Appendices to the Report of the Strategic Research Committee 2020

Appendix I:	Mandate for a Strategic Research Committee of the Canadian Physiotherapy Association
Appendix II:	Members of the Strategic Research Committee 2020
Appendix III:	Documents Sent to all Members Prior to the First Meeting
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November 20, 2020

APPENDIX I

Proposal: Mandate for a Strategic Research Committee of the Canadian Physiotherapy Association March 26 2020

Purpose and Role:

The Strategic Research Committee (SRC) will be reinstated at the request of the President of the CPA. The SRC will function for about one year and – if deemed feasible by the Board of Directors - will be replaced by a *Research Advisory Council* in the long-term. The main purpose of the SRC is to provide guidance to the President and the Board of Directors of CPA with regard to the research vision and implementation of that vision for research in Physiotherapy.

Mandate:

The SRC 2020 shall:

- 1. Provide strategic direction(s) for Physiotherapy research and knowledge translation in Canada
- 2. Advise on how Congress may fit within the vision for research
- 3. Make recommendations regarding the role of Physiotherapy Canada (Journal) in the vision
- 4. Offer recommendations regarding the role of the PFC in the vision
- 5. Identify opportunities for cooperation and collaboration with other stakeholders to leverage funding and capacity to build physiotherapy research across Canada
- 6. Advise on the utilization of resources available for research and make recommendations for additional resources.
- 7. Propose the creation, membership and role of the Research Advisory Council that will supersede this ad hoc SRC 2020

SRC Membership:

Participants in the President's ZOOM meeting of February 19th will be invited to form the 2020 SRC and other researchers may be invited to join as well by the President. This SRC had its mandate ratified by the Board of Directors on March 26th 2020.

At the request of the President, the SRC 2020 will be chaired by a triumvirate of academic researchers:

Chairpersons:

- Dr. Carol L. Richards, Université Laval, Québec
- Dr. Dina Brooks, McMaster University, Ontario
- Dr. Dave Walton, Western University, Ontario

Members:

Prof. Molly Verrier, University of Toronto, Ontario Dr. Marilyn Mackay-Lyons, Dalhousie University, Nova Scotia Dr. Mindy Levin, McGill University, Québec Dr. Linda Woodhouse, Curtin University, Australia Dr. Linda Li, University of British Columbia, British Columbia Dr. Carolyn Emery, University of Calgary, Alberta Dr. Christine Novak, University of Toronto, Ontario Dr. Kristin Musselman, University of Toronto, Ontario Dr. Jaynie Yang, University of Alberta, Alberta

Invited to join (did not participate in the ZOOM meeting): * were participants from the 2015 meeting

Dr. Joy MacDermid, Western University, Ontario* Dr. Janice Eng, University of British Columbia, British Columbia* Dr. Michelle Ploughman, Memorial University, Newfoundland Dr. Sylvie Nadeau, Université de Montréal, Québec* Dr. Jean-Sébastien Roy, Université Laval, Québec Chair of the PFC Scientific Committee

CPA Staff:

Ms. Lisa Carroll, Director, Policy and Research

Clinicians

Three clinicians will participate in this project to contribute the clinical perspective. This is based on strong feedback from Branch Presidents and CPA Division Chairs. The clinicians must be members of CPA and nominees will be sought respectively from the Branch Presidents Forum, Division Chairs Committee and CPA's President.

Timeline:

- A preliminary verbal report and short written report to be presented by the three Chairs of the SRC to the CPA Board and CPA Components at the joint Component meeting in November 2020.
- Feedback will be requested at that time
- The final report will be presented to the Board of Directors by the end of December 2020.

Budget for SRC Activities (April 2020-December 2020):

- 1. Administrative support to find dates and set up meetings by ZOOM or some other Conference modality:
 - a. we anticipate the need for 4 such meetings
- 2. Cost to bring the 3 Chairpersons to the Board of Directors meeting venue in November 2020 (travel and accommodations)
- 3. Some assistance with formatting the final report
- 4. Meeting space for a day-long meeting at Congress 2021

APPENDIX II

SRC CHAIRPERSONS

- Dr. Dina Brooks, PT, PhD, FCAHS
- Carol L. Richards, OC, CQ, PhD, PT, FCAHS
- David Walton PT PhD



Dr. Dina Brooks, Vice Dean and Executive Director of School of Rehabilitation Sciences at McMaster University.

Dina is recognized as a leader in cardiorespiratory rehabilitation and held a Canada Research Chair in Rehabilitation and COPD. She holds a National Sanitorium Chair in Respiratory Rehabilitation. She is the Scientific Editor of Physiotherapy Canada and chaired the Scientific Committee of the World Congress of Physical Therapy Congress in 2017 in South Africa.



Dr. Carol L. Richards, Professor Emerita, Department of Rehabilitation Faculty of Medicine, Université Laval.

She is the founding Director of both the Quebec Provincial Rehabilitation Research Network (REPAR) and the Centre for Interdisciplinary Research in Rehabilitation and Social Integration (CIRRIS). Her research focuses on motor recovery and best practices in rehabilitation. She held a senior Canada Research Chair in Rehabilitation and the Université Laval Research Chair in Cerebral Palsy. She served on the Governing Councils of the Fonds de

recherche en santé du Québec and the Canadian Institutes of Health Research (CIHR) and many Boards and International Advisory Committees including: Canadian Stroke Network, Ontario Neurotrauma Foundation, NeuroDevNet, Toronto Rehabilitation Institute, Brain Rehabilitation Research Center, U. of Florida, and IMHA (CIHR). She chaired the Expert Committee that recommended the optimal rehabilitation continuum of the Quebec Stroke Strategy. Honors and award include the Jonas Salk Award, Enid Graham Memorial Lectureship Award, Queen Elizabeth II Diamond Jubilee Medal and honorary doctorates from the University of Ottawa, Université de Sherbrooke and Dalhousie University. A founding Fellow of the Canadian Academy of Health Sciences, she is an Officer of the Order of Canada and a Knight of the Order of Quebec.



Dr. David Walton, Associate Professor, School of Physical Therapy at Western University, with cross- or honorary appointments in the Schulich School of Medicine Dept. of Psychiatry and the Discipline of Physiotherapy at the University of Sydney.

David is an Associate Editor for the scientific journal *Musculoskeletal Science* and *Practice* and is recognized for his expertise in the area of pain and

trauma, health professional education, and critical rehabilitation futurism.

STRATEGIC RESEARCH SUBCOMMITTEES

Each subcommittee was tasked with discussing and making suggestions for the inclusion of a specific aspect of the mandate in a research vision for physiotherapy and how it could be implemented.

HOW CONGRESS CAN SUPPORT THE RESEARCH VISION



Chair: Jean-Sébastien Roy, BSc, MSc, PT, PhD.

Jean-Sébastien is a researcher at the Centre for Interdisciplinary Research in Rehabilitation and Social Integration (CIRRIS) and a Full Professor in the Rehabilitation Department at Université Laval. His research interests lie in defining the central (neural) and peripheral (joint-level) factors associated with the onset and chronicisation of musculoskeletal disorders, and in evaluating the effects of rehabilitations approaches to prevent or rehabilitate musculoskeletal disorders.

Other interests include to better understand normal joint control, mechanisms underlying motor learning or re-learning (post injury), and factors that impact both joint control and motor learning. He has published over 100 articles in peer-reviewed journals and 7 book chapters, mainly on neuromuscular and biomechanical mechanisms of musculoskeletal disorders, and has given over 50 presentations at national and international conferences.

