

The Second Physical Therapy Summit on Global Health: Developing an Action Plan
to Promote Health in Daily Practice and Reduce the Burden of Lifestyle-related Conditions

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ABSTRACT

Based on indicators that emerged from The First Physical Therapy Summit on Global Health (2007), the Second Summit (2011) identified themes and formulated directions for a 21st century action plan to integrate health promotion into physical therapy practice across WCPT regions. Working questions were 1. how well is health promotion practice implemented within physical therapy practice, and 2. how might this be done better across spheres, i.e., practice, education, research, professional bodies, and government? In structured facilitated sessions, Summit representatives (n=35) discussed 1) within their WCPT regions, what works and challenges; and 2) across WCPT regions, potential solutions (World Café® methodology; Brown, 2005). The ideas were refined through circulation of a draft document to regional representatives and fan-out methods. Although regions reflected multiple but diverse strengths, they shared challenges. Commonalities appeared to outweigh differences with respect to strategies to advance health promotion practice as a clinical competency within the physical therapy profession across five spheres. Given that health promotion practice is a professional priority, a strategic action plan is needed to develop this as an established clinical competency. Identification of common challenges across regions and strategies for advancing health promotion practice as a competency provided a foundation for an action plan (examples illustrated) designed to engage practitioners within and between WCPT regions. A Third Summit (2015) would provide a mechanism for following-up, hence, an opportunity to evaluate global interventions at various levels and advances in establishing health promotion practice as a priority, i.e., practice aligned with 21st century priorities.

Key Words: Contemporary practice, epidemiologically informed practice, WCPT global summit, World Cafe methodology

INTRODUCTION

Lifestyle-related conditions are pandemic globally (increasingly in low- and middle-income countries). These conditions include smoking-related conditions, ischemic heart disease, hypertension and stroke, type 2 diabetes mellitus, obesity and cancers, and are associated with unsustainable social and economic burdens (World Health Organization, Report of the Commonwealth Health Ministers' Meeting, 2007). Attention to these health and life threats in physical therapy practice and in entry-level education is relatively minimal, particularly in relation to health behavior change (Dean et al., 2011; Dean et al, 2009).

Despite the plethora of the benefits of healthy living to health and wellbeing, and its capacity to minimize illness when one becomes ill and maximize recovery, evaluation of health requires greater attention by all health professionals. Although the positive benefits of healthy choices are generally well appreciated, what is less apparent appears to be the effect size of healthy living. These effect sizes may surpass those of medications or surgery in some cases, targeted at a single sign or symptom, in that the likelihood of long-term health is increased (Dean, 2009). A seminal example is the work of Ford and colleagues (2009) who demonstrated the benefits of healthy living in a study of over 23,000 people between 35 and 65 years of age. The risk factors of the participants were followed over eight years. People who did not smoke, had a body mass index under 30, were physically active for at least 3.5 hours a week, and followed healthy nutritional principles had a 78% lower risk for developing a chronic lifestyle-related condition. Specifically, the risk for type 2 diabetes mellitus was reduced by 93%, myocardial infarction by 81%, stroke by 50%, and cancer by 36%. Even if not all four of these

positive lifestyle factors were present, the risk of developing one or more of these chronic lifestyle-related conditions decreased commensurate with an increase in the number of healthy behaviors. Unless administered for a clearly defined problem, e.g., an infection, fracture, hemodynamic instability such as decompensated heart failure, biomedicine rarely has claimed such effects for chronic lifestyle-related conditions. The gap between the well-established knowledge base about the detrimental effects of unhealthy lifestyle choice and the prevalence of lifestyle-related conditions, and the role of healthy living in preventing, potentially reversing these conditions, has been described as the ‘ultimate knowledge translation gap’ (Dean et al, 2012). Attention to healthy living in the health-related scientific literature appears not to be afforded the same level of attention and importance as molecular solutions to lifestyle-related conditions.

In physical therapy, patient education and exercise are hallmarks of practice and these interventions are unequivocally effective in preventing, in some cases reversing as well as managing these conditions (see reviews Dean 2009a, Dean 2009b). Further, physical therapists are leading established healthcare professionals and the quintessential non-invasive (non-pharmacological and non-surgical) professionals, therefore, they have a primary responsibility in targeting lifestyle-related behaviors and risk factors in clients and patients (adults and children), and exploiting their evidence-based non-invasive management strategies.

To address this priority, The First Physical Therapy Summit on Global Health was convened at the 2007 Congress of the World Confederation for Physical Therapy. It assembled several hundred physical therapists representing several spheres (i.e., practice, education, research, professional bodies, and government). This Summit heightened awareness and

stimulated various countries to begin to initiate change within their own countries to better align practice with current health priorities.

The lines of supporting evidence included:

1. epidemiological indicators supporting lifestyle-related conditions as 21st century health priorities, and
2. unequivocal evidence-base supporting the effectiveness of non-invasive prevention, reversal and management strategies (i.e., health education and exercise) for chronic lifestyle-related conditions.

Furthermore, of the established healthcare professionals, physical therapists:

1. are the quintessential non invasive practitioners (i.e., specialize in patient education and prescribing physical activity and exercise, and can provide hands-on intervention in a biopsychosocial paradigm),
2. have a practice pattern consistent with the needs to effective health education (i.e., to effect long-term lifestyle behavior change (specifically, long visits over prolonged time (weeks or months), and
3. have practices that are cost-effective compared with pharmacologic and surgical interventions for chronic lifestyle-related conditions.

