

International Occupational Therapy Research Priorities: A Delphi Study

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Abstract

Occupational therapy is a global profession represented by the World Federation of Occupational Therapists (WFOT). International research priorities are needed for strategic guidance on global occupational therapy practice. The objective of this study was to develop international research priorities to reflect global occupational therapy practice. A Delphi study using three rounds of electronic surveys, distributed to WFOT member organizations and WFOT accredited universities, was conducted. Data were analyzed after each round, and priorities were presented for rating and ranking in order of importance. Forty-six (53%) out of 87 WFOT member countries participated in the Delphi process. Eight research priorities were confirmed by the final electronic survey round. Differences were observed in rankings given by member organizations and university respondents. Despite attrition at Round 3, the final research priorities will help to focus research efforts in occupational therapy globally. Follow-up research is needed to determine how the research priorities are being adopted internationally.

Keywords

participation, aging, chronic conditions, evidence-based practice, sustainable community development

Introduction

Research priorities are strategic areas of research activity that are deemed as the most important for an organization. For occupational therapy worldwide, there are a huge range of challenges in health and social care practice facing individual occupational therapists and occupational therapy services in all areas of practice. Given that there are 200 billion people living with some form of disability internationally with 200 million having significant limitations in functioning, and the prevalence of disability is increasing due to aging and the increase in chronic conditions (World Health Organization [WHO], 2011), occupational therapists should be at the forefront of research endeavors to address the needs of this population. Occupational therapy is a global profession with more than 420,000 occupational therapists worldwide (World Federation of Occupational Therapists [WFOT], 2014). The development of cross-cultural initiatives in occupational therapy can best be achieved through trans-cultural research activities, and the development of research priorities will inform theory and contribute to the advancement of occupational therapy practice in regions where a research culture is still evolving.

Many of the challenges and strategic directions for health care have been articulated in government policy documents

worldwide. The World Report on Disability (WHO, 2011) has identified the following research priorities: identification of barriers in mainstream health care and strategies for overcoming barriers, prevention of secondary conditions, early detection and referral of health problems through primary care, the health status of people with disabilities, social and environmental factors influencing the health of people with disabilities, responsiveness of health care systems to people

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with disabilities, and needs for care. For occupational therapy, research is needed to align with international strategic directions to develop innovative solutions, and to promote the unique contribution of occupational therapy to making health and social care service delivery more responsive to identified needs.

Some localized research priorities have been established in different countries for occupational therapy. The United Kingdom used a national survey with 2,661 responses to establish 10 highly ranked research priorities that were all related to the effectiveness of occupational therapy with different client groups, benefits to consumers, and the development of new outcome measures (Bannigan et al., 2008). Irish occupational therapy research priorities were identified using a Delphi study involving 39 occupational therapists, where 20 research priorities were identified. These priorities were grouped into five key themes—evaluating occupation-based interventions and techniques, health promotion, cost-effectiveness, experience of service users, and environmental interventions (Health Research Board, 2010). The American Occupational Therapy Foundation has also identified research funding priorities which include health behaviors to manage chronic conditions, functional cognition, safety and injury prevention in the home, technology and environmental supports, development and transitions for individuals and families, emotional and physiological influences, family and caregiver needs, and health care experience (American Occupational Therapy Foundation, 2015). Other occupational therapy research priority studies have been conducted for specific client groups—for example, mental health (Bissett, Cusick, & Adamson, 2001; Duncan, Munro, & Nicol, 2003; Fowler-Davis & Hyde, 2002; Hitch & Lhuede, 2015) and cerebral palsy (McIntyre, Novak, & Cusick, 2010), using a variety of methods and sample sizes. While these research priorities may provide targeted guidance for occupational therapists in these countries and working with these client groups, they are very context specific and would have limited translatability to an international group of occupational therapists.