Piaf Des Rosiers, Clinician (Children's Hospital of Eastern Ontario)

Piaf has spent most of her career providing care to paediatric patients, first at the IWK and now at CHEO. She presented her MSc research (pertaining to building self-efficacy for aerobic activity in patients' post-stroke) via podium presentation at both the CPA's congress and the Canadian Stroke congress. Piaf also served as president of the Nova Scotia Physiotherapy Association from 2017-2019 and re-established the Nova Scotia Physiotherapy Advisory group in 2019. Piaf has a strong interest in research that is easy to translate into clinical practice.





Dr. Kristin Musselman, Assistant Professor, Dept. of Physical Therapy, University of Toronto, and Scientist, KITE-Toronto Rehab

Dr. Musselman completed a BSc (Life Sciences) and BScPT at Queen's University, followed by an MSc (Neurosciences) and PhD (Rehabilitation Science) at the University of Alberta. Dr. Musselman was a CIHR Post-doctoral Fellow at the Johns Hopkins School of Medicine and Kennedy Krieger Institute from 2010-2013. Dr. Musselman develops effective

methods for the rehabilitation of walking, balance and upper limb function after neurological injury. Her current research is funded by CIHR, NSERC, the Heart & Stroke Foundation of Canada, Praxis Spinal Cord Institute and Craig H. Neilsen Foundation. She has been a member of the Executive Committee of the Neurosciences Division since 2014.

Sylvie Nadeau, PT, Ph.D., *full professor, School of Rehabilitation, Director of the Physical Therapy Programs at the University of Montreal (Canada).*

Sylvie is a senior researcher at the Centre for Interdisciplinary Research in Rehabilitation (CRIR) in Montreal. She obtained a MSc (1993) and PhD (1997) in biomedical sciences (rehabilitation curriculum) from the University of Montreal. Sylvie completed three postdoctoral trainings: at the Laboratory of Neurobiology and Movement in Marseille, at the School of Rehabilitation therapy of Queen's University in Kingston, Ontario and at l'Institut de réadaptation en déficience



physique de Québec. Her areas of interest include kinesiological biomechanics, gait and other functional task analysis, dynamometry and understanding of factors limiting functional performance in heathy, orthopedic, and neurological patient populations. She is also interested in developing new interventions and outcomes in rehabilitation. She is an Associate Editor for the Annals of Physical Rehabilitation Medicine since October 2017.



David Walton, PT, PhD, Associate Professor, School of Physical Therapy at Western University, with cross- or honorary appointments in the Schulich School of Medicine Dept. of Psychiatry and the Discipline of Physiotherapy at the University of Sydney.

David is an Associate Editor for the scientific journal *Musculoskeletal Science* and *Practice* and is recognized for his expertise in the area of pain and asignal education, and aritical republication futurism

trauma, health professional education, and critical rehabilitation futurism.

Dr. Linda Woodhouse, PT, PhD, Professor and Head of the School of Physiotherapy and Exercise Science at Curtin University.

Linda served as the inaugural Endowed Chair in Musculoskeletal Research at the University of Alberta (2011-2016) and Scientific Director for Alberta Health Services' Provincial Bone and Joint Health Strategic Clinical Network (2012-2015). Elected to the Board of Directors of the Canadian Physiotherapy Association (CPA) in 2012, she served as President 2015-2017. Linda has 30+ years of experience as a researcher, educator, and clinician. Recently, her work has focused on developing and evaluating innovative models of



integrated interprofessional care, predominately in the musculoskeletal area. She is an advocate for integrated data systems and the use of data to drive high quality, cost effective health care delivery.

THE ROLE OF PHYSIOTHERAPY CANADA (JOURNAL) IN THE RESEARCH VISION



Chair: Dr. Dina Brooks, Vice Dean and Executive Director of School of Rehabilitation Sciences at McMaster University.

Dina is recognized as a leader in cardiorespiratory rehabilitation and held a Canada Research Chair in Rehabilitation and COPD. She holds a National Sanitorium Chair in Respiratory Rehabilitation. She is the Scientific Editor of Physiotherapy Canada and chaired the Scientific Committee of the World Congress of Physical Therapy Congress in 2017 in South Africa.

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Janice Eng, Professor, Department of Physical Therapy at the University of British Columbia and Director of the Rehabilitation Research Program (10 faculty, 40 trainee program) at the GF Strong Rehab Centre.

Janice has clinical training in physical therapy and occupational therapy, as well as training in biomedical engineering. She is a Senior Canada Research Chair in Neurological Rehabilitation and her research spans clinical trials to implementation science.

Joy MacDermid, BSc, BScPT, MSc, PhD.

Joy is a physical therapist, hand therapist and epidemiologist; and a Professor and The Dr James Roth Chair in Musculoskeletal Measurement and Knowledge Translation (KT) appointed in Physical Therapy and Surgery at Western University. She has published > 500 peer-reviewed publications (Hindex=78; > 17K citations). She is the Editor-in Chief for the Journal of Hand

Therapy, Co-director of Clinical Research at The Hand and Upper Limb Centre in London Ontario and a Lifetime member of the Canadian and American Hand Therapy societies.

Marilyn MacKay-Lyons PT, PhD, BScPT (University of Toronto), MScPT (University of Southern California), and PhD Physiology (Dalhousie University).

Marilyn is a Professor in Dalhousie University School of Physiotherapy, an Affiliated Scientist with Nova Scotia Health, and a cross-appointee with Dalhousie University Department of

Medicine. Marilyn has extensive clinical and research experience in neurorehabilitation, focusing on optimizing recovery after stroke. She is Vice Chair of Institutional Advisory Board of CIHR Institute of Circulatory and Respiratory Health and has received several awards for contributions to neuro-rehabilitation research and outreach: Enid Graham Memorial Lectureship, Life Membership in the Canadian Physiotherapy Association, Canadian Progress Club Women of Excellence Award for Research, RW Putnam Award for Outstanding Contributions to Continuing Medical Education, and HSFC Dedicated Service Award.

Christine B. Novak, PT, PhD, Associate Professor in the Department of Surgery (Plastic & Reconstructive Surgery) and Department of Physical Therapy, University of Toronto and a Research Associate (Hospital for Sick Children).

Christine is past-President of the American Society of Peripheral Nerve and served on the Board of Directors of the American Association for Hand Surgery and the Executive Committee of the University of Toronto Centre for the Study of Pain. She is an Associate Editor for the Journal of Hand Surgery and HAND

and previously Physiotherapy Canada (2003-2019). Her research focus is on clinical outcomes and assessment of people with musculoskeletal disorders, particularly nerve injury/compression and factors related to upper extremity disability.







Jaynie Yang Dr Yang, professor, Department of Physical Therapy, University of Alberta.

Jaynie is a physical therapist with doctoral and post-doctoral training in biomechanics and neurosciences. Her research focuses on how the nervous system controls walking in people, and ways to retrain walking in individuals with neurological insults. Current interests include interventions for young children with perinatal brain injury, using early, activity-intensive therapy, to encourage them to use their affected leg(s) both during therapy and at home,



in order to capitalize on the neuroplasticity at that age, to improve their gross motor skills. She also works with adults with spinal cord injury to retrain and improve their walking.