Based on these attributes, lines of support for physical therapist assuming an irrevocable position on the team helping to lead the assault on lifestyle-related conditions, the Summit concluded that a concerted effort was needed to provide direction and leadership within and across WCPT regions, across professional levels including practice, education, research, professional bodies and engagement with government position papers and initiatives to assert the

role and expertise of physical therapists as consultants to community and global health (Dean et al 2011).

To extend the findings of the First Summit, the objective of The Second Physical Therapy Summit on Global Health was:

1. to learn about gaps and existing health behavior change initiatives (societal/family/individual) exist within and across WCPT regional member countries, and the extent of the role of physical therapy,
2. to identify means of translating knowledge-to-action regarding lifestyle influences on health and wellbeing with attention to cultural distinctions, across the five spheres, and
3. to participate in cross cultural dialogue and develop a working document that could be evaluated at a future Summit (potentially in conjunction with the WCPT World Congress in Singapore in 2015).

METHODS

General Procedures

The Summit lasted one full day. The morning included a report from each WCPT regional representative, i.e., Africa, Asia Western Pacific, Europe, North America Caribbean, South America, and a 30 minute presentation on health behavior change as a clinical competency across spheres to set the stage for the afternoon discussion groups of the Summit participants. The participants consisted of 5 from the Africa region, 4 from the Asia Western Pacific region, 8 from the Europe region, 14 from the North America Caribbean region and one from the South America region and three invited international consultants (SB, SM, WPW). The majority of participants were university affiliated (n=24), followed by administrators (n=10, some of whom who had dual teaching or clinical roles) and clinicians (n=7), and representatives from physical

therapy professional associations (n=3). Note that the counts do not sum to 32 because some participants had dual roles. The afternoon included two major discussion sections, i.e., within and across regions, one hour each followed by 30 minutes discussion with all participants.

An experienced facilitator (JR) led the group discussion sections. She first identified the so-called ‘evergreen’ question for the day: “Physical therapists have a significant role to play in health promotion and building healthy lifestyles. As leaders how can we set an agenda that influences our collective future?” Finally, under the guidance of the facilitator, 30 minutes were allocated to the development of a template with ideas for task force construction within regions.

Within Region Group Discussion

The facilitator reminded the group that it was a brainstorming session and that all ideas counted. She emphasized that ‘This day is not about perfection but motion.’

The regional representatives for each of the five WCPT regions had an hour discussion, and reported back to the group. The guiding questions included:

- What is already occurring that can be leveraged (strengths)?
- What challenges exist that are threats to advancing physical therapy and health promotion initiatives?
- Based on this, where are the opportunities? Participants were asked to prioritize their responses, but identify low-hanging fruit items, that is, those that could be readily implemented to yield results quickly.

Across Region Group Discussion

Based on several integrated design principles, the World Café methodology is a simple, effective, and flexible format for hosting large group dialogue (Brown, 2005).

1) *Setting*: The environment is modeled after a café, i.e. small round tables, flip chart paper, and colored pens.

2) *Welcome and Introduction*: An experienced facilitator welcomes participants, introduces the World Café process; describes the context, and puts the participants at ease.

3) *Small Group Rounds*: The process begins with the first of a series of short rounds (15 minutes) of conversation for the small group seated around a table. At the end of the fixed period, each member of the group moves to another table. Typically, one person remains as the "table host" for the next round, who welcomes the next group and briefly summarizes discussions from previous rounds.

4) *Questions*: Each round is prefaced with the question of interest designed for the specific context and desired purpose of the session.

5) *Harvest*: After the small group discussions, individuals are invited to share insights or other results from their conversations with the rest of the large group. These results are reflected visually in a variety of ways, most often using graphic recorders in the front of the room.

The experienced facilitator is able to optimize the complexities and nuances of context, question crafting and purpose.

Action Plan to Align Physical Therapy Practice with 21st Century Health Priorities

The responses of the participants and input from fan-out contacts globally were compiled to inform the basis for an action plan for better aligning 21st century health priorities with physical therapy practice. Given physical therapy is the quintessential non invasive established health care profession and that the evidence supports a primary role for non invasive interventions to prevent and, in some cases, reverse the prevalence of lifestyle-related conditions, clear goals that could be implemented within and across regions were discussed and prioritized.

The elements of the working structure include action statements to implement health promotion across spheres including practice, education, research, professional bodies, and government.

Participants concurred that regions and countries within regions vary with respect to their social, cultural and economic contexts, therefore, a global plan needs to be overarching in terms of the overall common mission, but sufficiently flexible to accommodate such distinctions. A template (with examples of ideas that emerged from the Summit day overall) for an action plan for integrating health promotion practice into 21st century physical therapy practice, and that could be considered within WCPT regions and, in turn, their member countries, was developed.

RESULTS

Participants concurred that consistent with epidemiological indicators and the identity of physical therapy being the leading established non invasive health profession, health promotion practice warrants being integrated into mainstream physical therapy practice as soon as possible. The results focused on strengths of various initiatives to date, opportunities and challenges with respect to what could be improved to streamline the achievement of the overall goal. Means of doing so with respect to practice, education, research, profession and government were identified.

Below are the qualitative results with respect to the working questions that were the bases for discussion at the Summit.

Within Region Group Discussion

Within regions, the responses to the key questions were as follows.

What is already occurring that can be leveraged (strengths)?

Table 1a outlines the responses within regions with respect to the strengths of each region regarding health promotion practice initiatives.

What threats and challenges exist to advancing physical therapy and health promotion initiatives?

Table 1b outlines the responses within regions with respect to threats and challenges to physical therapy advancing health promotion practice initiatives.

Based on this, where are the opportunities?

Table 1c outlines the responses within regions with respect to opportunities physical therapists have in aligning health promotion with general practice in the 21st century.