There are examples of international research priorities that have been developed for different health professional groups in the literature, such as physiotherapy and nursing, but not for occupational therapy (Downing, Knapp, Muckaden, Fowler-Kerry, & Marston, 2015; Marshall, 2004; Rushton & Moore, 2010). Similarly, there are examples of international research priorities for specific interventions such as prevention of non-communicable diseases and climate change (Colagiuri, Boylan, & Morrice, 2015), pharmaceutical and personal care products (Rudd, Ankley, Boxall, & Brooks, 2014), and spiritual care (Selman, Young, Vermandere, Stirling, & Leget, 2014). These studies used methods such as cross-sectional surveys, Delphi processes, and workshops followed by a survey. Recruitment of participants varied across studies such as using the membership of national organizations, asking national members

to recommend colleagues in other countries, using the membership of international organizations, searching for published authors with expertise and then inviting them, or using attendees at international congresses.

As there is no international consensus on research priorities for occupational therapy, the World Federation of Occupational Therapy engaged in a project to determine the international research priorities for occupational therapy. This study aimed to develop a set of international research priorities that will reflect occupational therapy practice internationally, unite research efforts across the WFOT membership, facilitate research collaborations, and provide strategic directions for research resources. As resources to conduct occupational therapy research are often limited, it is hoped that articulating research priorities will assist occupational therapists to collaborate with other agencies who share the same research priorities, and that some direction will be provided to help develop capacity in the occupational therapy community to pursue research that is of particular importance to the profession. Having a set of published research priorities will also define what occupational therapy has to offer to other research groups and disciplines, will articulate what occupational therapy has in common around the world, and will enable the WFOT to develop an inclusive research culture to benefit the profession globally.

Method

Study Design

A Delphi process was used to gain a consensus view about international research priorities for occupational therapy. The process involved establishing an expert panel to oversee the project, identifying expert informants, conducting several rounds of data collection with analysis and feedback to participants, and participant anonymity (Hasson, Keeney, & McKenna, 2000; James & Warren-Forward, 2015; Vernon, 2009). This method was particularly relevant to an international sample where online surveys were used to access as many participants as possible across a diverse geographical area, and also allowed anonymity for participants. The process was undertaken in three rounds over a period of 12 months, and the process was concluded when consensus was reached in the ratings and rankings given across the final list of research priorities. Initially, an expert panel was selected from members of the WFOT research program area to oversee the Delphi process. Members of this panel came from a range of countries: Australia, Malaysia, Thailand, Zimbabwe, Slovenia, Latvia, Russia, the United States, and Columbia, and included two members of the WFOT executive group. Using regular teleconferences, this group determined the methods for the Delphi process, the content of each survey, and analyzed and interpreted the findings from each round of data collection.

Ethical Considerations

The study received formal ethical approval from The University of Sydney Human Research Ethics Committee.

Data Collection and Analysis

Representatives of all the WFOT member organizations (usually the WFOT delegate or first alternate delegate) as well as representatives from all the approved occupational therapy programs (both public and private) that were hosted in each member country were invited to participate. These participants were considered to be the experts about the research needs in their own countries, as well as being knowledgeable about using research in practice, and potentially generating research. These participants would make up the groups of experts evaluating consensus to provide information and feedback about international research priorities for occupational therapy. Emailed invitations, links to online surveys, and participant information statements were sent to all these participants by the WFOT administration staff who had access to participant contact details.

Round 1

An electronic survey was developed by the WFOT expert panel overseeing the project, was presented in English, and was placed on the SurveyMonkey™ platform to collect information about existing research priorities related to health and social care in each of the countries surveyed. Information sought included whether or not the organization or university already had identified research priorities, and if so what they were, as well as identifying any health- and social care-related research priorities nationally and regionally related to occupational therapy. Survey links were emailed to all eligible participants (member organizations and universities). The survey also invited participants to add any research priorities they generated.

Responses were counted and evaluated for relevance to occupational therapy by the expert panel. To account for areas of similarity, the list of priorities was analyzed to identify the key themes from the research priorities list. Where possible, the original language used by respondents to describe priorities was preserved, so that consensus on specific terms could be tested. Therefore, no attempt to rename priorities was undertaken. Rather the priorities were to be presented to participants in the next round of the Delphi process for feedback.

Round 2

The WFOT expert panel reviewed the themes and list of priorities generated from Round 1, and developed a list of 40 items to be sent back to the participants for feedback. Another electronic survey was developed presenting these 40 items in

random order to the same databases of potential participants, to allow more participants to join the process in Round 2. Participants were asked to score each item from 0 to 10 according to how much of a priority the item was to be included in an overall statement of occupational therapy research priorities (i.e., low priority: 0-3, moderate priority: 4-6, and high priority: 7-10). To focus the responses further, participants were also asked to rank their top five priorities. Participants were also invited to make comments about each item listed, and to add any items they felt were missing from the list. Participants were also asked to provide their email address, so that they would be the only participants invited to respond to the ratings and rankings given in this round in preparation for Round 3.