RECOMMENDATIONS ON THE ROLE OF THE PHYSIOTHERAPY FOUNDATION OF CANADA (PFC)



Chair: Dr. Mindy Levin PhD, PT, FCAHS

Dr. Mindy Levin is a Physiotherapist and Professor at the School of Physical and Occupational Therapy, McGill University. She was a Research Scholar of the Fonds de la Recherche en Santé du Québec (1992-2004). She was Director of the Physical Therapy Program at McGill (2004-2008) and held a Tier 1 Canada Research Chair in Motor Recovery and Rehabilitation (2005-2019). Dr. Levin was President of the

International Society of Motor Control (2005-2008; 2018-present), the International Society for Virtual Rehabilitation (2017-2018) and is a founding member and current executive member of the International Neurological Physiotherapy Association of the World Physical Therapy Association. She is Editor of the journal "Motor Control". Dr Levin's research aims to elaborate the pathophysiological mechanisms underlying disordered motor control and learning after central nervous system damage in adults and children and to develop novel treatment interventions to enhance motor recovery. Amongst her research methodologies are new technologies such as virtual reality and robotics.

Richard Preuss, Associate Professor and Associate Director - Physical Therapy, McGill University School of Physical and Occupational Therapy

Richard is the Associate Director of the Physical Therapy program at McGill University and a researcher at the Lethbridge-Layton-Mackay Rehabilitation Centre site of the CRIR. He is a physiotherapist by training and holds an MSc in Kinesiology/Biomechanics from the University of Waterloo and a PhD in Rehabilitation Science from McGill, along with two years of post-doctoral



experience at the Rehabilitation Engineering Laboratory of the Toronto Rehabilitation Institute. Dr. Preuss' research interests are in neuro-musculoskeletal rehabilitation, with a specific focus on biomechanical and neuromuscular factors contributing to the etiology and course of non-specific low back pain. He has been a member of the Physiotherapy Foundation of Canada (PFC) Scientific Awards Committee since 2011 and has chaired the committee since 2018.



John Spirou, DPT, MBA.

John has worked in many areas of physiotherapy practice including primary care, outpatient orthopedics, specialty programs, inpatient hospital, long term care, home care, advocacy and regulatory practice. He has been embedded into primary care teams across southwestern Ontario to provide primary and secondary contact physiotherapy. John has provided outpatient orthopedics as a private practice owner of clinics in southwestern Ontario, including maintaining a clinical caseload from both public and private sectors. His experience includes

working in acute hospital care and long-term care. John served as Past President, Councillor, peer reviewer and practice enhancement coach at College of Physiotherapists of Ontario, past Board member and Executive officer at the Canadian Alliance of Physiotherapy Regulators and in Advocacy as a past Board member at the Canadian Physiotherapy Association.

RESEARCH RESOURCES: STAKEHOLDERS, FUNDING AND COLLABORATION



Chair: Dr. Michelle Ploughman, Associate professor of Medicine at Memorial University, St. John's NL and Canada Research Chair in Neuroplasticity, Neurorehabilitation and Brain Recovery.

Michelle is a physiotherapist, a neuroscientist and a CPA member for over 30 years. She is a recognized expert in neuroplasticity and

neurorehabilitation in stroke and multiple sclerosis. Her research focuses on the effects of aerobic exercise, intensive training paradigms and lifestyle habits on the brain challenged by injury, disease and aging. Her work is published in journals such as Stroke, Neuroscience, Brain Research and Archives of Physical Medicine and Rehabilitation.

Lisa Carroll, M.Sc., Director of Policy and Research, CPA

Lisa has worked as a policy analyst in collaborative research, postgraduate medical education, policy & health care, and as a physiotherapy assistant in both private practice and in long term care facility settings. Lisa graduated from the PTA/OTA program at Sir Sanford Fleming College, and went on to pursue a B.Sc. from Trent University, specializing in health science. She then received her M.Sc. from Carleton University in the Department of Health: Science, Technology and Policy. Her research thesis focused on the challenges facing informal caregivers



living in a rural Canadian setting, the findings of which were accepted for publication in the Canadian Journal on Aging. Lisa is a past instructor at Carleton University in the Department of Health Sciences and at Fleming College's PTA/OTA program.



Jocelyn Chandler, Community Physiotherapist, co-founder Northern Therapy Services

Jocelyn is a community clinician and entrepreneur with 20 years experience in Northern regions of Canada, advocating with underserved communities for policy change, culturally relevant service, and barrier-free access to healthcare. As a clinical supervisor/ instructor for Medicine Hat College she trained indigenous community members as physiotherapy assistants to improve access to care. In Northern Saskatchewan, Jocelyn facilitated health promotion by utilizing grants for physical activity programs. She has received numerous community and provincial awards, including the Saskatchewan Physiotherapy Association Award of Merit, and has a local community centre renamed in her honour. Jocelyn co-founded Northern Therapy Services with a local Occupational Therapist to address service gaps in communities.

Carolyn Emery PT, PhD, Professor and Canada Research Chair in the Faculty of Kinesiology and Departments of Pediatrics and Community Health Sciences, Cumming School of Medicine, University of Calgary

Carolyn completed her PhD in Epidemiology (UAlberta 2004), MSc in Epidemiology (UCalgary 1998) and BSc in Physiotherapy (Queen's U 1988). Carolyn is the Chair of the Sport Injury Prevention Research Centre and leads the Vi Riddell Research Program in Pediatric Rehabilitation at UCalgary. Carolyn is a Canada Research Chair (Tier 1 Concussion), Fellow

of the Canadian Academy of Health Sciences, Christensen Fellow at UOxford and member of the Royal Society of Canada College of New Scholars. Carolyn's research program focuses on injury and concussion prevention in youth sport and recreation and pediatric rehabilitation. Her research aims to reduce the public health burden of injuries and concussions and their long-term consequences.

Dr. Linda Li, Professor and Harold Robinson/Arthritis Society Chair at the Department of Physical Therapy, University of British Columbia, and Senior Scientist at Arthritis Research Canada.

Linda holds a Canada Research Chair in Patient-oriented Knowledge Translation. Her research centers on improving care for people with arthritis and empowering patient self-care. Her work focuses on the integration of online, mobile, and wearable tools in health care. Examples of her work

include the use of interactive decision aids for improving communication between patients and health professionals, and the use of wearables and apps to promote physical activity. Linda's work in knowledge translation has led to a new line of studies on the benefits of engaging patients and the public in the research process. Her work has been recognized by prestigious awards, including a Distinguished Scholar Award from the U.S. Association of Rheumatology Professionals. In 2019, she was inducted as Fellow of the Canadian Academy of Health Sciences.

Molly Verrier, Dip P&OT 1970, UofT, MHSc, McMaster 1979, Associate Professor Emeritus in the U of T Department of Physical Therapy and the Rehabilitation Sciences Institute and Senior Scientist Emeritus at the Kite Research Institute - University Health Network

Molly practiced neuro physiotherapy and quickly became a research physiotherapist. Early on as a Clinician Scientist, she led the Human Motor Control Laboratory at the Playfair Neuroscience Unit investigating disordered sensorimotor control, in persons with spinal cord injury, stroke and Parkinson's disease. As chair of the Department of Physical Therapy and Graduate

Department of Rehabilitation Science at UofT (1994-2004), she implemented the MScPT and MSc/PhD Rehabilitation Science programs while being a board member on four Toronto Rehabilitation Hospitals along with chairing the Ontario Neurotrauma Foundation - Rehabilitation Research and the Ontario MOHLTC Career Scientist Panels. With her MSc, PhD students and colleagues and her research using fMRI, electrophysiology, kinematics, "big data" and







development of outcome measures (CB&M, Toronto Rehabilitation Hand Function Test, SWAT, GRASSP) she designed customized neurotherapeutics (FES, BWSTT) to enhance neurorecovery. She is currently on the Board of Trustees of the Banting Research Foundation.