Across Region Group Discussion

Across regions, parallel questions were addressed but in the context of the five spheres, i.e., practice, education, research, professional bodies, and government; the responses appear in Tables 2a, b, and c. Table 2a outlines the responses across regions with respect to the strengths in health promotion practice initiatives for each sphere. Table 2b outlines the responses across regions with respect to threats and challenges to physical therapy advancing health promotion practice initiatives for each sphere. Table 2c outlines the responses across regions with respect to opportunities physical therapists have in aligning health promotion with general practice in the 21st century for each sphere.

Table 3 shows the template of an action plan that emerged from the Summit for working toward the integration of health promotion into routine physical therapy practice as a clinical competency. Comparable to effecting change in the corporate world or other public institutions, change needs to be multipronged. With respect to physical therapy, ideas for the action plan cross five spheres, i.e., practice, education, research, professional organizations, and government.

DISCUSSION

Ideas to stimulate the framework for a global action plan and potential task force development within and across WCPT regions to enact the plan were generated from the Summit platform. First, the ideas put forward were to stimulate participants within regions (i.e., Africa, Asia Pacific Western, Europe, North America Caribbean, and South America) irrespective of their physical therapy roles to consider strengths, challenges and opportunities with respect to integrating health promotion practice as a clinical competency into the profession this century. Second, participants generated ideas to consider with respect to strengths, challenges and opportunities for integrating health promotion practice as a clinical competency across regions, for the five spheres (i.e., practitioners, educators, researchers and those with professional organization and those in positions that influence policy at the government level).

To enrich the input to the discussion related to health promotion practice being a central physical therapy clinical competency this century, a working draft was circulated to further generate discussion on the points raised at the Summit, and to maximize the representativeness of the input. We anticipate that the publication of our findings will further dissemination of the ideas, and further refine working action plans at the global level, within and across regions.

The ideas generated within and across regions may be useful for regions to consider in terms of generating aims, goals and detailed action plans. The ideas put forward lend themselves to the so-called SMART format which if carried out systematically, could be a prudent way of preparing for reporting back at a third Summit. The SMART acronym refers to the components of setting meaning goals, in that they need to be specific, measurable, attainable, relevant and timely.

The participants of the Summit concurred that overall health promotion practice in physical therapy is a priority this century, and that a concerted action plan at the global level

could be targeted and tailored to the needs of each region and, as needed, to the unique needs of each member country of each region.

Attention needs to be given to planning the Third Summit (potentially WCPT Congress in Singapore 2015) to help countries and regions work synergistically to be leaders in health promotion practice, in their role as established health professionals who specialize in non-invasive practice. Such a forum would enable practitioners, educators, researchers, professional representatives, and consultants to government, to share their how they operationalize their action plans. One compelling method is based on the SMART principle. Such a format could be applied to help realize the goals that emerged from this Summit (or related ideas and themes), at each shareholder level, i.e., practice, professional education, research, professional bodies, and government. Importantly, leadership is needed to help foster co-operation within and among regions and install a mechanism for accountability and follow-up over time. In this way, we are optimistic that the profession of physical therapy will mobilize its collective creative and intellectual capacities to address the leading health priorities of the 21st century, i.e., lifestyle-related conditions that affect adults and increasingly children, and their associated social and economic burdens. Curbing the tide of these serious conditions would be a major contribution of physical therapy, dedicated to exploiting non-pharmacological interventions, strategies and approaches.

DECLARATION OF INTEREST

The authors report no conflicts of interest.

REFERENCES

- Beaglehole R, Yach, D 2003 Globalisation and the prevention and control of non-communicable disease: the neglected chronic diseases of adults. *The Lancet* 362: 7903-7908
- Blanchard CM, Courneya KS, Stein K 2008 Cancer survivors' adherence to lifestyle behavior recommendations and associations with health-related quality of life: Results from the American Cancer Society's SCS-II. *Journal Clin Oncology* 26: 2198-2204
- Bodner M, Dean E 2009 Brief advice as a smoking cessation strategy: A systematic review and implications for physical therapists. *Physiotherapy Theory and Practice* 25:369-407
- Bodner ME, Rhodes RE, Miller WC, Dean E. 2011 Smoking cessation and counseling: Practices of Canadian physical therapists. *Physical Therapy* 91:1051-1062
- Bodner ME, Rhodes RE, Miller WC, Dean E 2012 Smoking cessation and counselling: practices of Canadian physical therapist. *American Journal of Preventive Medicine* 43: 67-71
- Brown J 2005 *The World Café. Shaping Our Futures Through Conversations That Matter.* Berrett-Koehler Publishers Inc., San Francisco
- Christakis NA, Fowler JH 2007 The spread of obesity in a large social network over 32 years. *New England Journal of Medicine* 357:370-379
- Dean E 2008 The crisis of lifestyle conditions in the Middle East with Special Attention to Kuwait: An unequivocal evidence-based call to action. *Kuwait Medical Journal* 40:184-190
- Dean E 2009 Physical therapy in the 21st century (Part I): Toward practice informed by epidemiology and the crisis of lifestyle conditions. *Physiotherapy Theory and Practice* 2009;25:330-353.
- Dean E 2009 Physical therapy in the 21st century (Part II): Evidence-based practice within the context of evidence-informed practice. *Physiotherapy Theory and Practice* 25:354-368
- Dean E 2009 Physical therapy in the 21st century: A paradigm shift and implications. *Physiotherapy Theory Practice. Invited Special Issue Editor. Physiotherapy Theory and Practice* 25:327-462
- Dean E, Al-Obaidi S, Dornelas de Andrade A, Gosselink R, Umerah G, Al-Abdelwahab S, Anthony J, Bhise A, Bruno S, Butcher S, Fagevi Olsen M, Frownfelter D, Gappmeir E, Gylfaddotir S, Habibi M, Hasson S, Jones A, LaPier T, Lomi C, Mackay L, Mathur S, O'Donoghue G, Playford K, Ravindra S, Sangroula K, Scherer S, Skinner M, Wong WP 2011 The First Physical Therapy Summit on Global Health: Implications and recommendations for the 21st century. *Physiotherapy Theory and Practice* 27: 531-547

