less access to CPD

Facilitators to CPD

- CPD being about passions or hot topics in the community
- Activities that have relevance in the title – topic needs to be evidence-informed but also has to be palatable/interesting for PTs
- Marketing needs to draw them in and convey benefits to practice and patients
- Important for CPD to teach practical application of concepts rather than just facts or evidence
- CPD should match/meet the needs of special interest groups
- UBC Department PT and Physiotherapy Association of BC newsletters are very useful
- Build in some components of soft skills into education (e.g. communication skills, boundary issues, etc.)
- Ensure CPD comes from a reputable source
- Ensure CPD is available for people with different learning styles
- PTs could get help with funding through credits or incentives of some kind associated with professional memberships
- Employers need to enable CPD to retain employees
- CPD available at work during working hours to make it more accessible

Gaps in CPD

- Paediatrics is area of gap for PTs along with taping (e.g. kinesiology taping vs rigid taping)
- Funding for CPD is one of the things to get cut from Health Authority budgets during periods of fiscal constraints
- Health professions are turning more towards CPD and how to teach in an interprofessional (IP) manner
- More work needed exploring how to create and assess interprofessional learning opportunities in the workplace
- PTs will likely want support for paying for CPD if it were to be a requirement for licensure
- PTs maintaining a CPD portfolio is good as long as it's well documented (e.g. how learning has been applied to practice)
- Those with a particular expertise in a topic area should be a presenter/instructor, which doesn't always have to be a PT for PT activities
- Need to ensure that smaller specialist areas are not alienated and have options for CPD

Educational Strategies

- Timing is important (e.g. half day over multiple weekends, rather than a consolidated larger periods of time may be more conducive to participation)
- Have central CPD calendar accessible to all PTs
- Also give opportunity to consolidate learning and apply what has been learned in previous smaller pieces
- Online education (e.g. videoconferencing and webinars) has been slow to come into the clinic setting but has large potential
    - Although students have requested face-to-face and don't want pure online

  - Some people may be nervous about online education and may need additional warm-up to the modality
- Case-based learning continuing to grow in usage by health professionals
  - Case-based can be used as tool to introduce competency framework
- An expectation of CPD participation for PTs would increase participation (*e.g. in Quebec, PTs that want to change their area of practice have to inform the Quebec College and document what educational training would be*)
- Important to look at what people do to change and improve their practice as a result of CPD participation
- CPD on softer skills can be matched with other clinical areas of practice as a way of enticing PTs on both perceived and unperceived learning needs
- Organizations need to partner with knowledge experts
- Help PTs develop Personal Learning Plans/CPD portfolios to identify gaps in knowledge and keep track of CPD attended, as well as how they changed their practice
- Include IP education on topics where relevant
- Address full scope of professional role (e.g. CanMEDS) and not just the PT as the clinical expert
- CPD opportunities for PTs can include students and practitioners together (e.g. on healthcare ethics)
- Format needs to be determined by what skills they are learning in that CPD activity, need various options
- In addition to clinical skills, CPD can also include courses on how to be a good teacher/faculty development
- Focus on patient outcomes, not professional career development
- Partnering with university allows access to many resources that might not otherwise have – could be good strategy if centralize CPD similar to how UBC Faculty of Medicine does it

Communication

- Physiotherapy Association of BC newsletter is common way for PTs to receive info. Also UBC Department of PT newsletter
- Involvement of University PT Departments varies across country
- Public PTs usually pay more attention to communication from their Department head, rather than professional associations
- Marketing is key to getting attendance at activities
- Need to make sure email marketing is received by people and not blocked by spam filters

Accreditation

- National CPD standards would be ideal; would require Associations, Universities, Colleges to come into agreement (e.g. benchmarks)
- University-affiliated group would be a credible source for governing accreditation
- If a HA provided CPD, other healthcare professionals could learn together
- Could be difficult to mandate CPD hours as focus is now on quality assurance rather than continuing competency with mandate from government
- In determining who should accredit CPD, important to know who is respected in the field
- CPD should not be delivered solely by researchers

2.2 Participants

The study population was comprised of physical therapists currently practicing in BC and those who had a license with the CPTBC. Survey responses and KIIs were used as methods to collect rich data and ensure validity of data interpretation of the needs assessment.

2.3 Survey

2.3.1 Advisory Committee Involvement

The formation and involvement of an Advisory Committee (AC) was an important component for obtaining high level direction on the development, implementation, and engagement for the province-wide needs assessment for BC PTs. Input from the AC was captured in the form of formal meetings where they contributed to and reviewed key documentation. See Advisory Committee Membership list on page v above.

Specifically the responsibilities of the AC were to:

1. Provide insights into project direction;
2. Provide high level and expert input on project activities such as:
    a. Development of the needs assessment survey;
    b. Endorsement, engagement, and encouragement of PTs to complete survey;
    c. Provide understanding/interpretation of survey findings;
    d. Development of key recommendations from survey results;
    e. Dissemination of survey results; and
    f. Implementation of any proposed strategic initiative arising from results.

2.3.2 Survey Design

In June and September 2013, the AC met with the project's Working Group (*UBC CPD, UBC Department of Physical Therapy, Physiotherapy Association of BC (PABC), and practicing private, urban and rural physiotherapists*) to contribute their expertise and insight towards the design of the survey instrument.

The survey questionnaire was designed as a self-report tool and comprised of 58 questions covering the following areas based on the overall research questions of the project:

i. Participation in CPD activities;
ii. CPD learning needs and preferences;
iii. Perspectives on CPD; and
iv. Physiotherapist participant demographics.

Please see Appendix D: Online Needs Assessment Survey Questions for a copy the complete survey tool.

2.3.3 Survey Deployment and Recruitment Efforts

The online needs assessment survey was launched on October 15, 2013. Prior to launch, the survey was tested by members of the Working Group and Advisory Committee, in addition to a number of other PTs, to ensure completeness of the questions asked and usability of the online survey platform. A letter of invitation, signed by PABC, CPTBC and UBC PT, endorsing the study was sent to all practicing physiotherapists in BC (see Appendix C: Organizational Letter of Support). The letter was used to introduce PTs to the study as well as encourage PT participation in the survey. The invitation was then emailed once by each of the stakeholders (PABC, CPTBC and UBC PT) through their respective databases to ensure that all practicing PTs in BC would be informed of the needs assessment from at least one source. Incentives to increasing participation rate included opportunities to enter a draw to win one of four prizes valued at approximately $300 each. The following outlines the specific strategies used by each of the organizations to engage and encourage PTs in BC to complete the survey.

College of Physiotherapists of BC (CPTBC)

- Article in the CPTBC newsletter promoting the needs assessment was included in the Fall 2013 issue (Volume 14 issue 3).
    - http://cptbc.org/wp-content/uploads/2013/12/Fall2013.pdf
- Week of Nov 11th 2013 – CPTBC reminder email sent to licensed PTs
- Nov 15, 2013 – CPTBC reminder email sent

Physiotherapy Association of BC (PABC)

- Week of Oct. 28th 2013 – PABC weekly email sent to members

UBC Department of Physical Therapy

- Article in the UBC Dept. of Physical Therapy Fall 2013 newsletter (Volume 14).
    - http://physicaltherapy.med.ubc.ca/about-us/department-newsletters/pt-newsletter-volume-14-fall-2013/
- Oct 25, 2013 - Email distribution from the Department Head to PTs

Other Reminder Activities

- Oct 24, 2013 – email sent to various leads across the HAs to distribute the email regarding the needs assessment to PTs in their respective areas

The online survey was closed on November 22, 2013.

2.3.4 Response Rate

The initial invitation to take part in the needs assessment was emailed to 3,560 PTs on the mailing list of CPTBC. Five hundred and fifty-seven (557) surveys were completed yielding a 16% response rate. PTs that indicated that they were retired or inactive were included as subjects in the study.

This response rate is consistent with other provincial needs assessments conducted by UBC CPD with physicians where the response rate historically has been just below 20%.

2.3.5 Quantitative Analysis

The quantitative data were analyzed using SPSS 21.0 software. Descriptive analyses of frequencies were performed on quantitative data and the aggregates of Likert scale responses were reported, for example, the aggregate of agreement, frequency, or preference. In terms of presenting the data of agreement levels, the percent of response count for each rating scale and the aggregate percent of agreement (scales 4 and 5) are reported. Scale 3 is understood as "Neutral." For the data of frequency levels, Never, Seldom, Sometimes, Often, Always were used. The percent of response count for each rating scale and the aggregate percent of Often and Always are reported. In terms of presenting the data of preference levels, the percent of response count for each rating scale and the aggregate percent of preference (scales 4 and 5) are reported. Scale 3 is understood as "Neutral."

Cross tabulations, Chi-square tests and effect sizes were used to determine if there were significant differences among the responses in terms of practice type (public vs. private), practice status (full-time vs. part-time), region of practice (rural vs. urban), primary area of practice (musculoskeletal/orthopaedic, general practice, neurological, paediatric, cardiovascular and respiratory, multisystems, or women's health), graduation years (1989 and earlier, 1990-1999, 2000-2009, and 2010 and later), country of training (Canada vs. international), CPD participation (low [0 – 10 hours] vs. high [30 or more hours]), and involvement in teaching or supervising PT students (those who teach vs. those who do not teach). Significance was set at α 0.10 for the Chi-squared tests, as this is an exploratory study and little other research has been done in this area (Leech, 2008). Effect size was calculated using Cramer's V statistic, which is used to determine the strength of the effect when there are more than two nominal variables (Leech, 2008). A result of 0.2 or less is considered a small effect, 0.2 to 0.25 is a moderate effect, and 0.25 or greater is a strong effect (University of Toronto, 2013). When determining which cross tabulations to report, descriptive statistics, Chi-squared test significance value, and Cramer's V were all taken into account. Additional guidance was provided by the Advisory Committee and those relationships which were determined to be significant and meaningful to PT CPD were included.

2.3.6 Qualitative Analysis

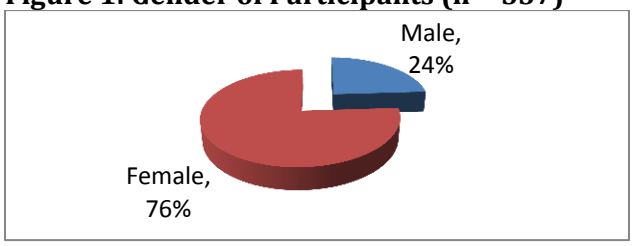
Content analysis was performed on the qualitative data obtained from the open-ended survey questions, as well as additional comments attached to quantitative questions. Data were classified using aspects of grounded theory. Grounded theory allows the researcher to discover the meaning of the data as it emerges, without any preconceived notions of what the results will reveal (Hernandez, 2010). To assist with this process a PT on the project Working Group provided guidance on coding in the initial stages of data analysis. Through this method: i) a brief review of responses was conducted to identify common themes, ii) codes were created, iii) codes were assigned to responses as appropriate, iv) new codes were created as they emerged from the data and applied to responses as applicable, v) overarching themes were identified. Common themes are documented in this summary report as they are applicable. This coding was done using Microsoft Excel and NVivo v10 software. The qualitative data was analyzed by Research Assistants at UBC CPD and a PT on the project Working Group.

3. Survey Results

3.1 Demographics

3.1.1 Participant Profile

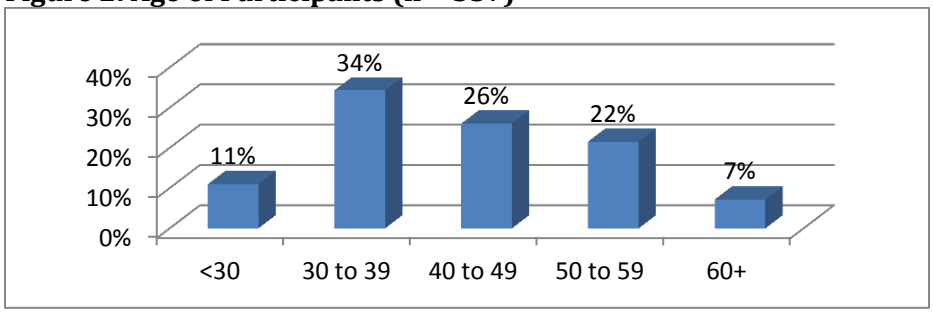
Figure 1: Gender of Participants (n = 557)



The gender of PT participants was comparable to the CIHI data with female PTs comprising the large majority of the PT workforce in BC (76%). A comparison of other health care professionals showed that physiotherapy was similar in that it has a high proportion of female providers. Specifically, 2012 CIHI data showed the majority of pharmacists (58%), Registered Psychiatric Nurses (78%), Occupational Therapists (88%), and Licensed Practical Nurses (92%), were female.

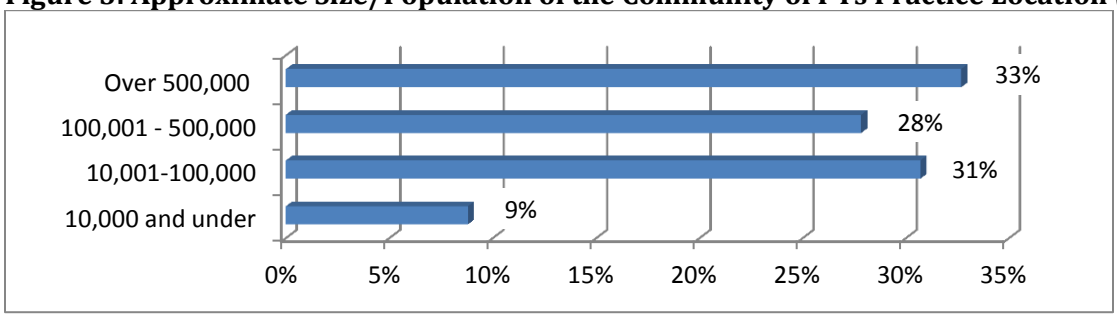
When further demographic details were analyzed, female PTs were found to work more in the public sector than in the private sector (52% and 45% respectively), whereas more male PTs worked in the private sector (68%) than in the public sector (29%).

Figure 2: Age of Participants (n = 557)



The participants in the survey had an average age of 43 (ranging from 22 to 69-years-old). Of note, 2012 CIHI data for physiotherapy in Canada showed that BC's average age of 44 was higher than those in other provinces and territories. Additionally, PTs tended to be younger than physicians, nurses, pharmacists, and medical laboratory technicians, but were older than occupational therapists (CIHI, 2009).

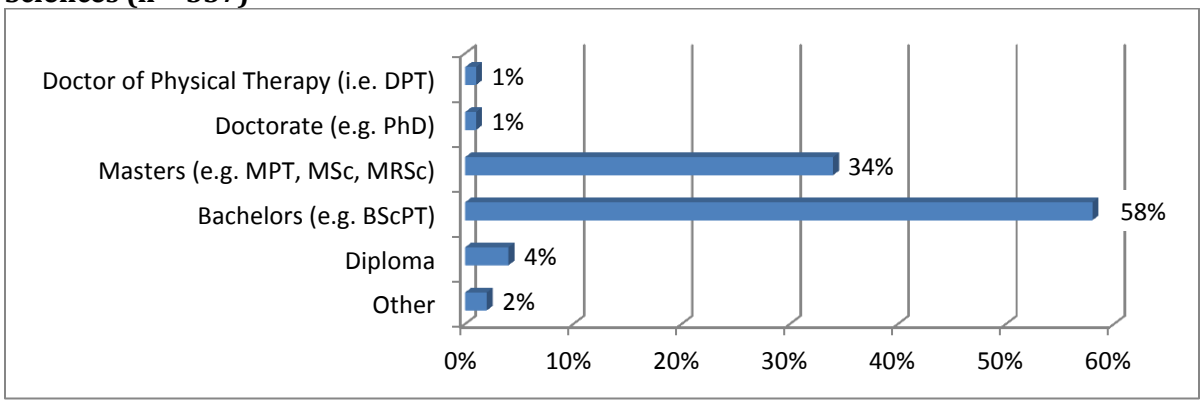
Figure 3: Approximate Size/Population of the Community of PTs Practice Location (n = 557)



The majority of PTs (61%) lived in urban areas (population over 100,000), with 9% living in rural areas (10,000 or less population), and 31% in small towns (10,001 to 100,000 population). The findings from the environmental scan revealed that the majority of CPD offerings in BC were located in the Lower Mainland or in Victoria. Although online courses, webinars, and other activities were available for those PTs practicing in rural areas, this finding suggests that rurally based PTs are more likely to have to travel to participate in traditional in-person CPD opportunities. Findings from the literature review suggested that electronic mentoring could reduce the effect of geography and be an effective tool for providing clinical support to rurally-based PTs or those unwilling to travel. Further, the environmental scan findings also suggested that technology-based CPD was a potential facilitator to matters of providing teaching, counselling, support, and guidance for PTs in rural and remote regions.

3.1.2 Education and Training

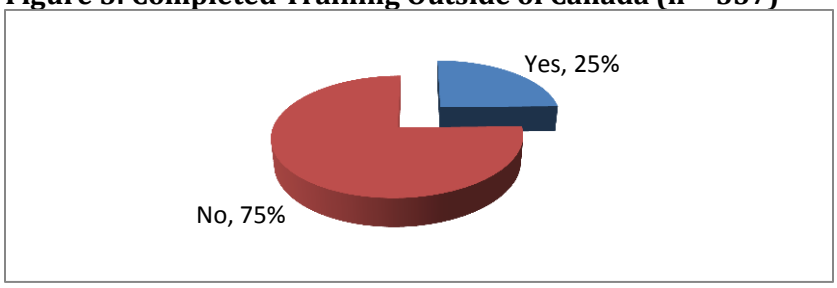
Figure 4: Highest Level of Education Obtained in the Field of Physiotherapy or Rehabilitation Sciences (n = 557)



The most common highest level of education in the field of physiotherapy or rehabilitation sciences was a Bachelor's degree (58%), followed by Master's (34%) which confirms what is currently known about the education training of PTs in BC available from the CIHI data. It should be noted that in early 2000s a Master's degree program replaced an undergraduate degree program as the minimum entry-level for PT training in BC. As such, it can be expected that the percentage of PTs with a Master's degrees will increase on a yearly basis.

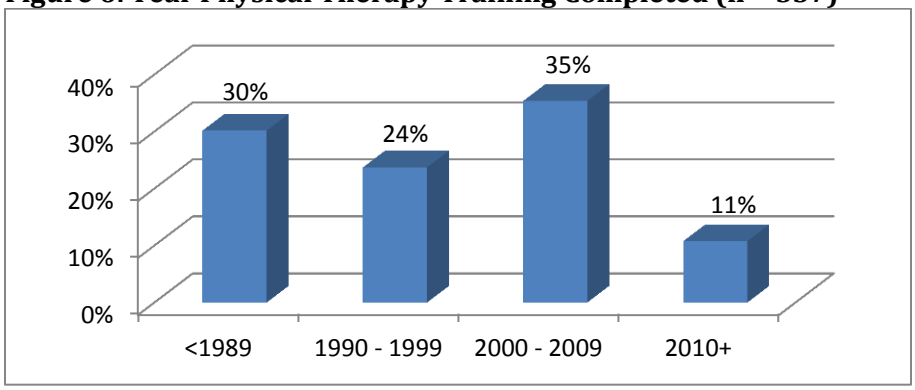
A large cohort of participants (238 PTs or 43%) of this needs assessment commented on additional postgraduate training they pursued. The three most common topic areas of training were acupuncture or intra-muscular stimulation (IMS) (145 PTs), orthopaedics/musculoskeletal/ neuromuscular courses (127 PTs), and sports/exercise courses (35 PTs). A list of associated certifications sought in these topic areas can be found in Appendix E: Detailed Tables from Results – Table 27.

Figure 5: Completed Training Outside of Canada (n = 557)



This figure shows that the majority of respondents (75%) completed their PT training in a Canadian institution. The percent of foreign trained PTs in this study (25%) was noticeably higher than the 2012 CIHI reported data of 15% of PTs in BC being foreign trained. There were no significant demographic differences between those PTs trained inside versus outside of Canada.

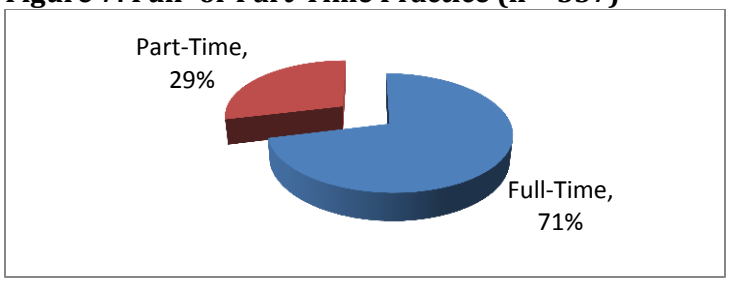
Figure 6: Year Physical Therapy Training Completed (n = 557)



The year respondents completed PT training ranged from 1965 to 2013. Almost half (46%) graduated within the last 13 years (i.e. since 2000). Slightly less than one-third (30%) completed training in 1989 or earlier. By comparison, in a previous BC-wide needs assessment survey of family physicians conducted by UBC CPD, almost two-thirds (60%) of physicians completed their medical training in 1989 or earlier. Results were almost identical with respect to the percent (25%) family physicians that completed their training in 1990-1999, however a significantly lower percent (15%) of family physicians had completed their training in 2000 – 2009. These results demonstrate that physiotherapy has a comparable higher percentage of its workforce that are relatively still in the earlier stages of their career. It should be noted that PTs' level of participation in CPD activities is associated to their age, where the majority of PTs who participate in one to ten hours of CPD in a typical year are 35-49 years of age.

3.1.3 Practice Status and Registration with the College of Physical Therapists of BC

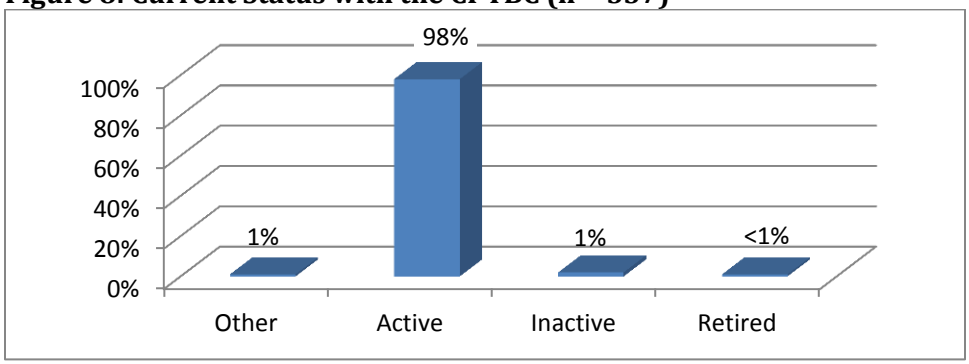
Figure 7: Full- or Part-Time Practice (n = 557)



The majority of PTs worked full-time (71%) with 29% employed part-time. This differs from the 2012 CIHI data where full-time was reported as 58% and part-time as 40%. Further cross tabulation analysis showed that the majority (50%) of PTs 39-years-old and under were in full-time practice. Further, approximately one-third of PTs across the three age cohorts (0-39, 40-49, 50+) were equally likely to be practicing part-time (i.e. there is no clear distinction of an age cohort who tends to work part-time).

When demographic results were analyzed more closely differences were found between part-time and full-time cohorts. Part-time PTs were more likely to be female (94% versus 70% for full-time PTs), were slightly older with approximately one-third in each age category (0-39, 40-49, and 50+) compared to full-time PTs with 50% under age 40 and about one-quarter in each of the other age groups. More full-time PTs had a Master's degree (39% compared to 22% of part-time PTs), whereas more part-time PTs had a Bachelor's degree (70% compared to 54% of full-time PTs). Full-time PTs were more likely to be male (92% compared to 64% of female PTs). Additionally, part-time PTs (49%) were more likely to participate in less CPD (one to ten hours) whereas full-time PTs (79%) were more likely to participate in more CPD (30 or more hours).

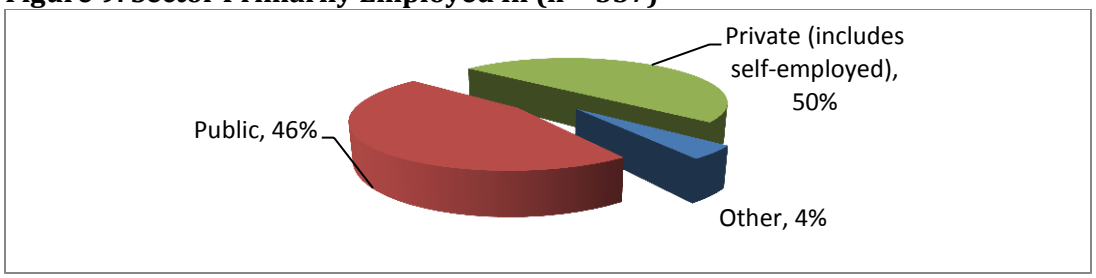
Figure 8: Current Status with the CPTBC (n = 557)



The majority (98%) of PTs had an "Active" status with the CPTBC, with a small percentage indicating they were currently inactive (1% - e.g. maternity leave, working out of province) or retired.

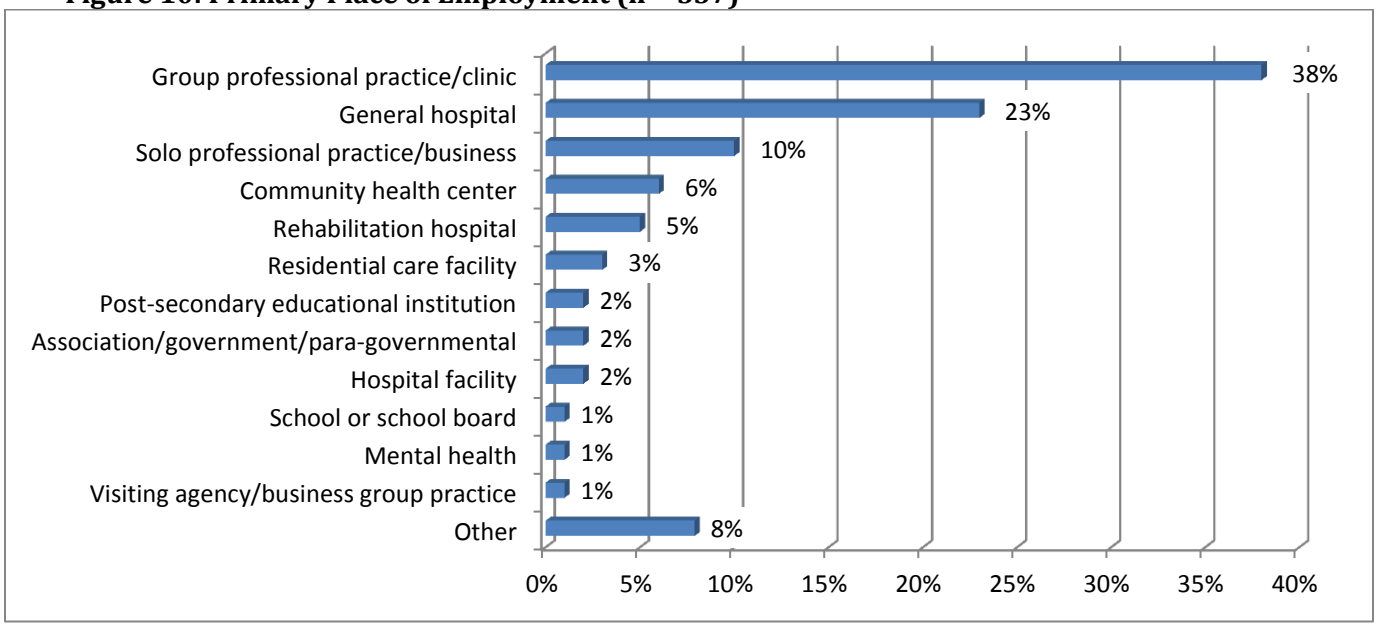
3.1.4 Area of Employment & Practice

Figure 9: Sector Primarily Employed In (n = 557)



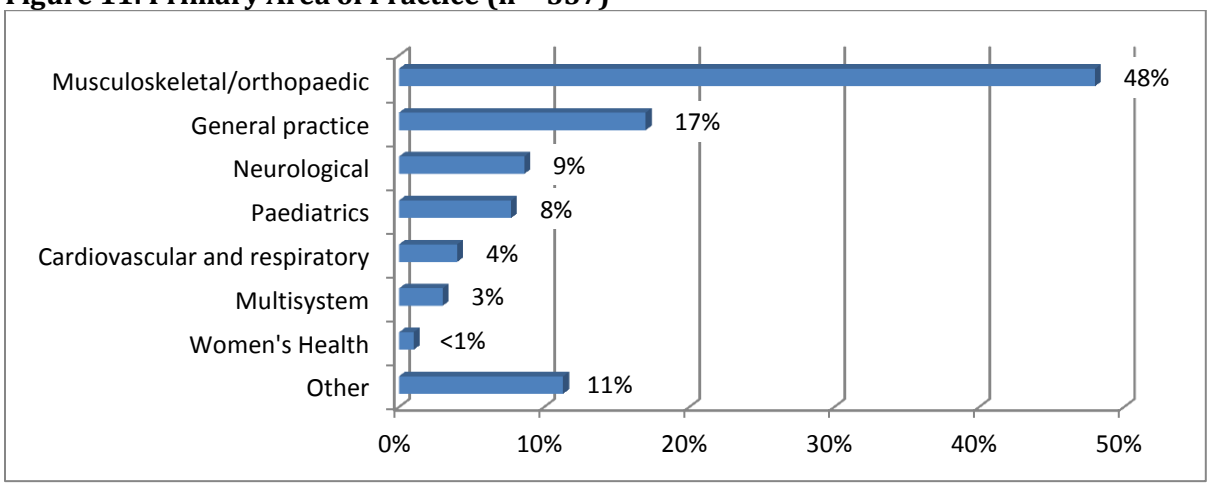
There was a roughly even distribution of PTs' primary sector of employment with slightly more PTs working in the in private (50%) compared to the public sector (46%). These results are almost identical to the 2012 CIHI published data. Several "Other" PTs commented they concurrently worked in both the public and private sectors. The four percent that provided "Other" responses mentioned educational institutions/university (3), non-profit (2), public and university (1), and unemployed (1).

Figure 10: Primary Place of Employment (n = 557)



The three most common primary places of employment were group professional practice/clinic (38%), general hospital (23%), and solo professional practice/business (10%). There is no difference between public and private PTs in terms of the distribution of primary place of employment.

Figure 11: Primary Area of Practice (n = 557)



Almost one-half of PTs worked in the area of musculoskeletal/orthopaedic (48%). This data is reflective of the musculoskeletal/orthopaedic results presented in Table 3, where a higher percentage of PTs indicated their areas of interest included arthritis, chronic pain, joint replacement rehab, shoulders, and orthopaedics. The results identified a disconnect in the area of neurology where only 9% indicated it was their primary area of practice but a comparatively high cohort of PTs (35%) indicated in Table 3 that it was an area of interest. This could indicate a need for further investigation to determine what drives the availability of courses on certain subjects.