APPENDIX III

Documents Sent to all Members Prior to the First Meeting

- Mandate of the Strategic Research Committee (SRC) 2020
- SRC 2015 report and accompanying letter from the President of the CPA
- Guest Editorial: Richards, CL. Is the Canadian Physiotherapy Association Fulfilling Its Role in Promoting Research? *Physiotherapy Canada.* 2019; 71: 303-305.
- Walton, DM. Physiotherapists' perspectives on the threats posed to their profession in the areas of training, education, and knowledge exchange: A Pan-Canadian perspective from the Physio Moves Canada Project, Part 1. *Physiotherapy Canada.* 2020;72: 26-33.
- Walton, DM. Physiotherapists' perspectives on the threats facing their profession in the areas of leadership, burnout, and branding: A Pan-Canadian perspective from the Physio Moves Canada Project, Part 3. *Physiotherapy Canada*. 2020; 72: 43-51.
- Richards, CL. REPAR Report on Rehabilitation Funding in Canada 2000-2011. https://repar.ca/wp-content/uploads/2016/11/summary_eng_rapport_finance_readapt.pdf
- SRC 2020 List of Members

APPENDIX IV

SUBCOMMITTEE REPORTS

Report of the CPA Congress Subcommittee

For the Strategic Research Committee

Working group members: Jean-Sébastien Roy (Université Laval, Co-Chair), David Walton (Western University, Co-Chair), Piaf Desrosiers (Clinician representative), Sylvie Nadeau (Université de Montreal), Kristin Musselman (University of Toronto), Linda Woodhouse (Curtin University)

Meetings: June 12, 2020 (regrets: L. Woodhouse)

Preamble: The CPA Congress working group was appointed by the Strategic Research Committee to explore, identify, and report on strategic priority areas regarding the function and value of CPA Congress, for consideration by a CPA-supported Research Advisory Council (RAC) to be named later. The working group held a 90-minute online meeting to brainstorm strategic priorities that were recorded and crafted into a draft document by the two Co-Chairs. That draft document was circulated to the members of the working group for feedback and revision. The document presented below represents the result of this process.

Executive Summary: While a congress centred around issues relevant to physiotherapy practice in Canada is a sound initiative with the vision of facilitating collaboration, knowledge sharing, and a sense of camaraderie in the Canadian PT community, in practice the National CPA Congress has not appeared to reach its full potential in realizing its vision (i.e. number of participants stagnating, CPA Congress not viewed as a must annual happening by Canadians PTs). Meanwhile there are examples elsewhere of professional communities achieving these visions that the National CPA Congress could look to for inspiration. The working group identified 4 broad thematic areas as strategic priorities, each with sub-components as described more fully below. Those 4 themes are: Clarifying Purpose and Value, Optimizing Access and Visibility, Linkages and Partnerships, and Motivating Engagement.

Theme 1: Clarifying Purpose and Value

The working group endorsed this as the highest priority theme, inasmuch as it is difficult to discuss the other themes without first answering the big questions of 'Why?'. The working group suggests that the future RAC engage in stakeholder interviews and surveys to better understand why a National CPA Congress is needed, what its intended impact and purpose should be, and establish milestones or metrics to determine if those are being met. The working group agrees that this needs to go beyond simple metrics like number of registrants or revenues earned, but to broader questions of to whom should such an event be targeted, what key outcomes or deliverables should be evaluated, and how should physiotherapists and their communities be or behave differently as a result of this congress?

Theme 2: Optimizing Access and Visibility

Stakeholders are unlikely to attend an event if they a) don't know about it or don't know the themes being discussed, b) cannot afford the time or cost of attending, and c) don't view it as important for their professional development. In prior years the National CPA Congress has been billed as *the* elite event of the year for attendees, but we encourage the RAC to more fully consider the trade-offs and whether potential attendees would be more likely to attend under different cost:benefit structures. The working group also recognized the importance of visibility and suggested that the RAC consider the value of improving the website and other promotional materials / avenues to ensure that all potentially interested parties are aware of the event and the value for their money. The working group suggested that the RAC also explore the potential value of alternative formats, including the option of virtual participation as a possible means to reduce the burden of attending for some members or hosting the National CPA Congress at a University to reduce organizing costs. Finally, the CPA Congress could showcase Canadians leaders in research and clinical practice to increase the visibility of the excellent PT researchers and clinicians we have in Canada, but also as a means of increasing visibility of the whole congress.

Theme 3: Linkages and Partnerships

The working group identified several directions for the RAC to consider in terms of new strategies for linkages and partnerships to offer even more value to attendees. For example, we are aware that the Provincial Branches also hold their own annual conferences separate from CPA Congress and that when held in the same province these two events could be competing for attendees, sponsors, and speakers with one another. Therefore, a joint meeting (CPA- Provincial Branch) could be organized more regularly. Working group members also identified the potential value of promoting CPA Congress as a place for universities to hold alumni events or other recognitions, especially when the Congress is held in cities with a university PT program. In fact, some CPA Congresses could be organized or co-organized (with adequate support) by a PT Department/School (i.e. by faculties, lecturers, clinicians associated with the Department/School). The working group further encourages the RAC to endorse partnerships with all stakeholders, including patients, clinicians, administrators, clinic owners, educators, and academics when planning Congress, and to engage with representatives from Indigenous, Black, Disabled and other racialized or marginalized groups in their planning committees to optimize equity, diversity, and inclusiveness of Congress programming. Congress should be a safe space for all attendees yet, from the working group's perspective, has historically (with some notable exceptions) upheld a sort of meritocracy that has privileged some subsections of the community while unintentionally excluding others. Programming and content that value engagement with more diverse representation would be a good first step in overcoming this challenge. Finally the working group acknowledged that for many who attend several national and international conferences each year, CPA Congress often ranks at or near the top in terms of cost of attending (per the prior theme), and encourage the RAC to consider better linkages with sponsors or other means of cost offsetting to reduce barriers to attendance.

Theme 4: Motivating Engagement

The working group engaged in discussion around the differences needed to shift the collective view of CPA Congress as something to which one *should* go, to something to which one *wants* to go. Several ideas were proposed here, though many require the visioning and purpose exercise of Theme 1 to be complete first. If the results of that exercise determine that the primary target of CPA Congress is clinicians, then we encourage the RAC to collect information (e.g. surveys, interviews, social media posts) to identify areas that would offer the most impact, and therefore the most value, for that population. If the primary target is researchers, the same exercises could be undertaken. If it was both, or other groups (e.g. educators, administrators), then again, understanding what motivates those people to attend a congress, workshop, or other such professional events seems a logical step towards optimizing the value of CPA Congress. The working group also suggested the RAC 'survey the landscape' of those professional meetings that appear to be thriving and determine what, if anything, can be learned from those and applied to CPA Congress. Principles of gamification were raised as a way to stimulate engagement with congress. Considering the value proposition for all stakeholders, such as ensuring that clinicians and researchers partner with each other in meaningful ways during and after the event, could move the needle towards the *want* to go pole. Having clinician-researcher partnerships as a requirement of all plenary sessions for example, or restructuring the congress to look more like a menu of practical workshops co-led by clinicians and researchers from which attendees could 'choose their own learning adventure' might be enticing. The RAC may even consider alternative structures to knowledge sharing and collaborative events or outcomes, that may or may not in fact involve large masses of people sitting in seats, listening to a speaker for an hour, then moving en masse to the next room in which to sit. Specific themes could also be suggested for a given Congress and people from outside the PT bubble could be invited as keynote speakers in order to go further in these themes and to bring an external perspective. Finally, the working group observed that abstracts submitted for CPA Congress seem to be rejected at a rate higher than many other similarly targeted conferences, and an exploration of the reasons for this would be a reasonable endeavour.