Data for member organizations and university participants were analyzed separately for comparison. The mean rating for each item was calculated, as well as the top five rankings overall. A cutoff of 70% for the priority ratings for each item was established for an item to be included for further consideration (Vernon, 2009). Where either the university or member organisation respondents rated an item at over 70% and the other group did not, the item was considered for inclusion in further discussion by the WFOT expert panel. Items that were not ranked as a top five item by any participants were identified, and were evaluated by their priority score prior to being excluded from the next stage. The WFOT expert panel considered all the comments made and the additional items suggested by participants.

Round 3

Results from Round 2 were reviewed by the WFOT expert panel and a decision was made to restate the priorities to include more broad occupation-based definitions, and to avoid narrowly defined priorities based on single medical conditions or interventions. A total of eight priorities were developed, with a rationale and a description of the scope of the priority for each. These priorities were incorporated into a third electronic survey distributed to the participants, who were asked to rate each priority from 0 to 10 as in Round 2, and were asked to rank their top three priorities. Data were analyzed separately for member organizations and university participants as in Round 2.

Results

Participants

Out of the 87 member countries of the WFOT, 46 (53%) countries were represented in the Delphi process at one or more stages of the project. Participation rates for each round varied where there were 62 participants in Round 1 (34 member organizations and 26 universities), 78 participants in Round 2 (38 member organizations and 40 universities), and 34 participants in Round 3 (19 member organizations and 15



Figure 1. Range of responses to the Delphi study by country.

universities). When analyzed by region, the greatest proportion of participants across the three rounds were participants from Europe ($n = 95$, 54%), followed by Asia Pacific ($n = 37$, 20%), the Americas ($n = 33$, 19%), and Africa ($n = 12$, 7%). Figure 1 outlines the range of responses to the Delphi study by country.

Round 1

A total of 108 research priorities were listed by study participants, with varied relevance to occupational therapy. The initial themes generated in Round 1 emerged from data provided by 62 participants and were analyzed separately for responses from member organizations ($n = 34$) and universities ($n = 28$) to determine whether there were any differences between the two groups. Table 1 provides a summary of the initial themes identified.

While there were similarities between groups in the identification of priorities related to occupational therapy practice in general and targeted areas of practice, the two groups diverged in relation to the other priority areas identified by each group.

Round 2

The priorities from Round 1 were reduced to 40 priorities in Round 2 and were rated by a total of 78 participants (38 member organizations and 40 universities). Figure 2 indicates the scores assigned to each of the 40 items presented and the items that scored more than 70% agreement.

There were some differences between member organization and university ratings, and several priorities that did not score more than 70% agreement. To further explore the feedback, rankings of the five priorities were examined and were compared with the ratings given to each item. Table 2 outlines those priorities that scored more than 70% by either the

member organization or university rankings, and the rankings that were received. Bolded priorities in the table are those that were rated highly but did not receive a ranking of 1 to 5 by at least one of the participant groups. Superscript “a” indicates those priorities that received a first ranking by some participants. Results indicate that member organizations and university participants ranked some items very differently, despite a score of more than 70% for the mean ratings, for instance, healthy aging, technology, and health. Member organizations ranked evidence-based occupational therapy, the effectiveness of occupational therapy interventions, and primary health very highly, whereas university participants ranked disability and participation, technology and health, and research translation the highest.

As demonstrated in Table 2, some of the priorities related to very specific conditions or interventions (e.g., stroke, dementia, and school-based interventions), while others were quite generic yet could still include specific groups and interventions. Additional priorities were suggested by member organizations ($n = 17$) and university respondents ($n = 17$). Additional items were very specific to a particular context (e.g., victims of armed conflict and services for veterans) or a particular condition or intervention (palliative care, driving, and robotics), and were considered by the expert panel to have limited broad applicability in their own right.