Table 3: Area of Interest (n = 557)

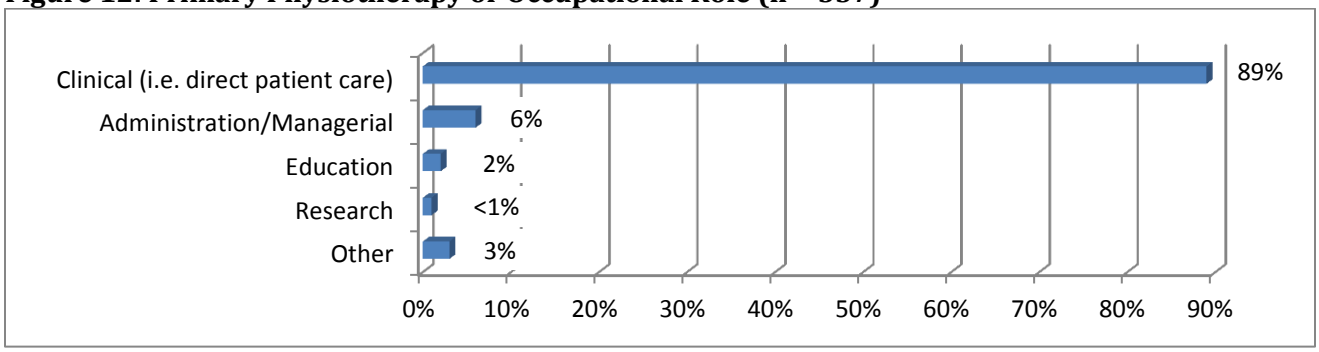
Area of Interest	% Interested	Area of Interest	% Interested	Area of Interest	% Interested
Acupuncture	28%	Hippotherapy	3%	Orthotics	14%
Amputees	15%	Home Visits	17%	Osteoporosis	25%
Arthritis	**34%**	Hydrotherapy	8%	Paediatrics	16%
Breast Health	6%	IMS	20%	Pelvic Floor	10%
Cardio-Respiratory	18%	Incontinence	8%	Perinatal Care	7%
Chronic Pain	**33%**	Industrial Health	5%	Postural Drainage	4%
Clinical Pilates	9%	Joint Manipulation	30%	Research	7%
Complementary Therapies	14%	**Joint Replacement Rehab**	**34%**	Rheumatology	13%
Concussions	18%	Lymphatic Drainage	7%	**Shoulders**	**38%**
Constipation	3%	McKenzie	14%	**Sports Medicine**	**38%**
Craniosacral Therapy	9%	Mental Health	5%	TMJ	13%
Diabetes	7%	Men's Health	3%	Vaginal/Rectal Pain	3%
Ergonomics	17%	Musician's Injuries	4%	Vestibular/Vertigo	24%
Facial Retraining	2%	Myofascial Release	25%	Whiplash	24%
Feet	15%	**Neurology**	**35%**	Other	6%
Gerontology	21%	Oncology	10%		
Hands	16%	**Orthopaedics**	**69%**		

PTs were given a list of 48 topic areas and were asked to select those they consider to be in their area of interest. Orthopaedics (69%) was the most commonly identified area. Other areas of interest selected by approximately one-third of PTs were: shoulders (38%), sports medicine (38%), neurology (35%), arthritis (34%), joint replacement rehab (34%), and chronic pain (33%).

Of note, there were 18 areas which a comparably lower percentage (<10%) of PTs identified as areas of interest:

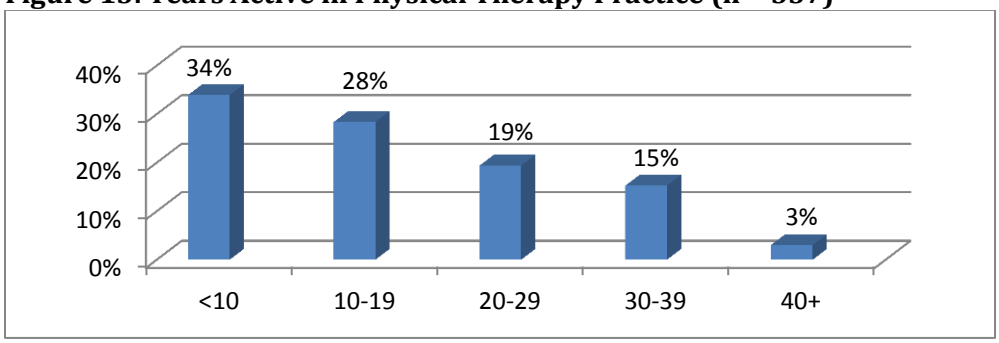
- Clinical Pilates (9%)
- Hydrotherapy (8%)
- Diabetes (7%)
- Perinatal Care (7%)
- Breast Health (6%)
- Mental Health (5%)
- Postural Drainage (4%)
- Hippotherapy (3%)
- Vaginal/Rectal Pain (3%)
- Craniosacral Therapy (9%)
- Incontinence (8%)
- Lymphatic Drainage (7%)
- Research (7%)
- Industrial Health (5%)
- Musician's Injuries (4%)
- Constipation (3%)
- Men's Health (3%)
- Facial Retraining (2%)

Figure 12: Primary Physiotherapy or Occupational Role (n = 557)



The majority of PTs' primary occupational role in physiotherapy was clinical (89%) in nature. Less than two percent of PTs indicated that their primary role was related to education (2%) or research (<1%).

Figure 13: Years Active in Physical Therapy Practice (n = 557)



The number of years PT respondents had been in active practice ranged from one to 48 years, with a mean of 17 years in practice. Further cross tabulation analysis shows that more recent PT graduates are younger professionals starting into the profession. Specifically, 83% of graduates in 2000-2009 and 97% of graduates in 2010 or later were 39-years-old or under.

3.1.5 Comparison with Canadian Institute of Health Information Data

The participant demographics in the current study were compared to the population of PTs working across BC, as seen by the similarities to the PT profile published by the Canadian Institute for Health Information (CIHI) (Canadian Institute for Health Information, 2012) (see Table 4 below). Comparing the current study's data with the CIHI data confirms that this sample is generally representative of the PTs in BC. The demographics of the current study sample were similar to the CIHI data for gender, average age, and size of community. Some notable differences include level of education, full-time versus part-time work and PTs who completed their training before 1980.

Table 4: Demographic Profile Comparison of PT Needs Assessment to CIHI PT Data *

Indicator	CIHI Data (2012)	Physiotherapy Needs Assessment
Gender		
• Female	74%	76%
• Male	26%	24%
Average age	44	43
Age range		
• 20 – 29	10%	11%
• 30 – 39	32%	34%
• 40 – 49	26%	26%
• 50+	33%	29%
Size of population where practice		
• Urban (10,001+)	87%	91%
• Rural (<=10,000)	7%	9%
• Unknown	6%	-
Year completed PT training		
• Before 1980	18%	10%
• 1980 – 1984	9%	11%
• 1985 – 1989	10%	9%
• 1990 – 1994	11%	11%
• 1995 – 1999	14%	13%
• 2000 – 2004	14%	17%
• 2005 – 2009	17%	18%
• 2010+	7%	11%
Highest level of education in physiotherapy		
• Diploma	11%	4%
• Baccalaureate	67%	58%
• Master's	22%	34%
• Doctorate	<1%	2%
Place of graduation		
• Canadian graduates	73%	75%
• International graduates	15%	25%
• Unknown	13%	-
Full-time work	58%	71%
Part-time work	40%	29%
Unknown	3%	-
Public Sector	45%	46%
Private Sector	47%	50%
Unknown	8%	-
Area of practice**		
• Musculoskeletal	41%	48%
• General practice	30%	17%
• Neurological	6%	9%
Place of employment**		
• Group professional practice/clinic	45%	38%
• General Hospital	29%	23%

*Percentages may not add to 100% due to rounding

**Only specific areas shared between the CIHI report and the needs assessment dataset are presented

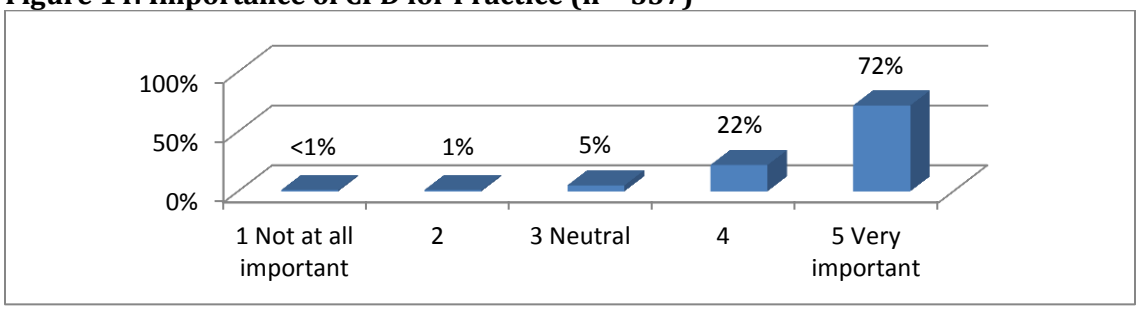
3.2 Current CPD Landscape for Physiotherapists in BC

3.2.1 PTs' Perceptions & Attitudes towards CPD

Importance of CPD to Career Development

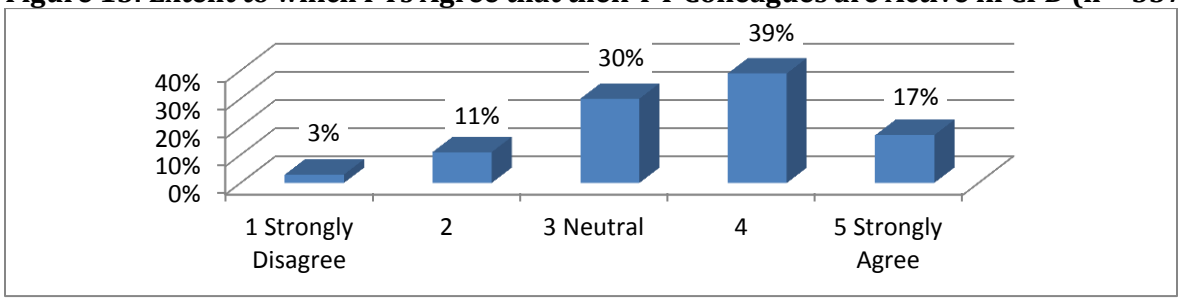
Currently, there is no requirement for CPD for physiotherapy licensure in BC or in other Canadian jurisdictions. Other requirements exist in BC to demonstrate professional competence and promote high standards of practice among registrants. For example, in BC PTs are required to provide proof of having met continuing competency requirements established by the CPTBC's quality assurance committee, which consists of three components. First is an annual self-report to develop PT awareness of varied topic areas including: regulatory resources, practice standards, professional boundaries and requirements. Second is an assessment of registrant competence used to determine PTs' decision-making skills in specific clinical areas that comprise daily practice. Third, if applicable, is a practice support program aimed at assisting those PTs who are not successful in the prior mentioned competency assessment component.

Figure 14: Importance of CPD for Practice (n = 557)



PTs view CPD as necessary to their practice, as it was rated as "Very Important" by the majority (72%) of respondents, with a further 22% rating the importance as "4" out of a five-point scale. This is an interesting result considering that participation in CPD is not currently required, suggesting PTs value the importance of CPD in order to remain relevant and up-to-date.

Figure 15: Extent to which PTs Agree that their PT Colleagues are Active in CPD (n = 557)



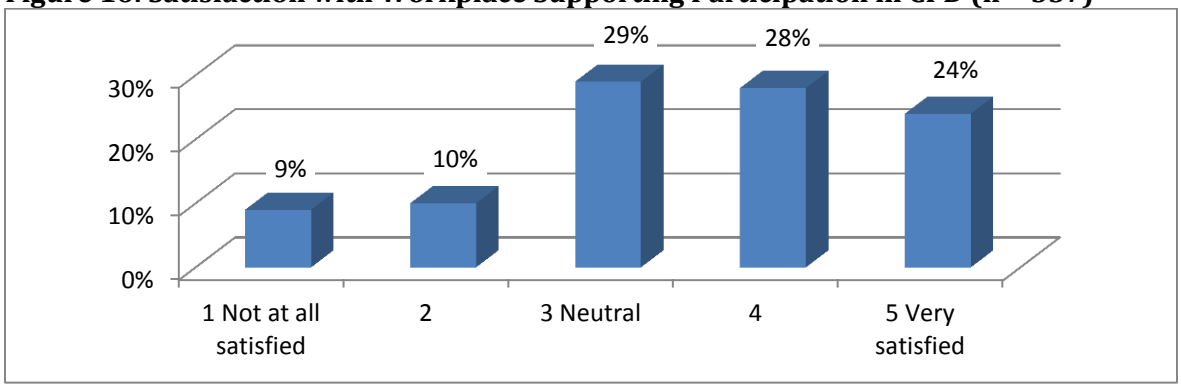
The majority of PTs agreed that their colleagues were active in CPD. Specifically, 17% strongly agreed and 39% rated "4" out of a five-point scale when asked if they believed their colleagues were active in CPD. Although almost all PTs indicated CPD was important for practice, there was a noticeable difference when rating how active their colleagues were in CPD with (56%) agreeing their colleagues were active. This suggests two possible explanations: i) the PT survey participants perceive they are more active in CPD than their colleagues; or ii) there is a gap between belief in the importance of CPD and actual participation in CPD.

Several PTs commented that CPD should become more regulated. For example, when asked to describe what their vision of the future of CPD for PTs looks like, 81 PTs said CPD should be a requirement similar to other health professions. Additionally, when asked for closing comments at the end of the survey, 33 PTs made comments on the important value of CPD, with 15 saying they thought CPD should be a requirement of the PT profession.

Interestingly, more PTs who trained in Canada agreed (60%) their colleagues were active in CPD than PTs who trained outside of Canada (44%).

Workplace Support

Figure 16: Satisfaction with Workplace Supporting Participation in CPD (n = 557)



Interestingly, while most PTs thought CPD was important for professional practice only 52% indicated satisfaction with how their workplace supported their participation in CPD. Slightly more than one-quarter (29%) were neutral in their response. These results indicate that there are opportunities for PT workplaces to enhance the supports they provide to PTs they employ.

Further analysis showed that more private-based PTs were satisfied with the extent to which their workplace supported their participation in CPD (60%) versus public-based PTs (42%).

Some of the supports preferred by a high percentage of PTs are presented in Table 5 highlighting PTs current and preferred supports.

Table 5: Current and Preferred Workplace Support for CPD Participation (n = 557)

Support at Work	Current Level of Support	Preferred Level of Support
a) Allows CPD participation during work hours (paid)	34%	43%**
b) Allows CPD participation during work hours (unpaid)	50%	23%*
c) Provide staff (i.e. locum) coverage	14%	25%**
d) Provides in-house CPD	49%	46%*
e) Provides funds for CPD participation	35%	52%**
f) Facilitate lunch and learn	-***	48%

*Current support level **exceeds** preference;
Current support level **falls short of preference (i.e. workplace could do better).
***survey did not ask PTs to indicate *current* level of support to this support option

PTs were asked how their workplace currently supported their participation in CPD as well as what they thought their workplace could realistically do to support their participation (i.e. preferred level of support). A comparison of the results showed areas where there are opportunities for workplaces to improve the supports provided to PTs. These included: allowing CPD participation during work hours as paid time, providing funds to facilitate CPD participation, and providing staffing coverage to allow CPD participation. This last point was identified in the literature review findings in that PTs who worked in smaller units with large volumes of patients and had limited staffing coverage for absences felt unable to effectively participate in CPD due to competing clinical demands for their time.

Illustration 1:

Supports	Current Level		Preferred Level	
	Private-based PTs	Public-based PTs	Private-based PTs	Public-based PTs
a) Allows CPD participation during work hours (paid)	8%	**62%**	18%	**69%**
b) Allows CPD participation during work hours (unpaid)	**57%**	42%	20%	26%
c) Provide staff (i.e. locum) coverage	NSF*	NSF*	15%	**38%**
d) Provides in-house CPD	38%	**60%**	36%	**57%**
e) Provides funds for CPD participation	22%	**50%**	36%	**69%**
f) Facilitate lunch and learn	NSF*	NSF*	39%	**59%**

* No statistically significant finding (NSF)

Illustrated above, further demographic analysis suggested that public-based PTs currently have more supports for CPD in comparison to PTs in the private sector. With the exception of a higher percent of private-based PTs who indicated their workplace allowed CPD participation during work hours as unpaid time (57% compared to 42% of public-based PTs), a higher representation of public-based PTs indicated their workplace: i) allows CPD participation during work hours as paid time, ii) provides in-house CPD, and iii) provides funds for CPD participation.

Additionally, when PTs were asked how the workplace could realistically support their participation in CPD activities the above illustration further revealed a higher representation of public-based PTs preferred their workplace to support them in the areas listed, in comparison to private-based PTs.

More urban-based PTs indicated their workplace currently supported them by allowing CPD participation during work hours as unpaid time (52% versus 29% of rural-based PTs) and providing in-house CPD (50% versus 31% of rural-based PTs). Additionally, when asked how the workplace could realistically support participation in CPD, more urban-based PTs (45% versus 29% of rural-based PTs) suggested the workplace could allow CPD participation during work hours as paid time.

PTs involved in teaching/supervising PT students had more supports in terms of the workplace allowing CPD participation during work hours (paid – 48% versus 25% of PTs not involved in teaching/supervision), providing in-house CPD (64% versus 39%), and providing funds for CPD (50% versus 25%). These results bear some similarities to the difference between public versus private PTs and it should be noted that a large number of PTs involved in teaching/supervising PT students were in the public sector (57%).

Of note, 11% of PTs indicated they did not receive support from their workplace to participate in CPD. Some of these PTs further clarified this was because they were self-employed and did not have an external employer.

A few PTs commented how their workplace could realistically support CPD. Three PTs said there was no concern and thought their workplace was doing as much as they could, three others thought that more funding for CPD could be provided, and two mentioned that in-services could be improved by encouraging attendance or increasing availability. Further, individual suggestions included: assistance with childcare, "fewer hoops to jump through to get both permission and funding," mentoring, time allowances for changing practice, and providing more webinars for CPD.

Organization of CPD: Roles for Professional Bodies/Organizations

Table 6: Roles Bodies/Organizations Should Play in CPD (n = 557)

Organization	Funding	Developing Content	Organizing and Delivering	Setting Standards	Promoting
a) College of Physical Therapists of BC (CPTBC)	28%	30%	32%	**75%**	55%
b) Physiotherapy Association of BC (PABC)	40%	57%	**82%**	34%	**86%**
c) UBC Department of Physical Therapy	12%	**68%**	63%	35%	57%
d) UBC Continuing Professional Development (UBC CPD) - within the Faculty of Medicine	20%	61%	64%	30%	55%
e) UBC Continuing Studies - across UBC	13%	41%	50%	16%	45%
f) Canadian Physiotherapy Association (CPA)	49%	59%	**73%**	48%	**82%**
g) Independent CPD providers	8%	64%	**75%**	16%	63%
h) Health Authorities	**68%**	25%	48%	22%	57%
i) Practice sites	33%	21%	46%	10%	50%
j) Knowledge experts	2%	**74%**	61%	36%	40%

When it comes to the five roles of funding, developing content, organizing and delivering, setting standards, and promoting CPD, PTs shared various perspectives regarding the fact that different organizations should play different roles. PTs were asked which role each of the main PT organizations should play.

In summary, the organizations at least two-thirds of PTs identified as having a role were:

- **Funding:** Health Authorities (68%);
- **Developing Content:** knowledge experts (74%), UBC PT (68%);
- **Organizing and Delivering:** PABC (82%), independent CPD providers (75%), CPA (73%);
- **Setting Standards:** CPTBC (75%), and
- **Promoting:** PABC (86%), CPA (82%).

A higher percent of PTs in particularly viewed the Health Authorities as having a role in funding when compared to other organizations. This perception appears to be driven by PTs working in the public sector with a substantially higher percent of them viewing the Health Authorities having a role in funding in comparison to PTs working in the private sector (89% in comparison to 49% respectively). For setting standards, a noticeable higher percent of PTs identified the CPTBC as having a role. With respect to promoting CPD, although the large majority of PTs identified the PABC and CPA as having a role, a high cohort of PTs indicated that all the listed bodies should be involved in CPD promotion in some way, demonstrating the importance of a collective effort among the PT professional organizations to ensure PTs are made aware of CPD opportunities. It is also interesting to note the importance that knowledge experts play with respect to CPD, as PTs mentioned their role in developing content, as well as organizing and delivering CPD.

3.2.2 Current CPD Practices of PTs

PTs Current Participation in CPD Activities: Frequency per Year

Table 7: Frequency and Number of Hours of CPD Participation in a Typical Year (n = 557)

	Frequency								Number of Hours						
CPD Activity	n	Weekly	Twice per month	Monthly	Quarterly	Twice per year	Yearly	N/A	n	0	1 to 10	11 to 20	21 to 30	31 to 40	41+
a) Courses part of certification (e.g. Bobath, CPA Orthopaedic Levels, Sports Physio Exam Prep Courses, etc.)	541	1%	<1%	2%	3%	12%	34%	**48%**	515	**44%**	15%	14%	8%	6%	13%
b) Clinical hands-on course	549	<1%	1%	2%	7%	23%	**50%**	17%	531	16%	28%	**30%**	12%	6%	8%
c) Conference	540	<1%	<1%	<1%	6%	14%	**53%**	27%	517	25%	**39%**	22%	8%	3%	3%
d) Lecture	540	3%	2%	9%	**23%**	20%	20%	**23%**	518	22%	**58%**	13%	3%	1%	3%
e) Online session (live) (e.g. webinar, course)	543	<1%	2%	8%	**26%**	22%	18%	24%	518	23%	**61%**	9%	4%	1%	2%
f) Teleconference (e.g. live CPA monthly session)	536	0%	<1%	3%	13%	16%	17%	**51%**	497	**48%**	47%	3%	1%	<1%	<1%
g) Videoconference (live)	527	0%	<1%	2%	6%	10%	16%	**66%**	486	**64%**	33%	3%	0%	<1%	<1%
h) Recorded session (e.g. vodcast)	537	<1%	1%	3%	11%	18%	19%	**48%**	501	45%	**48%**	5%	1%	<1%	1%
i) Mentoring (i.e. being mentored)	531	6%	5%	9%	10%	5%	11%	**54%**	502	**51%**	26%	8%	5%	2%	8%
j) Peer study/skills practice session	537	5%	4%	12%	15%	12%	12%	**40%**	514	37%	**40%**	12%	5%	1%	5%
k) Journal club/small group session	524	2%	2%	9%	11%	6%	9%	**61%**	492	**59%**	29%	8%	2%	<1%	2%
l) Self-study (e.g. literature review, accessing clinical resources)	553	**31%**	15%	26%	16%	4%	5%	3%	538	3%	**36%**	20%	10%	7%	24%

Frequency

Many PTs actively participate in CPD activities on a regular basis. The most popular frequency for each of 12 activities is highlighted in the table above. The CPD activities PTs participated in most frequently were:

- Self-Study (31% on a weekly basis)
- Online Sessions (26% on a quarterly basis)
- Lectures (23% on a quarterly basis)

Many PTs participated in clinical hands-on courses and conferences, although less frequently than other CPD activities (50% and 53% participating respectively). The environmental scan showed that clinical hands-on courses tend to be longer in duration (typically one to two days), potentially extending to 15 days for certification-based courses. As courses longer in duration are typically associated with higher tuition/registration fees, is it reasonable to expect that the frequency of participation would be on a yearly basis as the data in the prior table demonstrated.

An important caveat when reflecting on frequency of CPD participation is that the percentage of PTs that indicated certain CPD activities were not applicable may be an indication of general preference for those types of activities, but it may also be due to the fact that certain types of activities are not readily available at a location that makes participation conducive.

A higher percent of PTs that were recent graduates (i.e. graduated 2010 or later) participated in courses that were part of certification (e.g. Bobath, etc.), clinical hands-on courses, peer study/skills practice sessions, as well as mentoring activities, in comparison to PTs that graduated previously. Additionally, a higher cohort of recent graduates spent more hours participating in the above activities in comparison to PTs at other career stages.

Reflecting on the sector of PTs' practice, more PTs in the private sector participated in courses that were part of certification (64% versus 39%[2]) or that were clinical hands-on courses, compared to those in the public sector. Comparatively, more PTs in the public sector participated in CPD-based lectures (86% versus 69% of private-sector PTs) and teleconferences (69% versus 29%).

When comparing urban and rural PTs, it was found that urban PTs attended lectures more frequently in a typical year (79%) compared to rural PTs (55%). Rural PTs, however, more frequently attended videoconferences (45% quarterly or more compared to 30% at the same frequency for urban PTs). This is perhaps a function of the CPD that is available in certain geographic areas, allowing urban PTs to attend lectures in-person, while requiring rural PTs to attend CPD through technological means because there may be fewer offerings in their local area.

Comments were submitted by 70 PTs regarding how often they participated in certain CPD activities. The majority of these comments were qualifiers to further explain why or how PTs chose various activities. Several PTs mentioned "there is no typical year" (4 comments) and several said that they attended courses every two or three years as they found activities of interest to them (8 comments). Many PTs indicated they were recent graduates so had attended a lot of education in the past but were not sure about the future (9 comments).

[2] NOTE: Conversely, this means that 36% of private-sector and 61% of public-sector PTs did not participate in courses that were part of certification (i.e. they selected not applicable in the survey).

PTs Current Participation in CPD Activities: Hours of Participation

Number of Hours

When asked about the number of hours of participation in a typical year for 12 different types of CPD activities, the most common answer for each activity is highlighted in Table 7 above.

The majority of PTs spent ten hours or less in a typical year participating across most of the CPD formats listed. The most common formats are self-study with 24% participating in 41 hours or more in a typical year, courses as part of a certification with 19% participating in more than 30 hours in a typical year, and clinical hands-on courses with 26% participating in more than 20 hours in a typical year.

The number of PTs with low CPD participation (one to ten hours in a typical year) were 43 (8%) and PTs with high CPD participation (30 or more hours in a typical year) were 272 (49%) of survey respondents. The types of CPD activities these two groups of PTs participated mainly differed in regards to certification courses (70% of the low CPD participants indicated this was not applicable to them compared to 37% of high CPD participants), lectures (28% of high CPD participants indicated that this was not applicable to them compared to 12% of low CPD participants), and self-study, where 28% of low CPD participants indicated they participated in this activity once a year while 49% of high CPD participants indicated they participated in this activity on a weekly basis.

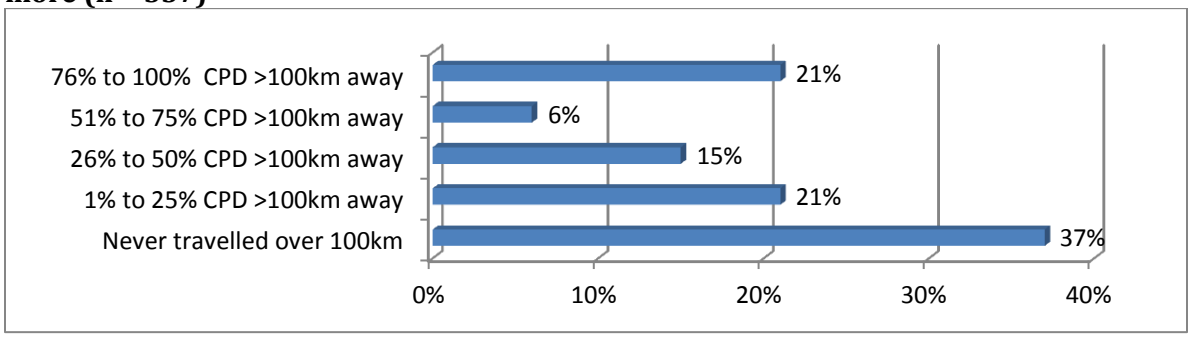
Of note, several factors were shown to be associated with the number of hours PTs spent participating across the various activities listed. Barriers reported by PTs with low CPD participation included social and family obligations (65% of low participants compared to 48% of high participants) as well as the availability of child care 50% of low participants compared to 15% of high participants).

In terms of hours, full-time PTs were more active in courses as part of certification, clinical hands-on, mentoring, peer study/skills practice sessions, and self-study than part-time PTs. Additionally, more PTs with higher CPD participation hours (i.e. 30+ hours) were in full-time practice (79% versus 21% of those in part-time practice); whereas more PTs with lower CPD participation hours (i.e. one to ten hours) were in part-time practice (55% versus 45% of those in full-time practice).

Attendance: Travel and Expenses

Travel

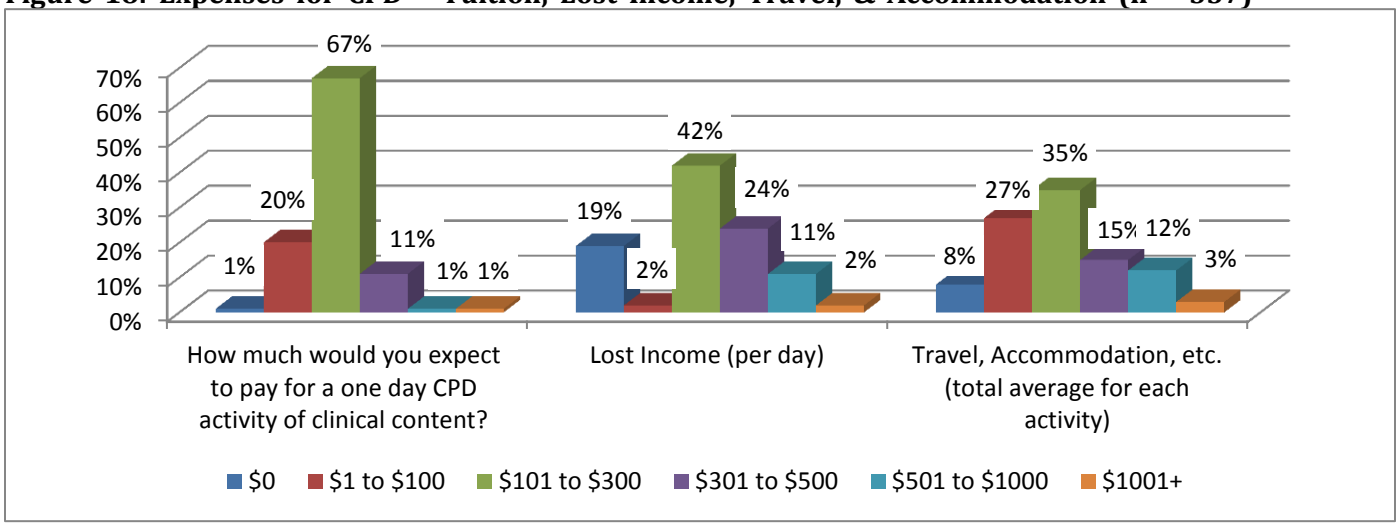
Figure 17: Percentage of CPD Attended in Past Three Years Needing to Travel 100 km or more (n = 557)



The majority of PTs stated they travelled more than 100km to attend CPD activities, with 63% travelling over 100 kilometres (km) at least once in the past three years, and 21% of PTs travelling over 100 km for more than 75% of the CPD they attended in the last three years. Further demographic analysis revealed that almost one-half (49%) of rural-based PTs (population size under 10,000) had to travel more than 100 km 76% to 100% of the time to attend CPD activities. By comparison 18% of urban-based PTs (population size over 10,000) travelled the same frequency. This suggests that a rural-based PT may have to travel more often to access relevant and desired programming in comparison to an urban-based PT however, it is important to note that not all relevant CPD activities exist in close even in larger urban centres and urban-based PTs still need to travel for CPD opportunities. Additional analysis showed a significant difference between PTs with low CPD participation (one to ten hours) compared to PTs with high CPD participation (30 or more hours). Of the PTs with low participation, 51% never travelled for CPD and location was an influencing factor to their CPD participation.

Expenses to support CPD

Figure 18: Expenses for CPD – Tuition, Lost Income, Travel, & Accommodation (n = 557)



PTs were asked how much money they expected to pay for CPD participation. For a one day CPD activity of clinical content, 67% expected to pay between $101 and $300 and 13% expected to pay $301 or more, with an expected average of $218. There was no noticeable difference in what PTs working in the public and private sector expected to pay for CPD participation.

In terms of lost income per day, 42% expected to have a loss between $101 and $300, 37% expected to lose over $300, with an expected loss average of $321. Of note, more PTs in the private-sector expected to experience a higher loss of income (per day) in comparison to public-sector PTs which makes sense in terms of the fee for services models versus salary structures for PTs who are self-employed and those PTs employed by hospitals and health authorities. Specifically, 61% of private PTs expected to lose $301 or more, whereas only 13% of public-sector PTs expect to lose the same amount of income (per day).