Respectfully submitted,

Jean-Sebastien Roy

David Walton

On behalf of the CPA Congress working group

Physiotherapy Canada Subcommittee

Present: Janice Eng; Christine Novak; Marilyn MacKay-Lyons; Joy Christine MacDermid; Jaynie Yang

The goal of the meeting is to: "Make recommendations regarding the role of the Physiotherapy Canada Journal in the vision".

The following recommendations were made:

- 1) CPA should continue to support and strengthen *Physiotherapy Canada*
- 2) *Physiotherapy Canada* should continue to be at arms lengths from CPA; CPA should not have control on content.
- 3) *Physiotherapy Canada* should place the highest emphasis on increasing the impact factor of the journal because it will improve the quality of research, thus credibility and evidence-based practice
- 4) Although important, engaging clinicians should not be the focus of the journal. The journal should continue with summaries to help with knowledge translation. Special series should continue to be encouraged as they appeal to clinicians.
- 5) Promote the use of multimedia to engage the clinicians (e.g. videos, infographics)
- 6) Use social media to promote publications in the journal
- 7) Continue with Silver Quill awards and consider increasing the number of awards
- 8) PFC recipients should be strongly encouraged to publish the results in *Physiotherapy Canada*
- Incentives are needed to encourage high quality research to be submitted to the journal (e.g.: universities adopt *Physiotherapy Canada*; target/remind senior researchers to submit a high impact paper)
- 10) Explore making PT Canada open access
- 11)Explore going exclusively online
- 12)Explore if other societies would want to consider Physiotherapy Canada as their journal

Additional recommendation to the Editorial Board:

- 1) Physiotherapy Canada needs to improve timeline and reviewer comments.
- 2) Consider increasing international rep on editorial board and advisory board
- 3) Consider ways to improve choice of keywords.
- 4) Consider ways to recognize authors who contribute multiple papers.

Physiotherapy Foundation of Canada Subcommittee

Why does the CPA need to fund research?

Research has advanced the physiotherapy profession from its inception in the early 1900's to establish the evidence-based practice that exists today. Our level of autonomy has grown exponentially over the decades, as has our knowledge base, which has led to significant evolution of the profession over the past 100 years. From the clinicians' perspective, this progress has led to direct access for physiotherapy and the stage was ultimately set for the advent of the autonomous primary care practitioner.

With the evolution of the profession, educational programs expanded from diplomas to baccalaureates, and subsequently from baccalaureates to master's programs, bringing with them, an expansion in physiotherapy research education and a greater capacity to conduct physiotherapy relevant research in clinical and academic environments.

While research historically has focused on the basic physiology of the neuro-musculo-skeletal system and its pathophysiology, which has carried the profession forward, there is a need for other forms of research to advance professional practice. Many gaps exist in the translation of basic science concepts across the spectrum of clinical applications as well as socioeconomic, regulatory and educational aspects of the profession that have limited the growth of the profession. Here are some examples:

- Regulatory bodies (i.e., College) craft vague policies and standards of practice for the profession, with little evidence to guide best practices pertaining to physiotherapy.
- Funders/insurers/payers continually question the value of physiotherapy because of a lack of evidence of cost-effectiveness. Remuneration rates are low compared to the true value that physiotherapy brings to society.
- The professional development marketplace exemplifies the lack of standardization in physiotherapy practice, with a range of alternative assessment and treatment approaches being offered based on tenuous and low-quality evidence.

Thus, better funding of research is necessary in order to respond to the changing needs of physiotherapy practice and to advance the profession in Canada.

The committee summarized four areas that could be prioritized for research funding:

- 1. **trainee awards** and scholarships (i.e., Ann Collins Whitmore prize) to foster research interest in physiotherapists entering the profession;
- 2. **catalyst grants** for researchers to obtain preliminary data for applications to provincial, national and other extramural funding agencies;
- 3. **knowledge translation** (KT) grants to bring research findings into physiotherapy practice;
- 4. grants aimed at establishing the **cost-effectiveness** of physiotherapy interventions.

The committee recommends that a comprehensive process be put in place to identify specific research priorities for the PFC, relevant to key stakeholders. CPA should survey stakeholders who may benefit from supporting physiotherapy research such as clinicians, patients and their

families, administrators, educators and researchers. It is suggested that the process of identifying research priorities would benefit from a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis of the current PFC funding strategy. The goal of this analysis would be to identify gaps in order to prioritize research funding areas and allocations.

What is the role of the PFC?

The main roles of the PFC are to set research priorities and to distribute funding. The prioritization of research areas is important to position the profession for its ongoing evolution and future success. The committee discussed many ways to determine research priorities drawing on, among others, experiences and practices in other countries.

Different approaches to priority setting were discussed. These include surveys and questionnaires distributed to key stakeholders such as researchers, clinicians, patients, educators and funders. In a survey of physiotherapy research funding priority setting in other countries, different approaches were found. The Royal Society of Physiotherapy (UK) identify research priorities by polling patient, carer and physiotherapy stakeholders. They pose the question "Where could research make a real difference to people receiving physiotherapy?" Their current top priority is the following: "When health problems are developing, at what point is physiotherapy most/least effective for improving patient results compared to no physiotherapy? What factors affect this?" They have listed a set of the top 10 research priories that include questions about service delivery, intervention methods, patient expectations and management, access to services, self-management and outcome assessment. Other countries set priorities by committees set up for the purpose of distributing funds for research similar to the PFC. For example, in the Netherlands, the Scientific College of Physical Therapy consists of 8 researchers and 'aims to promote scientifically founded practice of the physiotherapeutic profession." It does this by "financing research, promoting research and promoting cooperation between researchers."

What are the potential models of physiotherapy research funding?

Physiotherapy research funding takes different forms in different countries. It consists of either the establishment of a charitable trust, the allocation of a percentage of yearly professional fees, or both. In the UK, funding comes from the Royal Society and a charitable trust. In Denmark, the Netherlands and Australia, funds come from yearly professional fees. In Denmark, 3% (~9 euros) of annual fees goes to support research each year. In the Netherlands, funding also comes from annual fees (% unknown) and co-funding from outside organizations. In Australia, members pay an automatic fee of \$5 (AUS) with their annual fees and they can choose to make an additional donation.

Funding can be distributed as research grants, grants for pilot research (i.e., seed money), scholarships for post-secondary education, salary support for young professors and/or support for organizing the annual meeting or for individuals attending the annual meeting.

In our survey, we found that in the UK, one large grant is awarded per year to an experienced researcher for a research project (\pounds 200,000). In addition, grants of up to \pounds 25,000 are awarded to novice researchers to fund post-graduate education, one grant is given specifically for research in children with CP in the amount of \pounds 25,000 (to a novice researcher). Finally, one grant of up to

£25,000 is awarded to an intermediate level researcher as a seed grant. Funding for these grants comes from a partnership with the Private Physiotherapy Educational Foundation (PPEF). PPEF is a Registered Charity and a Limited Company. The Charity owes its formation to its benefactor Kenneth Balfour who wished to leave a large part of his estate to the Organisation of Physiotherapists in Private Practice, the OCPPP; (the previous name of Physio First). In the Netherlands in 2017, 4 research projects were funded by the national society with a total budget of ~900,000 euro. Two were financed entirely with the society's budget and two with budgets from industry or private trusts. In 2019, there was a joint call for proposals in cooperation with the Arthritis Society for a total budget of 250,000 euro (for three postdoc positions). In addition, funding was used to support the annual scientific congress and to set up a researcher network.

The Danish Physiotherapy Association supports research in 3 ways: via distributions of grants from the Danish Physiotherapy Association foundation for research, education and development; via direct funding of professor positions and via aid to members looking for external funding and public affairs. They distribute 1 PhD scholarship and 1 post-doc scholarship per year as well as contributing a portion of a professor's salary in order to promote physiotherapy research. They also provide courses to members on how to seek funding.