- Dean E, Lomi C, Bruno S, Awad H, O'Donoghue G 2011 Addressing the common pathway underlying hypertension and diabetes in people who are obese: The Ultimate knowledge translation gap. *International Journal of Hypertension* doi:10.4061/2011/835805
- Dean E, Li Z, Wong WP, Bodner ME 2012 Cardiology best practice – effective health education meets biomedical advances: Reducing the ultimate knowledge translation gap. In: *Novel Strategies in Ischemic Heart Disease*; U. Lakshmanadoss (ed). InTech Publishing; Online access, pp. 301-18. ISBN 978-953-308-81-5.
- Dornelas de Andrade A, Dean E 2008 Aligning physical therapy practice with Brazil's leading health priorities: a 'call to action' in the 21st century. *Revista Brasileira de Fisioterapia* 12:260-267
- Ford ES, Bergmann MM, Kroger J, Schienkiewitz A, Weikert C, Boeing H 2009 Healthy living is the best revenge. *Archives of Internal Medicine* 169:1355-1362
- Gylfadóttir S, Dean E 2011 The Icelandic physical therapist's role in contemporary health care: Essential evidence-informed changes for the 21st century. *Icelandic Physiotherapy Journal Sjúkraþjálfarinn* 37:42-45
- Lantz PM, House JS, Lepkowski JM, Williams DR, Mero RP, Chen L 1998 Socioeconomic factors, health behaviors, and mortality. *Journal of the American Medical Association* 279:1703-1708
- Mokdad AH, Ford ES, Bowman BA, Dietz WH, Vinicor F, Bales VS, Marks JS 2003 Prevalence of obesity, diabetes, and obesity-related health risk factors, 2001. *Journal of the American Medical Association* 289:76-79
- Neuhouser ML, Miller DL, Kristal AR, Barnett MJ, Cheskin LJ 2002 Diet and exercise habits of patients with diabetes, dyslipidemia, cardiovascular disease or hypertension. *Journal of the American College of Nutrition* 21:394-401
- O'Donoghue G, Dean E 2010 The physiotherapist's role in contemporary health care in Ireland: Responding to 21st century indicators and priorities. *Physiotherapy Ireland* 4:4-9
- Olshansky SJ, Passaro DJ, Hershow RC, Layden J, Carnes BA, Brody J, Hayflick L, Butler RN, Allison DB, Ludwig DS 2005 A potential decline in life expectancy in the United States in the 21st century. *New England Journal of Medicine* 352:1138-1145
- Sherman SJ, Rose JS, Koch K, Presson CC, Chassin L 2003 Implicit and explicit attitudes toward cigarette smoking: the effects of context and motivation. *Journal of Social and Clinical Psychology* 22:13-39
- Subar AF, Harlan LC, Mattson ME 1990 Food and nutrient intake differences between smokers and non-smokers in the US. *American Journal of Public Health* 80:1323-1329

The Heart and Stroke Foundation of Canada, 2010;
www.heartandstroke.com/site/c.ikIQLcMWJtE/b.3479403/k.BF78/Health_Information.htm;
retrieved December 2012

World Health Organization. Definition of Health 1948. www.who.int/about/definition; retrieved
December 2012

World Health Organization. International Classification of Functioning, Disability and Health.
2002. www.sustainable-design.ie/arch/ICIDH-2PFDec-2000.pdf; retrieved December 2012

World Health Organization. Integrating prevention into health care. Fact sheet 172.
www.who.int/mediacentre/factsheets/fs172/en/; retrieved December 2012

World Health Organization. Priority noncommunicable diseases and conditions.
Prioritynoncommunicablediseasesanddisorders.pdf;
[www.wpro.who.int/NR/rdonlyres/E72A001F-E6E1-4AB7-B33C-
1C77F4FEF8FC/0/13_Chapter8](http://www.wpro.who.int/NR/rdonlyres/E72A001F-E6E1-4AB7-B33C-1C77F4FEF8FC/0/13_Chapter8); retrieved December 2012

World Health Organization. Lifestyle diseases: Health systems approaches. Report of the
Commonwealth Health Ministers' Meeting, 2007.
www.thecommonwealth.org/shared_asp_files/GFSR.asp?NodeID=174906; retrieved December
2012

TABLE 1a With respect to health behavior change initiatives, with existing or potential for physical therapy participation, within and across WCPT regions: Strengths.