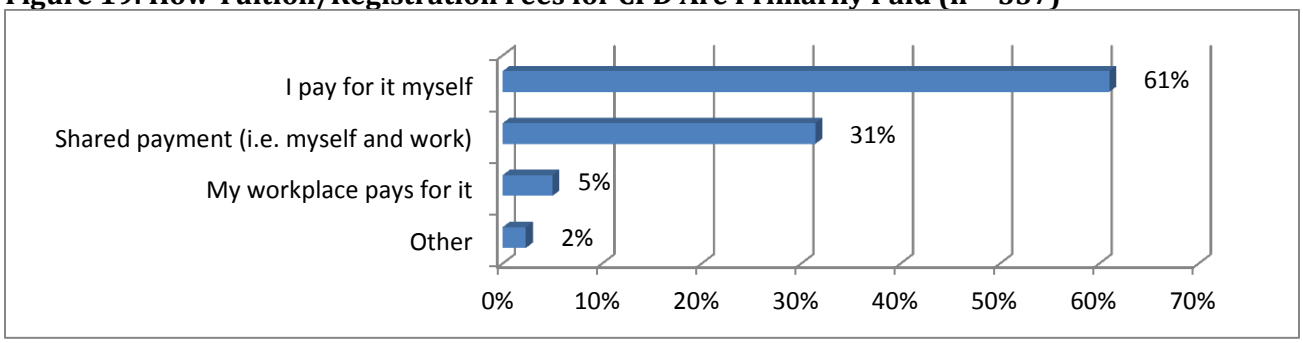
For travel and accommodation, 35% of PTs expected to pay between $101 and $300, 30% expected to pay more than $300, with an expected average of $299. In contrast to differences between public and private sector PTs with respect to lost income (per day), there was no noticeable differences between PTs in these sectors with respect to the amounts they expected to pay for travel and accommodation for CPD participation.

Of note, additional geographic analysis of PTs in urban or rural locations did not identify any statistically significant difference with respect to the above mentioned costs.

In interpreting these figures, it should be noted that the above PT expectation of costs may be influenced by external factors such as: i) membership in associations (e.g. PABC) that PTs may have which have systems in place to offset some of the above costs to its members; ii) place of employment, which may or may not have financial-based programs to help offset the cost of CPD; and iii) PTs in private practice lose income to attend CPD during clinic hours.

Generally speaking, the needs assessment findings showed that PTs expect the respective costs for registration, lost income, and travel/accommodations for attending a one-day CPD activity of clinical content to be in the range of $101 to $300. The environmental scan explored available CPD offerings in BC, specifically examining 42 activities in BC. The results showed that one-day courses were on average $325 (ranging from $80 to $500) and were consistent with what PTs, who responded to the needs assessment survey, expected to pay.

Figure 19: How Tuition/Registration Fees for CPD Are Primarily Paid (n = 557)



The costs of tuition/registration fees are most commonly paid in full by PTs themselves (61%), with 31% sharing payment with their workplace and only 5% being paid in full by their workplace. Unlike other professions, such as nursing and medicine, which have specific CPD requirements and in many cases CPD funding allocations/incentives available to practitioners, PTs mainly pay the associated costs of CPD activities themselves.

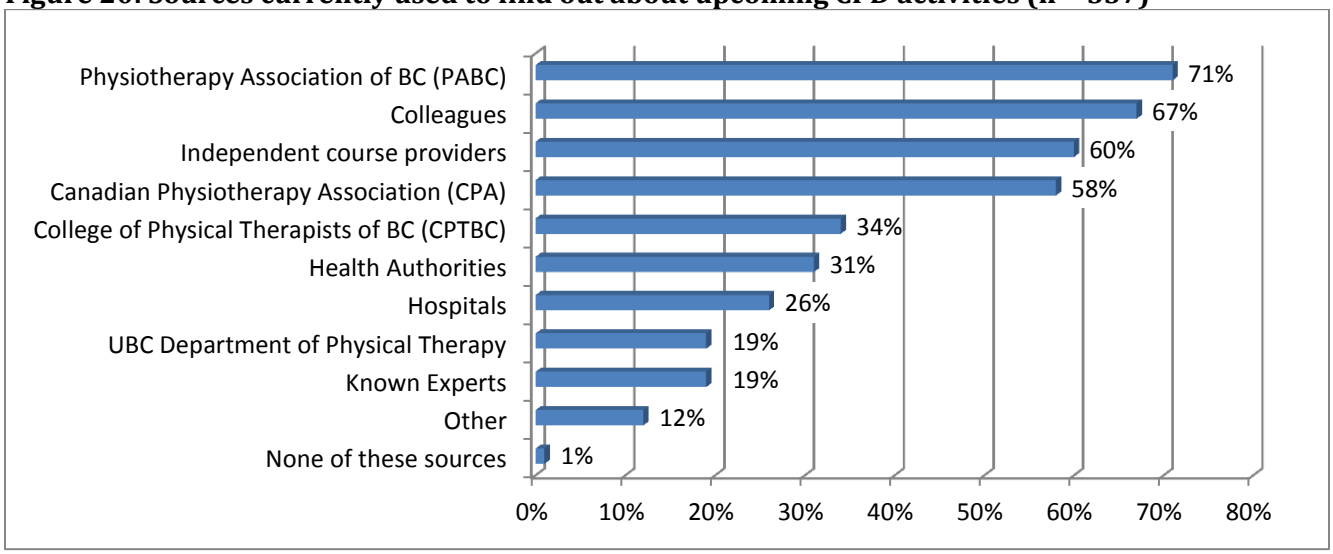
Further analysis showed that 85% of PTs in the private sector paid for CPD themselves, in comparison to 36% of PTs in the public sector. Of those who indicated shared payment, more of these PTs were in the public sector (49%) in comparison to those in the private sector (10%).

This makes sense considering that half of the PTs are in private practice and generally do not have an employer such as a hospital or health authority. As previously mentioned, there may be reductions in associated tuition/registration fees depending on various memberships (e.g. PABC member) or CPD rebates/funding allowance that workplaces may provide, which could vary in funding amount and availability.

"Other" payment methods were mentioned by 13 PTs. These included: union and grants (4 comments), comments that PTs do not do any CPD (3 comments), being self-employed (2 comments), various methods from above (2 comments), lecturing at activities (1 comment), and only attending free activities (1 comment).

Finding out about CPD Activities

Figure 20: Sources currently used to find out about upcoming CPD activities (n = 557)



When asked about sources used to find out about upcoming CPD activities, the most common sources were the Physiotherapy Association of BC (PABC) (71%), colleagues (67%), independent course providers (60%), and the Canadian Physiotherapy Association (CPA) (58%). The literature review revealed that colleagues also play an important role in PTs' decision to participate in CPD. This highlights the importance for content providers to ensure PTs perceive course content to be impactful and applicable to their practice as their user experience may influence whether or not their colleagues attend particular activities.

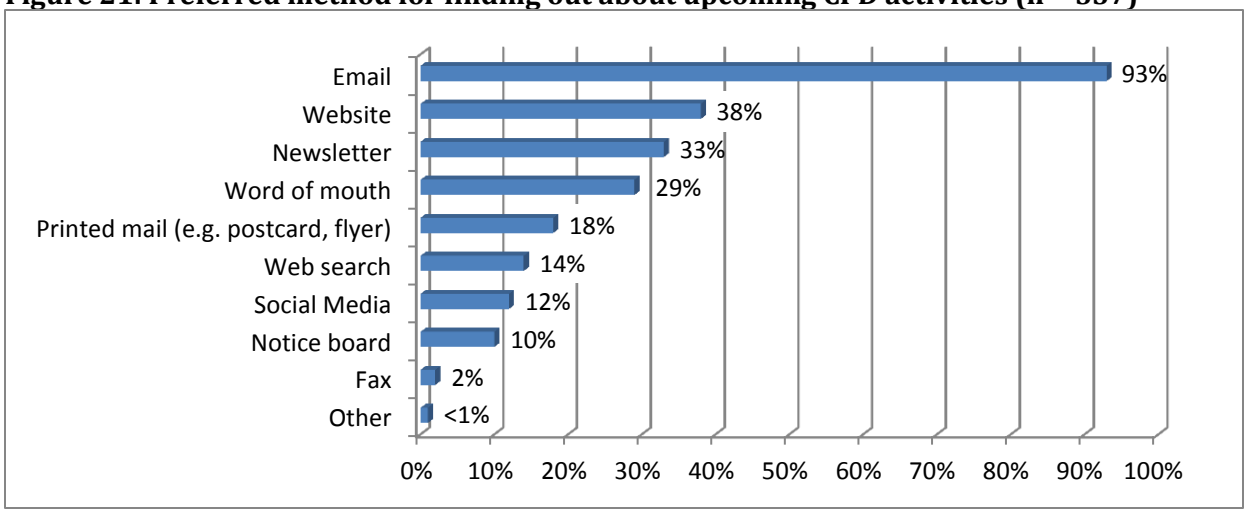
Illustration 2:

Sources used to find out about upcoming CPD activities	Private-based PTs	Public-based PTs
Physiotherapy Association of BC (PABC)	**85%**	56%
Canadian Physiotherapy Association (CPA)	**68%**	47%
Health Authorities	9%	**57%**
Hospitals	5%	**48%**

Findings from the demographic analysis provide further insight into the preferences of particular cohorts of PTs for communicating upcoming CPD activities. For example, as in Illustration 2 above, the data suggested that more private-based PTs turn to their provincial and national association (i.e. PABC & CPA) to be informed about upcoming CPD activities, whereas public-based PTs turn to their workplace/employer (i.e. Health Authorities and hospitals).

Twelve percent indicated that the source they used to find out about CPD was "Other," and 11 additional PTs made comments for a total of 77 qualitative responses. The most common sources used to find out about upcoming CPD activities from these responses were professional associations (e.g. Therapy BC, BC Association of Kinesiologists, Sport Physiotherapy Canada) (35 comments) and internet searches/blogs/social media (24 comments). Also mentioned were universities/educational institutions (7 comments), word of mouth or at events (6 comments), journals/subscriptions (4 comments), from leaders in the field (3 comments), and rounds (1 comment). One PT said they are not participating in CPD and another said they want more contacts.

Figure 21: Preferred method for finding out about upcoming CPD activities (n = 557)



There are many ways that PTs prefer to find out about upcoming CPD activities. The majority (93%) preferred to learn about upcoming activities through email communication. Approximately one-third each preferred to learn through websites (38%), newsletters (33%), and word of mouth (29%). The above finding suggested that a large percentage of PTs rely on an electronic push strategy in waiting to have notices about upcoming CPD activities sent to them, compared to PTs that actively search out activities. Further, this highlights the importance of organizations/bodies involved in developing CPD to ensure that they have up-to-date email contacts for PTs, or have

connections to organizations such as the CPTBC or PABC to ensure notices of upcoming CPD activities are disseminated to among membership lists.

When asked about websites commonly used to find out about CPD activities, the most frequently mentioned were the PABC (107) and CPA (72), which is consistent with the most common sources identified. Please see Appendix E: Detailed Tables from Results – Table 28, for a full list of specific websites.

Most Impactful CPD: Topics

Table 8: Common Topics of Impactful CPD Previously Attended

Rank	Activity Topic	# of responses
1	Orthopaedics/musculoskeletal/ neuromuscular	313
2	Professional events	102
3	Neurology	100
4	Acupuncture and IMS	71
5	Sports/exercise	52
6	Paediatrics	39
7	Pain management	33
7	Vestibular rehab	33
8	Cardiorespiratory	19
9	Arthritis and osteoporosis	17
10	Hand therapy	14

PTs attend CPD on a wide variety of topics which shows the breadth of the scope of PT practice. When asked which CPD over the last three years was most impactful on their day-to-day practice in total 938 comments were listed. Most PTs reported that topics on orthopaedics/musculoskeletal/neuromuscular (313 comments) were most impactful, followed by professional topics/events (102 comments) such as conferences or mentoring. Further details are in Appendix E: Detailed Tables from Results – Table 8a. The high number of PTs who commented on activities related to orthopaedics/musculoskeletal/neuromuscular as topics of CPD they have attended that were particularly impactful to their practice aligns with data from Table 3, were 69% (highest percent observed) of PTs listed orthopaedics as being an area of interest.

3.2.3 PTs' CPD Learning Preferences and Needs

Areas of Interest

Table 9: Level of Interest in Participating in CPD Activities on the Following Content Areas (n = 557)

Level of Interest	Not Interested	Slightly Interested	Moderately Interested	Very Interested	Moderately + Very Interested
a) Clinical content (e.g. spinal manipulation, treatment of stroke, etc.)	3%	3%	15%	79%	**94%**
b) Enhancing skills in evidence-informed practice	5%	15%	40%	40%	**80%**
c) Professional content (e.g. business management, communication)	23%	38%	26%	13%	**39%**
d) Educating/supervising physical therapy students	21%	41%	27%	11%	**38%**
e) Boundary issues and relationship with patients	43%	39%	14%	4%	**18%**

PTs were asked to rate their level of interest in participating in CPD activities in various content areas. They were most commonly interested in clinical content (94%), followed by enhancing skills in evidence-informed practice (80%). Interest levels for topics on boundary issues and relationships with patients were considerably lower (18%). The above findings are consistent with those obtained in the environmental scan which revealed that PT CPD activities in Canada were predominantly one to two day, skills-based, hands-on courses for clinical practice. Further, in BC, the majority of the 42 activities identified in the environmental scan were also skills-based and hands-on courses, most of them with a focus on orthopaedics.

Although learning about professional content areas was not rated very high (39%) by PTs, there was a significant difference in these responses based on those who were working full-time compared to those working part-time. PTs working full-time were more interested in learning about professional content (43%) compared to PTs working part-time (29%). Additionally, PTs involved in teaching/supervising PT students were also more interested in professional content (47%) than those who were not involved in teaching/supervising (33%).

Of note, the 38% of PTs that indicated they were at least moderately interested in a CPD activity focused on educating/supervising PT students aligns with the findings in Table 19, where 39% of PTs indicated they were actively involved in teaching/supervising a PT student. Demographic analysis indicated that, not unexpectedly, those PTs who indicated they were involved in teaching/supervising students were more interested in this subject (55%) than those not involved with students (28%). As well, public-based PTs were more interested in CPD on this content area with one-half (50%) indicating they were at least moderately interested compared to 27% of private-based PTs. As well, internationally trained PTs were more interested (45%) than Canadian trained PTs (36%) in learning about educating/supervising PT students. Of note, there was no statistically significant finding with respect to graduation year and interest in this topic area.

The recent literature review from this study revealed that increasing knowledge base and competency was a primary driver to PTs to participate in CPD activities. Specific intrinsic reasons included improving clinical skills, keeping up-to-date with current research and practices, improving patient care, using evidence-based practice, as well as general interest in the topic area.

Table 10: Clinical Content Areas PTs want to Learn About

Rank	Activity Topic	# of responses
1	Orthopaedics/musculoskeletal/ neuromuscular	593
2	Neurology	271
3	Sports/exercise	109
4	Pain management	93
5	Paediatrics	81

When PTs were asked to list any clinical content areas they would be interested in learning about 1,707 comments were given. Orthopaedics/musculoskeletal/neuromuscular topics stood out as the most common clinical topic mentioned, followed by neurology. Clinical content areas related to orthopaedics/musculoskeletal/neuromuscular topics aligns well with results from Table 3, where 69% (highest percent observed) of PTs listed orthopaedics as being an area of interest. It is also interesting to note the need for topics on neurology which may be linked to the aging population or the fact that there are few identified PT experts who focus in Neurology. See Appendix E: Detailed Tables from Results – Table 10a for full list of clinical content areas listed.

Table 11: Professional Content Areas PTs want to Learn About

Rank	Activity Topic	# of responses
1	Business skills (e.g. business management, finances, managing staff)	186
2	Managing clients (e.g. motivating clients, dealing with malingerers)	84
3	Dealing with challenging people (e.g. managing challenging clients/families/staff)	80
3	Communication skills (e.g. dealing with conflict, language barriers, general communication skills)	80
4	Clinical skills related to running the business (e.g. discharge planning, charting)	41
5	Finances (e.g. insurance, billing, managing finances)	38

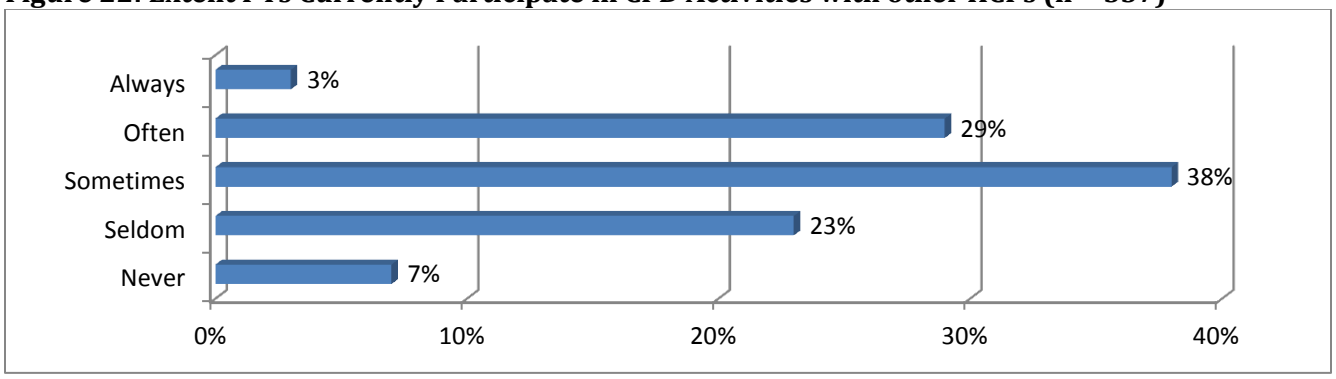
When PTs were asked to list any professional topics they want to learn about 746 responses were given. The most popular topic was business skills followed by managing clients. This indicates that even though content on clinical skills is highly valued, there is a further opportunity for educators to develop programming in these other areas as PTs see the value of learning other professional content that does not focus solely on the PT as a clinical or medical expert. It show also be noted that these types of professional content areas (e.g. dealing with challenging patients) would be similar amongst other Health Care Professionals (HCPs) such a physicians, nurses, PTs and OTs. Further details can be found in Appendix E: Detailed Tables from Results – Table 11a. One of the key informants interviewed indicated that the CPTBC and PABC have co-hosted Physiotherapy

Practice Forums such as the 2010 Forum, which incorporated educational sessions on non-clinical topic areas that were well attended by PTs.

There were a considerable higher number of comments related to clinical content areas PTs wanted to learn about compared to the number of comments provided about professional content areas. This aligns with the results from Table 9, where a significantly higher percent of PTs (94%) indicated they were moderately or very interested in participating in CPD activities of clinical content. By comparison, 39% of PTs indicated they were moderately or very interested in CPD activities on professional content.

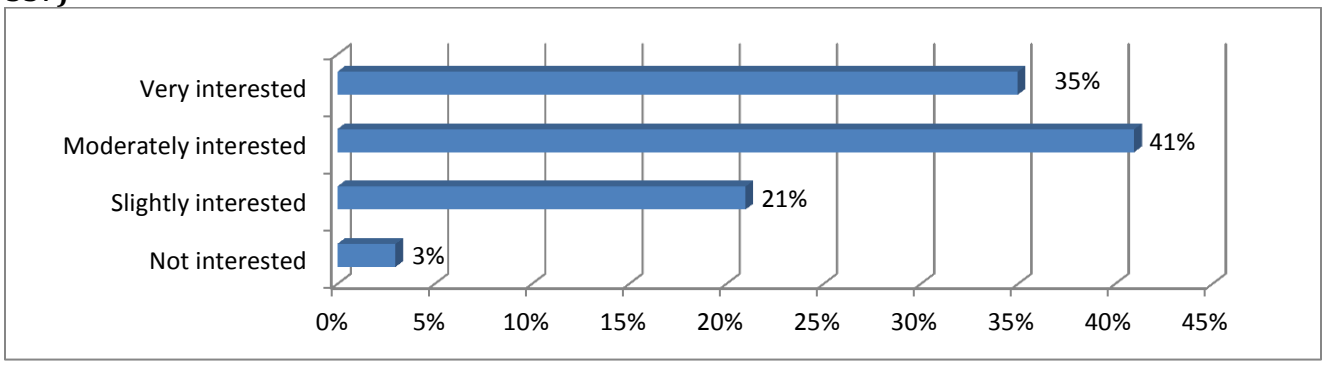
Interprofessional Education

Figure 22: Extent PTs Currently Participate in CPD Activities with other HCPs (n = 557)



PTs were asked their current level of involvement in CPD activities that included other Health Care Professionals (HCPs). The results showed PTs were active in attending CPD with other HCPs with one-third (32%) participating in CPD with other HCPs at least "Often." Public-based PTs more frequently (often & always) participated in CPD with other HCPs compared to PTs working in the private sector (40% and 22% respectively). Additionally, further demographic analysis showed the earlier the year of graduation from PT training, the more frequently PTs currently participated in CPD with other HCPs (1989 or earlier; 41%), (1990-1999; 37%), (2000-2009; 25%), (2010 or later; 17%).

Figure 23: Extent PTs are Interested in Participating in CPD Activities with other HCPs (n = 557)



PTs were interested in participating in CPD activities with other HCPs, with approximately three-quarters (76%) indicating they were at least moderately interested.

A high number of PTs in both sectors were interested in working with other HCPs, as 82% of PTs working in the public sector were at least moderately interested and a comparative 70% of PTs in the private sector had the same level of interest. As with current level of involvement, the earlier the year of graduation from PT training, the more PTs were at least moderately interested in attending CPD with other HCPs (1989 or earlier; 83%), (1990-1999; 79%), (2000-2009; 74%), (2010 or later; 58%). This data supports that recent PTs are more exposed to working with other HCPs during their graduate training and also the fact that those working in public practice may work more in an interprofessional health care team in the hospital environment. These two factors may ultimately impact their preference to attend CPD with other HCPs.

With respect to what PTs considered to be their primary area of practice, more who were "very interested" in participating in CPD with other HCPs were in pediatrics (56%), neurology (44%), multisystem (44%), or cardiorespiratory (36%). It appeared there may be a gap between level of interest and actual participation with other HCPs, which could be due to the availability of CPD with other HCPs which represent an opportunity for CPD educators.

Table 12: Other HCPs attended CPD with

Rank	Other HCPs attended CPD with	# of responses
1	Occupational Therapists	357
2	Physicians	256
3	Nurses (RN, NP, CHN)	201
4	Massage Therapists	93
5	Chiropractors	84

PTs were asked to list interprofessional education they had attended in the last three years with HCPs other than physiotherapists. Six hundred and ninety-seven responses were given listing other HCPs. The most common professionals PTs had attended education with were Occupational Therapists (OTs) (357 responses). This in not unexpected as it is not uncommon for PTs to collaboratively work with OTs as part of a health care team within the rehabilitation sciences. Other professionals mentioned included Physicians (256 responses), Nurses (including RNs, Nurse Practitioners, and Community Health Nurses) (201 responses), and others (see Appendix E: Detailed Tables from Results – Table 12a for a full list).

Table 13: Clinical CPD attended with other HCPs

Rank	Clinical Topic Areas attended with other HCPs	# of responses
1	Orthopaedics/musculoskeletal/neuromuscular	112
2	Neurology	92
3	Sports/exercise	77
4	General education	75
5	Acupuncture and IMS	47

In terms of the type of CPD attended with other HCPs, there were 716 responses. Sixty professional topics areas were listed (8% of responses) and 656 clinical topic areas were listed (92% of responses). The clinical topic area most commonly attended with other HCPs was orthopaedics/musculoskeletal/neuromuscular (112) followed by neurology (92) (see Appendix E: Detailed Tables from Results– Table 13a for details).

Table 14: Professional CPD Previously Attended with other HCPs

Rank	Professional Topic Areas Attended with other HCPs	# of responses
1	Business skills	29
2	Managing clients	9
3	Communication skills	4
3	Occupational health and safety	4
3	Technology	4
4	Aboriginal issues	3
4	Ethics	3
5	Post-secondary education	2

Of the professional topics PTs had attended with other HCPs, the most common courses were on the topic of business skills (29), followed by managing clients (9) (see Appendix E: Detailed Tables from Results – Table 14a for details).

Table 15: Clinical CPD Topics PTs are interested in attending with other HCPs

Rank	Clinical Topic Areas Interested in attending with other HCPs	# of responses
1	Orthopaedics/musculoskeletal/neuromuscular	96
2	Neurology	70
3	General practice	58
4	Sports/exercise	48
5	Pain management	37

When asked what CPD activities PTs would be interested in attending with other HCPs, 847 responses were given. PTs were asked for a list of the top three CPD activities they would be interested in attending with other HCPs in the future. Of the responses given, 125 listed general conferences/lectures/courses without any specific topic. Of the remaining, 484 listed clinical topics, 122 listed professional topics, and 116 listed other HCPs they would like to attend CPD with but without naming a topic.

The clinical area PTs were most interested in attending with other HCPs was orthopaedics/musculoskeletal/neuromuscular (96), followed by neurology (see Appendix E: Detailed Tables from Results – Table 15a for details). This is consistent with the above Table 13 and shows that PTs have already attended CPD with these professionals and would like to continue to do so.

Table 16: Professional CPD Topics PTs are interested in attending with other HCPs

Rank	Professional Topic Areas interested in attending with other HCPs	# of responses
1	Business skills	40
2	Collaboration with HCPs	21
3	Communication skills	18
4	Client management	13
5	Community health/wellness	7

For professional topic areas, the CPD activity PTs want to attend with other HCPs was most commonly business skills, which included subjects such as business management, leadership skills, teamwork, and change management (see Appendix E: Detailed Tables from Results – Table 16a for a full list).

Preferred CPD format

Table 17: Preference for Learning Across CPD Activity Formats (n = 557)

CPD Format	1 Least Preferred	2	3 Neutral	4	5 Most Preferred	Preferred 4 + 5
a) Clinical hands-on course	1%	3%	8%	24%	64%	**88%**
b) Self-study (e.g. literature review, accessing clinical resources)	3%	7%	21%	43%	26%	**69%**
c) Mentoring	7%	7%	26%	34%	26%	**60%**
d) Self-paced online activity (e.g. online module)	8%	11%	25%	36%	20%	**56%**
e) Small group session (i.e. peer study group and journal club)	7%	12%	26%	41%	14%	**55%**
f) Lecture	4%	9%	33%	48%	6%	**54%**
g) Conference	8%	10%	35%	37%	10%	**47%**
h) Online session (live) (e.g. webinar, course)	9%	19%	30%	32%	10%	**42%**
i) Videoconference (live)	11%	20%	40%	25%	4%	**29%**
j) Teleconference (e.g. live CPA monthly session)	22%	26%	34%	15%	3%	**18%**

When asked to rate their preference for each of ten CPD formats, PTs' three most preferred (aggregate of 4 + 5 preference scale) were clinical hands-on courses (88%), self-study (69%), and mentoring (60%). This is consistent with Table 7 where the majority of PTs (73%) participate in clinical hands-on activities either twice per year or yearly, with over one-half (56%) spending 11 or more hours participating in a typical year. The preference levels for self-study and self-paced online activities suggest that PTs have a higher preference for individual-based CPD in comparison to group learning. It is interesting to note that conferences were preferred by only 47% of PTs. Generally conferences are the most preferred CPD learning format by physicians which confirms the needs of PTs for hands-on skill-based courses based on the nature of their work as compared to pure information dissemination which is typically seen in conference-based learning.

With respect to geographic location, preference (aggregate of 4 + 5 preference scales) for lectures was slightly higher for urban-based PTs in comparison to PTs in rural locations (56% versus 43% respectively). Additionally, more rural-based PTs preferred live videoconference format (45% versus 27%) and live online sessions such as webinars (63% versus 40%) in comparison to urban-based PTs which is likely due to the lack of availability of in person CPD in rural areas and the need for technology-enabled learning format in order to access CPD.

Although overall preference for clinical hands-on courses was high, it was noticeable higher for private-based PTs in comparison to public-based PTs (93% versus 82%). Conversely, public-based PTs had higher preference levels for conferences (54% versus 41%) and lectures (60% versus 50%).

The year of graduation from PT training revealed differences with respect to preferred CPD formats. Specifically, the later year of graduation, the higher the percentage PTs indicated they mostly preferred clinical hands-on courses (2010 or later – 83%; 2000-2009 – 68%; 1990-1999 – 59%; 1989 or earlier – 57%) and mentoring (2010 or later – 53%; 2000-2009 – 32%; 1990-1999 – 22%; 1989 or earlier – 14%).

In terms of looking at different demographic groups, PTs trained in Canada (63%) preferred mentoring format more than PTs trained internationally (51%).

Comments by 47 PTs indicated preferences for various learning formats. Many PTs stated that they preferred online courses and vodcasts because of the convenience of location, savings on travel, and ability to do it in their own time (11 comments). Many PTs also mentioned barriers to CPD. For example, PTs mentioned travel and tuition fees as a barrier (12 comments), as well, PTs who commented they were located in rural areas emphasized the same barriers related to accessibility and travel (7 comments).

Additionally, when asked why CPD activities were impactful on practice, the second most common response was the type of learning format by 191 PTs (see Table 22). In order of preference were hands-on or practical sessions (147 comments), online format (e.g. webinar or vodcast) 21, and small groups (17 comments), consistent with Table 17 above.

Timing of CPD

Table 18: When PTs Prefer to Participate in CPD Activities (n = 557)

Time of Day	Weekday	Weekend	Not Preferred	Total
a) Morning	29%	48%	23%	**100%**
b) Lunch	37%	25%	38%	**100%**
c) Afternoon	28%	41%	31%	**100%**
d) Evening	57%	6%	37%	**100%**

To determine when PTs prefer to participate in CPD, respondents were asked if they would prefer CPD on a weekday, weekend or not at all for particular times of day. PTs' higher levels of preference were to attend evening-based CPD activities on a weekday (57%), followed by morning-based CPD activities on a weekend (48%). Further demographic analysis revealed that workplace setting (i.e. private and public) appeared to influence preference.

- Morning [public – weekday 43%]; [private – weekend 62%]
- Lunch [public – weekday 57%]; [private – not preferred 48%]
- Afternoon [public – weekday 46%]; [private – weekend 54%]
- Evening [public – not preferred 51%]; [private – weekday 66%]

Specifically, a higher percent (57%) of PTs working in the public sector preferred lunch-based CPD activities that were on a weekday. In comparison, 48% of private PTs indicated they did not prefer CPD activities during this time frame.

For PTs working in the private sector, a higher percent (66%) preferred evening-based CPD activities that were on a weekday. In comparison, 51% of public PTs indicated they did not prefer CPD activities during this period of time.

3.2.4 Involvement: Developing, Organizing, or Teaching CPD Activities

Table 19: PTs Participation in Developing, Organizing, or Teaching CPD (n = 557)

Role	Teaching/Supervising a PT Student	Developing, Organizing, and/or Teaching CPD
Yes	39%	25%
No	61%	75%

PTs were asked to indicate if they were involved in the development, organization or teaching of CPD activities. Some PTs were involved in teaching/supervising students (39%) and some were active in developing, organizing, and/or teaching CPD (25%). It should be noted that two percent or less of PTs indicated their primary role involved education or research (see Figure 12). This suggests that the cohort of PTs in Table 19 above who indicated they were involved in teaching or developing/organization CPD were doing so in addition to their other practice roles (i.e. clinical care or administrative/managerial work). Additionally, it suggests opportunities exist to grow capacity within the PT profession in BC to increase the percentage of those teaching/supervising students, and/or in developing, organization, and/or teaching CPD.