Round 3

The WFOT expert panel reviewed the scores and the comments provided by participants and decided to express the priorities broadly and with an occupational focus where possible, to ensure these were inclusive. Over several teleconferences, the expert panel considered the rationale for each of the priorities as well as definitions for the scope of each priority. These were presented at a WFOT Council Meeting and approved by the delegates. As a result, the final eight research

Table 1. Research Priority Themes Generated From Round 1.

Member organizations	Universities
Occupational therapy practice <ul style="list-style-type: none"> • Practice development models • Life transition and life continuity in community • Service delivery/integration of services • Service users' priorities • Emerging areas of practice now in public health. 	Practice issues <ul style="list-style-type: none"> • Knowledge translation • Technology • Evidence-based practice • Outcomes of occupational therapy interventions • Occupational science • Client perspectives • Health promotion • Disability, inclusion, and participation • Workplace health • Policy • Inter-professional collaboration • Poverty and unemployment
Targeted areas of practice <ul style="list-style-type: none"> • Dementia • Physical dysfunction • Developmental dysfunction • Mental health with physical complications • Special support education • Welfare equipment and house renovation 	Targeted areas of practice <ul style="list-style-type: none"> • Mental health • Pediatrics • Hand therapy • Dementia • Aged care • Palliative care • Neurological conditions • Equipment provision • Mobility and motor control • Stroke rehabilitation • Environmental modification • Ergonomics
Outcomes of OT <ul style="list-style-type: none"> • Instrument standardization • Effectiveness of occupational therapy interventions • Cost-effectiveness studies to support the commissioning of occupation-focused services • Measurement of activity and participation. 	Teaching and learning <ul style="list-style-type: none"> • Threshold concepts • Student fieldwork • Health professional education • Student retention
Professional issues <ul style="list-style-type: none"> • Characteristics of the profession • Professional issues encountered by occupational therapists 	

Note. OT = occupational therapy.

priorities were developed for a final presentation to the participants for confirmation. These priorities are presented in Table 3.

A total of 34 participants (19 member organizations and 15 universities) rated each priority from 0 to 10 and ranked these overall from 1 to 3. There were several comments from participants about how difficult it was to differentiate between

the priorities as they were all of equal importance, which indicated the Delphi process was nearing completion and consensus. All eight priorities were ranked in the top three by at least one participant across the responses. Table 4 indicates the results for Round 3. There were some differences in the ranking of priorities between member organizations and university participants. The priorities of healthy aging and occupational therapy issues had a higher ranking from member organizations compared with the university respondents, whereas the priority of technology and occupational therapy received a higher ranking from university respondents compared with member organizations. As these items received a high ranking from one of the groups of participants, they were retained in the list of final priorities.

Discussion

This study achieved its aim of developing a set of international research priorities that will reflect occupational therapy practice internationally, using a Delphi method to gain international consensus. The adoption of these research priorities by the occupational therapy profession worldwide will determine how effective they are in promoting occupational therapy research and facilitating collaborations between researchers internationally. This is particularly important as many of the published research priorities are now over 10 years old (Bissett et al., 2001; Duncan et al., 2003; Fowler-Davis & Hyde, 2002).

One issue that arose in the data collected was whether or not research priorities should be specific to conditions (e.g., dementia) and interventions (e.g., driving rehabilitation), or should be expressed in a generic way that reflected the intent of occupational therapy regardless of conditions and interventions (e.g., participation). The disadvantage of identifying specific conditions and interventions meant that a large number of research priorities would be needed, and some of these would be very context specific to particular countries and sociodemographic characteristics of populations. The WFOT seeks to represent the interests of the occupational therapy professional worldwide, and the published definition of occupational therapy reflects key occupation-focused concepts such as client-centered practice, the promotion of health and well-being through occupation, participation in the activities of everyday life, working with communities, modifying the occupation or environment, and occupational engagement (WFOT, 2012). Therefore, it was important that the research priorities reflected these concepts and provided an inclusive framework for all WFOT members. The research priorities also had to be broad enough to encompass the cultural diversity of occupational therapy globally, and to allow for occupational therapists to engage in research across cultural boundaries.