Africa	Asia Western Pacific	Europe	North America Caribbean	South America
<p>Across sectors: physical therapists are practicing in health vs. company and social programs and sport schools, e.g., South Africa and Zimbabwe</p> <p>Community based rehabilitation Community outreach Home based care Move from tertiary to primary/ community level Health promotion part of Community based rehabilitation Patient/family/community centres increases empowerment, sustainability, participation Community based rehabilitation part of the curriculum in physical therapy education Biopsychosocial model Multisectorial In policy, education and practice</p>	<p>Good examples: smoking cessation program, diabetes, WCPT Day, Awareness Program</p> <p>Problems are being identified and addressed in programs where PT can participate</p>	<p><u>Education</u> Norway, Sweden, Netherlands, Portugal Community based health prevention Cross professional (MSc level) – Norway</p> <p>Health promotion = prevention, e.g., Austria and other countries</p> <p><u>Policy Level</u> www.ceb.nl (Guidelines) Research</p>	<p>Literature exists supporting what we need to do and how</p> <p>American Physical Therapy Association and Canadian Physiotherapy Association have been making gains in health promotion</p> <p>Academic education can focus on it</p> <p>Chronic disease management programs involve physical therapists in Calgary, Canada</p> <p>Openness to broad exploration of what is happening in other regions</p> <p>Numbers of physical therapists</p> <p>Resources – Healthy People 2020 Disability Report</p>	<p>Physical therapists already in primary care</p> <p>Credibility</p> <p>No referral required from physician</p> <p>Reimbursement</p> <p>Community understands role of physical therapy</p> <p>Strong associate to help facilitate</p> <p>Some schools have this content in current curriculum</p> <p>Health ministries engaged in this content which provides an opportunity to be involved</p> <p>Infrastructure exists for health dissemination</p>

TABLE 1b With respect to health behavior change initiatives, with existing or potential for physical therapy participation, within and across WCPT regions: Challenges.

Africa	Asia Western Pacific	Europe	North America Caribbean	South America
<p>Understanding of community based rehabilitation amongst local physical therapists, regional physical therapists, policy makers, etc.</p> <p>Perceptions of community based rehabilitation practice vary</p> <p>Push pull between biomedical needs and health needs</p> <p>Number of physical therapists/10,000 population low → alternative workforce</p> <p>Poor publication of efforts</p> <p>Governance</p>	<p>Physical therapists themselves unaware about their role on global health</p> <p>Physical therapists not usually in frontline for consultation and contribution</p> <p>Not enough physical therapists</p> <p>Public are unaware about the role of physical therapy to improve global health</p> <p>Still fighting communicable diseases</p>	<p>Variable quality of practice (some practitioners more technically trained than academically educated)</p> <p>Some diploma programs still exist, most bachelors with some masters degrees</p> <p>Variable practitioner autonomy (non referral)</p> <p>Practitioners are orthopedically oriented, and do not see the big picture</p> <p>Students are not exposed to the big picture</p> <p>Some practitioners appear not to value themselves as health care providers</p> <p>Other health care professionals do not see physiotherapists as health promotion practitioners</p> <p>Less support of national physiotherapy associations (some practitioners fail to see the value of belonging to their professional associations)</p>	<p>We need to get to the table where major policy directives are being planned and instituted</p> <p>Physical therapists don't put themselves forward in research, policy, action in needed related to this issue</p> <p>Payment system does not support preventative health care</p> <p>Physical therapists often are not recognized as primary care practitioners</p> <p>Not emphasizing value of service, emphasizing payment</p> <p>Giving away our primary roles and permitting letting others potentially less qualified to take responsibility for health promotion</p> <p>We are complacent</p> <p>Focused on evidence based practice</p> <p>System expectations, i.e., acute care, don't allow</p> <p>Academics don't emphasize</p> <p>Not best role model</p>	<p>Diversity of countries</p> <p>Low numbers of physical therapists in the population especially in rural areas</p> <p>Some countries need more physical therapy programs</p> <p>Certain cultural norms work against healthy behaviors</p> <p>Some issues in certain areas with regard to access to healthy behavior support (healthy food as examples) – resources</p> <p>Language issues – with indigenous populations</p> <p>Different healthcare systems</p>

			Don't give students appreciation of global priorities where they have a primary role	
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TABLE 1c With respect to health behavior change initiatives, with existing or potential for physical therapy participation, within and across WCPT regions: Opportunities.

Africa	Asia Western Pacific	Europe	North America Caribbean	South America
<p>Alternative health care workers</p> <p>Policy support/decentralizes systems</p> <p>Governance</p> <p>Research and documentation</p> <p>Find time to write down what we are doing</p> <p>Collaboration</p> <p><u>Readily Achievable ('Low Hanging Fruit') Goals</u></p> <p>Use available data and record current practice to enable sharing</p> <p>Train existing community based health workers in rehabilitation in health promotion</p>	<p>Share existing smoking cessation programs</p> <p>Share ideas for curriculum change in schools</p> <p>World Physical Therapy Day – Awareness Program</p>		<p>Get to the table</p> <p>Modifying curriculum to include global health and health promotion and business savvy (e.g., leadership and marketing)</p> <p>Being on the ground for the small community/public events to promote physical therapy and health promotion</p> <p>Create tool boxes that clinicians can use for health promotion/healthy living (that are quick and easy to describe and educate in their use)</p> <p>Health care reform to include preventative health care as fee for service</p> <p>Physical therapists need to market themselves and be comfortable with private pay similar to chiropractic, massage practitioners, personal trainers</p> <p>Partner with other successful professionals such as dentists who have succeeded in integrating preventative care into routine practice</p> <p>Embrace model of primary health care team</p>	<p><u>Short term goals</u></p> <p>Use the WCPT region alliance to support at country level, share/collaborate information</p> <p>Offer education to physical therapists on this content area</p> <p><u>Long term goals</u></p> <p>Change curriculum in physical therapy programs – offer more hours in this content</p>

			<p>We have full opportunity to reach a very diverse population and large populations</p> <p>Expand in social media (e.g., marketing)</p> <p>We can use continuing professional education/professional development conferences to mobilize/educate physical therapists</p> <p>Direct access capabilities Change attitudes of self/physical therapy (with view to the long-term)</p> <p>Improve balance between impairment based intervention/treatment and health promotion</p> <p>Short term with tool kits (short 1 min) to increase health promotion</p>	
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TABLE 2a With respect to health behavior change across spheres: Strengths.