In Australia, up to 6 seed grants are awarded each year of \$10,000 (AUS) and other "tagged grants" ranging from \$10,000 to \$30,000 (AUS) per year.

The committee concluded that different funding scenarios are possible and that national priorities should be set to respond to the particular needs of physiotherapists in Canada.

Availability of funds

The committee identified that there were substantial problems in the past regarding the availability of funds for the PFC grant competitions. Aside from the small amount of funds, it was also problematic that the amount of funds was not reliable from year to year. The low level of funding was attributed to insufficient and/or inefficient fund-raising efforts, the reticence to levy a mandatory fee to support research from membership renewals, missed opportunities to leverage funds from Divisions and, notably, high staffing and consultant fees. Regarding the latter, it was noted that, in 2018, more than 75% of the donations to the PFC went to wages and administration fees, leaving 25% to fund research scholarships and projects.

Recommendations of the committee

1) Revise governance:

It is recommended that the CPA creates a new permanent *Research Advisory Council (RAC)*. The mandate of the RAC would be to identify research funding priorities and develop strategies for leveraging funding from other sources to enhance the PFC funding base. The Chair of the RAC should be on the Board of Directors of the CPA and should report directly to the President of the CPA. The RAC Chair should also be the Chair of the Scientific Advisory Committee (SAC) of the PFC in order to have continuity in decision making about funding priorities and to leverage the expertise of the SAC in determining the research vision of the CPA.

Currently, funding is earmarked according to the source of the funds (e.g., Acupuncture Division) but there is little input from stakeholders (i.e., clinicians, researchers, clients,

caregivers, administrators, trainees, educators) about funding priorities and needs. It is recommended that the RAC develop a survey tool for clinicians that can be sent out through CPA contact lists, through divisions, on the CPA website and/or embedded in the CPA membership renewal (or popping up after renewal). Other mechanisms can be used to survey patients and their families, educators and researchers.

2) Diminish administrative costs:

Mechanisms should be identified to decrease administrative costs such as better use of websites (i.e., establishing automatic features on the grant submission website to decrease the need to have personnel involved in the submission process); streamlining the process of allocation and distribution of grants to reviewers. The goal would be to decrease the administrative overhead to less than 25% of the total amount of the funds distributed.

3) Increase funds:

The committee was strongly in favour of levying a \$10 mandatory fee for research from each member at the time of membership renewal each year. This would guarantee a strong and reliable financial base for the PFC grants from year to year.

4) Improve clinician engagement:

With the goal of fostering better clinician-research collaboration, it is recommended to survey different models that can be potentially implemented. The PFC can adapt the model of Quebec REPAR in which to be eligible for funding, a grant proposal must include a researcher and a clinician as co-applicants, and the clinical applicability of the research has to be demonstrated.

5) Improve allocation and management of grants/scholarships

The committee suggests that the same types of PFC funding be maintained/enhanced to include scholarships (master's/PhD students) and project grant funding. Project grant funding can include catalyst, knowledge translation and cost-effectiveness projects. It was agreed that the stipulations that scholarships/grants can only be held by a member or student-member of CPA studying or working in Canada and doing research that advances the practice of physiotherapy, be maintained. However, further directives should be initiated for each type of grant. For example, to obtain a catalyst grants, the mechanisms for follow up after the grant period such as proof that the awardee used the research results to apply to other funding agencies should be provided. In addition, inclusion of clinician partnerships in KT and cost-effectiveness grants should be encouraged.

Resources Subcommittee Report

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Graphical Summary



1.0 Mandates of the Strategic Research Committee (SRC), Resources Subcommittee

- Identify opportunities for cooperation and collaboration with other stakeholders to leverage funding and capacity to strengthen and develop physiotherapy science and research across Canada.
- Advise on the utilization of resources available for physiotherapy science development and research and make recommendations for additional resources.

2.0 Process

The Resources Subcommittee was tasked with developing recommendations for advancing physiotherapy research and practice in Canada. It met three times between May 26 and June 23, for 60–90 minutes each time, to discuss 1) the current landscape of physiotherapy research in Canada, 2) opportunities for enhancing clinician-educator-researcher collaboration, and 3) the role of the Canadian Physiotherapy Association (CPA) as a facilitator for advancing physiotherapy research and practice in Canada. The purpose of this document is to report on the themes and recommendations that emerged from these meetings.

3.0 Definition of Terms

Knowledge translation (KT) is defined as a dynamic and iterative process that includes the synthesis, dissemination, exchange, and ethically sound application of health-related knowledge to improve the health of Canadians, provide more effective health services and products, and strengthen the health care system. KT takes place within a complex system of interactions between researchers and knowledge users (e.g., clinicians, industry, community, non-for-profit partners) that can vary in intensity, complexity, and level of engagement, depending on the nature of the research and the findings as well as the particular knowledge user's needs [1].

Implementation science is defined as "the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice, and, hence, to improve the quality and effectiveness of health services" [2].

3.1 A note about Definition of Terms

We recommend that the CPA task a future advisory group with clarifying definitions at the outset of their mandate, to ensure clarity and promote the use of common terminology to advance a shared understanding within and across the profession. Terms such as 'research', 'science' and 'evidence' can often be used interchangeably and in different ways by clinicians and researchers. Therefore, producing a common vocabulary can be a pragmatic starting point for communicating about physiotherapy as a science and a practice, within and outside of the profession.

4.0 Current State of Physiotherapy Research in Canada

4.1 What do we know about physiotherapy researchers?

We know relatively little about physiotherapy researchers in Canada in terms of who they are, their numbers, and their activities. According to estimates, there are currently upwards of 1,000 active physiotherapy-focused researchers in Canada, many, but not all, of whom are actually physiotherapists, trained either in Canada or internationally. Less than half are CPA members. Some work in university physiotherapy academic programs; others work in research institutes, academic and teaching hospitals, hospitals delivering primarily non-academic services, and various university faculties such as kinesiology, health sciences, and medicine. Some work in basic science roles, public health, and health administration and services delivery. We do not know how many either continue their research or participate in research while working as clinicians or work in academic institutions and lead research activities in their work environments. There is a particular dearth of information of research activities in private practice environments whether they are large corporations or physiotherapy owned clinics. However, a number of those who are currently contributing to the field of rehabilitation science are Canadian research leaders who are active within influential organizations such as the Canadian Institutes for Health Research (CIHR), Canadian Academy of Health Sciences, Royal Society of Canada, and university leadership associations.

4.2 Multidisciplinary contributions

An increasing number of researchers in the field of rehabilitation come from other academic and professional backgrounds and are contributing directly to the scientific foundations of PT practice. For example: biomechanists, kinesiologists, methodologists, engineers, psychologists, immunologists, geneticists, physiologists, and computer scientists. These researchers' contributions to the development of the science underpinning effective PT practices are critical but are frequently overlooked by the PT clinical and research communities.

4.3 Disconnect between researchers and clinicians

In general, physiotherapists practising in a clinical setting may not be aware of the extent of physiotherapy research in Canada. There are clearly disparities between researchers' priorities and practising clinicians' priorities [3]. Employers tend to encourage physiotherapists to participate in clinical courses, rather than pursuing research. After physiotherapists have graduated from their entry-level training, they often narrow their professional scope or specialization, with some opting to take courses that are not evidence-based. There is also a disconnect between clinicians' interests (which are more client-centric) and researchers' programs of research (which are more about evidence-informing practice). However, clinicians and researchers appear to be open to the prospect of collaborating to solve important clinical questions that can inform and advance clinical best practices.