It was intended that the research priorities would reflect the most immediate issues needing to be addressed by WFOT members, therefore, they were not intended to be exclusive to

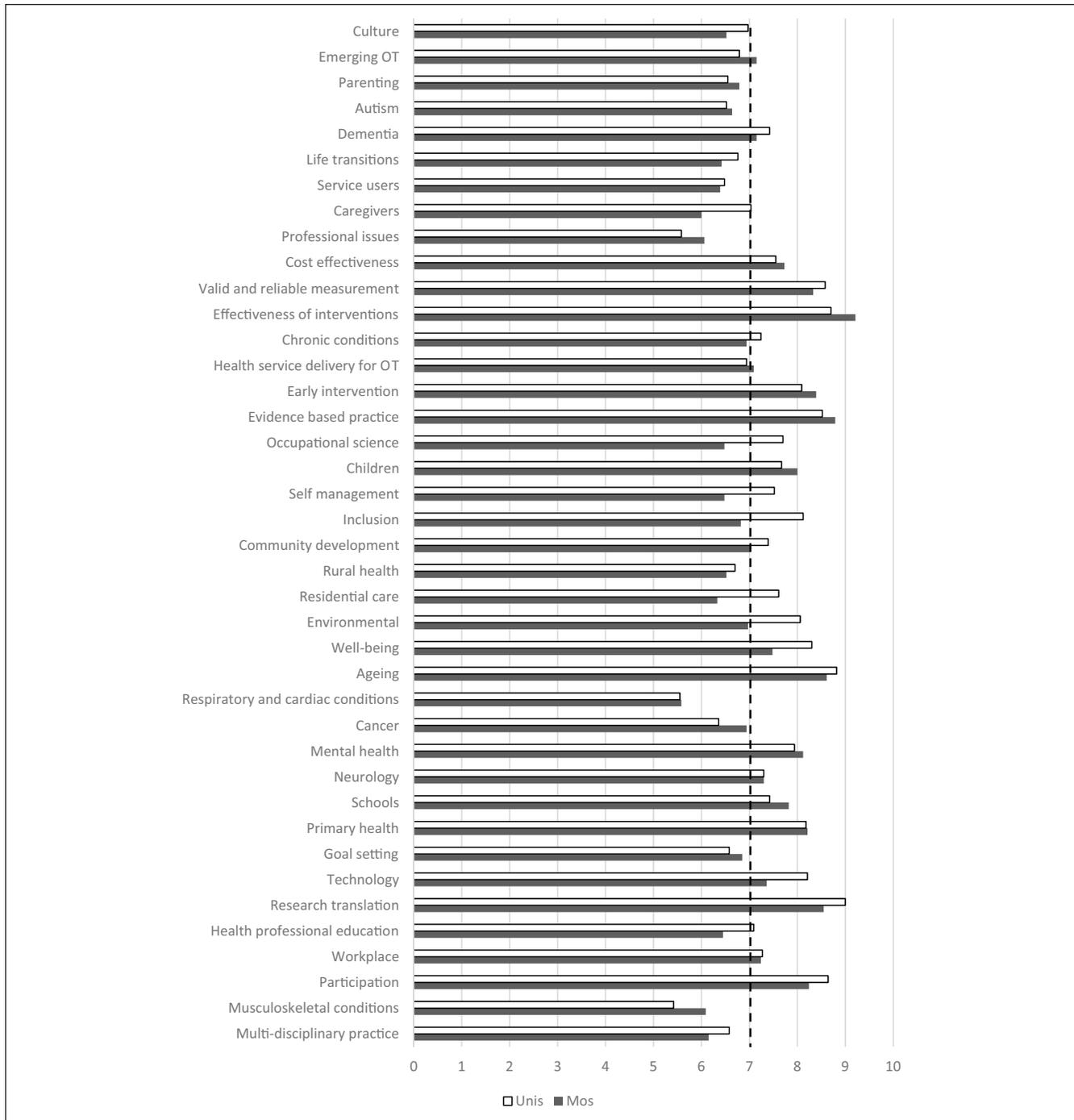


Figure 2. Ratings for research priorities presented in Round 2.
 Note. OT = occupational therapy.

particular specialties within the profession, and neither were they intended to be exhaustive. Using both rating and ranking process in the Delphi method also helped to distinguish between high and low priorities. Rating alone for each priority area would not have narrowed the scope of the priorities sufficiently, as most study participants thought all the priorities being tested were important and relevant to occupational

therapy to some extent. It was not until participants had to compare between the priorities and choose a limited number to rank, that more precise data were available on the highest priority items.