Practice	Entry level education	Research	Professional organizations	Government
<p>Treat movement impairments well → so you can get back to health life</p> <p>Some regions have licensed extenders (physical therapy assistants)</p> <p>Empathy</p> <p>Some targets we are good at discussing within health promotion (e.g., biomechanics)</p> <p>Practice evolves</p> <p>Understand/promote concepts and importance re: prevention</p> <p>Patient centered, holistic practitioners</p> <p>Huge availability of patients</p> <p>We have longer interactions or more frequently see our patients → better rapport</p> <p>Talk to family/caregivers</p> <p>Evidence-based/informed practice is emerging</p>	<p>Awareness (across Regions) Collaboration – across Regions (Europe)</p> <p>Integration into programs Public health and health promotion (Africa)</p> <p>Teaching clinical practice guidelines to students re health promotion (Europe)</p> <p>Community based rehabilitation (can provide vehicle for teaching health living)</p>	<p>Conducting research into effectiveness of physiotherapy related to physical activity and exercise for health and for remediating impairments</p> <p>Other research done/awareness</p> <p>Post graduate research</p> <p>Variety of research methodologies Qualitative methods ↓ Patient-centered Client Quantitative</p> <p>Health promotion research lends itself to both quantitative and qualitative methodologies which physical therapists traditionally engage in and have competencies in</p> <p>Postgraduate students are opportunities to further the agenda in health promotion research</p>	<p>International organization(s) including the WCPT recognize this as issue</p> <p>Agreement that we have a role as management/mobility/movement system/exercise experts across the lifespan</p> <p>WCPT “place” to house data, information, policy examples, experts in content, etc.</p> <p>WCPT is linked to many groups (i.e., World Health Organization) to promote our profession in this regard</p> <p>Disseminating our role to public – World Physical Therapy Day</p> <p>Association often provides both continuing education and competency for profession – set standards</p>	<p>World report on Disability by the World Health</p> <p>Organization/World Bank issued 2011 (349 pages)</p> <p>International Classification of Functioning, Disability and Health already unifies a global definition of health, and research, policy, and practice</p> <p>World Health Organization Millennium Goals</p> <p>Recognition of importance of physical activity and need to walker friendly neighborhoods and communities</p> <p>Physical therapy advocacy to Government</p>

TABLE 2b With respect to health behavior change across spheres: Challenges.

Practice	Entry level education	Research	Professional organizations	Government
<p>We could delegate more “health promotion” to physical therapy assistants/support workers → we are very protective of what we do</p> <p>‘Quick fix’ and fad marketing (to lose weight the use of diet pills, body vibration equipment)</p> <p>We lack a willingness to share knowledge with others → we don’t want to lose turf, concerns re: supervision</p> <p>Lack of time (perceived or real) to add more activities to our to-do list</p> <p>Health promotion does not get prioritized</p> <p>Work in an “illness” care system</p>	<p>Not reflected in clinical practice when students do clinical placements</p> <p>Not “sexy” to students</p> <p>Not “branded” well for students</p> <p>Different paradigm/frame of reference in clinical practice A lot in curriculum – how to add it? What do we remove? No time.</p> <p>Students might have knowledge, concepts, but no tools, or the skills to apply them</p> <p>Too abstract of concepts</p> <p>Students seem to need more experience</p> <p>Enhance psychosocial dimension of care given lifestyles are learned and largely influenced by social environment</p>	<p>Research into prevention, wellness and health promotion</p> <p>Unequal distribution of research</p> <p>Hard to do randomized controlled trials and longitudinal studies</p> <p>No physiotherapy schools in university, not affiliated to university</p> <p>Translating evidence into practice and practice-based evidence</p> <p>Joint positions: Research, clinical practice</p> <p>Use of standardized outcome measures</p> <p>Lifestyle-related conditions Low funding Inter-disciplinary partnership Inter-sectorial</p>	<p>Diverse opinion of physical therapy role in this area as priority</p> <p>Need to be better about sharing information as physical therapy community</p> <p>Challenges vary by association – in some cases smaller is easier Some physical therapists not members, may or may not get “message”</p> <p>Need to do better job at promoting our role</p> <p>Need more implementation resources to assist physical therapists where they practice</p> <p>Need to collaborate better with other provider groups and pass information down to member organizations</p>	<p>Physical therapists need more visibility in the operationalization of these initiatives</p> <p>Promote ourselves</p> <p>Health promotion orientated to physicians and nurses</p> <p>Funding not appropriated for whatever reason to health promotion</p> <p>Mortality rather than morbidity</p> <p>Messaging by profession</p> <p>Keep professional identify and value</p> <p>Contextually appropriate</p>

TABLE 2c With respect to health behavior change across spheres: Opportunities.