When looking further into those who were teaching/supervising PT students or developing, organizing, and/or teaching CPD, it was found that those involved in these activities were more likely to be working in the public sector and be working full-time. Full-time PTs (46%) were more involved in teaching/supervising a PT student than those working part-time (25%) as well as being more involved in developing, organizing, and/or teaching CPD (full-time – 28%; part-time – 19%). Compared to those not involved in teaching/supervising PT students, those involved with students were more likely to be working in a hospital or post-secondary institution. Additionally, those involved in CPD organization were slightly older than those not involved.

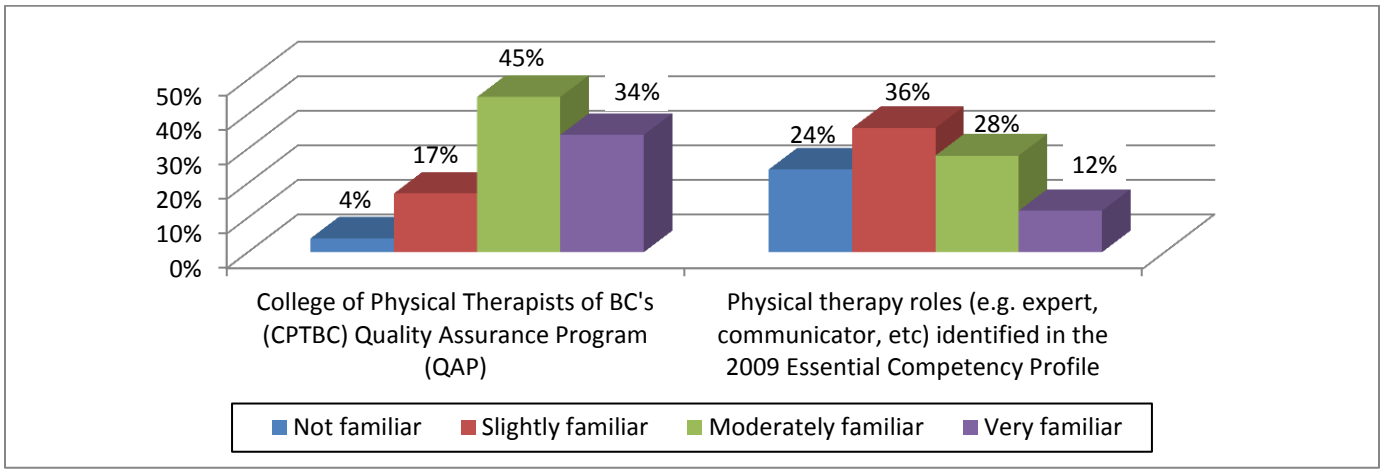
When asked for further details in their involvement with developing, organizing, and/or teaching CPD, 126 PTs listed a variety of responses. PTs mentioned a combination of factors such as job role, topic area, or format of the CPD activity, and many PTs had been involved in more than one CPD activity. A total of 126 PTs listed the following comments regarding further involvement in CPD:

- Teaching/facilitating education: 38 PTs
- Organizing/developing activities: 31 PTs
- Mentoring: 21 PTs
- In-services/case studies at work: 40 PTs

Of the comments made, the most common topic areas of CPD were orthopaedics/ musculoskeletal/neuromuscular (26 responses), neurology (10 responses), cardiorespiratory (7 responses), and sports/exercise (7 responses) which confirms responses to early questions on learning needs and areas of interest. Further details of involvement are in Appendix E: Detailed Tables from Results – Table 29.

3.2.5 Knowledge of QAP and Competency Profiles

Figure 24: Familiarity with the QAP and Essential Competency Profiles (n = 557)



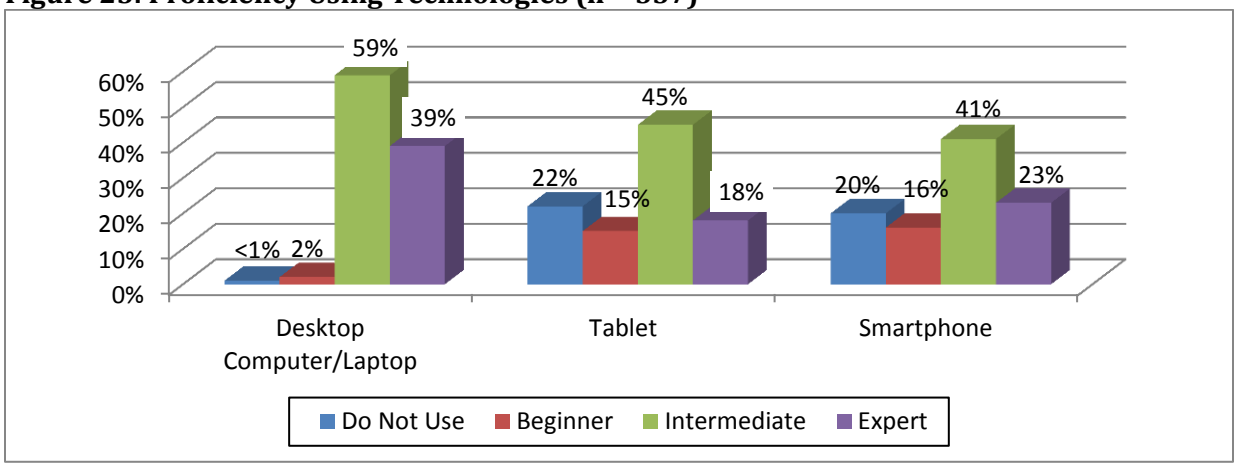
The College of Physical Therapists of BC Quality Assurance Program (QAP) is designed to monitor and support safe, ethical, and effective practice. It incorporates an annual self-report, competence assessment, and practice support. PTs were asked how familiar they are with this program. Thirty-four percent (34%) were very familiar and 45% were moderately familiar. Three PTs indicated dissatisfaction with the current QAP process. In the final question of the survey a few PTs commented that CPD credits should either complement or replace the QAP.

The Canadian Alliance of Physiotherapy Regulators developed the competency profiles to guide PTs in various competencies useful for their role. The latest version is the 2009 *Essential Competency Profile for Physiotherapists in Canada*, and PTs were asked how familiar they were with the roles. Familiarity levels were low with 12% stating they were very familiar and 28% moderately familiar.

3.2.6 Technology Usage: at Work and in CPD

Proficiency with Technology

Figure 25: Proficiency Using Technologies (n = 557)

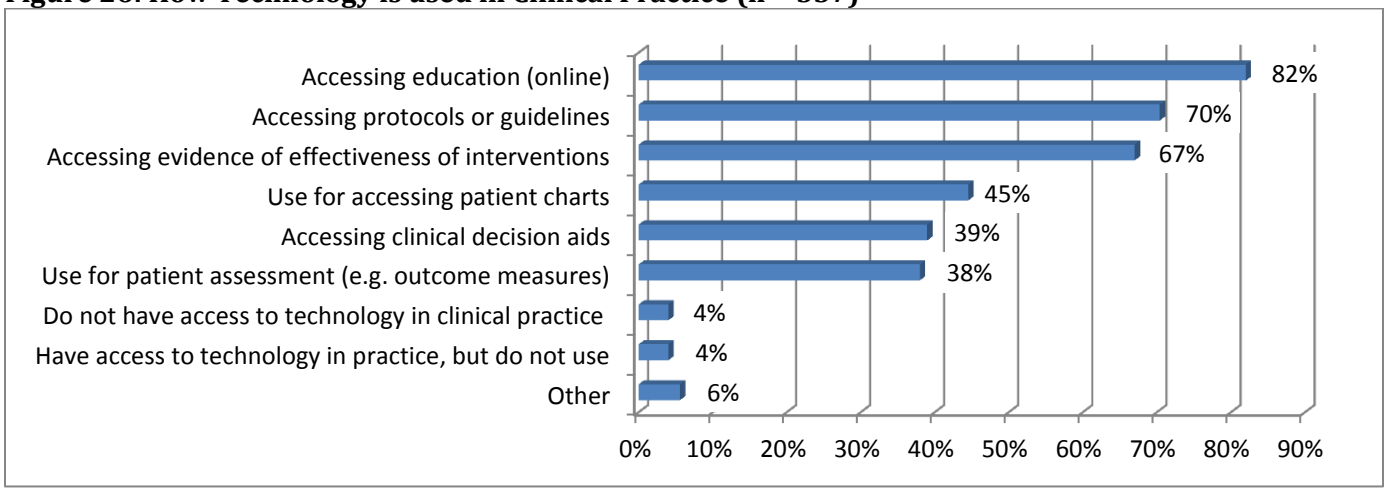


PTs were asked to indicate their proficiency in using several different kinds of technologies both for education, learning and work. Approximately two-thirds of PTs indicated they were at least at an intermediate proficiency with using computers, laptops, tablets, and smartphones.

For computers/laptops 98% of PTs considered themselves to be intermediate or expert users. For tablets, 63% were intermediate or expert, and for smartphones 64%. Tablets and smartphones had the least usage with 22% and 20% respectively not using these technologies.

Use of Technology

Figure 26: How Technology is used in Clinical Practice (n = 557)



The importance of technology can be seen when PTs were asked how they used the technologies in Figure 26, and various functions were used frequently with only 8% (45 responses) of PTs indicating they either did not have access to technology in their clinical practice or they had access to technology in practice, but chose not to use it. Of the remaining 92% (or 512 PTs) that indicated how technology was used in clinical practice, the most common usage was for accessing education online (82%). Other than education, technologies were mostly used for accessing protocols or guidelines (70%) and accessing evidence of effectiveness of interventions (67%).

Comments on "Other" uses for technology were made by 31 PTs which included general communication (6 comments), patient education (5 comments), reports and presentations (3 comments), and to do research (3 comments). Also mentioned were activities such as billing (2 comments), documentation (2 comments), learning about conditions (2 comments), scheduling (2 comments), data storage (1 comment), and teaching (1 comment).

3.2.7 Inventory of Practice Expertise

Through this needs assessment a large inventory of practice expertise has been built. PTs were asked to list PTs they believed to have clinical and/or teaching expertise and respondents named up to six each. Through this a total of 1,158 responses were given listing 439 names. The most popular areas of expertise are listed below in Table 20, and overall most popular PTs with more than ten responses each are listed in Table 21. See Appendix E: Detailed Tables from Results – Table 20a for more details by area of expertise.

Table 20: Most Popular Areas of Expertise

Rank	Area of Expertise	# of responses
1	Orthopaedics/musculoskeletal/ neuromuscular	506
2	Neurology	166
3	Paediatrics	81
4	Cardiorespiratory	54
5	Pain management	46
5	Sports/exercise	46
6	Vestibular rehab	40
7	Women's health	31
8	Acupuncture and IMS	19
9	Arthritis and osteoporosis	14
10	Hand therapy	13

Table 21: Most Popular PT Experts

Rank	PT Expert	# of responses
1	Carol Kennedy	89
2	Diane Lee	67
3	Deb Treloar	45
4	Libby Swain	37
4	Linda-Joy Lee	37
5	Cathy Eustace	23
6	Neil Pearson	22
7	Bahram Jam	21
8	May Nolan	20
9	Alison Hoens	19
9	Bernard Tonks	19
9	Cathy Hazzard	19
10	Kate Kennedy	13
11	Nicola Acerra	12
12	Jan Lowcock	11
13	Rick Celebrini	10
14+	423 PTs named	9 or fewer responses

The most popular areas of expertise were consistent with previously mentioned preferred subject areas in this needs assessment. Orthopaedics/musculoskeletal/neuromuscular was the most popular (506 responses) followed by neurology (166 responses).

3.3 What Factors Influence the Landscape of CPD

3.3.1 What makes CPD impactful on PTs' practice

CPD Activities that Have Been Impactful on Practice

Table 22: Reason CPD activities have been impactful

Rank	Reason for Impact	# of responses
1	Clinical relevance/practical usage of lessons learned	528
2	Format factor (e.g. online course, clinical hands-on)	191
3	Presenter factor (e.g. presentation skills, expertise)	133
4	Evidence –based activity	118
5	Content factor (e.g. topic of interest, handouts/resources)	85
6	Networking with colleagues	45
7	New skills learned	26
8	Multidisciplinary	18
9	Length of time	11
9	Low cost	11
10	Venue	6

PTs were asked about CPD they had attended over the past three years that had an impact on their day-to-day practice. Results were consistent with other survey responses in regards to preference. The top reasons CPD activities were seen to be impactful were the clinical relevance/practical usage of the lessons learned (528 responses), the format of the course (such as hands-on or online) (191 responses), and the expertise/presentation skills of the teacher (133 responses). See further details in Appendix E: Detailed Tables from Results – Table 22a.

The literature review findings suggested that CPD activities that showed direct and/or specific relevance to practice were particularly motivating. This links to the large number of comments above where PTs identified the clinical relevance/practical usage of lessons learned as the more common reason why they found CPD activities impactful.

CPD Activities that Have Not been Impactful on Practice

Table 23: Reason CPD activities were not impactful

Rank	Reason CPD activities were not impactful	# of responses
1	Not clinically applicable	84
2	Content disconnect (e.g. wrong audience for topic)	38
3	Presenter factor (e.g. poor quality presentation)	26
4	Too much theory/too little hands-on	12
5	Not evidence-based or poorly referenced	5
6	Too much time to complete	4

When asked to list up to three CPD activities attended in the last three years that were not impactful to their day-to-day practice, 147 responses were given. The most common reason was that the CPD activity was not clinically applicable (84 responses). This is consistent with above responses where the clinical content of the course was seen to be very important. See Appendix E: Detailed Tables from Results – Table 23a for further details.

3.3.2 Barriers to PT Participation

Table 24: Barriers to CPD Participation (n = 557)

Barriers to CPD Participation	Never	Seldom	Sometimes	Often	Always	Often + Always
a) Cost of CPD (registration, travel)	1%	5%	19%	40%	35%	**75%**
b) Social/family obligations	5%	19%	30%	27%	19%	**73%**
c) Professional obligations (e.g. employment commitments, time away from practice)	2%	7%	29%	45%	17%	**62%**
d) Cost of CPD (loss of income)	4%	15%	25%	30%	26%	**56%**
e) Availability of CPD that interests me	7%	13%	36%	29%	15%	**44%**
f) Length/duration of CPD activity (e.g. number of hours)	1%	17%	41%	32%	9%	**41%**
g) Availability of childcare	63%	8%	8%	10%	11%	**21%**

Looking at factors that were more frequently (aggregate of often and always) barriers to participating in CPD, the cost of CPD (registration and travel – 75%) and social/family obligations (73%) were more frequently reported barriers for PTs.

Further analysis demonstrated social/family obligations were more frequently a barrier for mid-career (graduated 1990-1999; 64%) PTs. Barrier level of this factor was similar for early (2000-2009; 44%) and late-career (1989 or earlier; 41%) PTs, and was low for recent graduates (2010 or later; 17%). Though the data showed fewer PTs who indicated availability of childcare was more frequently a barrier, it should be noted this factor was more frequently a barrier for approximately early (2000-2009; 31%) and mid-career (1990-1999; 35%) PTs rather than recent graduates (2010 or later; 7%) or late-career (1989 or earlier; 2%) PTs.

PTs working full-time found professional obligations to be a bigger barrier (68%) than those working part-time (48%), and part-time PTs found social/family obligations (62% compared to 39% for full-time) and availability of childcare (39% compared to 14% for full-time) to be bigger barriers than those working full-time. Of note, there were no statistically significant differences in the attitudes of PTs working in urban or rural locations with respect to the above barriers to CPD participation.

Additional comments PTs provided on barriers to attending CPD activities included: time commitment as a barrier (3 comments), their employer not supportive (1 comment), and as an enabling factor that travel was not required because they lived in an urban centre with ample CPD opportunities (2 comments).

Financial Barriers

Cost of registration travel (75%) and cost of loss of income (56%) were frequently barriers to CPD attendance for PTs. Similarities were observed between public (54%) and private-based (58%) PTs in the extent to which they believed the cost of CPD (loss of income) was a barrier to their CPD participation, however, there were larger differences in attitudes with respect to the cost of CPD (registration, travel), with the data showing it was more frequently a barrier for public-based PTs compared to private-based PTs (84% and 66% respectively).

When PTs were asked what format of CPD they preferred, a few commented on travel and tuition fees as a barrier (12 comments). As well, when asked what influenced them to participate in CPD, several replied that cost determined their participation (7 comments). When PTs were asked what the future of CPD should look like, 64 responses related to increasing funding support/reducing cost of CPD, and 44 responses mentioned rural barriers such as travel costs and lack of courses available.

In providing closing comments to the survey, 22 responses mentioned barriers to attending CPD such as financial, lack of availability in rural areas, time burden, and location or travel difficulties. Financial barriers were often cited as one reason for preferring online courses, because they allow PTs to save money on travel and accommodation expenses.

Availability of CPD that Interests Me

Available CPD activities that were of interest to PTs was mentioned as a barrier by 44% of PTs "Often" or "Always" and mentioned in qualitative comments by five PTs. Finding topics of interest was also mentioned by PTs with topic area/learning objectives being the strongest influence on attending CPD (96%). And when asked what their vision of the future of CPD would look like 28 PTs mentioned that CPD in specialized topics is needed.

Rural Barriers

When asked specifically what barriers they face to CPD attendance, nine comments suggested the location of CPD and distance required to travel to attend as a barrier for rurally based PTs. When asked how often they participate in CPD activities, rural-specific barriers were also mentioned such as living in a rural area meant a lack of CPD available (6 responses), as well as financial burden for attending CPD in terms of travel and accommodation (8 responses). When asked about their preferences for different learning formats, PTs mentioned travel (12 responses) as a barrier and also specifically about living in rural areas with little access (7 responses).

When asked what their vision of the future of CPD would look like for PTs, 44 comments were mentioned related to rural-based barriers which were tied in with the response from 72 PTs about needing to increase accessibility to CPD. PTs commonly mentioned an increasing need for funding for travel and accommodation as well as access to online courses which overcome many physical barriers. When asked for any final closing comments 22 PTs mentioned barriers with ten PTs specifically mentioning lack of availability for rural PT and six PTs mentioning location or travel difficulties.

3.3.3 Enablers to Increasing Participation in CPD

Influences on CPD Attendance

Table 25: Activity-Related Influences on Participation in CPD Activities (n = 557)

Influences on CPD Participation	Never	Seldom	Sometimes	Often	Always	Often + Always
a) Topic area/learning objectives	<1%	<1%	3%	30%	66%	**96%**
b) Intrinsic desire to learn	<1%	2%	11%	33%	54%	**87%**
c) Extend/change my skills and knowledge or area of practice	<1%	2%	16%	40%	42%	**82%**
d) CPD improves practice	1%	3%	14%	43%	39%	**82%**
e) Fill a gap in my knowledge	<1%	3%	17%	49%	31%	**80%**
f) Location of CPD	1%	5%	20%	47%	27%	**74%**
g) Presenter	1%	5%	24%	52%	18%	**70%**
h) Colleague recommendation	8%	9%	36%	40%	7%	**47%**
i) Activity learning objectives	8%	12%	36%	34%	10%	**44%**
j) Networking with colleagues	5%	23%	39%	28%	5%	**33%**
k) Credentialing/certification offered	7%	22%	39%	26%	6%	**32%**
l) Workplace requirement/employer expectation	37%	29%	23%	9%	2%	**11%**
m) College competency exams	42%	28%	22%	6%	2%	**8%**

Topics
Topic area/learning objectives more frequently (aggregating Often and Always) influenced respondents' CPD participation. There was no significant difference between public and private-based PTs in the extent to which topic area influenced CPD participation. At various points in the survey, PTs repeatedly commented on the importance of having a wide variety of topics related to clinical practice and the specialty areas that represent the scope of practice of the profession. Further, the explanation for why PTs found previously attended CPD activities impactful were due to the clinical applicability/practical or daily usage of course content. Additionally, when asked about what they wanted the future of CPD to look like, having availability of CPD in specialized topics was mentioned.

Intrinsic Desire to Learn, Improve Practice Skills & Knowledge
After topic area, an "intrinsic desire to learn" (87%), extend skills/knowledge (82%), the idea that "CPD improves practice" (82%), and filled a gap in knowledge (80%) were more frequently influences on CPD participation.

Location/Accessibility of CPD
The location of CPD activities often or always influenced attendance for 74% of respondents. A number of PTs further commented on the venue being why they thought a course was impactful. This links to comments from others on a lack of accessibility for PTs in rural areas as a perceived barrier to attendance. Of note, when asked what the future of CPD should look like for physical therapy in BC, PTs suggested increasing accessibility to CPD activities, particularly to PTs in rural locations. The data supports the fact that access to CPD opportunities is crucial and CPD opportunities may be lacking to support the profession.

There was no noticeable difference in the attitude of urban and rurally-based PTs in their assessment of the frequency that location/accessibility of CPD influenced their CPD participation, in spite of the fact that rural PTs have to travel more frequently than urban PTs (see Figure 17). Specifically 79% of rural-based PTs indicated this factor often or always influenced participation, compared to 74% of urban-based PTs. However, those PTs working part-time found the location of CPD to be a bigger influence (82%) on attendance than those working full-time (72%).

Presenter factors

The presenter of the CPD activity more frequently (70%) influenced PT participation in CPD which speaks to the respect for PT gurus in this group of health care professionals. When asked why CPD had been impactful, having a presenter known to be an expert in their field or who had a good teaching/presenting style was seen as important. Conversely, poor presenter factors such as being inexperienced, a poor communicator, or poor organizational skills were mentioned as reasons why previously attended CPD was not impactful.

Other factors

It appeared that factors related to formal requirements such as the CPTBC competency exams and workplace requirement/expectation less frequently influenced PTs decision to participate in CPD. However, with respect to workplace requirement/expectation, further demographic analysis revealed this factor was more influential for public-based PTs compared to private-based PTs (47% vs. 22% respectively indicated at least sometimes influences CPD participation).

The results showed credentialing/certification offered influenced approximately one-third of PTs to participate in CPD. Demographic analysis indicated that this factor often or always influenced almost one-half (48%) of PTs early in their career (graduated 2010 or later) to participate in CPD, compared to mid-career PTs (37% - graduated 2000 – 2009; 29% - graduated 1990 – 1999) or late-career PTs (22% - graduated 1989 or earlier). This suggests that credentialing/certification opportunities appear to be a higher driver for early-career PTs compared to mid or late-career PTs.

The most common response to what influenced attendance in CPD activities were: cost determines their participation (7 responses). Also mentioned was difficulty with accessibility/location (3 responses) and an intrinsic desire to learn (2 responses).

Table 26: How PTs identify their CPD learning needs (n = 557)

Influences on CPD Participation	1 Not at all Influential	2	3 Neutral	4	5 Very Influential	N/A	Influential 4 + 5
a) Through reflective practice (e.g. reflection on day-to-day practice)	1%	2%	7%	31%	57%	2%	**88%**
b) Through collegial discussion	3%	3%	14%	41%	37%	2%	**78%**
c) From a patient encounter	3%	4%	15%	30%	47%	1%	**77%**
d) Through emerging practice	2%	2%	16%	37%	40%	3%	**77%**
e) Through formal self-evaluation (i.e. CPTBC Annual Self-Report)	22%	17%	34%	17%	9%	1%	**26%**
f) Through workplace performance review	23%	14%	27%	11%	8%	17%	**19%**

When looking at practice-related or professional influences on CPD attendance, there were several factors that influenced PTs to attend CPD activities. The most influential on a scale from "Not at all influential" to "Very influential" was through reflective practice (88%), again showing PTs' self-motivation to learning. This was followed by collegial discussion (78%), from a patient encounter (77%), and through emerging practice (77%). The most common influences impacting CPD participation were: an intrinsic desire to learn (9 comments). Also mentioned by several PTs were comments on how accessibility (1 comment), availability (2 comments), and financial burden (2 comments) influence their attendance.

These finding suggest that factors that influence PTs to participate in CPD activities are those that emerge from informal reflection of various practice experiences rather than those based on formal evaluation or structured review-based processes.

4. Synthesized Findings and Recommendations

Synthesized findings and recommendations are directed towards stakeholder organizations involved in the development and delivery of CPD for physiotherapists in British Columbia. They are grouped into six categories, addressing key findings from the Needs Assessment results.

1. Centralizing CPD
2. Standards in CPD
3. Strategies to engage physiotherapists in CPD
4. Designing CPD responsive to needs of physiotherapists
5. Funding strategies
6. Linkages between faculty development and CPD

1. Centralizing CPD

Note: the UBC Faculty of Medicine has a mandate to provide and support all departments and divisions of health care professionals (e.g. physicians, physiotherapists, occupational therapists, etc.) within the Faculty of Medicine (FoM). There is also a high priority for interprofessional learning within FoM's mandate.

1.1 Consider how one common neutral provincial body could support CPD for PTs by formalizing links between PT organizations and an academic institution.

1.1.1 Discuss the potential to create networks to share processes and resources (e.g. developing content, sharing contact lists, databases and registration systems, videoconferencing facilities, learning venues, evaluation tools, etc.) as a more efficient and centralized way of providing CPD for PTs.

1.1.2 Recruit a CPD coordinator in the UBC Faculty of Medicine's Division of Continuing Professional Development specifically for Physical Therapy CPD, with the goal of effectively and efficiently coordinating this collective effort.

2. Standards in CPD

Note: There are no formal CPD requirements for physiotherapy professionals across Canada, however, a large number of PTs who completed this Needs Assessment suggested that CPD should be more regulated and be required for licensure similar to other health professions.

2.1 Form a provincial working group to explore outlining CPD expectations and requirements for physiotherapists that would include representatives from CPTBC, PABC, CPA, and other identified stakeholder groups, including practicing PTs.

2.1.1 Clarify and educate PTs on the continuing competency requirements and standards for PTs in BC and develop metrics to allow PTs to gauge appropriateness of their current level of CPD participation in a typical year for their area of practice.

2.1.2 Explore the possibility of establishing standards for CPD content in order to facilitate evaluation of learning across a diverse landscape of CPD providers and courses.

2.2 Clarify the expectations of PTs associated with participation in the CPTBC's Quality Assurance Program (QAP) and how CPD can be a tool to drive professional focus.

> **2.2.1 Offer** in-person and technology facilitated information sessions (e.g. 'Town Hall' Meetings) and engagement strategies to create awareness and increase familiarity with aforementioned expectations and further address questions, concerns, or comments PTs may have about the QAP.

3. Strategies to Engage Physiotherapists in CPD

3.1 Increase the geographic distribution (i.e. 'close to home') of in-person CPD offered beyond the lower mainland or Victoria to facilitate local PT participation and reduce costs and time associated with travel for CPD.

3.2 Increase the availability of CPD activities which are shorter in duration and align with PTs schedules in order to facilitate increased participation.

3.3 Emphasize the direct practical benefits for learners and their patients to increase interest and participation.

3.4 Communicate with PTs through email and realize that PTs look to PABC, colleagues, independent course providers, and the CPA to find out about CPD opportunities.

3.5 Encourage workplaces in the private and public practice domains to investigate how they can better support PTs participation in CPD (e.g. increasing staff and locum coverage).

> **3.5.1 Facilitate** opportunities for PTs to participate in CPD during work hours (e.g. 'lunch and learn' sessions) to address any professional obligations that may hinder participation.

3.6 Establish learning networks across areas of clinical interest to allow PTs to create collegial networks so evidence-based knowledge and skills continues to be integrated into practice.

3.7 Expand opportunities for PTs to participate in CPD on clinical topic areas with other health professionals (e.g. OTs, physicians, nurses, etc.), which focuses on content that:

> **3.7.1 Promotes** active participation among healthcare professionals; enhances patient safety; fosters respect, communication, and understanding professional roles.

3.8 Develop readily accessible tools to support PT documentation of CPD learning needs as they are realized through reflective practice, collegial discussions, practice encounters, and/or emerging practice areas.

3.9 Connect PTs to reputable online resources where they can access clinical practice protocols, guidelines and evidence about effective (i.e. best practice) interventions.

> **3.9.1 Continue** current efforts to support those less experienced with technology with clear, concise, and easy to access tutorials on engaging in technology-based CPD.

4. Designing CPD Responsive to Needs of Physiotherapists

4.1 Share findings on PTs top preferred content areas with CPD educators and encourage providers to continue to integrate these identified needs into educational programming.

- Clinical: orthopaedics/neuromuscular/musculoskeletal; neurology; sports/exercise; pain management; paediatrics.
- Professional: clinical skills (e.g. charting); business skills (e.g. financial management, managing office staff, searching for literature, etc.), communication skills (e.g. conflict management, etc.); as well as client management (e.g. motivating clients, managing difficult clients, etc.).

4.1.1 Consider the relevant clinical content as perceived needs that CPD educators can use to draw PTs into interest in other topics that are considered more of an unperceived need (e.g. communication skills, etc.).

4.1.2 Investigate the possibility of a formal accreditation structure and process to accredit CPD courses for PTs (e.g. awarding study credits) which may be required for licensure.

4.2 Design and evaluate impactful evidence-informed CPD programming that:

4.2.1 Demonstrates the clinical relevance, practical usage of lessons learned or describes how practice will be improved.

4.2.2 Utilize speakers identified in the province-wide survey that PTs viewed as experts in areas of physiotherapy as a way to engage PTs in CPD.

4.2.3 Continue building this inventory in order to increase the number of champions engaged in educational delivery for PT students and practicing PTs.

4.3 Ensure format of CPD is tailored to meet learning preferences for PTs and follows best practices in continuing education (e.g. adult learning principles).

4.3.1 Continue to utilize CPD formats such as clinical hands-on courses, conference, and expand CPD offerings to include lesser utilized formats (e.g. live and recorded online sessions) that are readily accessible for the individual PT.

5. Funding Strategies

5.1 Encourage professional organizations such as PABC and CPTBC to advocate at the government levels for CPD funding for PTs in order to support programs and subsidize individual costs and level the playing field amongst all health care professionals.

5.2 Develop a provincial framework involving employers, physiotherapy organizations, and the government to explore funding strategies and models to support PT participation in CPD similar to other healthcare professionals including medicine (e.g. Physician Master Agreement), pharmacy, nursing, etc.

5.3 Mitigate high costs to the individual learner who participates in CPD activities (e.g. tuition) by:

5.3.1Exploring ways to provide lower costs delivery models (technology-enabled learning).

5.3.2 Working more with non-profit organizations with an educational mandate over independent course providers.

6. Linkages between Faculty Development and CPD

6.1 Realize there are key linkages between faculty development and CPD in terms of ensuring that clinical faculty supervising PT students are up to date with clinical practice.

6.1.1 Offer CPD and faculty development to clinical faculty in order to enhance skills of PTs already involved in teaching or supervising PT students.

6.1.2 Support PTs teaching and supervising PT student(s) in an ongoing way by providing paper-based and online tools and resources.

6.1.3 Recognize that there is an opportunity to provide faculty development in order to draw and engage the large percentage of PTs who are not currently involved teaching PT students.

6.1.4 Identify experienced PTs who may be interested in acting as supervisors for students and mentors for PTs new to practice and focus these efforts in rural areas in order to build capacity.