One of the outcomes of the research priorities project was that occupational therapy could be more clearly promoted for contributions to other research that was being planned and

Table 2. Ratings and Rankings for Round 2 Priorities Scoring 70% Agreement and Above.

Priority	Mean member organization rating and (overall rank out of 40 items)	95% CI	Mean university rating and (overall rank out of 40 items)	95% CI
Effectiveness of occupational therapy interventions ^a	9.21 (2)	[8.87, 9.95]	8.69 (9)	[7.99, 9.40]
Evidence-based occupational therapy ^a	8.79 (1)	[8.24, 9.23]	8.52 (13)	[7.66, 9.38]
Healthy aging ^a	8.60 (21)	[8.12, 9.09]	8.82 (4)	[8.41, 9.23]
Research translation ^a	8.54 (4)	[8.02, 9.07]	9.00 (3)	[8.54, 9.56]
Early intervention	8.39 (24)	[7.78, 9.00]	8.09 (24)	[7.55, 8.63]
Valid and reliable measurement tools ^a	8.33 (5)	[7.59, 9.07]	8.58 (12)	[7.88, 9.27]
Disability and participation ^a	8.24 (7)	[7.45, 9.03]	8.64 (1)	[8.14, 9.14]
Primary health ^a	8.21 (3)	[7.55, 8.87]	8.39 (5)	[7.43, 8.93]
Mental health	8.12 (8)	[7.41, 8.75]	7.94 (7)	[7.09, 8.79]
Childhood disability and participation	8.00 (no ranking)	[7.18, 8.82]	7.67 (24)	[6.88, 8.45]
School-based interventions	7.81 (6)	[7.11, 8.52]	7.42 (18)	[6.62, 8.22]
Cost-effectiveness	7.72 (20)	[6.88, 8.58]	7.55 (27)	[6.73, 8.36]
Health and well-being	7.49 (no ranking)	[6.69, 8.28]	8.30 (15)	[7.53, 8.59]
Technology and health ^a	7.36 (30)	[6.64, 8.08]	8.21 (2)	[7.51, 8.83]
Neuroscience/stroke	7.30 (11)	[6.45, 8.15]	7.30 (6)	[6.50, 8.10]
Workplace health/ergonomics	7.24 (18)	[6.59, 7.89]	7.27 (10)	[6.63, 7.92]
Dementia	7.15 (28)	[6.47, 7.83]	7.42 (15)	[6.68, 8.17]
Emerging areas of occupational therapy practice	7.15 (10)	[6.19, 8.11]	6.79 (20)	[5.91, 7.66]

Note. Bolded items received no ranking between 1 and 5 by participants. CI = confidence interval.

^aIndicates a first place ranking assigned by at least one participant.

conducted in areas aligned with the identified occupational therapy research priorities. The dissemination of these research priorities may allow occupational therapy researchers to demonstrate their involvement in research that can be interdisciplinary in nature as well as to assist researchers looking for collaborators to approach occupational therapists and occupational therapy researchers. Certainly, the final research priorities reflect current government priorities such as the needs of populations and those with disabilities (WHO, 2011). The Sustainable Development Goals (WHO, 2015), especially those concerned with improving health, employment, and sustainable communities, are also supported by these research priorities, as well as the needs of people with chronic conditions (Department of Health and Children, 2014; WHO, 2005) and healthy aging (NSW Government, Department of Family & Community Services, Office for Ageing, 2012; WHO Europe, 2012).

There are both strengths and limitations for the use of the Delphi method. For this study, the advantages were that the process could be undertaken with an international group of participants using electronic surveys without the need to meet in person. The WFOT administration contacted participants separate to the researchers, and the participants were not aware of who the other participants were, and who were also contributing to the process. Limitations inherent in the Delphi method were largely overcome in this study. For

instance, experts in the research process and the needs of each of the WFOT member countries were selected—both to oversee the project and to be invited to participate in data collection (Vernon, 2009). Membership of the WFOT research project team and the WFOT delegates of member organizations and representatives of WFOT accredited universities were considered those with the most appropriate knowledge and skills to contribute to developing a list of research priorities. The aim of the Delphi process was also made clear to participants (Hasson et al., 2000; Vernon, 2009). The use of an expert panel to oversee the research process also reduced the potential for researcher bias in the choice and selection of items for the surveys (Vernon, 2009). One study limitation was the loss of participants in Round 3 of the Delphi process, which could be related to the time it took to complete the three rounds or the possibility of survey fatigue by participants (Vernon, 2009). This may have biased results, if the participants lost to Round 3 would have ranked and rated the final items differently. The sample size and the representative spread of study participants could have influenced the data that were collected (Hasson et al., 2000).