Practice	Entry level education	Research	Professional organizations	Government
<p>Short term goals</p> <p>Use the opportunity of time to integrate brief health promotion interventions into our overall care plan → Not simply be focusing on the primary impairment</p> <p>All physical therapists will Include lifestyle assessment questions in assessment and examinations</p> <p>Take the opportunity to collaborate with dieticians and other health care providers</p> <p>Physical therapists will offer health promotion education to community groups</p> <p>Long term goals Physiotherapists provide primary care to people, before they see us for a specific impairment</p> <p>Physiotherapists advocating for patients to have access to healthy lifestyles</p> <p>Practicing sound health advice and exercise prescription to reduce the need for medications and overall disease risk</p> <p><u>Opportunities</u></p>	<p>Inter-disciplinary teamwork Modeling health promotion practices</p> <p>Professors, clinical instructors, student</p> <p>Change clinical thinking to “what keeps physiotherapists healthy”</p> <p>Need to make it less abstract from students more practical</p> <p>Provide clinical instructor training in health promotion</p> <p>Select specific clinical instructors who have these skills</p> <p>Part of assessment (measurements) like muscle strength, history taking, etc.</p> <p>Use portfolios in clinical practice</p> <p>Share information (within the profession, public)</p> <p>Add global aspects to what already teaching</p> <p><u>Goals</u> Short term (“Low fruit”) Talk about the evidence (clinical practice guidelines) Re-brand health promotion –</p>	<p>Collaborative research: Medi Aid, Industry, other health professions</p> <p>Health promotion research lends itself to both qualitative and quantitative research methods in which physical therapists are becoming increasingly competent to conduct</p> <p>Growing number of postgraduate students provide opportunity to further the health promotion research agenda</p> <p>Patient access/populations Diverse groups (e.g., inclusion of rural) Networking – Transcontinental IT</p> <p>Short term goals Shift bias from traditional research themes to issues related to lifestyle-related conditions Collaboration Integrate lifestyle-related outcome with clinical result (i.e., increase physical activity and in turn increase quality of life) Funding issues Improving approaches to fun 1 application Consortiums</p> <p>Long term goals Incorporation of standardized outcomes/databases related to health outcomes would allow comparison across populations 2 1. Collaboration/consortium (other health)</p>	<p>Associations often set standards for profession</p> <p>Networking – shared best practice, knowledge</p> <p>Influence curriculum</p> <p>Growth – number of associations and numbers of members</p> <p>Voice to speak to external stakeholder communities (i.e. government, other providers)</p> <p>Engage more member organizations Facilitate neighbor “countries” to belong to WCPT and benefit from “group’s” collective knowledge, etc. Profile physical therapy in Asia with WCPT 2015</p> <p>Short term goals 1. Facilitate networking, communication collaboration (A) between neighbor countries on fostering PT best practice related to global health 2. Promote (B) associations with resources to share with others 3. Collect data from member organizations with respect to the impact physical therapists can have in this</p>	<p>When physical therapists are not in comfort zone we are creative and move into new areas (↑ advocacy)</p> <p>In current patient interactions, we as physical therapists are going to expand view of scope of practice → Address risk factors/chronic disease management (type 2 diabetes mellitus) (i.e., when patient comes in for typical orthopedic conditions such as back or knee pain)</p> <p>Health care reform opportunities that are often government led</p> <p>How do governments manage beginning of life and end of life (early intervention/aging)</p> <p>Physical therapists need to ↑ their participation on government task forces to develop change in promoting health; need to educate about their skills as noninvasive practitioners and not strictly orthopedic specialists</p> <p>Interprofessional collaboration can ↑ impact on government for policy and resource allocation</p> <p>Move to balance physical</p>

<p>Incorporate secondary/tertiary problems when treating a primary issue</p> <p>Captive audience → e.g., patient with recent myocardial infarction → start talking about healthy lifestyles while also addressing acute needs</p> <p>Incorporate whole family into education re: healthy lifestyles</p> <p>Establish worth in terms of healthcare savings</p> <p>Delegate tasks to others → have everyone work to their full scope of practice and then free up time for “extras” like health promotion</p> <p>Prove our worth via empowering patients, and letting <u>them</u> spread the word</p> <p>Working within teams (multi-disciplinary)</p> <p>Only established health profession that prescribes exercise to individuals and throughout lifespan</p> <p>Collaborating with other exercise experts Integrate existing evidence with practice and identify gaps in evidence → fill gaps</p>	<p>long-term</p> <p>Determinants of health need to be considered and part of basic assessment and integrated throughout settings and specialties of care</p> <p>Diversification of clinical education</p> <p>Share curricular designs</p> <p>Long term goals</p> <p>Change/adjust curriculum</p> <p>Change physiotherapist practical thinking (begins in the classroom)</p> <p>Educate the educators</p>	<ul style="list-style-type: none"> • *Research agenda* • Funding • Evidence based; practice based evidence • Paradigm shift <p>2. Standardized outcome measures</p> <ul style="list-style-type: none"> • Indicators, databases 	<p>role</p> <p>4. Database of research going on in member associations re physical therapy and health</p> <p>5. Develop resources for member organizations to adapt and disseminate to physical therapy members</p> <p>6. Develop a position statement/guidance</p> <p>Long term goals</p> <ol style="list-style-type: none"> 1. All programs integrate existing knowledge and guidelines for entry-level proficiency in health promotion practice 2. Develop more guidance on what should be part of entry level programming re: global health and health promotion practice 3. Work toward adoption of universal standards across member organizations and adopt position statement 	<p>therapy role from the biomedical model to biopsychosocial model of health and collaborate</p> <p>Practice established evidence</p> <p>Bring evidence together</p> <p>Cost effectiveness</p> <p>Political awareness and involvement</p> <p>In every member organization have a physical therapist on committees that determine direction health expenditures</p> <p>Every Physical Therapy Day members organize to communicate the immediate evidence to their government (concerted efforts within and between WCPT regions)</p>
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TABLE 3 Health promotion practice as a priority physical therapy clinical competency in the 21st century: Action plan ideas across ecological levels (i.e., practice, education, research, professional organizations, and government) for task forces within and between WCPT regions