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6. Appendices

Appendix A: Crosstabulations

1 Comparing PTs Working in Public Sector versus Private Sector

Question	Comparison Group	p value	effect size	Higher in:
1.Please help us learn about the formal CPD activities you participate in, by completing the table below				
1.1How often you participate (in a typical year)				
1.1a) Courses part of certification (e.g. Bobath, CPA Orthopaedic Levels, Sports Physio Exam Prep Courses	Public/Private	0.0001	0.308	Private
1b) Clinical hands-on course	Public/Private	0.0001	0.327	Private
1d) Lecture	Public/Private	0.0001	0.335	Public
1f) Teleconference (e.g. live CPA monthly session)	Public/Private	0.0001	0.419	Public
1.2The number of hours you participate in CPD activities (in a typical year)				
1.2a) Courses part of certification (e.g. Bobath, CPA Orthopaedic Levels, Sports Physio Exam Prep Courses, etc.)	Public/Private	0.0001	0.302	Private
1b) Clinical hands-on course	Public/Private	0.0001	0.358	Private
1f) Teleconference (e.g. live CPA monthly session)	Public/Private	0.0001	0.400	Public
2.Indicate your preference for learning in each of the following CPD activity formats				
2a) Clinical hands-on course	Public/Private	0.001	0.185	Private
2b) Conference	Public/Private	0.002	0.176	Public
2c) Lecture	Public/Private	0.023	0.145	Public
2f) Teleconference (e.g. live CPA monthly session)	Public/Private	0.0001	0.202	Public
3.When do you prefer to participate in CPD activities?				
3a) Morning [Weekday public 43%] [Weekend private 62%]	Public/Private	0.0001	0.324	
3b) Lunch [Weekday public 57%] [Not preferred private 48%]	Public/Private	0.0001	0.432	
3c) Afternoon [Weekday public 46%] [Weekend private 54%]	Public/Private	0.0001	0.413	
3d) Evening [Not preferred public 51%] [Weekday private 66%]	Public/Private	0.0001	0.284	
4.Of the formal CPD activities that you have attended in person within the past 3 years as part of your professional development, approximately what percentage did you travel more than 100km?				
Q4 recoded) Travel Over 100km Recoded	Public/Private	0.0001	0.221	Private
5.How much would you expect to pay for a one day CPD activity of clinical content?				
Q5 recoded) Expected Tuition Recoded	Public/Private	0.0001	0.261	Private
6.a what costs do you expect to incur for attending a CPD activity (lost income)				
Q6a recoded) Lost Income Recoded	Public/Private	0.0001	0.525	Private
6.bWhat costs do you expect to incur for attending a CPD activity (travel, accommodation)				
Q6b recoded) Travel Accommodation Expenses Recoded	Public/Private	0.0001	0.188	Private
7.How do you primarily pay the tuition/registration fees (excluding travel and accommodation costs) for CPD activities you attend?				
Q7a) How do you pay the tuition/registration fees for CPD activities you attend? [Shared public 49%] [Self private 84%]	Public/Private	0.0001	0.496	
19.To what extent do the following influence you to participate in CPD activities?				
Q19c) Credentialing / certification offered	Public/Private	0.0010	0.187	Private
Q19h) Workplace requirement / employer expectation	Public/Private	0.0001	0.323	Public
20.Please rate your level of interest in participating in CPD activities on the following areas				

Question	Comparison Group	p value	effect size	Higher in:
Q20c) Educating/supervising physical therapy students	Public/Private	0.0001	0.249	Public
23. From which of the following sources do you currently find out about upcoming CPD activities?				
Q23a) Physiotherapy Association of BC (PABC)	Public/Private	0.0001	0.320	Private
Q23b) Canadian Physiotherapy Association (CPA)	Public/Private	0.0001	0.210	Private
Q23f) Health Authorities	Public/Private	0.0001	0.522	Public
Q23g) Hospitals	Public/Private	0.0001	0.494	Public
24. How do you prefer to find out about upcoming CPD activities?				
Q24h) Notice board	Public/Private	0.0001	0.194	Public
26. To what extent are the following barriers to your participation in CPD activities?				
Q26c) Cost of CPD (registration, travel)	Public/Private	0.0001	0.233	Public
Q26d) Cost of CPD (loss of income)	Public/Private	0.0140	0.153	Private
27. To what extent do you currently participate in CPD activities with other health care professionals?				
Q27) To what extent do you currently participate in CPD activities with other health care professionals	Public/Private	0.0001	0.303	Public
29. To what extent are you interested in participating in CPD activities with other health care professionals?				
Q29) To what extent are you interested in participating in CPD activities with other health care professionals	Public/Private	0.0040	0.156	Public
32. Please indicate your level of satisfaction with the extent to which your workplace supports your participation in CPD?				
Q32) Please indicate your level of satisfaction with the extent to which your workplace supports your participation in CPD?	Public/Private	0.0001	0.335	Private
33. How does your workplace currently support your participation in CPD activities?				
Q33a) Allows CPD participation during work hours (PAID)	Public/Private	0.0001	0.563	Public
Q33b) Allows CPD participation during work hours (UNPAID)	Public/Private	0.0001	0.157	Private
Q33d) Provides in-house CPD	Public/Private	0.0001	0.219	Public
Q33e) Provides funds for CPD participation	Public/Private	0.0001	0.298	Public
34.Please indicate ways that your workplace could realistically support your participation in CPD activities:				
Q34a) Allow CPD participation during work hours (PAID)	Public/Private	0.0001	0.508	Public
Q34c) Provide staff (i.e. locum) coverage	Public/Private	0.0001	0.257	Public
Q34d) Provide in-house CPD	Public/Private	0.0001	0.210	Public
Q34e) Provide funds for CPD participation	Public/Private	0.0001	0.330	Public
Q34f) Facilitate lunch and learn (work colleague presenting on what they learned at an activity)	Public/Private	0.0001	0.197	Public
35.In your opinion, what role(s) should the following bodies/organizations play in CPD?				
Q35.8a) Health Authorities : Funding	Public/Private	0.0001	0.435	Public
Q35.8e) Health Authorities : Promoting	Public/Private	0.0001	0.213	Public
Q35.9a) Practice Sites : Funding	Public/Private	0.0001	0.245	Public
Q35.9b) Practice Sites : Developing Content	Public/Private	0.0001	0.180	Public
56.Please rate your level of profiency using the following technology				
Q56c) Smartphone	Public/Private	0.0001	0.212	Public
57. In your clinical practice, what do you use the above mentioned technologies for?				
Q57f) Use for accessing patient charts	Public/Private	0.0001	0.383	Public
The following will go into the demographic section:				
Q49a) What do you consider your primary area of practice? [General practice public 30%] [muskulo private 81%]	Public/Private	0.0001	0.680	
Q50a) What is your primary physiotherapy or occupational role? [Clinical public 85%; private 91%] [Admin public 8%]	Public/Private	0.0020	0.179	

Question	Comparison Group	p value	effect size	Higher in:
Q51a) Please indicate your area(s) of interest: : Acupuncture	Public/Private	0.0001	0.311	Private
Q51b) Please indicate your area(s) of interest: : Amputees	Public/Private	0.0001	0.274	Public
Q51e) Please indicate your area(s) of interest: : Cardio-Respiratory	Public/Private	0.0001	0.385	Public
Q51i) Please indicate your area(s) of interest: : Concussions	Public/Private	0.0001	0.224	Private
Q51k) Please indicate your area(s) of interest: : Craniosacral Therapy	Public/Private	0.0001	0.198	Private
Q51p) Please indicate your area(s) of interest: : Gerontology	Public/Private	0.0001	0.399	Public
Q51u) Please indicate your area(s) of interest: : IMS	Public/Private	0.0001	0.388	Private
Q51x) Please indicate your area(s) of interest: : Joint Manipulation	Public/Private	0.0001	0.442	Private
Q51ae) Please indicate your area(s) of interest: : Myofascial Release	Public/Private	0.0001	0.325	Private
Q51af) Please indicate your area(s) of interest: : Neurology	Public/Private	0.0001	0.436	Public
Q51ah) Please indicate your area(s) of interest: : Orthopaedics	Public/Private	0.0001	0.312	Private
Q51aq) Please indicate your area(s) of interest: : Shoulders	Public/Private	0.0001	0.387	Private
Q51ar) Please indicate your area(s) of interest: : Sports Medicine	Public/Private	0.0001	0.448	Private
Q51as) Please indicate your area(s) of interest: : TMJ	Public/Private	0.0001	0.329	Private
Q51av) Please indicate your area(s) of interest: : Whiplash	Public/Private	0.0001	0.464	Private

2 Comparing Rural versus Urban PTs

Question	Comparison Group	p value	effect size	Higher in:
1.Please help us learn about the formal CPD activities you participate in, by completing the table below				
1.1How often you participate (in a typical year)				
1.1d) Lecture	Rural/Urban	0.015	0.171	Urban
1.1g) Videoconference (live)	Rural/Urban	0.051	0.145	Rural
2.Indicate your preference for learning in each of the following CPD activity formats				
Q2c) Lecture * Q48 recoded) PopSize Under Over 10000	Rural/Urban	0.008	0.158	Urban
Q2d) Videoconference (live) * Q48 recoded) PopSize Under Over 10000	Rural/Urban	0.035	0.136	Rural
Q2e) Online session (live, e.g. webinar) * Q48 recoded) PopSize Under Over 10000	Rural/Urban	0.003	0.169	Rural
4. Of the formal CPD activities that you have attended in person within the past 3 years as part of your professional development, approximately what percentage did you travel more than 100km?				
Q4 recoded) Travel Over 100km Recoded * Q48 recoded) PopSize Under Over 10000	Rural/Urban	0	0.222	
19. To what extent do the following influence you to participate in CPD activities?				
Q19e) Location of CPD * Q48 recoded) PopSize Under Over 10000	Rural/Urban	0.021	0.144	Rural
20.Please rate your level of interest in participating in CPD activities on the following areas				
Q20c) Educating/supervising physical therapy students * Q48 recoded) PopSize Under Over 10000	Rural/Urban	0.004	0.156	Urban
27. To what extent do you currently participate in CPD activities with other health care professionals?				
Q27) To what extent do you currently participate in CPD activities with other health care professionals (i.e. occupational therapists, massage therapists, chiropractors, physicians, etc.)? * Q48 recoded) PopSize Under Over 10000	Rural/Urban	0	0.193	Urban
33. How does your workplace currently support your participation in CPD activities?				
Q33b) Allows CPD participation during work hours (UNPAID) * Q48	Rural/Urban	0.002	0.131	Urban

recoded) PopSize Under Over 10000				
Q33d) Provides in-house CPD * Q48 recoded) PopSize Under Over 10000	Rural/Urban	0.008	0.112	Urban
Q33d) Other * Q48 recoded) PopSize Under Over 10000	Rural/Urban	0.03	0.92	Rural
34.Please indicate ways that your workplace could realistically support your participation in CPD activities:				
Q34a) Allow CPD participation during work hours (PAID) * Q48 recoded) PopSize Under Over 10000	Rural/Urban	0.032	0.091	Urban
47. Please indicate your primary place of employment:				
Q47a) Please indicate your primary place of employment: * Group professional practice	Rural/Urban	0.01	0.217	Urban more hospital, rural more solo practice
49. What do you consider to be your primary area of practice?				
Q49a) What do you consider your primary area of practice? * Muskuloskeletal/ortho	Rural/Urban	0.056	0.157	Rural more general practice, urban more varied areas of practice
56.Please rate your level of profiency using the following technology				
Q56a) Desktop computer/laptop * Q48 recoded) PopSize Under Over 10000	Rural/Urban	0.018	0.134	Urban more 'expert users'
Q56c) Smartphone * Q48 recoded) PopSize Under Over 10000	Rural/Urban	0.038	0.123	Urban more expert & intermediate users, more rural do not use

3 Comparing PTs by Year of Graduation from Physical Therapy Training

Question	Comparison Group	p value	effect size	Higher in:
(1989 or earlier); (1990-1999); (2000-2009); (2010 or later)				
1.Please help us learn about the formal CPD activities you participate in, by completing the table below				
1.1How often you participate (in a typical year)				
Q1.1a) Courses part of certification (e.g. Bobath, CPA Orthopaedic Levels, Sports Physio Exam Prep Courses, etc)	Grad Year	0.0000	0.233	2010 or later
Q1.1b) Clinical hands-on course	Grad Year	0.019	0.141	2010 or later
Q1.1j) Peer study/skills practice session	Grad Year	0.008	0.148	2010 or later
1.2The number of hours you participate in CPD activities (in a typical year)				
Q1.2a) Courses part of certification (e.g. Bobath, CPA Orthopaedic Levels, Sports Physio Exam Prep Courses, etc)	Grad Year	0	0.221	2010 or later
Q1.2b) Clinical hands-on course	Grad Year	0.016	0.135	2010 or later
Q1.2i) Mentoring (i.e. being mentored)	Grad Year	0	0.178	2010 or later
2.Indicate your preference for learning in each of the following CPD activity formats				

Q2a) Clinical hands-on course	Grad Year	0.002	0.137	2010 or later
Q2g) Mentoring	Grad Year	0	0.19	2010 or later
3. When do you prefer to participate in CPD activities?				
Q3c) Afternoon [weekend - 1989 or later=39%; 1990-1999=36%; 2000-2009=38%; 2010 or later=65%)	Grad Year	0.005	0.129	2010 or later
19. To what extent do the following influence you to participate in CPD activities?				
Q19c) Credentialing / certification offered	Grad Year	0.003	0.134	2010 or later
20.Please rate your level of interest in participating in CPD activities on the following areas				
Q20a) Clinical content (e.g. spinal manipulation, treatment of stroke, etc.)	Grad Year	0.013	0.112	2010 or later
23. From which of the following sources do you currently find out about upcoming CPD activities?				
Q23d) From which of the following sources do you currently find out about upcoming CPD activities… Independent course providers	Grad Year	0	0.179	1989 or earlier
24. How do you prefer to find out about upcoming CPD activities?				
Q24c) Website	Grad Year	0.029	0.127	2010 or later
Q24e) Newsletter	Grad Year	0.001	0.17	1989 or earlier
Q24f) Word of mouth	Grad Year	0	0.194	2010 or later
26.To what extent are the following barriers to your participation in CPD activities?				
Q26e) Social/family obligations	Grad Year	0	0.178	1990-1999
Q26f) Availability of childcare	Grad Year	0	0.238	1990-1999
27. To what extent do you currently participate in CPD activities with other health care professionals?				
Q27) To what extent do you currently participate in CPD activities with other health care professionals	Grad Year	0.024	0.119	1989 or earlier
29. To what extent are you interested in participating in CPD activities with other health care professionals?				
Q29) To what extent are you interested in participating in CPD activities with other health care professionals	Grad Year	0	0.134	1989 or earlier
35.In your opinion, what role(s) should the following bodies/organizations play in CPD?				
Q35.1a) College of Physical Therapist of BC (CPTBC) : Funding	Grad Year	0	0.254	2010 or later
Q35.2a) Physiotherapy Association of BC (PABC) : Funding	Grad Year	0	0.187	2010 or later
42. Did you complete physical therapy training outside Canada? (Demo section)				
Q42) Did you complete physical therapy training outside Canada?	Grad Year	0.001	0.17	1989 or earlier
53. Are you actively involved in teaching/supervising a student(s) enrolled in a rehabilitation training program?				
Q53) Are you actively involved in teaching/supervising a student(s) enrolled in a rehabilitation training program?	Grad Year	0.032	0.126	1989 or earlier & 2000-2009
56.Please rate your level of proficiency using the following technology				
Q56a) Desktop computer/laptop	Grad Year	0	0.187	2010 or later
Q56b) Tablet	Grad Year	0	0.157	2000-2009 & 2010 or later
Q56c) Smartphone	Grad Year	0	0.221	2010 or later & 2000-2009

Appendix B: Findings from Literature Review and Environmental Scan

An initial literature review and environmental scan were conducted to better understand the landscape of CPD for PTs internationally, nationally and provincially. The objective was to further understand how PTs already participate in CPD activities, what their preferences are, what influences them to participate and what are their barriers and enablers for participation. Below are the findings of the literature review and environmental scan. For further details and/or to view the details of the Appendices (*not included in this report*), please contact UBC CPD Research Assistant Allison Macbeth (allison.m@ubc.ca).

Organizational Structure:

- Literature Review Findings
  - Barriers to PT Participation in CPD
  - Facilitators to Increasing PT Participation in CPD
  - Other Factors in increasing PT Participation in CPD
  - PTs' attitudes towards CPD
  - Viable/Desirable Strategies aimed at PTs for CPD
- Environmental Scan Findings
  - BC
  - PT Associations and CPA Divisions outside BC
  - Other Public Organizations outside BC
  - Private Organizations outside BC
  - Findings outside Canada
  - Summary of Environmental Scan
- References
- Resources
  - Appendix 1- CIHI Physiotherapist Workforce in Canada 2011 Data
  - Appendix 2- CIHI Physiotherapists in Canada 2010 Data Tables
  - Appendix 3- CPD Activities in BC
  - Appendix 4- CPD Activities by CPA Associations and Divisions Outside BC (within Canada)
  - Appendix 5- CPD Activities by Other Public Organizations Outside BC (within Canada)
  - Appendix 6- CPD Activities by Private Organizations Outside BC (within Canada
  - Appendix 7- PT CPD Activities in Australia
  - Appendix 8- PT CPD Activities in the US

Literature Review Findings

A total of **23 sources were analyzed as part of the literature review**. Of the **nine sources that focused specifically on PT CPD in Canada**, only one focused on physiotherapy in BC (specifically the benefits of electronic mentoring in a rural setting), and seven came from *Physiotherapy Canada*. The remaining **14 sources addressed physiotherapy CPD outside of Canada**, including Australia (6), UK (3), the US (3), Ireland (1), and the Netherlands (1).

Many of the studies collected quantitative primary data by questionnaires sent to 200 to 600 participants or qualitative primary data with one-on-one, open ended interviews with 10 to 30 participants.

Findings were relevant to areas of PT practice or knowledge including arthritis, cardiorespiratory, clinical education, orthopaedics, rural health care, and women's health.

Barriers to PT Participation in CPD

Professional Commitments

Professional commitments was frequently mentioned in the literature as a barrier to PT CPD participation.[1, 9, 11, 15] In particular, PTs working in small units with a large volume of patients and limited cover for absence felt unable to engage effectively in CPD because of competing demands on their time and limited resources.[1, 11] Johnson (2008) noted that more experienced PTs with a high retention of long-term patients and PTs in a managerial position also prioritize other demands before CPD.[15]

Lack of Time

Lack of time was another barrier to increasing PT participation in CPD.[1, 11, 15, 16] This included competing professional and personal commitments[1, 9, 11, 16], having to commit large amounts of time to one CPD activity[1], and taking time to travel time to a CPD activity[1]. Often, attending CPD activities was seen as taking time away from patient care, thus creating a culture of guilt.[16] O'Sullivan (2003) posited a possible explanation for this is due to the PT profession being immersed in a culture of "doing" rather than of stationary "thinking and reflecting".[16] To overcome this barrier, Francis et al. (2008) suggested delivering CPD using a combination of theoretical online components and hands-on weekend-based formats that would allow PTs to work at their own pace and time outside of their formal duties.[4]

Financial Cost Surrounding CPD

The financial cost of CPD was another frequently cited issue for PTs, especially for those PTs newer to practice with fewer years of experience or those practicing in a geographically remote area. Regarding lesser experienced PTs, Chau (2009) reasoned that this was likely due to existing student debt, less accumulated savings, or a lower professional income.[1]

Geography

Practicing in a rural setting was frequently identified a significant barrier to PT participation in CPD.[9, 18, 19, 20] Aside from CPD availability, time and cost of travel, there was a difference identified in the needs of PTs practicing in urban and rural regions. For example, while urban PTs could practice within a limited scope, the lower supply PTs in rural regions urged rural PTs to become "specialist generalists" with less peer support, and require additional professional development on multiple areas of practice.[18, 20]

It was suggested many of these barriers could be overcome by online CPD, which offered advantages such as flexibility of timing, opportunities of interaction in geographically dispersed areas, and decreased work

time lost to travel.[9, 12] However, such benefits would only be reaped if skills for and access to technology were sufficient.[7, 12, 15] Studies by Johnson (2008) and Reid et al. (2008) identified a personal lack of research skills and proficiency with technology as PT barriers to formal CPD activities such as online modules, webinars, and informal activities such as reading the PT literature.[7, 15]

CPD Variety and Availability

With limited financial and human resources, organizations delivering CPD face a difficult task in balancing CPD variety and availability. PTs are generally expected to maintain clinical knowledge and skills, in addition to maintaining other areas of competency including management, leadership, ethics and professional practice, as well as cultural awareness.[4, 9, 13, 19] In addition, as previously identified, PTs have limited time available to meet these needs, and their schedules seldom match when courses or other CPD activities are provided. As a result, some organizations approach CPD planning extra carefully to deliver courses that must match the needs of PTs, PTs' budgets, interests, and schedules to ensure registration fees are sufficient to recuperate operational costs in providing the CPD course.

Facilitators to Increasing PT Participation in CPD

Increasing Knowledge

Increasing knowledge base and competency was a common facilitator to increasing PT participation in CPD.[1, 4, 11, 15, 16] PTs most common reasons for participating in CPD included improving clinical skills, keeping up to date with current research and practices, improving patient care, using evidence-based practice, and interest in the topic area.[1, 10, 11, 15, 16] The literature showed that PTs were particularly motivated when CPD activities showed direct or explicit relevance to their everyday roles.[11]

Credentialing

PTs participated in CPD to attain additional credentials (such as a course-completion certificate, post-graduate diploma, masters or doctoral degree) and subsequent job advancements.[1, 10, 19] Dowds and French (2008) noted that the credentialing process could also increase workplace critical analysis, research skills, confidence, and professional status.[10]

Obtaining additional credentials was more commonly cited as an enabler of CPD participation by PTs newer to practice, particularly if the course or program contained a well-defined and recognized clinical skills component.[1, 10] However, feasibility of CPD depended on: 1) the availability and flexibility of the individual, 2) the quality of local or online-based programs, and 3) employer support. Findings also indicated that PT's decisions to engage in CPD were influenced more strongly by values related to improving clinical skills and patient care than by increases in pay and promotion.[1, 15]

Employer and Peer Support

There was a large amount of evidence indicating that positive employer support encouraged PTs to participate in CPD.[1, 8, 9, 11, 16] Austin and Graber (2007) showed that PTs perceived that monetary support from their employer for CPD activities indicated how much their employer valued CPD. Austin and Graber (2007) and O'Sullivan (2003) suggested that employers who support the professional development of their employees could increase retention rates and lower instances of commonly reported PT pressures.[9, 16] This further suggested that employer awareness and attitudes towards CPD was important as it indirectly facilitated PT participation in CPD.

Another way employers or managers could increase PT participation in CPD was to use a competency framework to identify priority competencies in the workplace, integrate them into a learning plan, then reflect and review with the employee on a regular basis.[17] In this way, the employer or manager could show his or her concern for continuing competency and emphasize the effect individual improvements can have on the team as a whole.

Examples of employer support for CPD can included encouragement of PTs to return to school for advanced degrees, circulating flyers and posting CPD opportunities for both local and national activities, in addition to coordinating multidisciplinary meetings and in-service activities over the lunch hour.[9] With sufficient funding, it was suggested that a local CPD coordinator could be hired to integrate CPD into the everyday working life of PTs, changing CPD from an ad hoc to a systematic and focused structure.[10]

Peers and multidisciplinary colleagues also played a significant role PTs' decision to participate in CPD.[11, 16] According to Gunn et al. (2009), CPD engagement could be seen as pivotal to the fulfillment of the individuals' team roles and responsibilities, which was elucidated by the following comment from a participant in the Gunn study:[11]

> 'If you're here, they (other team members) will ask you and therefore you want to know what you're talking about – they rely on me to a certain extent.' (Interview 4)

Other Factors in increasing PT Participation in CPD

PT Awareness of CPD

PT awareness of current CPD activities and opportunities was found to potentially affect their participation in CPD.[1] This not only included PTs' exposure to CPD marketing such as word-of-mouth, flyers, brochures, or emails about upcoming CPD activities but also awareness of what constitutes CPD. Predominant learning activities were often identified as formal skills-based, clinical courses one or two days in duration or academic courses with a skills component.[1, 15] On the other hand, PTs engaged in informal CPD such as personal reflection, reading the PT literature, or peer and collegial discussions, but often failed to cite these as CPD due to the perceived lack of structure and recognition.[1, 10] This could create a tendency to result in under-reporting of CPD and spending avoidable time and money on formal CPD.

Purpose of CPD

In addition to what constituted CPD, the purpose of undertaking CPD and the subsequent documentation were also significant factors in determining PT CPD participation.[6, 11] More rigorous measures of competence, such as standardized written tests or peer feedback, were more likely to assist PTs to identify their professional strengths and weaknesses and guide their professional development activities.[6] Well defined documentation standards could influence PT choice between informal to formal CPD, as the former often required more independent effort. Training of PTs in documenting informal CPD and in performing self-assessment efficiently could increase participation in informal CPD.[5, 8, 10, 11] Conversely, over-documentation could be too time-consuming and tedious, potentially discouraging PTs' from documenting informal CPD activities.

Years since Completion of Physiotherapy Training

The number of years since PTs completed their basic training in physiotherapy was identified to play an important role in determining PT participation and preferences related to CPD.[1] There was evidence indicating that PTs' newer to practice or more recent graduates, were significantly more likely to participate in mentorship programs than those PTs who have been in practice longer and have gained more PT experience.[1, 10] New graduates, who were more familiar with technology-based learning, would be more inclined to participate and reap the benefits of online CPD (*see section 1.2.1 Geography of this report*). It may also be possible that older, more experienced PTs have hit the "ok plateau" and feel comfortable with their level of skills and knowledge, thereby decreasing their participation in CPD.[24]

PTs' attitudes towards CPD

CPD as Part of the PT Identity and Profession

The review of literature showed that PTs agreed that CPD was pertinent to their profession and improved the quality of their patient care.[1, 11, 15] In Chau's study (2012), almost all respondents (93.8%) agreed or strongly agreed that CPD continued to be relevant and applicable to their area of work.[1] Further, 91% of participants in the Johnson's study (2008) reported undertaking CPD to maintain professional competence.[15]

Generally, PTs reported increased confidence from participating in CPD activities.[5] Additionally, they also reported experiencing a sense of pride when reviewing their completed portfolios, which summarized their professional activities and highlighted their achievements.[5]

Beneficial to Self and the Employer

PTs saw development in professional competence as beneficial to themselves and the employer(s), with the ultimate goal of improving patient care.[9, 11, 14] According to one participant in the study of Gunn et al. (2009):[11]

> 'If somebody is effective in their practice, you actually end up saving money, if somebody sees someone once or twice effectively rather than eight or nine times, it would end up costing less.' (Interview 11)

However, participants in Austin and Graber (2007) indicated that most employers were still ineffective in fostering CPD and view CPD as "a very individual thing".[9]

Negative Feelings due to Conflicting Priorities

Some PTs expressed conflicting priorities, as they felt they would be unable to fulfill their regular duties if they were to engage in increased CPD participation.[9, 11] In order to reduce instances of conflicting priorities, PTs indicated that CPD needs to show a direct and explicit link to patient services such as reducing the number of treatments.[11, 17] Li et al. (2010) suggested that CPD's emphasis on the clinician's knowledge and skills as opposed to direct patient outcomes may limit the perception and understanding of the relationship between PT practice, CPD participation, and patients' outcomes.[14] Findings by van der Wees et al. (2008) identified a caveat in that CPD participation could improve some outcomes of professional practice but may not improve patient health or reduce cost of care.[17]

Decrease Professional Isolation in Rural and Remote Areas

According to Solomon et al. (2001), CPD participation had a positive impact on PT job satisfaction in rural and remote areas as it decreased professional isolation.[21] The single study that focused on BC, Stewart and Carpenter (2009), noted that electronic mentoring could also break down the barriers of geography and be an effective tool for clinical support, as rural PTs often have limited access to collaborative learning and collegial discussions.[22] The use of technology-enabled CPD was identified as a promising solution to teaching, counseling, support and guidance for PTs in rural and remote regions.[22]

Anxiety over Regulatory Changes

Some participants in studies Austin and Graber (2007) and Gunn et al. (2009) were worried over the impact of external issues such as political and organizational changes and their potential impact on regulatory changes for CPD participation.[9, 11] While this may vary depending on the local PT setting, such anxiety could indicate that jurisdictional PT CPD landscapes may still be young in relation to other health professions (i.e., medicine and nursing) and susceptible to significant changes in structure and expectations.

Viable/Desirable Strategies aimed at PTs for CPD

Skill-based courses were the dominant form of available CPD, although studies have suggested that this phenomenon was supply-driven as opposed to demand-driven.[1, 11, 15] Due to PTs limited time and finance, the literature suggested they were less likely to experiment in new CPD opportunities. This was especially true for CPD activities that were not skills based or non-clinical because some PTs may not have immediately see a relevance to or effect on their practice. As a result, organizations preferred to deliver less-risky, familiar courses (i.e., skill based courses), which results in a static CPD landscape. Well-defined course marketing may be a crucial factor in addressing this issue, as explicit remarks on measurable patient outcomes in CPD marketing may be beneficial.

Aside from skill-based group courses, there are other CPD formats that were identified could help PTs to maintain professional competence. A study by Francis et al. (2012) showed that PTs preferred using a combined theoretical, online, hands-on, and weekend-based format to achieve continuing-education credentials in women's health.[3] Face-to-face consultations such as portfolio reviews or mentoring sessions mentioned previously could be integrated as in-service CPD.[9]

A systematic CPD plan appeared to be effective and viewed positively by PTs.[9, 10, 11] It was suggested that conscious coordination efforts would not only facilitate CPD participation but also hone PTs' reflection skills and build capacity to create CPD demand, which in effect, would drive the PT CPD landscape.

Environmental Scan Findings

Of the total of 151 CPD activities, 112 were found in Canada, 42 specifically in BC (see Appendix 3). In BC, 11 activities were hosted by Physiotherapy Association of British Columbia (PABC), four by the Canadian Physiotherapy Association (CPA) Divisions, seven by other health organizations, and 20 by private companies. A majority of these activities were listed on the PABC Courses Calendar. Outside of BC, 34 activities were provided by the provincial physiotherapy associations (see Appendix 4), 20 by the CPA and its Divisions (see Appendix 4), six by other public organizations (see Appendix 5), and 10 by private organizations (see Appendix 6).

BC

Topic Area

British Columbia had the third largest PT workforce in Canada in 2011 (see Appendix 1) and it appeared to have a moderate supply of CPD activities from 2012-2013. A majority of activities found in the environmental scan focused on musculoskeletal, orthopaedic or sports medicine topics, although topics varied from women's health, seniors' health, acupuncture, neuroscience, employment-related injuries, to pilates. This reflected 2011 CIHI demographic data with 41.2% of BC PTs self-identifying as working in Muskuloskeletal and Integumentary Systems and 30.4% working in General Practice (see Appendix 1).

Format, Instructors, Length, Price, and Location

Activities were predominantly hands-on courses, although lecture-based courses, webinars, and conferences were also available. Given that most activities were posted on websites three to six months prior and offered an "early bird special price," activities were likely to be planned at least a year before delivery. There were four conferences in BC, one of which, the Action on Health Conference: Sport Psychology and Treatment of Sport Injury, was cancelled due to insufficient registration. At 43.8 years old, BC had the highest average age of PTs in Canada in 2010, and had the highest percentage of PTs with more than 30 year of work experience. It would be helpful to determine whether or not and how this characteristic influences preferences in CPD.

Most instructors were PTs, physicians, or occupational therapists. Many courses had more than one instructor, which is reasonable considering most hands-on courses require guidance and supervision.

Length of activities varied from 1-2 hour long webinars to a 15-day certification course. However, most courses were 1-2 full days in length.

A detailed review of available courses identified the price for a CPD activity varied from free of charge for PABC members to $2,995 for a certified 15-day Basic Bobath Course. Longer courses often had higher prices, especially if they offered recognized certification, such as the Orthopaedic Syllabus courses (a 3-day course can range from $875-$1,900 depending on membership and level). Excluding PABC webinars that were free for members, basic mathematical analysis determined the average price to be approximately $450-$550 per activity.

Almost all activities were located either in the Lower Mainland or in Victoria, with 92.6% of PTs worked in an urban setting in BC in 2010 (see Appendix 2). CPD was available online in the form of courses and webinars, including the PABC Vodcasts, but it was likely that rural PTs had to travel out of town to access traditional in-person CPD opportunities. Unfortunately, search efforts were unable to identify further details regarding PT travel and CPD.