The Subcommittee discussed barriers to engaging in research for clinicians. Limited time for learning in busy clinical practices and lack of access to research collaboration opportunities are two of the more common barriers, but some clinicians may have developed a specific focus in

the way they practise and be resistant to change. Furthermore, researchers also encounter barriers when their research interests do not align with the immediate needs of clinicians. Therefore, finding and building common ground is important.

The Subcommittee recognizes that, in certain research fields (e.g., basic science, methodological research), some researchers do not regularly engage clinicians as research partners. Conversely, some clinicians view the work of researchers in certain fields—such as basic science, prevention, health services research, and implementation science—as less important or less relevant to their daily practice.

The Subcommittee discussed how clinicians and researchers could work collaboratively to address these challenges and advance PT research and practice. Three themes have been identified.

5.0 Theme 1: Communicating Physiotherapy as a Science and a Practice

Building a physiotherapy research community benefits evidence-informed practice, an approach to practice that differentiates the physiotherapy profession from some other health care providers. Key stakeholders and collaborators should include researchers, clinicians, Canadian physiotherapy university programs, credentialing and regulatory bodies, the CPA, and crucially, patients and the broader public. Researchers and clinicians become sub-specialized in their own fields, of practice which widens the distance between them and can create communication and referral gaps. However, researchers and clinicians who are members of CPA divisions do meet and take advantage of opportunities for collaborations within their own fields. These existing relationships should be fostered to promote optimal communication. A common language and understanding of what people and groups do while undertaking both practice and research can also help overcome barriers to collaboration both within and across specialities.

Below are the highlights of the topics discussed:

 <u>Investing in National Knowledge Brokerage</u>: Knowledge translation is currently practised in pockets of research areas (e.g., injury prevention, physical activity, chronic disease management). In some fields, it is both a focus and a foundational component of research success. Often, researchers build trusting relationships with individual clinicians and community partners and draw on these when they embark on specific goals or projects. This approach is, however, slow and generally small-scale. CPA has a Knowledge Translation Committee, but it recognizes that relationships are built by individuals rather than committees.

The idea of a national physiotherapy knowledge broker was discussed. A knowledge broker could serve as a **connector** across the CPA, hospitals, clinics, universities, community partners, industry, and government. Such a position already exists in British Columbia (BC) through funding from the Physiotherapy Association of BC, UBC, and a provincial health authority. The knowledge broker reaches out, communicates, and builds relationships with physiotherapy stakeholders while

simultaneously gathering ideas and assisting with the translation of research findings [4]. Each region of Canada has its own unique circumstances and the preferred communication strategies and modes of communication would vary according to geography and workplace circumstances (e.g., large corporations, small clinics, hospitals). A key role of the knowledge broker would be to foster a culture of multi-stakeholder collaboration, guided by the concept of integrated knowledge translation (iKT) [5].

- Embracing Physiotherapy Science as a Core Professional Competency: Clinicians and the provincial professional colleges tend to consider completion of courses as key criteria in maintaining practice competency. Reading and appraising key articles in the respective physiotherapy disciplines is an important, and typically overlooked, aspect of competence. A specialization process for physiotherapy that includes essential research and knowledge translation components could be established. A PT Research Advisory Council could be formed to identify key research outputs and ongoing research relevant to specific specializations or divisions, and to promote physiotherapy science for improving the health and well-being of Canadians. Activities to improve competency in physiotherapy science could include active participation in relevant research activities and practice areas national and regional journal clubs and case study groups. A Research Advisory Council could also facilitate collaboration between the regulatory colleges and the CPA.
- <u>National Physiotherapy Research Rounds</u>: Regular virtual presentations by rehabilitation researchers, especially on projects that involve partnerships between researchers and practitioners, would highlight emerging physiotherapy science while allowing people to connect on a professional and personal level. Such a program would also provide a 'value add' for CPA membership. Access to research updates and presentations varies across the country. For example, in large urban centres, clinicians may be inundated with opportunities to expand their knowledge base, while clinicians in towns without a formal academic hub or those based in rural and remote communities, may have more limited opportunities. The technology to deliver content virtually is now widely available and can generally be adapted to meet specific demands of certain topics or workplace resources if necessary. Leveraging that technology to keep clinicians and researchers alike connected to a research and practice network will be crucial to future PTs' professional development and knowledge exchange. Considering providing connection to a dedicated platform for CPA members for such could be an important opportunity to advance the profession.
- <u>Develop a national database of researchers and clinical specialists</u>: It is difficult to build capacity when the researchers and clinical experts are difficult to identify. The CPA may consider establishing a database of researchers, practice experts, and specialists across Canada. This would help researchers, clinicians, and the CPA to connect more easily and effectively.

Clinicians are aware that there are gaps in knowledge to inform practice, but they need to know what information is currently available and how to access science and practice specialists. CPA has a lead role to play in facilitating connectivity and creating evidence-informed practice. By using membership information and collaborating with its divisions, CPA could create a directory of members and their areas of expertise, searchable by key words. The use of the directory could be monitored (number of clicks) as a metric and demographics and patterns could be tracked. This initiative could be melded with the Clinical Specialization program, with users being encouraged to connect with experts via an 'Ask Me Anything' portal. As an association we should highlight our

stars and promote them to our membership community and beyond. The research and specialist practice communities are so large that meeting routinely face-to-face has become less practical, so it is crucial that we explore other ways of connecting. The type of database we are suggesting would also help track changes in practice areas, trends in questions, and emerging PT researchers. By making our experts more accessible and bringing our PT community of excellence into the spotlight it could prove useful for responding to crises, building a human workforce in certain important areas that may be less well resourced, planning for the future, and interacting with government. There are models for such in other health professions that could be explored."

• <u>Develop a referral model for the profession:</u> The CPA could play a key role in connecting the public, other health providers, clinicians and researchers together by creating a referral model in tandem with the national database. The referral system would help people access experts especially in niche areas or fields so that patients receive highest quality evidence-based care.

5.1 **Recommendations for the CPA**

- Prioritize promoting and facilitating the integration of science and practice as a stronger focus for the CPA: Clinicians and scientists share a common goal of improving patient health, well-being, and quality of life; academic PT programs are primarily concerned with developing and providing a curriculum that will prepare PTs for clinical practice. CPA can play an important role in bringing academic/education programs, scientists, and clinicians together and creating a "think tank" in which we pay attention to the PT evidence-informed community. There is great competition in the health marketplace, so we need to think more about building the science, education, and evidence-informed practice of physiotherapy and raising general awareness of its significance. For example, if we develop a product or new area of knowledge, we should actively promote its PT origin or ownership both formally and informally. We have a history of such e.g. the "PROM" which is used internationally and need to further develop such entrepreneurial activities.
- <u>Commission a CPA Research Mission Statement:</u> Having a Research Mission Statement is a key metric and serves as a specific action to demonstrate that CPA regards development of our science and evidence base as high priority.
- <u>Have CPA serve as a PT hub by 'connecting the dots'</u>: CPA needs to build capacity for the future by acting as a central hub that champions the PT research community in the context of the science, education, and practice of PT. As a hub, CPA would help identify PT experts, promote and link members to evidence-based courses, create a selfsustaining research network, promote the PT 'stars,' and foster knowledge exchange. The American Physical Therapy Association awards 'fellowship' recognition for PTs who make key contributions to the field. This type of recognition is an inexpensive way to promote and retain talent.
- <u>Have CPA improve its efforts to champion PT and lead the PT community to the</u> <u>forefront of policy and advocacy initiatives</u>. By facilitating connectivity and information brokering, linking people with questions to people with answers, CPA can strengthen the PT scope of practice. Business and industry are already doing this. We can learn from them. Connecting university PT education programs, science, and practice will strengthen both CPA and the PT community.