Practice	Education	Research	Professional Organizations	Government
<p>Develop and distribute clinically appropriate health assessment and evaluation forms for health and risk factor assessment for lifestyle-related conditions (adults and children); such tools need to be easy to use in a standardized manner, reliable, sensitive, and readily used in the context of a busy practice</p> <p>Encourage practitioners to have input on the above tools to enhance their adoption</p> <p>Develop effective counseling strategies to effect health behavior change including that for:</p> <ul style="list-style-type: none"> • Smoking cessation • Optimal nutrition • Weight control • Physical activity/exercise • Sleep hygiene • Stress management 	<p>Promote practice consistent with the WHO definition of health, the ICF and the WCPT definition of who we are professionally</p> <p>Align curricula content with epidemiological evidence consistent with areas where non invasive interventions have a major role (lifestyle-related risk factors and conditions are a priority in every adult and child)</p> <p>Integrate health and health promotion be pillars in entry level curricula that cross courses rather than taught only as a distinct topic</p> <p>Focus on the translation of the substantial knowledge regarding healthy living, and put this knowledge into active practice</p>	<p>Promote health related research by physical therapists involved with research</p> <p>Promote interprofessional and interdisciplinary research beyond the conventional professions and disciplines (e.g., with social scientists, urban planners, economists, religious studies)</p> <p>Promote mixed methods, i.e., both quantitative and qualitative (to maximize health behavior change we need to understand what drives people to make the choices they do, and how they can be empowered to want to change, and how to this so change is sustained over time)</p> <p>Control for healthy lifestyles within research initiatives</p>	<p>Support the physical therapist's identity as a non invasive practitioner</p> <p>Support a leading role for the physical therapist this century in addressing (preventing, reversing in some cases, as well as managing lifestyle-related conditions)</p> <p>Promote leadership of physical therapists with respect to helping to turn the tide of the epidemic of lifestyle-related conditions</p> <p>Promote knowledge translation regarding the unequivocal benefits of healthy living</p> <p>Work toward dispelling faulty notions about physical therapy practice (i.e., that it only associated with sports, orthopedic conditions, or stroke)</p>	<p>Develop a role for physical therapists as valuable consultants at the table for health care reform</p> <p>Support a system of case based on health vs. ill health, promoting the exploitation of healthy living wherever possible, promote the exploitation of non invasive interventions (health education and exercise) in favor of invasive interventions wherever possible (i.e., drugs and surgery), or minimally in conjunction with these with a view to minimize or avoid their need completely</p> <p>Serve as the voice for sustainable health care through exploitation of highly effective and low cost healthy living strategies (based on an</p>

<p>Provide standardized outcome measures with respect to health assessment/evaluation and for health behaviors</p> <p>Provide practitioners with tools to assess those patients who are likely to be responsive to multiple health behavior change strategies, and adherent to related education programs</p> <p>Provide practitioners with tools to counsel patients effectively, e.g., motivational interviewing, decision balance analysis, identification of a patient's intrinsic and extrinsic motivation, literacy, and health literacy</p>	<p>Develop a clinical competency in multiple health behavior change (elements including client/patient assessment of behaviors needing change, readiness to change, decision balance analysis strategies, knowledge of intrinsic and extrinsic motivational factors, motivational interviewing, assessment and evaluation tools to use as a basis for standardized outcomes)</p> <p>Support health promotion practice across the curriculum:</p> <ul style="list-style-type: none"> • Theory • Practice • Clinical <p>Learn skills to practice interprofessionally</p> <p>Learn when to refer to other health professionals, e.g., back to the physician, social worker, counsellor</p> <p>Learn how to both initiate</p>	<p>Conduct post hoc analyses of results to document the outcomes of those patients with better health indices, where appropriate</p> <p>Irrespective of study type and subjects, consider the co-variants of health living (e.g., smokers, body weight, level of sedentary behavior, level of physical activity, quantity and quality of sleep, and stress) to better understand the impact of healthy living on health as well as physical therapy outcomes rather than simply randomize these important determinants of health across control and experimental groups</p>		<p>unequivocal evidence base to support this approach being best practice)</p> <p>Learn how to make petitions and briefs to government so policy makers have a clear understanding of the effect size of healthy living on the population and its associated cost savings</p> <p>Work with urban planners and engineers and others to build healthy communities (e.g., hubs around major transportation terminus, with shops and amenities, and community centers to encourage walking and social engagement</p> <p>Dispel faulty notions about what physical therapy is and what physical therapists do and where they practice (physical therapy is often not invited to the health care discussion table because of such faulty</p>
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	health behavior change, and to support it when another professional is involved			assumptions)
	Consider the health backdrop of every client/patient		Encourage physical therapists to give community presentations, and appear in the media to promote health in general and in patient populations	Dispel the myth that contemporary physical therapists practicing in accordance with contemporary definitions as who specialize in non invasive approaches to health and health care are expensive (consistent evidence support that doctor and hospital based care is expensive; de facto drug costs)
	Develop post graduate professional development courses and workshops on health promotion practice that are targeted and tailored to the needs of physical therapists across specialty and care settings (specifically, health promotion and disease prevention are not strictly the concerns of therapists practicing in settings with patients with cardiovascular conditions		Encourage physical therapists to be included in health forums with other health professionals	
	Promote the integration of a health perspective in		Promote a diversified role for physical therapists in	

	<p>other specialty professional courses and workshops (e.g., manual techniques courses would integrate measures such as heart rate, blood pressure, and body weight, waist to hip ratio in their assessments, and lifestyle-related risk factor assessment)</p>		<p>the 21st century:</p> <ul style="list-style-type: none">• Community based care• Home care• Consultants• Workplace• Schools	
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