Public Organizations

Of the 42 CPD activities found within BC (see Appendix 3), 22 (52.4%) were organized by public organizations and 20 (47.6%) by private companies. In comparison 50.3% and 49.7% of the employment rates are in the public and private sectors respectively (see Appendix 1).

The PABC offered several educational activities throughout the year. These were primarily in the form of courses (which were discounted for members and also open to future members,) and webinars (which were free and only open to members). Topics focused mainly on musculoskeletal and orthopaedics.

CPA Divisions, including Orthopaedics, Neurosciences, and Women's Health, also organized hands-on courses in BC from 2012 to 2013. Orthopaedics Syllabus courses were held regularly on an annual basis in Vancouver, Victoria, and Prince George, although it would also be possible for BC PTs to travel to other provinces to complete a specific level that matched their schedule. The Bobath Interest Group (BIG), a subgroup of the Neurosciences Division also held two courses in BC, and the Women's Health Division organized an Advanced Pelvic Floor Workshop.

Other publicly organized activities appeared to target allied health professionals and had a lecture-based format. This included a WorkSafeBC interprofessional conference and the 3rd International Patellofemoral Pain Retreat and Symposium hosted by the Centre for Hip Health and Mobility, intended for research scientists and health care professionals working in the field of patellofemoral pain.

In addition, a search was performed to see whether the BC Health Authorities provided PT CPD. The search resulted only in one activity, the Arthritis Continuing Education Program (ACE). This was organized by Vancouver Coastal Health and The Arthritis Society (TAS) and intended for PTs and OTs. At 30.3% in 2011, BC had a relatively low rate of PTs working in a hospital setting compared to 40.1% across Canada (see Appendix 1). Further research is needed to determine whether this plays a factor in the limited CPD offerings found in this context.

Private Organizations

Private companies offered 20 courses on a variety of topics, including: musculoskeletal, sports medicine, neuroscience, women's health, seniors' health, oncology, work-related, and acupuncture. There are several possible explanations to why courses provided by private companies were plentiful. Firstly, some companies were well-recognized in providing courses across Canada and appealed to PTs by offering credentialing and certification. In 2011, 68% of PTs in BC had a Bachelors education level and 11.8% had a Diploma, compared to 74.8% and 7.9% respectively across Canada (see Appendix 1). At 49.7%, BC also had the second highest percentage in Canada of PTs working the private sector in 2011. Further investigation is required to determine whether these factors contribute to the relative abundance of private PT CPD.

PT Associations and CPA Divisions outside BC

Like the PABC, some provincial physiotherapy organizations also provided an annual CPD activity or course calendar. The Physiotherapy Alberta College and Association (PACA) and the Saskatchewan Physiotherapy Association (SPA) partnered with the University of Alberta and the University of Saskatchewan, Continuing Physical Therapy Education (CPTE), respectively, to deliver CPD. Activities differed in format, including conferences, hands-on workshops, online courses, and webinars. Topics varied to ensure physiotherapists from different areas of practice could meet their CPD needs. It is important to note that Saskatchewan's CPTE is unique because it is the only dedicated PT CPD office in Canada, has an agreement with the SPA to be the primary provincial CPD provider, and operates on a cost-recovery basis.

Other provincial associations also delivered webinars, hands-on courses, and interprofessional conferences such as the Paediatric Orthopaedic Primary Care Conference in Nova Scotia. A webinar entitled "Professional liability insurance requirements for Manitoba physiotherapists" was the only CPD activity dedicated to the business aspect of the PT profession. It should be recognized that almost half (46.1%) of PTs worked in the private sector across Canada in 2011 (see Appendix 1). This suggests a potential scarcity of non-clinical skills or knowledge base workshops delivered by provincial associations in the current PT CPD landscape.

The CPA holds an annual congress with pre and post congress courses, didactic presentations, an Interdivisional Symposium, and the 1-day Orthopaedic Symposium. PTs may travel across provinces to attend. However, it was found that five out of the nine courses were cancelled or postponed indefinitely due to unknown reasons. Courses delivered included: "Diagnosis & Treatment of Movement System Impairment Syndromes", "Paediatric Vestibular Rehabilitation: A Clinical Skills Course", "K-Taping Sport and K-Taping Pro", and "Lumbar Spine: Neural Tissue Mechanosensitivity". It would be interesting to further investigate factors determining the success rate of courses.

Some CPA Divisions offer professional development activities, although their frequency and location is unspecified. These activities may only be delivered when there is a strong request from PTs and speaker(s) and/or facilitator(s) as well as staff are available. The Orthopaedic Division is probably the most frequent and popular considering its Manual and Manipulative Physiotherapy Syllabus courses, which are delivered multiple times a year in each province. The numbers of activities for other Divisions are as follows: Animal Rehabilitation (4), Cardiorespiratory (3), International Health (1), Neurosciences (1), Oncology (1), Private Practice (1), Sports Physiotherapy (1), and Women's Health (2).

Other Public Organizations outside BC

Aside from the University of Alberta and University of Saskatchewan which partner with their respective provincial associations, other Universities offered some PT CPD as well. For example, McGill Continuing Health Professional Education has delivered on average one webinar per year since 2003 that is relevant to PT practice. Queen's University, the University of Western Ontario, and the Sunnybrook Health Sciences Centre offer professional development for clinical educators or preceptors although not specific to PTs. These resources are online in the form of webinars or modules.

Private Organizations outside BC

Many private companies that offered PT CPD did so across Canada, equipped with a group of instructors either willing to travel or having been trained or credentialed to instruct the course(s). Of the 10 CPD activities found, a total of 2 hands-on workshops and 1 seminar were offered in the neurosciences field, while 3 courses were offered for orthopaedics CPD. These activities were often delivered multiple times a year in different provinces. Price range for private CPD activities did not differ from publicly funded activities, varying from $70 (i.e., full day seminar) to $600 (i.e., 2-day hands-on sports medicine workshop).

Findings outside Canada

A total of 23 resources were found relevant to PT CPD in Australia (see Appendix 7). The Australian Physiotherapy Association (APA) has maintained a CPD system since 1999, requiring all members to accrue a minimum of 20 hours of CPD each year. Members are also strongly encouraged to maintain a CPD or learning portfolio, including a record of attendance at formal learning activities and record of reflection and evaluation of non-formal learning, as it may be requested during a CPD audit.

The APA follows a 3-tiered specialization process through one of the recognized APA clinical groups, similar to the CPA national groups and the Clinical Specialty Program. Members are able to access online resources, in-practice support, and CPD activities organized and delivered by the National Groups. For example, the APA Sports Group held 40 courses, 34 lectures, three professional development breakfasts, and one workshop in 2012, while the APA Muscoloskeletal Group held 36 courses, 36 lectures, two webinars, one National Tour in six states, and commenced post graduate accreditation review with universities.

Some universities such as the University of Western Australia and the University of Sydney offer PT CPD, but seem to be fairly minor relative to the National Groups. CPD activities included webinar series and interprofessional workshops.

There are some private companies that deliver PT CPD in Australia, with an emphasis on orthopaedics, neurosciences or mental support, and acupuncture. One of these companies, the Barral Institute, is based in the US and appears to have a global reach, including British Columbia. However, these courses are targeted to Massage Therapists for Continuing Education Units (CEUs) and are planned for delivery in 2014. Courses include CranioSacral Therapy, Lymph Drainage Therapy, and Visceral Manipulation. The Barral Institute also delivers courses for Chiropractors and Massage Therapists in Alberta, Ontario, and Saskatchewan.

A total of 16 public PT CPD activities were found in the US (see Appendix 8). The American Physical Therapy Association (APTA) provides the Credentialed Clinical Instructor Program to PTs teaching in a clinical setting for 1.5 CEUs and the Clinical Instructor (CI) Credential. APTA is divided into state Chapters (equivalent to Associations of CPA) and Sections (CPA Divisions), in which it appears that states individually mandate PT CPD requirements. Some universities deliver PT CPD, including Marquette University College of Health Sciences Continuing Education, University of Southern California Division of Biokinesiology and Physical Therapy, and University of Michigan Health System Continuing Education Division. Each delivered approximately 10 CPD activities annually, including online courses, seminar series, hands-on workshops, and interprofessional conferences.

In addition, the APTA Neurology Section offers approximately 10-15 hands-on, 2-day courses annually across the US, varying from expert practice advancements to practice essentials reviews. The Journal of Orthopaedic & Sports Physical Therapy, official journal the Orthopaedic Section and the Sports Physical Therapy Section, has a Read for Credit (RFC) program in which participants can gain CEUs by studying and completing a 30-minute quiz on selected articles. Participants pay $30 and receive 2 contact hours for each completed activity.

Summary of Environmental Scan

PT CPD activities found in the environmental scan were pre-dominantly 1-2 day, skill-based, hands-on courses, although webinar series and interprofessional conferences were also available. Provincial PT associations, CPA Divisions, other public organizations and private companies organized and delivered CPD activities which addressed a variety of clinical areas, in particular orthopaedics.

In BC, CPD activities were pre-dominantly skill based and hands-on courses with a focus on orthopaedics, although activities on other topic areas are available. A majority were delivered in Victoria or the Lower Mainland, while the PABC delivered ongoing webinars. Activities were approximately $450 to $550 and appeared to be planned at least a year in advance.

CPA Divisions delivered courses to BC on a regular basis, although choice was limited especially for PTs who would only practice in one area. It is likely that some PTs would travel to different provinces for CPD. Search results were limited on PT CPD provided by BC Health Authorities. Further research is needed to determine whether the low rate of PTs working in a hospital setting (30.1% in 2011) is a factor on the lack of findings.

20 of the 42 CPD activities found in BC were organized by private companies. BC PTs with a lower level of education may be turning to private companies instead of public institutions for credentialing because it may be perceived to be less intensive and time-consuming. Secondly, there was a high percentage of PTs working in the private sector in BC (49.7%, second highest in Canada in 2011) and private employers may be more willing to fund PT CPD opportunities as part of a larger employment benefits package for PTs. However, further investigation is needed on the financial management and employment relationship of PTs.

Outside of BC, the PACA partners with University of Alberta and the SPA partners with the University of Saskatchewan CPTE to offer CPD within their respective provinces. The CPTE is the only dedicated PT CPD office in Canada and operates on a cost-recovery basis.

Several divisions offer multiple CPD activities, with the Orthopaedics Division delivering most frequently across Canada. Large conferences targeted specifically toward PTs occur infrequently and PTs may travel cross-provinces to attend. PTs may also attend interprofessional conferences within or across provinces depending on the schedule, cost, and relevance.

Many private companies offer PT CPD across Canada, and their prices did not seem to differ from prices for public CPD activities. Although only 14.3% of activities outside BC were organized by private companies, these courses were often delivered multiple times a year in different provinces.

In Australia, CPD activities are regularly provided by APA National Groups, although private companies, some of which had global reach, also offer CPD courses in orthopaedics, neurosciences, and acupuncture. Universities in the US offer PT CPD regularly in the form of webinar series and hands-on workshops. The APTA Neurology Section offers approximately 10-15 hands-on, 2-day courses annually, while The Journal of Orthopaedic & Sports Physical Therapy has a Read for Credit (RFC) program in which PTs can gain CEUs by studying and completing a 30-minute quiz on selected articles.

<u>Gaps</u>
Further data is needed on employer funding of PT CPD. This is significant in shaping the PT CPD landscape as the literature review indicated that financial support both in public and private practice can influence PTs' demand for and participation in CPD activities.

While CPD activities addressed a variety of clinical areas, there appears to be a lack of non-clinical skills or knowledge-based workshops throughout Canada, including business practices, online research skills, intra- and interprofessional communication. It may be possible that such CPD activities exist but failed to be captured because they were either: informal, internally marketed or existing on other health professional websites.

Although the environmental scan collected information regarding availability, more details are needed on attendance rates and popularity of workshops. It is important to distinguish between the supply and demand of PT CPD.

There is also a need to further understanding University support for PT CPD. This is particularly true in Canada, in which universities may offer webinar series and annual conferences for PT CPD but may not have developed a comprehensive CPD strategy to address the diversity of PT needs. While the CPTE deserves attention as the only university-affiliated PT CPD office in Canada, it is equally important to investigate why other provinces do not have a similar CPD structure.

The direction of PT CPD in Canada appears to be similar to Australia, in that most PT CPD is organized and delivered by the PT association and its subsidiaries. This poses the question that is the end goal of the larger province-wide needs assessment study: how can a strategy to build capacity through faculty development for quality clinical education in the province be developed, in order to support recruitment and retention of new graduates and clinical education instructors and ultimately enhance patient care?

Limitations

This search was limited to online resources available to the general public. Many of the websites have a members-only access policy. In addition, details about informal CPD activities may not be available online, as some may be planned ad-hoc or marketed on paper or by word-of-mouth. Further investigation is needed to determine the details of PT CPD in public organizations, including hospitals and health authorities at large.

Search efforts focused mainly on intraprofessional CPD activities, and it is likely that PTs participate in interprofessional activities. Further research is needed to assess the allied health professions CPD landscape. For example, it would be interesting to investigate CPD planning within hospitals or group practices and determine whether or not PTs and their colleagues plan their CPD collectively.

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Appendix C: Organizational Letter of Support

October 15th, 2013

Dear BC Physiotherapist,

We are inviting you to participate in the first province-wide survey to assess the Continuing Professional Development (CPD) needs of physiotherapists in BC. This is a joint initiative among the UBC Department of Physical Therapy, UBC Faculty of Medicine Division of Continuing Professional Development (UBC CPD), Physiotherapy Association of BC (PABC) and the College of Physical Therapists of BC (CPTBC).

The results of this province-wide survey will be relevant to you, to your colleagues, and to our supporting organizations because:

- It ***specifically asks physiotherapists for their input*** and ***opinions*** on what CPD is important to them, and
- It is the ***first comprehensive assessment*** of the attitudes and barriers for continuing professional development (CPD) of PTs in BC.

This new survey to assess CPD needs will help us determine strategies and educational approaches to improve CPD activities that best meet your needs and maintain the public's confidence in our practice.

The survey was ***developed by physiotherapists for physiotherapists***. Members of our three organizations representing public and private practice participated in its design and development. We request and encourage you to complete the survey.

- **TO COMPLETE THE SURVEY ONLINE**:
  - Click [https://ubc.surveyfeedback.ca/surveys/wsb.dll/s/1g2bf2]
  - Alternate link: [http://bit.ly/bcptsurvey]

- More information about the study is available here [http://www.ubccpd.ca/files/2013/10/PT-NA-Letter-of-Initial-Contact-Oct.pdf]
- Survey closes: November 5th, 2013
- Incentives: Four prizes valued at $300 each. Winners will be randomly selected and announced on October 25th, November 1st, and when the survey closes. Those who complete the survey earlier will have an increased chance of winning one of the prizes.

On the behalf of the Physical Therapy profession, we sincerely hope you take this opportunity to provide your input on this important initiative.

Sincerely,

Dr. Jayne Garland, BScPT, PhD
Professor and Head,
UBC Department of Physical Therapy

Mr. Jason Coolen, BScPT
President,
Physiotherapy Association of BC

Mr. Phil Sweeney, BPT
Board Chair,
College of Physical Therapists of BC

Appendix D: Online Needs Assessment Survey Questions

What Do Physiotherapists in British Columbia Need For Continuing Professional Development?

PURPOSE

This province-wide survey aims to:

- Determine strategies and educational approaches to improve CPD activities that meet the needs of PTs in BC;
- Help build capacity for quality clinical education in the province through clinician development to support recruitment and retention and ultimately enhance patient care.

DEFINITION OF CONTINUING PROFESSIONAL DEVELOPMENT (CPD)

For the purpose of this survey, CPD can be defined as continuing education and training opportunities for PTs that maintain, develop or increase knowledge, problem-solving, technical skills and/or professional performance, with the goal of enhancing professional development and providing better patient care.

COMPLETING THE SURVEY

It will take **approximately 15 minutes** to complete the survey, after which, you will be able to enter your name and contact information if you would like to enter a draw to win **one of four prizes valued at approximately $300 each**.

Please be aware that this survey is confidential and that by completing this survey (i.e. pressing 'submit'), you are providing your implied consent for your responses to be collected as data in this study. You are free to withdraw from this survey at any point with no consequences.

All data will be analyzed in aggregate form and no individual will be linked to any of the data.

BACKGROUND

This province-wide survey of the Continuing Professional Development (CPD) needs of Physiotherapists (PTs) in British Columbia is a joint initiative between the UBC Department of Physical Therapy and UBC Faculty of Medicine Division of Continuing Professional Development (UBC CPD), in partnership with Physiotherapy Association of BC (PABC) and the College of Physical Therapists of BC (CPTBC).

Please contact UBC CPD Project Manager, Tunde Olatunbosun (tunde.o@ubc.ca) for questions related to this province-wide survey.

Section A – Participation

1) Please help us learn about the formal CPD activities you participate in, by completing the table below.

For each format, approximate:
a) <u>How often</u> you participate (in a typical year)
b) The <u>number of hours</u> you participate in CPD activities (in a typical year)
NOTE: For each format, please select a response for both columns (i.e how often & the number of hours)

	a) How often you participate (typical year)							b) # of hours you participate (typical year)					
	Weekly	Twice per month	Monthly	Quarterly	Twice per year	Yearly	Not applicable	0	1--10	11--20	21--30	31--40	41+
Courses part of certification (e.g. Bobath, CPA Orthopaedic Levels, Sports Physio Exam Prep Courses, etc.)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Clinical hands-on course	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Conference	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Lecture	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Online session (live) (e.g. webinar, course)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Teleconference (e.g. live CPA monthly session)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Videoconference (live)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Recorded session (e.g. vodcast)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Mentoring (i.e. being mentored)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Peer study/skills practice session	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Journal club/small group session	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Self-study (e.g. literature review, accessing clinical resources)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

2) Indicate your preference for learning in each of the following CPD activity formats:

	1 Least preferred	2	3 Neutral	4	5 Most preferred
Clinical hands-on course	☐	☐	☐	☐	☐
Conference	☐	☐	☐	☐	☐
Lecture	☐	☐	☐	☐	☐
Videoconference (live)	☐	☐	☐	☐	☐
Online session (live, e.g. webinar)	☐	☐	☐	☐	☐
Teleconference (e.g. live CPA monthly session)	☐	☐	☐	☐	☐
Mentoring	☐	☐	☐	☐	☐
Small group session (i.e. peer study group and journal club)	☐	☐	☐	☐	☐
Self-study (e.g. literature review, accessing clinical resources)	☐	☐	☐	☐	☐
Self-paced online activity (e.g. online module)	☐	☐	☐	☐	☐

3) When do you prefer to participate in CPD activities?
[Select a response for morning, lunch, etc.]

	Weekday	Weekend	Not preferred
Morning	☐	☐	☐
Lunch	☐	☐	☐
Afternoon	☐	☐	☐
Evening	☐	☐	☐

4) Of the formal CPD activities that you have attended in person within the past 3 years as part of your professional development, approximately <u>what percentage</u> did you travel more than 100 km?
[enter a value between 0 & 100]

_____%

5) How much would you expect to pay for a <u>one day CPD activity</u> of clinical content?

$_____(excluding travel and accommodation costs)

6) What costs ($) do you expect to incur for attending <u>a CPD activity</u> (excluding tuition/registration fees)

Lost income $_____[per day]
Travel, accommodation, etc. $_____[total average for each activity]

7) How do you primarily pay the tuition/registration fees (excluding travel and accommodation costs) for CPD activities you attend?

☐ I pay for it myself
☐ My workplace pays for it
☐ Shared payment (i.e. myself and work)
☐ Other (please specify)

If you selected other, please specify _____

8) Please help us build an inventory of effective CPD activities by listing the activities you attended that have been particularly IMPACTFUL on your day-to-day practice:

CPD Activity Topic: _____
Presenter: _____
CPD Activity Format (e.g. conference, lecture, etc.): _____
Year: _____
Cost $_____
What made it particularly impactful? _____

9) Have you attended other CPD activities that have been particularly impactful on your day-to-day practice?

☐ Yes
☐ No

10) Please list other CPD activities that have been particularly impactful:

CPD Activity Topic: _____
Presenter: _____
CPD Activity Format (e.g. conference, lecture, etc.): _____
Year: _____
Cost $_____
What made it particularly impactful? _____

11) Please list other CPD activities that have been particularly impactful:

CPD Activity Topic: _____
Presenter: _____
CPD Activity Format (e.g. conference, lecture, etc.): _____
Year: _____
Cost $_____
What made it particularly impactful? _____

12) Conversely, if you have attended a CPD activity that DID NOT IMPACT your day-to-day practice (i.e. you did not feel it was worthwhile), please list the activity:

CPD Activity Topic: _____
Presenter: _____
CPD Activity Format (e.g. conference, lecture, etc.): _____
Year: _____
Why was the activity not impactful? _____

13) Have you attended other CPD activities that did not impact your day-to-day practice?

- ☐ Yes
- ☐ No

14) Please list other CPD activities you attended that did not impact your day-to-day practice:

CPD Activity Topic: _____
Presenter: _____
CPD Activity Format (e.g. conference, lecture, etc.): _____
Year: _____
Why was the activity not impactful? _____

15) Please list other CPD activities you attended that did not impact your day-to-day practice:

CPD Activity Topic: _____
Presenter: _____
CPD Activity Format (e.g. conference, lecture, etc.): _____
Year: _____
Why was the activity not impactful? _____

16) Please provide us a list of physiotherapists you feel have clinical and/or teaching expertise. Specify the name of the PT and their area of clinical expertise.
[Example] Name & Area of Clinical Expertise: Stephen Harper, Paediatrics

Name & Area of Clinical Expertise _____
Name & Area of Clinical Expertise _____
Name & Area of Clinical Expertise _____
Name & Area of Clinical Expertise _____
Name & Area of Clinical Expertise _____
Name & Area of Clinical Expertise _____

Section B – Learning Needs & Preferences

17) Indicate the extent to which you believe CPD is necessary for your practice:

- ☐ 1 Not at all important
- ☐ 2
- ☐ 3 Neutral
- ☐ 4
- ☐ 5 Very important

18) To what extent do the following <u>INFLUENCE</u> you to participate in CPD activities?

	1 Not at all influential	2	3 Neutral	4	5 Very influential	Not applicable
From a patient encounter	☐	☐	☐	☐	☐	☐
Through collegial discussion	☐	☐	☐	☐	☐	☐
Through formal self-evaluation (i.e. CPTBC Annual Self-Report)	☐	☐	☐	☐	☐	☐
Through reflective practice (e.g. reflection on day-to-day practice)	☐	☐	☐	☐	☐	☐
Through workplace performance review	☐	☐	☐	☐	☐	☐
Through emerging practice	☐	☐	☐	☐	☐	☐

19) To what extent do the following INFLUENCE you to participate in CPD activities?

	Never	Seldom	Sometime	Often	Always
Presenter	☐	☐	☐	☐	☐
Topic area / learning objectives	☐	☐	☐	☐	☐
Credentialing / certification offered	☐	☐	☐	☐	☐
Networking with colleagues	☐	☐	☐	☐	☐
Location of CPD	☐	☐	☐	☐	☐
Extend / Change my skills and knowledge or area of practice	☐	☐	☐	☐	☐
Intrinsic desire to learn	☐	☐	☐	☐	☐
Workplace requirement / employer expectation	☐	☐	☐	☐	☐
Fill a gap in my knowledge	☐	☐	☐	☐	☐
College competency exams	☐	☐	☐	☐	☐
CPD improves practice	☐	☐	☐	☐	☐
Colleague Recommendation	☐	☐	☐	☐	☐
Activity learning objectives	☐	☐	☐	☐	☐

20) Please rate your level of interest in participating in CPD activities on the following areas:

	Not interested	Slightly interested	Moderately interested	Very interested
Clinical content (e.g. spinal manipulation, treatment of stroke, etc.)	☐	☐	☐	☐
Professional content (e.g. business management, communication)	☐	☐	☐	☐
Educating/supervising physical therapy students	☐	☐	☐	☐
Boundary issues and relationship with patients	☐	☐	☐	☐
Enhancing skills in evidence-informed practice	☐	☐	☐	☐

21) What are the top CLINICAL content areas you would like to learn about? Please be as specific as possible with the topics, i.e. do not just list orthopaedics.
[Example] Topic you would like to learn about: Frozen shoulder
[Example] Topic you would like to learn about: Rotator cuff impingement

Topic you would like to learn about: _____
Topic you would like to learn about: _____
Topic you would like to learn about: _____
Topic you would like to learn about: _____
Topic you would like to learn about: _____
Topic you would like to learn about: _____

22) What are the top PROFESSIONAL content areas you would like to learn about? Please be as specific as possible with the topics.
[Example] Topic you would like to learn about: Managing challenging patients

Topic you would like to learn about: _____
Topic you would like to learn about: _____
Topic you would like to learn about: _____
Topic you would like to learn about: _____
Topic you would like to learn about: _____
Topic you would like to learn about: _____

23) From which of the following sources do you currently find out about upcoming CPD activities? [select all that apply]

- ☐ Physiotherapy Association of BC (PABC)
- ☐ Canadian Physiotherapy Association (CPA)
- ☐ College of Physical Therapists of BC (CPTBC)
- ☐ Independent course providers
- ☐ UBC Department of Physical Therapy
- ☐ Health Authorities
- ☐ Hospitals
- ☐ Known Experts
- ☐ Colleagues
- ☐ None of these sources
- ☐ Other (please specify)

If you selected other, please specify _____

24) How do you prefer to find out about upcoming CPD activities? [select all that apply]

- ☐ Email
- ☐ Fax
- ☐ Website
- ☐ Web Search
- ☐ Newsletter
- ☐ Word of mouth
- ☐ Social media
- ☐ Notice board
- ☐ Printed mail (e.g. postcard, flyer)
- ☐ Other (please specify)

If you selected other, please specify _____

25) Please specify the name of the website(s) you use to find out about upcoming CPD activities:

Website name _____
Website name _____
Website name _____
Website name _____

26) To what extent are the following <u>BARRIERS</u> to your participation in CPD activities?

	Never	Seldom	Sometime	Often	Always
Professional obligations (e.g. employment commitments, time away from practice)	☐	☐	☐	☐	☐
Length/duration of CPD activity (e.g. number of hours)	☐	☐	☐	☐	☐
Cost of CPD (registration, travel)	☐	☐	☐	☐	☐
Cost of CPD (loss of income)	☐	☐	☐	☐	☐
Social/family obligations	☐	☐	☐	☐	☐
Availability of childcare	☐	☐	☐	☐	☐
Availability of CPD that interests me	☐	☐	☐	☐	☐

27) To what extent do you currently participate in CPD activities <u>with other health care professionals</u> (i.e. occupational therapists, massage therapists, chiropractors, physicians, etc.)?

- ☐ Never
- ☐ Seldom
- ☐ Sometimes
- ☐ Often
- ☐ Always

28) In the last 3 years, what are the top 3 CPD activities you have attended with health care professionals (HCPs) other than physiotherapists?

[Example] CPD Activity Name: Recent Advances in Clinical Sports Medicine - Including Concussion Update 2013.

[Example] Other HCP(s) attended: Family physicians, occupational therapists, nurses

(a) CPD Activity Name: _____
(a) Other HCP(s) attended: _____
(b) CPD Activity Name: _____
(b) Other HCP(s) attended: _____
(c) CPD Activity Name: _____
(c) Other HCP(s) attended: _____

29) To what extent are you interested in participating in CPD activities with other health care professionals (i.e. occupational therapists, massage therapists, chiropractors, physicians, etc.)?

- ☐ Not interested
- ☐ Slightly interested
- ☐ Moderately interested
- ☐ Very interested

30) What CPD activities would you be interested in attending with health care professionals other than physiotherapists? Please list your top 3.

1. _____
2. _____
3. _____

Section C - Perspectives

31) Please indicate the extent to which you agree/disagree with the following statement: My colleagues in physical therapy are active in CPD.

- ☐ 1 Strongly Disagree
- ☐ 2
- ☐ 3 Neutral
- ☐ 4
- ☐ 5 Strongly Agree

32) Please indicate your level of satisfaction with the extent to which your workplace supports your participation in CPD?

- ☐ 1 Not at all satisfied
- ☐ 2
- ☐ 3 Neutral
- ☐ 4
- ☐ 5 Very satisfied

33) How does your workplace <u>CURRENTLY SUPPORT</u> your participation in CPD activities?

- ☐ Allows CPD participation during work hours (PAID)
- ☐ Allows CPD participation during work hours (UNPAID)
- ☐ Provide staff (i.e. locum) coverage
- ☐ Provides in-house CPD
- ☐ Provides funds for CPD participation
- ☐ My workplace does not facilitate my CPD participation (if chosen, do not select other options)
- ☐ Other (please specify)

If you selected other, please specify _____

34) Please indicate ways that your workplace <u>COULD REALISTICALLY SUPPORT</u> your participation in CPD activities:

- ☐ Allow CPD participation during work hours (PAID)
- ☐ Allow CPD participation during work hours (UNPAID)
- ☐ Provide staff (i.e. locum) coverage
- ☐ Provide in-house CPD
- ☐ Provide funds for CPD participation
- ☐ Facilitate lunch and learn (work colleague presenting on what they learned at an activity)
- ☐ Other (please specify)

If you selected other, please specify _____

35) In your opinion, what role(s) should the following bodies/organizations play in CPD?
[For each body/organization, select all the roles you believe should apply; if you feel the organization has no role in CPD please leave the role(s) blank]

	Funding	Developing Content	Organizing & Delivering	Setting Standards	Promoting
College of Physical Therapist of BC (CPTBC)	☐	☐	☐	☐	☐
Physiotherapy Association of BC (PABC)	☐	☐	☐	☐	☐
UBC Department of Physical Therapy	☐	☐	☐	☐	☐
UBC Continuing Professional Development (UBC CPD) - within Faculty of Medicine	☐	☐	☐	☐	☐
UBC Continuing Studies - across UBC	☐	☐	☐	☐	☐
Canadian Physiotherapy Association (CPA)	☐	☐	☐	☐	☐
Independent CPD Providers	☐	☐	☐	☐	☐
Health Authorities	☐	☐	☐	☐	☐
Practice Sites	☐	☐	☐	☐	☐
Knowledge Experts	☐	☐	☐	☐	☐

36) Please indicate your familiarity with the following:

	Not familiar	Slightly familiar	Moderately familiar	Very familiar
College of Physical Therapists of BC's (CPTBC) Quality Assurance Program (QAP)	☐	☐	☐	☐
Physical therapy roles (e.g. expert, communicator, etc.) identified in the 2009 Essential Competency Profile	☐	☐	☐	☐

37) Vision of CPD: in your opinion, what should the future of CPD look like for physical therapy in BC?

_____
_____

Section D - Demographics

38) Are you:

☐ Male
☐ Female

39) Your age is:

[enter a numerical value]

_____years old

40) What year did you complete physical therapy training?

_____[YYYY]

41) How many years have you been in active physical therapy practice?
[enter a numerical value]

_____years

42) Did you complete physical therapy training outside Canada?

☐ Yes
☐ No

43) What is your highest level of education obtained in the field of physical therapy or rehabilitation sciences?

- ☐ Diploma
- ☐ Bachelors (e.g. BScPT)
- ☐ Masters (e.g. MPT, MSc, MRSc)
- ☐ Doctorate (e.g. PhD)
- ☐ Doctor of Physical Therapy (i.e. DPT)
- ☐ Other (please specify)

If you selected other, please specify _____

44) Your current practice, based on your status with the CPTBC is:

- ☐ Active
- ☐ Inactive
- ☐ Retired
- ☐ Other (please specify)

If you selected other, please specify _____

45) Your currently, active practice is:

- ☐ Full-Time
- ☐ Part-Time

46) Please indicate the sector you are primarily employed:

- ☐ Public
- ☐ Private (includes self-employed)
- ☐ Other (please specify)

If you selected other, please specify _____

47) Please indicate your primary place of employment:

- General hospital
- Group professional practice/clinic
- Solo professional practice/business
- Rehabilitation hospital
- Mental health
- Hospital facility
- Residential care facility
- Assisted living residence
- Community health center
- Visiting agency/business group practice
- Post-secondary educational institution
- School or school board
- Association/government/para-governmental
- Visiting agency/business group practice
- Other (please specify)

If you selected other, please specify _____

48) What is the approximate size/population of the community where your practice is located?