- <u>Have the CPA membership become active investors in research</u>: Allocate a portion of CPA membership dues to supporting the development of PT science and research. Consider using funds to provide studentships and fellowships for physiotherapists to undertake research thereby supporting the next generation of physiotherapy researchers.
- Identify and connect those physiotherapists who are left out of the conversation. How can CPA connect the dots when 55% of PTs in Canada are not CPA members? (There were 11,174 practising CPA members in 2019 [Source: CPA member database, 2020] and 25,294 PTs licensed to practise in Canada in 2019 [6]). How do other professions manage membership in their national organizations? We must learn more about the researchers and practitioners who are not CPA members. They may work in private practices, large corporations, or even in multiple jobs. We must try to unite and meet their needs as well.

5.2 **Recommendations for researchers**

- Consider including clinicians and patient/community partners in research teams.
- Invest in activities that foster collaborations when identifying researcher-clinician opportunities and clinically relevant research questions.
- Explore opportunities to broaden partnerships with clinicians in research and knowledge translation, especially in areas where clinicians have traditionally been less involved. For example, a researcher's experiments could be mechanistic, and so may seem tangential to clinicians. To overcome this gap in interests and understanding, and establish a stronger culture of mutual relevance, here are some questions to consider: How can ideas from clinicians and students be formulated into research questions? [7]. How can we ensure clinicians and students are matched with the right researcher and provide incentives to make that connection happen?

6.0 Theme 2: Focus on Integrated Knowledge Translation

Clinicians have opportunities to leverage the research Canadian researchers are producing. Researchers should therefore make KT a priority. When there are partnerships between researchers and people on the ground who deliver care, trust and conversation happens and everyone benefits. Communication is key.

6.1 **Recommendations for the CPA**

- Organize and host forums to identify 'the next big questions for scientists and educators to solve.' Bring clinicians and researchers together at CPA congresses via a variety of modes (e.g., think tanks, knowledge exchange forums, fireside chats, panels).
- Change the board structure so that different roles in the PT community are represented rather than solely geographic locations. For example, rather than having mainly provincial representatives, think about having practice leaders, scientists, researchers, students, and administrators as representatives.

- Utilize KT experts in CPA and the private practice division to help clinicians connect to researchers and research that is relevant to their practice.
- Review established KT frameworks, and tailor them for the PT profession. Such frameworks could inform how physiotherapy addresses health, well-being, and quality of life of patient populations, and subsequently inform future research and educational opportunities.
- Identify new ways to bring research and science into the everyday lives of practitioners and practice into the everyday lives of researchers.
- Commission guidelines to examine the evidence and make recommendations for key areas of practice and research development. The CPA may consider exploring potential partnerships for guideline development. For instance, the SPOR Evidence Alliance links clinical communities, government, and patient groups across Canada to investigate key questions about health care. It provides funding and methodological support for conducting research synthesis and developing guidelines. Initiatives like these bolster high-quality health care. Importantly, they are collaborative initiatives between people who use the products (including clinicians and patients) and people who can develop them.

6.2 **Recommendations for researchers**

- Many physiotherapy researchers are clinician scientists and already actively connected with clinical physiotherapists. Clinicians and researchers are encouraged to engage in research by connecting through the CPA divisions, conferences, and forums.
- Invest in the future of PT research by identifying and mentoring clinicians to pursue research training, including PhD training. The future of clinically relevant research is dependent on the next generation of practising physiotherapists and physiotherapy researchers.
- Create CPA graduate student scholarships for research in emerging areas that are key for the future development of PT science and practice.

6.3 **Recommendations for clinicians**

- As a bare minimum, all Canadian physiotherapists should be encouraged to read both *Physiotherapy Practice* and *Physiotherapy Canada*. They should know at least one researcher in their practice area and have established a connection with them.
- Consider developing processes for clinicians to share their contributions in researcherrelated activities.

7.0 Theme 3: Build Physiotherapy Research Capacity Early in Physiotherapy Training

The Subcommittee discussed ways to help new investigators and graduate students succeed in rehabilitation research. For example, we could create an early career research chair in a strategic area to promote physiotherapy research. Using the CPA's limited pool of research dollars for small seed grants is probably no longer practical or effective. Instead, we should look at possibly partnering with other agencies to grow the next generation of PT researchers through investing in training programs, scholarships, and junior research chairs. Academic

programs could join forces to elevate PT research by, for example, providing travel funds for graduate students to visit other research sites to gain expertise in different research applications, a strategy that is used successfully in other disciplines. We discussed exemplary examples of how MScPT students, faculty and clinicians were working together as part of the PT curriculum to help address clinical questions, holding 'Research Days' and publishing their work in Physiotherapy Canada [8, 9]. However, we also recognized that this opportunity may only exist currently in large academic centres and private practice PTs may be underrepresented in such collaborations.

7.1 **Recommendation for the CPA**

• Invest in the future of PT research by identifying and mentoring PTs to pursue a PhD. The biggest indicator of a successful career trajectory is early experiences of robust training and quality mentorship. We should provide incentives to PTs who are interested in pursuing research to take that next step.

7.2 Recommendations for researchers

- Invest in the future of PT research by identifying and mentoring PTs to pursue a PhD.
- Ensure that existing researchers are generating funding for graduate students and postdoctoral training.
- Support early career researchers. As the next generation of scientists, clinician scientists, clinicians, and students explore potential research projects, they could be encouraged to consider topics anchored to the physiotherapy research community of practice national objectives. Their projects could therefore address current knowledge gaps. Students could be mentored by virtually connecting to national clinical and research leaders in the field.
- Have the cadre of PT researchers develop a succession plan to fill the gaps created when scientists retire or move on to other careers.

7.3 Recommendations for academic physiotherapy programs

- PTs who have completed graduate studies in Canadian programs hear the message early in their training that completion of post-graduate courses will build upon, and perhaps ensure, their future competency. The same expectations could be set for competencies in research and critical appraisal.
- Program admission criteria should consider accounting for a percentage of students becoming researchers and physiotherapy clinician-scientists, in addition to those who want to be practitioners.
- Academics in physiotherapy education settings should receive support to build research methods into the physiotherapy academic program/curriculum, from assessment and treatment to health services and population health. This would provide opportunities for student projects to tap into clinical questions and address what the PT practice community needs. Thanks to developments in technology, researchers and students can now connect and communicate effectively regardless of geographic location.

Furthermore, by connecting in this way, students have an opportunity to develop their collaborative skills early on in their academic and professional careers, which bodes well for future collaborative efforts. The University of Toronto MScPT Program, like other Canadian university programs, has a robust research curriculum for students which allows every student to experience the importance of building the science, learning about research processes and provides a foundation for those wishing to pursue a research career through further graduate studies or participate in research activities in the clinical practice setting. The research projects undertaken contribute to building physiotherapy science and are published in our signature scientific journal Physiotherapy Canada (9) also giving exposure of Canadian physiotherapy research internationally. Given the COVID challenges in 2020 this research curriculum was conducted virtually. This type of approach could be "scaled up" and provided in post graduate courses to expedite the scientific development of physiotherapy or be aligned with practice areas that are in urgent need of enhancing their evidence base.

- Programs should support students as they are learning how to reach out to researchers early in their training, especially during their clinical placements. By contacting research and practice experts, students can help build new KT links 'on the ground.'
- Students should be encouraged to reach out to researchers in multidisciplinary settings who may not necessarily be PTs but their research supports PT science and practice.

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