- Under 10,000
- 10,001-99,999
- 100,000-499,999
- Over 500,000

49) What do you consider to be your primary area of practice?

- General practice
- Musculoskeletal/orthopaedic
- Neurological
- Cardiovascular and respiratory
- Multisystem
- Paediatrics
- Women's Health
- Other (please specify)

If you selected other, please specify _____

50) What is your primary physiotherapy or occupational role?

- Clinical (i.e. direct patient care)
- Research
- Education
- Administration/Managerial
- Other (please specify)

If you selected other, please specify _____

51) Please indicate your area(s) of interest:

- ☐ Acupuncture
- ☐ Amputees
- ☐ Arthritis
- ☐ Breast Health
- ☐ Cardio-Respiratory
- ☐ Chronic Pain
- ☐ Clinical Pilates
- ☐ Complementary Therapies
- ☐ Concussions
- ☐ Constipation
- ☐ Craniosacral Therapy
- ☐ Diabetes
- ☐ Ergonomics
- ☐ Facial Retraining
- ☐ Feet
- ☐ Gerontology
- ☐ Hands
- ☐ Hippotherapy (Therapeutic Riding)
- ☐ Home Visits
- ☐ Hydrotherapy
- ☐ IMS
- ☐ Incontinence
- ☐ Industrial Health
- ☐ Joint Manipulation
- ☐ Joint Replacement Rehab
- ☐ Lymphatic Drainage
- ☐ McKenzie
- ☐ Mental Health
- ☐ Men's Health
- ☐ Musicians' Injuries
- ☐ Myofascial Release
- ☐ Neurology
- ☐ Oncology
- ☐ Orthopaedics
- ☐ Orthotics
- ☐ Osteoporosis
- ☐ Paediatrics
- ☐ Pelvic Floor
- ☐ Peri-natal Care
- ☐ Postural Drainage
- ☐ Research
- ☐ Rheumatology
- ☐ Shoulders
- ☐ Sports Medicine
- ☐ TMJ
- ☐ Vaginal/Rectal Pain
- ☐ Vestibular/Vertigo
- ☐ Whiplash
- ☐ Other (please specify)

If you selected other, please specify _____

52) Please specify any postgraduate qualification(s) you hold:
[Example] CHT, FCAMPT, CPA specialization, etc

Qualification _____
Qualification _____
Qualification _____
Qualification _____
Qualification _____

53) Are you actively involved in teaching/supervising a student(s) enrolled in a rehabilitation training program?

 Yes
 No

54) Are you involved in developing, organizing, and/or teaching CPD activities?

 Yes
 No

55) Please describe the CPD activities you are involved in developing, organizing, and/or teaching:

_____
_____

56) Please rate your level of proficiency using the following technologies:

	Beginner	Intermediate	Expert	Do not use
Desktop computer/laptop				
Tablet				
Smartphone				

57) In your clinical practice, what do you use the above mentioned technologies for?
[Select all that apply]

 Accessing evidence of effectiveness of interventions
 Accessing protocols or guidelines
 Accessing clinical decision aids
 Accessing education (online)
 Use for patient assessment (e.g. outcome measures)
 Use for accessing patient charts
 Do not have access to technology in clinical practice (if chosen, do not select above options)
 Have access to technology in clinical practice, but do not use (if chosen, do not select above options)
 Other (please specify)

If you selected other, please specify _____

58) In closing, please provide any comments in regards to CPD and physical therapy you would like to share that have not already been mentioned in this survey:

_____
_____

END OF SURVEY.
Thank you for taking the time to complete this BC-wide needs assessment. Please click the 'Submit Survey' button.

After submitting, you will be able to provide your contact information if you wish to enter a draw to win one of four prizes valued at approximately $300 each.

[NOTE: please be patient as it will take a few seconds after you 'submit survey' for the system to automatically load the prize draw page.]

Appendix E: Detailed Tables from Results

Table 27: Postgraduate Qualifications Earned

Rank	Postgraduate Subject	Specific Qualification Held (# PTs with qualification)

1	Acupuncture and IMS
	(145 or 61% of PTs with extra qualification)
		• Acupuncture (93)
		  ○ Acupuncture Foundation of Canada Institute (80)
		  ○ Medical Acupuncture (2)
		  ○ Physiotherapy Acupuncture Association of New Zealand (1)
		  ○ Non-specified course (10)
		• IMS (52)
		  ○ Chan Gunn IMS (43)
		  ○ Non-specified course (9)

2	Orthopaedics/musculoskeletal/ neuromuscular
	(127 or 53% of PTs with extra qualification)
		• Canadian Academy of Manipulative Physiotherapy (60)
		  ○ FCAMPT (49)
		  ○ RCAMPT (11)
		• Ortho Division Levels (37)
		• Certified in Manual Therapy (9)
		• McKenzie (5)
		• Functional Movement Systems (2)
		• Masters of Physiotherapy (2)
		• Certified in Kinesiotaping (1)
		• Certified Mulligan practitioner (1)
		• Craniofascial and cervical therapeutics (1)
		• Craniosacral (1)
		• Diagnostic ultrasound (1)
		• Diploma of Osteopathy (1)
		• Diploma of Orthopaedic medicine (1)
		• Graston technique (1)
		• MSc – Orthopaedic research (1)
		• Pelvic floor (1)
		• Shirley Sahrmann (1)
		• TMJ (1)

3	Sports/exercise (35 or 15% of PTs with extra qualification)	• Diploma in Sports Physiotherapy (7) • Certificate in Sports Physiotherapy (6) • Pilates qualification (4) • Certified Strength and Conditioning Specialist (2) • Exercise Specialist (2) • Yoga qualification (2)
4	Neurology (14 or 6% of PTs with extra qualification)	• Bobath training (5) • Bobath Adult Neurology (1) • Sensory Processing Disorder Level 1 (1) • NDT training (5) • NDT Adult Stroke Rehab (1) • NDT Coordinator Instructor (1)

5	Professional courses (13 or 5% of PTs with extra qualification)	• Masters of Education (3) • Certificate of Practice Education (1) • Masters of Arts – leadership and training (1) • Masters of Business Administration (2) • Masters of Health Administration (1) • Healthcare Management Certificate (1) • Masters of Health Science – epidemiology (1) • Professional Development Program (1) • Project Management Certificate (1) • Law degree (1)
6	Hand therapy (13 or 5% of PTs with extra qualification)	• Certified Hand Therapist (13)

Table 28: Websites used to Learn about Upcoming CPD Opportunities

Rank	Websites Used to Find CPD Activities	# of responses	% of responses
1	Physiotherapy Association of British Columbia http://www.bcphysio.org/	107	32%
2	Canadian Physiotherapy Association http://www.physiotherapy.ca/	72	21%
3	College of Physical Therapists of British Colombia http://www.cptbc)org/	14	4%
4	General Internet and Social Media (incl. Google, Facebook)	12	4%
5	Health Authorities/Hospitals (incl. Vancouver Coastal Health, Interior Health, Fraser Health, Northern Health, Vancouver Island Health, & Providence Health Care, University Hospital of Northern BC)	11	3%
6	Advanced Physical Therapy Education Institute http://www.aptei.com/	10	3%
7	Therapy BC http://www.therapybc.ca/	8	2%
7	Universities (incl. UBC, University of Alberta, and University of Manitoba)	8	2%
8	Acupuncture Foundation of Canada Institute http://www.afcinstitute.com/	5	1%
8	Hand Therapy Associations http://www.csht.org/ & http://wchta.ca/	5	1%
8	Karelo (online event registration service) http://www.karelo.com/events.php	5	1%
9	Barral Institute http://www.barralinstitute.com/	4	1%
9	Neuro-Developmental Treatment Association http://www.ndta.org/	4	1%
10	Discover Physio http://discoverphysio.ca/	3	1%

10	UBC Gunn IMS http://ubcgunnims.com/	3	1%
11	• American Physical Therapy Association • BC Society of Orthodontists • Bobath • Eventbrite • Evidence in Motion • International Alliance of Healthcare Educators • SomaSimple • UBC CPD • World Conference for Physical Therapy	2 each	<1% each
12	• Arthritis Health Professionals Association • BC Injury Research and Prevention Unit • BC Play Therapy Association • Boehme Workshops • Canadian Academy of Manipulative Physiotherapy • Canadian Institute for the relief of Pain and Disability • Cascade Orthotics • Council on Spiritual Practices • Eastern Currents • Educata • Education Resources • Fit Fore Golf • Great Seminars and Books • Health Education Seminars • Heart Space • IMS Health • Maharishi University of Management • McKenzie Institute • Merrithew • Mike Reinhold • Motivations Inc. • Mulligan Concept • NeuroMotion • North American Institute of Orthopaedic Manual Therapy • North American Seminars • Pain BC • Pain Care Live • Pedorthic Association of Canada • Physiotherapy Alberta College • Progressive Gaitways • Rehab Edge • Running Physio • Sensory Processing Disorder Foundation • Swodeam • The Sports Physio • Upledger Institute International	1 each	<1% each

	• Ursa Foundation • World Health Professions Regulation Conference		

Table 8a: Activity Topics of Impactful CPD Attended in Past Three Years

Rank	Activity Topic	Subcategory (# of responses)
1	Orthopaedics/musculoskeletal/neuromuscular (313 or 33% of responses)	• General orthopaedic (65) • Shoulder (26) • Manual therapy (18) • Thoracic (16) • Cervical spine (14) • Hip (11) • Mulligan (10) • Discover Physio Series (9) • Functional movement systems (9) • Tendinopathy (9) • Pelvic (8) • Arthroplasty (7) • Back (6) • Fascial manipulation (6) • McKenzie (6) • Patellofemoral (6) • Taping (6) • Nervous system (5) • Neural (5) • Craniosacral (4) • Mobility (4) • Rotator cuff (4) • Spinal (4) • ACL (3) • APTEI (3) • Diane Lee (3) • Foot (3) • Graston (3) • Musculoskeletal (3) • Shirley Sahrmann Course (3) • TMJ (3) • Bahram Jam (2) • Dermoneuromodulation (2) • Elbow (2) • Motor imagery (2) • Muscular balance (2) • Nags and snags (2) • Neck (2) • Osteopathy (2) • Active release (1)

		• Conference (1) • Diagnostic ultrasound (1) • Exercise (1) • Extremity manipulation (1) • Facial (1) • Joint (1) • Mentor (1) • Mobilization (1) • Movement (1) • Orthotics (1) • Real time ultrasound (1) • Soft tissue (1) • Trigger point (1) • Walking (1)
2	Professional events (102 or 11% of responses)	• PABC Conference (12) • Post-secondary degree (12) • CPA Conference (11) • Mentoring (9) • Research methods (9) • Step Up (7) • General Conference (5) • Rehab (5) • Leadership/Management skills (4) • Motivational interviewing (4) • Equipment (3) • Functional Outcomes (2) • Insurance (2) • Listening skills (2) • Assessment (1) • Canadian Association of Continuing Health Education (1) • Case reviews (1) • Clinical simulation (1) • Collaboration Across Borders (1) • Co-op (1) • Funding (1) • Goal attainment (1) • Knowledge Transfer (1) • LEAN (1) • Outcomes (1) • Practice education (1) • Product reviews (1) • Program development (1) • Regulations (1)
3	Neurology (100 or 11% of responses)	• Bobath (25) • Stroke (16) • NDT (11)

		• Parkinsons (9) • General neurology (10) • Cerebral Palsy (7) • Gait (7) • Neuroplasticity (4) • Spasicity (2) • Autism (1) • Brain and behaviour (1) • Cognitive impairment (1) • Dysphasia (1) • Hemiplegia (1) • Human movement (1) • Neuropsychiatry (1) • Spinal cord injury (1) • Stretching for neuro (1)
4	Acupuncture and IMS (71 or 8% of responses)	• Acupuncture (33) • IMS (30) • Dry needling (7) • Oriental medicine (1)
5	Sports/exercise (52 or 6% of responses)	• General sports medicine (12) • Core (6) • Exercise (6) • Concussion (5) • Pilates (5) • Running (4) • Dance medicine (3) • Yoga (3) • Aquatic therapy (2) • Biking (2) • Feldenkrais (1) • Neurokinetic therapy (1) • Stretching (1) • Taping (1)
6	Paediatrics (49 or 4% of responses)	• General paediatric conference course (13) • Neurology (6) • Core (5) • Kids in Motion (3) • Disabilities (2) • Neonatal care (2) • Visceral (2) • Attachment (1) • K Taping (1) • Lower extremity (1) • Motion (1) • Sensory regulation (1) • Toe walking (1) • 39?

7	Pain management (33 or 4% of responses)	• General pain management courses/conferences (33)
7	Vestibular rehab (33 or 4% of responses)	• Vertigo (3) • Vestibular rehab (30)
8	Cardiorespiratory (19 or 2% of responses)	• Cardiorespiratory (11) • Respiratory (5) • Chest physiotherapy (1) • COPD (1) • Cystic Fibrosis (1)
9	Arthritis and osteoporosis (17 or 2% of responses)	• Arthritis (8) • Rheumatology (4) • Osteoporosis (3) • Bone health (2)
10	Hand therapy (14 or 2% of responses)	• General hand therapy (14)
11	General practice (11 or 1% of responses)	• Acutely ill patients (4) • Skin (2) • Bariatric patients (1) • Burns (1) • Critical care (1) • Wound (1) • Various (1)
12	Electrotherapy (9 or 1% of responses)	• Electrotherapy (9)
12	Falls prevention (9 or 1% of responses)	• Falls prevention (8) • Balance (1)
12	Visceral manipulation (9 or 1% of responses)	• Visceral manipulation (9)
12	Women's health (9 or 1% of responses)	• Pelvic issues (7) • Pregnancy exercise (1) • Vulvodynia (1)
13	Clinical reasoning (8 or 1% of responses)	• Clinical reasoning (8)
13	Oncology and lymphedema (8 or 1% of responses)	• Lymphedema (5) • General cancer (2) • Breast cancer (1)
14	Geriatric (7 or <1% of responses)	• General geriatric (5) • Dementia (1) • Geriatric gait (1)
15	Amputee (2 or <1% of responses)	• Amputee assessment (2)
15	Balance and dizziness disorders (2 or <1% of responses)	• Balance and dizziness (2)
15	Hippotherapy (2 or <1% of responses)	• Hippotherapy (2)
16	Aboriginal issues (1 or <1% of responses)	• Indigenous Cultural Competence Course (1)

16	Continence (1 or <1% of responses)	• Continence (1)
16	Diabetes (1 or <1% of responses)	• Diabetes and exercise (1)

Table 10a: Clinical Content Areas want to Learn About

Rank	Clinical Content Areas	Subcategory (# of responses)
1	Orthopaedics/musculoskeletal/ neuromuscular (593 or 35% of responses)	• Shoulder (124) • Pelvic/pelvis (32) • Spinal (32) • Hip (31) • General orthopaedic (30) • Ankle/feet/leg (27) • Manual therapy (26) • Mobility/movement (26) • Thoracic (26) • Cervical spine (23) • Taping (20) • Lower quadrant (15) • TMJ (15) • Arthroplasty and joints (14) • Knees (14) • Neck (13) • Fascial (12) • Tendon (12) • Lumbar spine (10) • Craniosacral (8) • Elbow (8) • Functional movement (8) • Patellofemoral (6) • Muscle tone (4) • Back (5) • Fractures (5) • Mulligan (5) • ACL (4) • Muscular balance (4) • Orthotics (4) • Carpal tunnel (3) • Cervical headaches (3) • McKenzie (3) • Soft tissue (3) • Bahram Jam (2) • Bracing (2) • Contracture (2) • Diastasis recti (2)

		• Ribs (2) • Bursitis (1) • Dynamic Muscular Stabilization (1) • Facial (1) • Hypermobility (1) • Muscular dystrophy (1) • Splints (1) • Surgery (1) • Upper quadrant (1)
2	Neurology (271 or 16% of responses)	• Stroke (65) • General neurology (28) • Gait (23) • Brain and brain injury (22) • Spinal cord damage (16) • Parkinsons (14) • Bobath (9) • Dementia (9) • Complex regional pain syndrome (8) • Headache (8) • Motor control (6) • Neuropathic pain (6) • Spasticity (6) • Autism (5) • Cerebral palsy (5) • Multiple Sclerosis (5) • Sensory processing disorder (5) • Neurodynamics (4) • Neuroplasticity (4) • Ataxia (3) • Aquatic therapy for neuro patient (2) • Degenerative conditions (2) • Exercise for neuro patients (2) • Guillain–Barré syndrome (2) • Nerves (2) • Breathing exercises for neuro (1) • Conversion disorder (1) • Coordination (1) • Cranial nerve (1) • Electrotherapy for neuro patients (1) • Graded imagery (1) • Hemiplegia (1) • NDT (1) • Orthotics for neurological conditions (1) • Radiculopathy (1)
3	Sports/exercise (109 or 6% of responses)	• General exercise (29) • Concussion (21)

		• Running (15) • Sports injuries (10) • Core (6) • Taping (4) • Aquatic therapy (3) • Biking (3) • Pilates (3) • Yoga (3) • Dance (2) • Throwing (2) • Feldenkrais (2) • Golf (1) • Hockey (1) • Soccer (1) • Strength training (1) • Stretching (1) • Swimming (1)
4	Pain management (93 or 5% of responses)	• Chronic pain management (61) • Back pain (20) • Pain physiology (7) • Fibromyalgia (1) • Hernia (1) • Leg pain (1) • Pelvic pain (1) • Yoga for pain (1)
5	Paediatrics (81 or 5% of responses)	• General paediatric (20) • Paediatric neurology (12) • Developmental disorders (14) • Gait (5) • Orthopaedics (4) • Orthotics (4) • Core (3) • Exercise (3) • Taping (3) • Aquatic therapy (2) • Muscle tone (2) • Botox (1) • Communication (1) • Craniosacral (1) • Fascial (1) • Injury prevention (1) • Pain (1) • Sports (1) • Yoga (1)
6	Cardiorespiratory (60 or 4% of responses)	• Respiratory (22) • Cardiac (12) • Cardiorespiratory (10)

		• Chest physio (9) • COPD (7)
7	Geriatric (50 or 3% of responses)	• General (18) • Falls prevention (13) • Exercise for elderly (11) • Neurology (2) • Nursing home care (2) • Chronic pain in older adults (1) • Core (1) • Edema (1) • Gait (1)
8	Acupuncture and IMS (47 or 3% of responses)	• Acupuncture (18) • IMS (18) • Dry needling (8) • General (2) • Traditional Chinese Medicine (1)
9	Vestibular rehab (46 or 3% of responses)	• Vestibular rehab (37) • Vertigo (8) • Labrynthitis (1)
10	General practice (45 or 3% of responses)	• Chronic disease (11) • Skin/wound/burn (10) • Acute care issues (8) • Medications (7) • Long-term or palliative care (3) • Edema (2) • Surgery (2) • Patient transfer (1) • Smoking cessation (1)
11	Clinical reasoning (43 or 3% of responses)	• Medical imaging (14) • Clinical reasoning (9) • Modalities (7) • Assessment (8) • Differential diagnosis (3) • Outcome measures (1) • Use of technology (1)
12	Arthritis and osteoporosis (27 or 2% of responses)	• Arthritis (20) • Osteoporosis (7)
13	Whiplash and motor vehicle accidents (25 or 1% of responses)	• Whiplash (18) • Motor vehicle accidents (7)
14	Hand therapy (24 or 1% of responses)	• Hand therapy general (17) • Wrist (3) • Thumb (2) • Fingers (1) • Fracture (1)
15	Electrotherapy (18 or 1% of responses)	• Electrotherapy (15) • Shockwave (2)

		• Iontophoresis (1)
16	Women's health (17 or 1% of responses)	• Pregnancy and post-natal care (10) • General women's health (4) • Pelvic issues (2) • Vaginal pain (1)
17	Fall prevention (16 or 1% of responses)	• Fall prevention (16)
17	Oncology and lymphedema (16 or 1% of responses)	• Lymphedema (8) • General oncology (7) • Brain tumor (1)
18	Balance and dizziness disorders (14 or 1% of responses)	• Balance (10) • Dizziness (4)
19	Mental health (11 or 1% of responses)	• Depression (2) • General mental health (3) • Post-traumatic stress disorder (2) • Borderline personality disorder (1) • Cognitive behavioural therapy (1) • Exercise and depression (2)
19	Visceral manipulation (11 or 1% of responses)	• Visceral manipulation (11)
20	Amputee (10 or 1% of responses)	• Amputee (5) • Prosthetics (4) • Gait (1)
21	Other (78 or 5% of responses)	• Seating (9(• Ergonomics (7) • Anatomy (6) • Multisystem integration (5) • Bariatric (4) • Occupational health (4) • Practice/Therapies (4) • Incontinence (3) • Palliative care (3) • Aterial blood gas (2) • Botox (2) • Canine therapy (2) • Hippotherapy (2) • Hydrotherapy (2) • Posture (2) • Radiology (2) • Biofeedback (1) • Biomechanics (1) • Buteyko/salt room (1) • Calcium/Vitamin D (1) • Desensitization (1) • Equipment (1) • Fatigue (1) • Home safety (1)

		• Landmine injuries (1) • Meditation (1) • Multi-trauma (1) • Paralysis (1) • Reflexes (1) • Return to work planning (1) • Robotics in rehab (1) • Scar massage (1) • Syndromes (1)

Table 11a: Professional Content Areas PTs want to Learn About

Rank	Professional Content Areas	Subcategory (# of responses)
1	Business skills (186 or 25% of responses)	• Management skills (44) • Staff management (33) • Marketing (25) • Leadership skills (15) • Business planning and practices (12) • Business start-up (11) • Change management (8) • Business growth (7) • Advocating for PT services (5) • LEAN (4) • Self-employment (4) • Team building (4) • Organizational skills (2) • Staff development (2) • Quality improvement (2) • Effective meetings (1) • Employer management (1) • Incorporation (1) • Partnerships (1) • Performance reviews (1) • Professional portfolio (1) • Project management (1) • Risk management (1)
2	Managing clients (84 or % of responses)	• Motivating clients (42) • Complex patients (11) • Discharge planning (7) • Paediatric clients (4) • Biopsychosocial care (3) • ICU and long-term care (3) • Malingerers (3) • Neurological clients (3) • Autism (2) • Client retention (2)

		• Health coaching (2) • Bariatric patients (1) • Client expectations (1)
3	Dealing with challenging people (80 or 11% of responses)	• Challenging patients (50) • Challenging bosses/colleagues/staff (7) • Challenging families (7) • Challenging people (5) • Behavioural problems (4) • Aggressive behaviour (2) • Refusal of treatment (2) • Challenging doctors (1) • Inappropriate behaviour (1) • Youth (1)
3	Communication skills (80 or 11% of responses)	• Conflict and complaints (27) • General communication skills (20) • Communication with colleagues/staff/other HCP (9) • Communication with patients (6) • Language barriers (6) • Client expectations (4) • Aphasic patients (2) • Cultural barriers (2) • Giving feedback (2) • Emotional intelligence (1) • Speaking skills (1)
4	Skills for clinic (41 or 5% of responses)	• Client or family-centered practice (7) • Charting (5) • Goal setting (5) • Advanced practice (6) • Outcome measures (2) • Professional issues (2) • Referrals (2) • Clinical guidelines (7) • Program development (1) • Radiographic investigations (1) • Reporting to doctors (1) • Return to work planning (1) • Working in residential care (1)
5	Finances (38 or % of responses)	• Insurance (ICBC, WCB, WorkSafe) (15) • Managing clinic finances (6) • Retirement planning (4) • Funding sources for patients (4) • Billing (2) • Finances (2) • Personal investment (2) • Selling a practice (2) • Setting treatment rates (1)
6	Mental health issues	• Patients with mental health challenges (10)

	(35 or 5% of responses)	• Dementia (7) • Self-care/avoiding burnout for PTs (7) • Depression (4) • Cognitive behavioural therapy (2) • Delerium (1) • Mindfulness (1) • Obessive-compulsive disorder (1) • Personality disorder (1) • Psychology of rehab (1)
7	Ethics (33 or 4% of responses)	• Professional boundaries (14) • Ethics (11) • Privacy and confidentiality (4) • Consent (3) • Professional behaviour (1)
8	Collaboration (29 or 4% of responses)	• Multidisciplinary team management/communication (22) • In Acute/critical care teams (3) • Preventative medicine (2) • Networking (1) • Neurology (1)
9	Education (27 or 4% of responses)	• Mentoring (10) • Continuing professional development (7) • Post-grad programs (4) • Educating patients/public (3) • Pedagogical skills (3)
10	Caseload (22 or 3% of responses)	• Managing caseload (19) • Using CPA's caseload management tool (3)
11	Research (19 or 3% of responses)	• Evidence-based practice (10) • Literature search (3) • Research design (3) • Case studies (1) • Participating in research (1) • Writing research proposals (1)
12	Community health (17 or 2% of responses)	• Community programs/resources (8) • Community care (2) • International development (2) • Volunteering (2) • Community development (1) • Health promotion (1) • Home care (1)
13	Legal issues (15 or 2% of responses)	• Documentation (4) • Bylaws (1) • Communication with lawyers (2) • Medical reports (3) • General legal issues (2) • Testifying in court (2) • Liability (1)

14	Technology (13 or 2% of responses)	• General computer skills (5) • How to use in practice (3) • iPad for education (2) • Social media (2) • Electronic communication and liability (1)
15	Geriatric (5 or 1% of responses)	• Managing geriatric patients (4) • Community activity options (1)
16	Aboriginal issues (2 or <1% of responses)	• Aboriginal health (1) • Working in communities (1)
17	Other (21 or 3% of responses)	• Occupational health (3) • Infection control (2) • Public health system (2) • Brain research (1) • COBS updates (1) • Equipment (1) • Health Act (1) • Health leadership (1) • Medical imaging (1) • Medications (1) • Public policy (1) • Surgery (1) • Transfer of function (1)

Table 12a: Other HCPs Previously Attended CPD With

Rank	Other HCPs Previously Attended CPD With	# of responses	% of responses
1	Occupational Therapists	357	52%
2	Physicians	256	37%
3	Nurses (RN, NP, CHN)	201	29%
4	Massage Therapists	93	13%
5	Chiropractors	84	12%
6	Physiotherapists	64	9%
7	Speech Language Pathologists	60	9%
8	Social Workers/Case Managers	59	9%
9	Kinesiologists	40	6%
10	Rehab Assistants	36	5%
11	Psychologists	28	4%
12	Trainers (exercise)	28	4%
13	Pharmacists	23	3%
14	Surgeons	23	3%
15	Technicians (e.g. Pedorthist, Orthotists, etc.)	22	3%
16	Athletic Therapist	21	3%
17	Dentists/Dental Hygienists	16	2%

18	Dietician	15	2%
19	Acupuncturist/Traditional Chinese Medicine	13	2%
20	Orthopaedist	13	2%
21	Respirologists/ Respiratory Therapists	13	2%
22	Naturopaths	9	1%
23	Researchers	9	1%
24	Osteopath	7	1%
25	Students	7	1%
26	Recreational Therapists	6	1%
27	Obstetricians/Gynecologists	5	1%
28	Registered Care Aides	5	1%
29	Rheumatologists	4	1%
30	Paramedics	3	<1%
31	Podiatrists	3	<1%
32	Ear, Nose, Throat Specialists	2	<1%
33	Neurologists	2	<1%
34	Sports Medicine Physicians	2	<1%
35	Certified Hand Therapists	1	<1%
36	Educational Assistants	1	<1%
37	Paediatrician	1	<1%
38	Physiotherapy Assistants	1	<1%
39	Many or All HCPs	19	3%
40	Others not listed above	43	6%

Table 13a: Clinical CPD Previously Attended with other HCPs

Rank	Clinical Content Courses Attended with other HCP	Subcategory (# of responses)
1	Orthopaedics/musculoskeletal/neuromuscular (112 or 17% of responses)	• General orthopaedic (19) • Movement (11) • Hip/knee (10) • Fascial (8) • Patellofemoral (6) • Shoulder/neck (6) • Graston (5) • Manual therapy (5) • Taping (4) • TMJ (4) • Back (3) • Craniosacral (3) • Elbow/wrist (3) • Feet (3) • Mulligan (3) • Tendon (3)

		• Arthroplasty/joints (2) • Neurokinetic therapy (2) • Osteopathy (2) • Splinting (2) • Casting (1) • Facial nerve (1) • Injury prevention (1) • McKenzie (1) • Neural manipulation (1) • Pelvic (1) • Trigger point (1) • Zero balancing (1)
2	Neurology (92 or 14% of responses)	• Bobath (20) • Neurology (12) • Stroke (11) • NDT (9) • Parkinson's (9) • Cerebral Palsy (6) • Dementia (5) • Brain injury (3) • MS (3) • Incontinence (2) • Neuroanatomy (2) • Neuroplasticity (2) • Spinal injury (2) • Apraxia (1) • Autism (1) • Gait (1) • Sensory regulation (1) • Spasticity (1) • Speech (1)
3	Sports/exercise (77 or 12% of responses)	• Sports medicine (34) • Running (9) • Concussion (8) • Pilates (6) • Exercise (4) • Urban poling (3) • Yoga (3) • Dance medicine (2) • First responder for sports (2) • Lady sport lecture series (2) • Baseball (1) • Feldenkrais (1) • Golf (1) • Ruby (1)
4	General education (75 or 11% of responses)	• Inservices (21) • Conferences (12)

		• Rounds (15) • Community rehab forum (12) • Various education (15)
5	Acupuncture and IMS (47 or 7% of responses)	• Acupuncture (25) • IMS (16) • Dry needling (4) • Oriental Medicine Symposium (2)
6	General practice (37 or 6% of responses)	• Wound/burns (8) • Critical care (5) • First Aid (4) • Patient handling (4) • Diabetes (2) • Palliative care (2) • Surgery (2) • Compression garments (1) • Flu shot (1) • Gastrointestinal (1) • Kidneys (1) • Long term care (1) • Obesity (1) • Return to work planning (1) • Trauma care (1) • Various topics (2)
7	Paediatrics (36 or 6% of responses)	• General paediatric (17) • Core (5) • Neurology (5) • Attachment (2) • ALERT program (1) • Fetal Alcohol Syndrome (1) • Gait (1) • Neck (1) • Pain (1) • TIMP course (1) • Visceral manipulation (1)
8	Pain management (27 or 4% of responses)	• Pain (27)
9	Visceral manipulation (17 or 3% of responses)	• Visceral manipulation (17)
10	Cardiorespiratory (16 or 2% of responses)	• Respiratory education (7) • Cardiac conference (4) • Cystic fibrosis education (3) • CHEST conference (2)
11	Fall prevention (12 or 2% of responses)	• Fall prevention (12)
12	Seating (13 or 2% of responses)	• Seating and positioning (13)
13	Arthritis and osteoporosis	• Rheumatic education (6)

	(11 or 2% of responses)	• General arthritis education (5)
14	Hand therapy (10 or 2% of responses)	• Hand therapy (10)
14	Vestibular rehab (10 or 2% of responses)	• Vestibular rehab (9) • Vertigo (1)
15	Oncology and lymphedema (8 or 1% of responses)	• Lymphedema (6) • Breast cancer (1) • Cancer care (1)
16	Electrotherapy (6 or 1% of responses)	• Laser therapy (4) • Electrotherapy (2)
17	Geriatrics (5 or 1% of responses)	• Geriatric conference (5)
17	Women's health (5 or 1% of responses)	• Pelvic health (2) • Women's health (2) • Exercise in pregnancy (1)
18	Amputee care (4 or <1% of responses)	• Prosthetics (2) • Amputee management (1) • Pain control for amputees (1)
19	Mental health (3 or <1% of responses)	• Caring for clients with mental health issues (3)
20	Balance and dizziness disorders (1 or <1% of responses)	• Bernard Tonks (1)
20	Hippotherapy (1 or <1% of responses)	• Hippotherapy (1)
21	Other (31 or 5% of responses)	• Equipment (5) • Ergonomics (3) • ICCm (2) • Integrated systems (2) • Occupational therapy (2) • Power mobility (2) • Step Up (2) • Anatomy (1) • Animal intuition (1) • Ayeurvedic (1) • Disability prevention (1) • Event doctor (1) • Massage therapy (1) • Medical intuitive training (1) • Pressure relief (1) • Provincial Working Group for DOT (1) • Psychometrics (1) • Radiology (1) • Smoking cessation (1) • Sound healing (1)

Table 14a: Professional CPD Previously Attended with other HCPs

Rank	Professional Content Courses Attended with other HCP	Subcategory (# of responses)
1	Business skills (29 or 48% of responses)	• WorkSafe BC Conference (9) • Leadership (6) • Coaching (3) • Facilitation skills (2) • Clinical writing (1) • Interviewing skills (1) • Knowledge transfer (1) • LEAN (1) • Management (1) • Policy (1) • Project management (1) • Taxes (1)
2	Managing clients (9 or 15% of responses)	• Motivational interviewing (4) • Progressive goal attainment (2) • Transitioning out of acute care (2) • Patient choice (1)
3	Communication skills (4 or 7% of responses)	• Communication general (2) • Collaboration (1) • Dealing with complaints (1)
3	Occupational health and safety (4 or 7% of responses)	• Violence prevention in the workplace (3) • Hand health at work (1)
3	Technology (4 or 7% of responses)	• Telehealth (2) • Digital Dilemma (1) • Smartphone technology (1)
4	Aboriginal issues (3 or 5% of responses)	• Aboriginal health network (1) • Aboriginal practice education (1) • Indigenous Cultural Competency Training (1)
4	Ethics (3 or 5% of responses)	• Ethics (3)
5	Post-secondary education (2 or 3% of responses)	• Masters degree (2)
6	Legal issues (1 or <1% of responses)	• Writing legal reports (1)
6	Other (1 or <1% of responses)	• VIHA care model redesign

Table 15a: Clinical CPD Topics PTs are Interested in Attending with other HCPs

Rank	Clinical Content – Courses Interested in Attending with other HCP	Subcategory (# of responses)
1	Orthopaedics/musculoskeletal/neuromuscular (96 or 20% of responses)	• General orthopaedic (25) • Fascial (12) • Orthotics/feet care (9) • Manual therapy (6) • Functional movement (5) • Craniosacral (4) • Head/neck/jaw (4) • Hip/knee/leg (4) • Orthopaedic surgery (4) • Spinal (4) • Taping (4) • Whiplash (4) • Movement/coordination (2) • Arthroplasty/joints (2) • Back (1) • Facial (1) • Graston (1) • Prolotherapy (1) • Shoulder (1) • Thoracic (1) • Zero balancing (1)
2	Neurology (70 or 15% of responses)	• Stroke (24) • General neurology (11) • Dementia (8) • Bobath (5) • Brain injury (3) • Gait (3) • Parkinson's (3) • Sensory processing (3) • Autism (2) • Spasticity (3) • Cognitive assessment (1) • Continence (1) • Headaches (1) • NDT (1) • Neuroplasticity (1)
3	General practice (58 or 12% of responses)	• Surgery (11) • General practice (10) • Wound/skin care (10) • Chronic disease management (9) • Critical/acute care management (7) • Palliative care (3) • Return to work planning (3) • Pressure relief (2)

		• First aid (1) • Obesity management (1) • Trauma (1)
4	Sports/exercise (48 or 10% of responses)	• Sports medicine (17) • Concussion (11) • Exercise (10) • Athletic therapy (3) • Running (2) • Feldenkrais (1) • Pilates (1) • Sports first aid (1) • Urban poling (1) • Yoga (1)
5	Pain management (37 or 8% of responses)	• Chronic pain (33) • Back pain (3) • Pelvic pain (1)
6	Acupuncture and IMS (25 or 5% of responses)	• Acupuncture (16) • IMS (5) • Dry needling (2) • Traditional Chinese Medicine (2)
7	Paediatrics (16 or 3% of responses)	• Paediatric neurology (8) • Paediatric care (6) • Downs Syndrome (1) • Exercise (1)
8	Clinical reasoning (19 or 4% of responses)	• Diagnosis/treatment (6) • Medical imaging (5) • Discharge planning (4) • Outcome measures (4)
9	Fall prevention (14 or 3% of responses)	• Fall prevention (14)
10	Geriatric (13 or 3% of responses)	• Geriatric (13)
11	Cardiorespiratory (11 or 2% of responses)	• COPD (4) • Respiratory (4) • Cardiorespiratory (2) • Cardiac rehab (1)
12	Oncology and lymphedema (8 or 2% of responses)	• Lymphedema (3) • Cancer rehab (2) • General cancer (2) • Breast cancer (1)
12	Seating (8 or 2% of responses)	• Seating and mobility (8)
13	Visceral manipulation (7 or 1% of responses)	• Visceral manipulation (7)
14	Mental health (5 or 1% of responses)	• Caring for clients with mental health issues (4) • Cognitive behavioural therapy (1)
14	Vestibular rehab	• Vestibular rehab (3)

	(5 or 1% of responses)	• Vertigo (2)
15	Amputee (4 or 1% of responses)	• Amputee rehab (4)
15	Arthritis and osteoporosis (4 or 1% of responses)	• Arthritis (4)
16	Women's health (2 or <1% of responses)	• Women's health (2)
17	Hand therapy (1 or <1% of responses)	• Hand therapy (1)
18	Other (33 or 7% of responses)	• Rehab (6) • Medication/pharmacology (5) • Biomechanics/anatomy (4) • Clinical skills (4) • Equipment (4) • Ergonomics (3) • Disability management (2) • Holistic health (2) • Animal studies (1) • Kidney (1) • Massage therapy (1)

Table 16a: Professional CPD Topics PTs are Interested in Attending with other HCPs

Rank	Professional Content – Courses Interested in Attending with other HCP	Subcategory (# of responses)
1	Business skills (40 or 33% of responses)	• Management (7) • Leadership skills (6) • Teamwork skills (5) • Change management (3) • Family-centred care (3) • Business development (2) • Funding for clients (2) • Health promotion (2) • Effective meetings (1) • Finances (1) • General (1) • ICBC (1) • LEAN (1) • Program planning (1) • Quality improvement (1) • Self-management (1) • Staff management (1) • Workers compensation (1)
2	Collaboration with HCPs (21 or 17% of responses)	• Collaborative practice/integrated care (18) • Roles of disciplines (3)
3	Communication skills	• Communicating with other HCPs (9)

	(18 or 15% of responses)	• General communication skills (9)
4	Client management (13 or 11% of responses)	• Behaviour change (3) • Home visits (2) • Motivational interviewing (2) • Patient education (2) • Care planning (2) • Managing complex clients (2)
5	Community health/wellness (7 or 6% of responses)	• Community health programs/resources (3) • Wellness fairs (3) • Rural health (1)
6	Occupational health (6 or 5% of responses)	• Workplace health and safety (4) • Patient handling (2)
7	Research/education (5 or 4% of responses)	• Research updates (3) • Statistics and programming (1) • Self-study (1)
8	Challenging people (3 or 3% of responses)	• Managing challenging patients (3)
9	Boundaries (2 or 2% of responses)	• Boundaries (2)
9	Ethics (2 or 2% of responses)	• Ethical issues (2)
9	Legal issues (2 or 2% of responses)	• Legal issues for health professionals (2)
10	Technology (1 or 1% of responses)	• Telehealth (1)
11	Other (2 or 2% of responses)	• Event planning (1) • Thought (1)

Table 29: PT Involvement in Developing, Organizing, or Teaching CPD

Topic Area	Roles Mentioned					Total # responses by topic
	Teaching or Facilitating	Organizing/ Developing	Mentoring	No job role listed	In-services	
Orthopaedics/musculoskeletal/ neuromuscular	9	8	1	8		**26**
Neurology	4	2	2	1	1	**10**
Cardiorespiratory	2	3	1	1		**7**
Sports/exercise	3	3			1	**7**
Arthritis and osteoporosis	3	2		1		**6**
Fall prevention	3	1		1		**5**
Ortho Division Levels			5			**5**
Professional PT CPD Organization Committees		5				**5**
Clinical reasoning				4		**4**
Student mentoring			4			**4**
Acupuncture and IMS	0	2		1		**3**
Geriatric	1	1		1		**3**
Research skills	2			1		**3**
Staff mentoring			3			**3**
Chronic pain				2		**2**
Paediatric				1	1	**2**
General practice				1		**1**
Hand therapy				1		**1**
Leadership skills	1					**1**
Vestibular rehab				1		**1**
Visceral manipulation				1		**1**
Other				8		**8**
No topic listed	10	9	7	3	37	**66**
Total # responses by role	**38**	**36**	**23**	**37**	**40**	**174**

Table 20a: Expert PTs by Area of Expertise

Rank	Area of Expertise	Expert PT in Area (# mentions – location of practice)
1	Orthopaedics/musculoskeletal/ neuromuscular (506 or 44% of responses)	• Carol Kennedy (88 – Vancouver) • Diane Lee (58 – Surrey) • Deb Treloar (42 – Vancouver) • Linda-Joy Lee (37 – North Vancouver) • May Nolan (20 – Vancouver) • Bahram Jam (19 – Toronto) • Kate Kennedy (13 – Vancouver) • Jan Lowcock (11 – Vancouver) • Jim Meadows (8 – Edmonton, Alberta) • Bob Powls (7 – Vernon) • Erl Pettman (6 – Abbortsford) • Jack Miller (6 – London, Ontario) • Ron Mattison (5 – Vancouver) • Lorrie Maffey (4 – Calgary) • Lyn Watson (4 – Melbourne, Australia) • Maria Zerjav (4 – Calgary) • Maureen Mooney (4 – Calgary) • Christine Balkwill (3 – Vancouver) • David Lindsay (3 – Vancouver, Toronto) • Gerry Illmayer (3 – Victoria) • Gray Cook (3 – Calgary) • Peter O'Sullivan (3 – Australia) • Rick Celebrini (3 – North Vancouver, Burnaby) • Sherrill Rutherford (3 – Nanaimo) • Shirley Sahrmann (3 – Missouri, USA) • Ashley Smith (2 – Calgary) • Brian Mulligan (2 – retired) • Cliff Fowler (2 – Abbotsford, Langley) • Dana Ranahan (2 – North Vancouver) • David Koretchuk (2 – Burnaby) • David Butler (2 – Australia) • Greg Bay (2 – Abbotsford) • Jackie Whittaker (2 – Surrey) • Nadine Nembhard (2 – New Westminster) • Mari Walsh (2 – Vancouver) • Mark Comerford (2 – United Kingdom) • Michael Foy (2 – Creston) • Rob Wainner (2 – Texas, USA) • Sandra Sokoloski (2 – Okotoks, Alberta) • Scott Fraser (2 – Vancouver) • Tim Flynn (2 – Colorado, USA) • Aart Van Gorkum (1 – Vancouver) • Alex Scott (1 – Vancouver) • Allison McLean (1 – Whistler) • Allison Megeney (1 – Pemberton)

		• Andrea Martens (1 – Vancouver) • Annabel Mackenzie (1 – Vancouver) • Arnout Stams (1 – Langley) • Audrey Long (1 – Calgary) • Barrett Dorko (1 –Ohio, USA) • Bas Masri (1 – Vancouver) • Bill Burton (1 – Kelowna) • Bill Lyons (1 – Surrey) • Bob Boyles (1 –Washington, USA) • Bob Sydenham (1 – Edmonton) • Bradley Jawl (1 – New Westminster) • Bruce Mackay (1 – Victoria) • Cameron Bennett (1 – Vancouver) • Catherine Russell (1 – North Vancouver) • Charlie Kelly (1 –Edmonton, Alberta) • Cheryl Megalos (1 – Vancouver) • Chris Bacchus (1 – Canberrra, Australia) • Chuck Ratzlaff (1 – Vancouver) • Claudia Kriese (1 – Saanichton) • Clyde Smith (1 – Vancouver) • Colin Davies (1 – Vancouver, Burnaby) • Danielle Langford (1 – Vancouver) • Darren Rivett (1 – Australia) • Darryl Yardley (1 – Ontario) • David Iles (1 – Victoria) • David Magee (1 – Edmonton) • Deepak Bhasin (1 – Langley) • Denise Morbey (1 – West Vancouver) • Derrick Young (1 – Vancouver, Coquitlam) • Diane Courtemanche (1 – Abbotsford) • Dolores Langford (1 – Vancouver) • Don Buethorn (1 – Bellingham, USA) • Donna Howey (1 – Worcester, USA) • Doreen Killens (1 – Quebec) • Duncan Rein (1 – Brampton, Ontario) • Edwin Chock (1 – Maple Ridge) • Euson Yeung (1 – Toronto) • G Syndenham (1 – unknown) • Gail Booker (1 – Prince George) • Gordon Bohlmann (1 – Vancouver) • Grant Watson (1 – Tyne, UK) • Greg Kirk (1 – North Vancouver) • Heather Hodge (1 – Bowser) • Heather Kerr (1 – Fernie) • Ian Deback (1 –Alberta) • Jan Summersides (1 – Nelson, Castlegar) • Jane Calland (1 – West Vancouver)

		• Jane Williams (1 – North Vancouver) • Janic Lajeunesse (1 – Quebec) • John Blackwell (1 – unknown) • John Childs (1 – Warrensville Heights, USA) • John Oldham (1 – Vancouver) • Jon Froese (1 – Chilliwack) • Joselito Sayson (1 – Bourbonnais, USA) • Judy Russell (1 – Vancouver) • Karen Tsui (1 – Vancouver) • Katherine Hepburn (1 – York, Ontario) • Kathy Berglund (1 – Berrien Springs, USA) • Kelly Kavanagh (1 – Vancouver) • Kevin Perras (1 – Surrey) • Kris Orr (1 – unknown) • Krystie Cheong (1 – Surrey) • Laurie Maffie-Ward (1 – unknown) • Leanne Wong (1 – unknown) • Louise Stevens (1 – Victoria) • Lyndal Solomons (1 – North Vancouver) • Lynne Frehan (1 – Vancouver) • Mary Sauriol (1 – Toronto) • Maureen Duggan (1 – Vancouver) • Miller (1 – unknown) • Moore (1 – unknown) • Narashimhan Pugazhendhi (1 – unknown) • Nishanth Kumar (1 – unknown) • Pat McKinnon (1 – Pemberton, Squamish) • Patrick Ippersiel (1 – Quebec) • Paul Mah (1 – Vancouver) • Paul McIntyre (1 – Victoria) • Penny Galpin (1 – Vancouver) • Penny Salmas (1 – Victoria) • Raman Grewal (1 – Surrey) • Raymonde Fortin (1 – Quebec) • Richard Bourassa (1 – Saskatoon) • Rob Ewanuk (1 – Kelowna) • Robert Powls (1 – Vernon) • Ross McKinnon (1 – Kelowna) • Sam Steinfeld (1 – Winnipeg, Manitoba) • Sarah Key (1 – Australia) • Sean Gibbons (1 – Mount Pearl, Newfoundland) • Shari Brown (1 – Kelowna) • Shrikant Chinchalkar (1 – Vancouver) • Steve Young (1 – Victoria) • Steven Mah (1 – Vancouver) • Stu McGill (1 – Waterloo) • Sumarie le Roux (1 – Creston)

		• Susan Rankin (1 – North Vancouver) • Susan Smith (1 – Nepean, Ontario) • Susan Van Evra (1 – Canmore, Alberta) • Susannah Britnell (1 – Vancouver) • Trish Davidson (1 – Langley) • Ty Agha (1 – Victoria) • Tyler Dumont (1 – Surrey) • Virginia Fenzl (1 – Pitt Meadows) • Waymen Wong (1 – Coquitlam, Vancouver) • Wayne Hing (1 – Australia) • Wendy Epp (1 – Vancouver) • Zolie Glonek (1 – Vancouver)
2	Neurology (166 or 10% of responses)	• Libby Swain (37 – Vancouver) • Cathy Eustace (23 – Vancouver) • Cathy Hazzard (19 – Bowser) • Tina Moran (6 – New Westminster) • Darryl Caves (5 – Vancouver) • Karen da Silva (5 – Surrey) • Rebecca Shook (5 – Vancouver) • Di Cook (4 – Vancouver) • Tara Klassen (4 – Vancouver) • Becky Farley (3 – Arizona, USA) • Cath Le Cornu Levett (3 – Vancouver) • Karen Brunton (3 – Toronto, Ontario) • Lara Boyd (3 – Vancouver) • Shannon Sproule (3 – Vancouver) • Debra Young (2 –Victoria) • Felicia Wong (2 – Vancouver) • Grant Hutson (2 – Vancouver) • Hilary Jebson (2 –Vancouver) • Rachael Buckler (2 – Kelowna) • Sarah Rowe (2 – Vancouver) • Amanda Arione (1 – Vancouver) • Bev Boden (1 – Penticton) • Christine Bossedt (1 – unknown) • Cynthia Wilson (1 – Vancouver) • David Butler (1 – Australia) • Deb Treloar (1 – Vancouver) • Doria Bellows (1 – Vancouver) • Erin White (1 – Abbotsford & Surrey & Chilliwack) • Iona Novak (1 – Australia) • Jason Knox (1 – Calgary, Alberta) • Jean Goodwin (1 – unknown) • Jenny Hogan (1 – Prince George) • Joanne Yip (1 – Vancouver) • Karen Guha (1 – Waterloo, Ontario) • Karen Sauve (1 – Vancouver)

		• Karla Gallagher (1 – Victoria) • Keith Tam (1 – Vancouver) • Kelcey Erlandson (1 – Victoria) • Lise Magan (1 – Vancouver) • Marla Balzer (1 – inactive) • Melanie Lewis (1 – inactive) • Morio Shiono (1 – Vancouver) • Moya Stokes (1 – North Vancouver) • Pauline Martine (1 – Vancouver) • Rob Baker (1 – Kelowna) • Robert Johnston (1 – Courtenay) • Robin McKenzie (1 – deceased) • Sam Steinfeld (1 – Winnipeg, Manitoba) • Stacey Miller (1 – Vancouver) • Susannah Stewart (1 – Victoria) • Teresa Siebold (1 – Calgary, Alberta) • Valerie Ward (1 – Vancouver) • Wendy Lens (1 – Victoria)
3	Paediatric (81 or 7% of responses)	• Anne Rankin (4 – Vancouver) • John Cumberbirch (3 – Surrey) • Shelley Mannell (3 – St. Catharines, Ontario) • Ann Reiner (2 – Vancouver) • Beth Ott (2 – Vancouver) • Beverly (Billi) Cusick (2 – Various) • Candace Foy (2 – Creston) • Chiara Singh (2 – Surrey) • Diane Wickenheiser (2 – Vancouver) • Helen McAllister (2 – East Kootenay) • Joanne Woods (2 – New Westminster) • Jude Rushton (2 – Vancouver) • Judit Spence (2 – Vancouver) • Kim Barthel (2 – Victoria) • Lynn Rogers (2 – Vancouver) • Pippa Hodge (2 – Aldergrove) • Val Ward (2 – Vancouver) • Alison Hyatt (1 – Vancouver) • Bentley Leong (1 – Vancouver) • Brenda Horton (1 – Coquitlam) • Brigid Gillis (1 – Vancouver) • Carolyn Emery (1 – Calgary) • Catherine Patterson (1 – Toronto) • Claire Hochfeld (1 – Vancouver) • Christelle Van Eden (1 – Delta) • Dianne Aikman (1 – Surrey) • Dianne Cameron (1 – Vancouver) • Donna Sims (1 – Victoria) • Doria Bellows (1 – Vancouver)

		• Doug Baron (1 – Calgary) • Elaine Antoniuk (1 – Vancouver) • Heather Branscombe (1 – Abbotsford, Chilliwack) • Janice Evans (1 – Vancouver) • Joan Ducklow (1 – unknown) • Joannah Durrah (1 – unknown) • Justin Chipperfield (1 – Richmond, Vancouver) • Karen Davies (1 – Vancouver) • Karen Ross (1 – Cleveland, USA) • Kim Foster (1 – Prince George) • Kim Hesketh (1 – Vancouver) • Lynn Bergman (1 – Prince George) • Maggie McIlwane (1 – Vancouver) • Maureen Johnson (1 – Victoria) • Melissa Richmond (1 – Vancouver) • Mike Hilliard (1 – Vancouver) • Monica Woyzik (1 – unknown) • Patricia Patstone (1 – Duncan) • Polly Bingham (1 – Vancouver) • Rhoada Erhardt (1 – Minnesota, USA) • Rita Borkowsky (1 – Prince George) • Rita Holdner (1 – unknown) • Rowan Kimball (1 – Surrey) • Sandra Kudar (1 – unknown) • Sharon Cashin (1 – Kelowna) • Stacey Miller (1 – Vancouver) • Susan Harris (1 – Vancouver) • Toby Long (1 – Washington, USA)
4	Cardiorespiratory (54 or 5% of responses)	• Rosalyn Jones (9 – Vancouver) • Frank Chung (7 – Burnaby) • Simone Gruenig (6 – Vancouver) • Phil Sweeney (3 – Vancouver) • Victor Brittain (3 – Vancouver) • Dina Brooks (2 – Toronto, Ontario) • Krista Cunningham (2 – Surrey) • Judy Richardson (2 – Vancouver) • Maggie MacIlwane (2 – Vancouver) • Pat Camp (2 – Vancouver) • Ross Houston (2 – Prince George) • Angie Krasnay (1 – Invermere) • Barbara Hartman (1 – Kelowna) • Darlene Reid (1 – Vancouver) • Irma McCoy (1 – Penticton) • Juan Ronco (1 – Vancouver) • Julie Chung (1 – Richmond) • Kathy Stiller (1 – Australia) • Lori Roy (1 – New Westminster)

		• Margot Sondermann (1 – Calgary, Alberta) • Pam Eppler (1 – Kelowna) • Pat Valentine (1 – unknown) • Sue Murphy (1 – Vancouver) • Susan Taylor (1 – Kelowna)
5	Pain management (46 or 4% of responses)	• Neil Pearson (22 – Penticton) • Diane Jacobs (6 – Weyburn, Saskatchewan) • David Butler (4 – Australia) • Lorimer Moseley (3 – Australia) • Grant Hutson (2 – Vancouver) • Roland Fletcher (2 – Surrey & Maple Ridge) • Barrett Dorko (1 – Ohio, USA) • Dave Walton (1 – London, Ontario) • David Moffitt (1 – Maple Ridge) • Joanna Hermano (1 – Vancouver) • Louis Gifford (1 – United Kingdom) • Marlene Noble (1 – Vancouver) • Rochenda Howard (1 – Toronto, Ontario)
5	Sports/exercise (46 or 4% of responses)	• Rick Celebrini (6 – North Vancouver & Burnaby) • Tyler Dumont (6 – Surrey & Vancouver) • Isabel Grondin (2 – Sidney) • Randy Goodman (2 – Burnaby) • Susan Ting (2 – Vancouver) • Travis Wolsey (2 – Delta) • Wendy Epp (2 – Vancouver) • Alex McKechnie (1 – North Vancouver) • Brandon Butt (1 – Nanaimo) • Bruce Craven (1 – Saskatoon, Saskatchewan) • Chris Napier (1 – Vancouver) • Clyde Smith (1 – Vancouver) • Dan Bos (1 – Abbotsford) • Dan Devlin (1 – Victoria) • Don Jury (1 – Richmond) • Greg Redman (1 – Kelowna) • Gerry Illmayer (1 – Victoria) • Jim Bilotta (1 – St. Catharines, Ontario) • Joselito Lijauco (1 – Vancouver) • Karim Khan (1 – Vancouver) • Kathryn Schneider (1 – Calgary, Alberta) • Kevin Stoll (1 – Coquitlam & New Westminster) • Kevin Wagner (1 – Calgary, Alberta) • Mark Rizzardo (1 – Burnaby) • Matt Tyler (1 – Victoria) • Mike Conway (1 – Whistler) • Mandy Shintani (1 – North Vancouver) • Sam Moxon (1 – Dawson Creek) • Sue Lott (1 – Victoria)

		• Timberly George (1 – Vancouver)
6	Vestibular rehab (40 or 3% of responses)	• Bernard Tonks (19 – Victoria & Rossland) • Nicola Acerra (12 – Vancouver) • Sheelagh Woodhouse (4 – Coleman, Alberta) • Susan Herdman (2 – Georgia, USA) • Linsey Emberely (1 – unknown) • Michele Aldrich (1 – Coquitlam)
7	Women's health (31 or 3% of responses)	• Diane Lee (5 – Surrey) • Marcy Dayan (5 – Vancouver) • Pat Lieblich (5 – Vancouver) • Penny Wilson (4 – Vancouver) • Claudia Brown (2 – Montreal, Quebec) • Marie Lord (2 – Montreal, Quebec) • Angela Simpson (1 – Squamish) • Deborah Bowes (1 – California, USA) • Julie Gerhardt (1 – Penticton) • Lois Lochhead (1 – Prince George) • Marcella Paoletti (1 – Vancouver) • Nikki Klopfer (1 – inactive) • Salveen Lalli (1 – Surrey) • Terry Kedorkiw (1 – Prince George)
8	Acupuncture and IMS (19 or 2% of responses)	• Thomas Roundhill (4 – West Vancouver) • Joanne McBrinn (3 – Vancouver) • Lynn Chapman (3 – Vancouver) • Darryl Caves (2 – Vancouver) • Alec Myring (1 – Brentwood Bay) • Bruce Hocking (1 – Powell River) • Chan Gunn (1 – Vancouver) • Dalen Friesen (1 – North Vancouver) • Doug Freer (1 – Barrie & Stroud, Ontario) • Marta Kemecsey (1 – New Westminster) • Pieter Rijke (1 – Summerland)
9	Arthritis and osteoporosis (14 or 1% of responses)	• Marie Westby (4 – Vancouver) • Asuko Brittain (2 – Vancouver) • Jacek Kobza (1 – Vancouver) • Margaret Martin (1 – Ottawa, Ontario) • Meena Sran (1 – Victoria) • Patrick Embley (1 – Vancouver & White Rock) • Susan Barr (1 – Calgary, Alberta) • Susan Ting (1 – Vancouver) • Valerie Gray (1 – Vancouver)
10	Hand therapy (13 or 1% of responses)	• Jane Hicks (4 – Vancouver & Richmond) • Clare Palmer (2 – Vancouver & Richmond) • Lynne Frehan (2 – unknown) • Anita Riggs (1 – Kelowna) • Cathryn Wheeler-Bishop (1 – North Vancouver) • Peter Sharpe (1 – Surrey & Coquitlam)

		• Shaveen Kullar (1 – Surrey) • Sylvia Johnson (1 – Kamloops)
11	General practice (12 or 1% of responses)	• Nancy Cho (3 – Vancouver) • Chiara Singh (1 – Surrey) • Elizabeth Bryce (1 – Saanichton) • Freeman Qu (1 – Fort St. John) • Gail Kuo (1 –Creston) • Hollie Thomas (1 – Kelowna) • Judy Richardson (1 –retired) • Nu Lu (1 – Vancouver) • Ross Houston (1 – Prince George) • Vinay Dhingra (1 – Vancouver)
12	Professional topics (10 or 1% of responses)	• Sue Murphy (4 – Vancouver) • Carolyn Emery (1 – Calgary, Alberta) • Cristine Urquhart (1 – Vancouver) • Diana Hopkins-Rosseel (1 – Kingston, Ontario) • Kimberly Miller (1 – Vancouver) • Sharon Switzer (1 – Toronto, Ontario) • Susan Paul (1 – Vancouver & New Westminster)
12	Visceral manipulation (10 or 1% of responses)	• Judy Russel (5 – Vancouver) • Gail Wetzler (2 – California, USA) • Cheryl Schatz (1 – Coquitlam) • Dee Ahern (1 – Florida, USA) • Kirsten Vinge (1 – Kelowna)
13	Clinical reasoning (9 or 1% of responses)	• Alison Hoens (2 – Vancouver) • Joseph Anthony (2 – Vancouver) • Susan Paul (2 – Vancouver & New Westminster) • Colin Davies (1 – New Westminster & Burnaby) • Moya Stokes (1 – North Vancouver) • Steve Young (1 – Victoria)
13	Electrotherapy (9 or 1% of responses)	• Alison Hoens (7 – Vancouver) • Maura Whittaker (2 – Vancouver)
13	Oncology and lymphedema (9 or % of responses)	• Fatima Inglis (2 – Vancouver) • Kristin Campbell (2 – Vancouver) • Chiara Singh (1 – Surrey) • Karen Chahal (1 – unknown) • Kitty Martino (1 – unknown) • Mary Dalzell (1 – Montreal, Quebec) • Oren Cheifetz (1 – Toronto, Ontario)
14	Amputees (8 or 7% of responses)	• Linda McLaren (5 – Vancouver) • Bob Gailey (1 – Florida, USA) • Colleen Budzinski (1 – unknown) • Rachel Tutte (1 – Vancouver)
14	Geriatric care (8 or 7% of responses)	• Robyn MacDonald (2 – Saanichton) • Dale Graham (1 – Comox) • Julie Cheng (1 – Vancouver) • Louise Pothier (1 – Saanichton)

		• Megan Bond (1 – Victoria) • Sonia Martins (1 – Vancouver) • Steve Longstaff (1 – Vancouver)
14	Research skills (8 or 7% of responses)	• Alison Hoens (8 – Vancouver)
15	Fall prevention (2 or <1% of responses)	• Shirley Sahrmann (1 – Missouri, USA) • Tanya Dunne (1 – Vancouver)

Table 22a: Reason CPD activities have been impactful

Rank	Reason for Impact	Subcategory (# of responses)
1	Clinical relevance/ practical usage of lessons learned (528 or 57% of responses)	• No subcategory
2	Format factor (191 or 21% of responses)	• Hands-on or practical session (147) • Online format (e.g. webinar or vodcast)(21) • Small groups (17)
3	Presenter factor (133 or 14% of responses)	• Presentation skills of instructor (73) • Expertise of presenter (53)
4	Evidence –based activity (118 or 13% of responses)	• No subcategory
5	Content factor (85 or 9% of responses)	• Topic of interest (65) • Handouts/resources useful (20)
6	Networking with colleagues (45 or 5% of responses)	• No subcategory
7	New skills (26 or 3% of responses)	• No subcategory
8	Multidisciplinary (18 or 2% of responses)	• No subcategory
9	Length of time (11 or 1% of responses)	• No subcategory
10	Low cost (11 or 1% of responses)	• No subcategory
11	Venue (6 or <1% of responses)	• No subcategory

Table 23a: Reason CPD activities were not impactful

Rank	Reason CPD activities not impactful	Subcategory (# of responses)
1	Not clinically applicable (84 or 57% of responses)	• Not clinically translatable/not enough technique (48) • Wrong area of practice or not relevant (30) • Wrong clientele (6)
2	Content disconnect (38 or 26% of responses)	• Uninteresting/too simplistic/or no new information (30) • Too advanced or complex for audience/learner (4) • Focus on wrong profession (3)
3	Presenter factor (26 or 18% of responses)	• Uninteresting/boring or bad quality presentation (24) • Disagreements among presenters (1) • Not PT based so not credible (1)
4	Too much theory/too little hands-on (12 or 8% of responses	• No subcategory
5	Not evidence-based or poorly referenced (5 or 3% of responses)	• No subcategory
6	Too much time to complete (4 or 4% of responses)	• No subcategory