Conclusion

It is hoped that over time, these research priorities may result in more participation by occupational therapists

Table 3. Final Research Priorities.

Research priority statement	Rationale and scope
Effectiveness of occupational therapy interventions	<p>Rationale: Research focused on this topic will establish the value of occupational therapy, assist in attracting funding for and commissioning of occupational therapy services, and will underpin the importance of engagement in occupation for health.</p> <p>Scope: This priority will include focused and broad interventions, in a variety of service models, with a range of client groups and will incorporate demonstration of the best use of outcome measures that are psychometrically sound, person-centered qualitative outcomes, and cost-effectiveness.</p>
Evidence-based practice and knowledge translation	<p>Rationale: While collecting evidence to support occupational therapy practice is essential, it is not enough unless the evidence changes practice and practitioner behavior.</p> <p>Scope: This priority will include how occupational therapists currently practice with respect to the evidence available, how they could learn to access and understand the evidence base relevant to their practice, what professional and educational interventions are effective in assisting occupational therapists to change their practice, attitudes to evidence-based practice and knowledge translation, development of clinical practice guidelines, and reviews of evidence around specific practice areas.</p>
Participation in everyday life	<p>Rationale: Participation in everyday life is central to occupational therapy practice which facilitates engagement in occupation through active participation in purposeful activities/occupations.</p> <p>Scope: This includes any individual of any age group, or group/community who are unable to participate in desired occupations due to a variety of barriers, for example, unemployed people, people with mental health problems, people with disabilities, people unable to access community activities and occupations due to mobility issues (e.g., fitness to drive) or social isolation, people in prison, returned veterans, indigenous people, and people from diverse cultures or language groups. Research topics may include advocacy, environmental interventions, lifestyle programs, with a focus on participation as an outcome.</p>
Healthy aging	<p>Rationale: Populations around the world are aging and the health and social costs of supporting this population are escalating, therefore, solutions need to be found to maintain healthy aging for as long as possible.</p> <p>Scope: This will usually include older people from whatever age is considered appropriate to be considering aging, and will concern the impact of common conditions that are observed in this population on occupation, such as dementia and falls injuries, common social issues such as social isolation and exclusion, poverty and housing, and common environmental concerns such as discrimination, inclusive built environments, needs of carers, residential care options, access to work, as well as programs to prevent poor health.</p>
Occupational therapy and chronic conditions	<p>Rationale: There is an increasing emphasis on the effective management of people with chronic conditions due to the increase in prevalence of people presenting with these conditions and the movement of treatment of these conditions away from hospital-based settings.</p> <p>Scope: This would include any conditions experienced by a person of any age that has not been resolved post rehabilitation or postacute care, and is likely to continue to be managed in the primary health care environment or in the community. Chronic conditions may include childhood conditions such as autism, stroke, cancer survivorship, HIV/AIDS, mental health and recovery, musculoskeletal conditions such as arthritis, and lifestyle related issues such as diabetes and obesity.</p>
Sustainable community development and population based-occupational therapy interventions	<p>Rationale: Occupational therapy has much to offer communities and populations that are prevented from engaging in valued occupations, and a role in promoting health, preventing health issues, and developing capacity building for communities is relevant to occupational therapy practice.</p> <p>Scope: This could include practice with populations such as homeless people, displaced people, rural populations, people who are at risk of experiencing violence or conflict, refugees, and interventions related to disaster prevention, management, and recovery. This could also involve relationships with nongovernment agencies and evaluating effective models of service delivery.</p>
Technology and occupational therapy	<p>Rationale: Technology is growing and affecting all aspects of everyday life, therefore, occupational therapists need to explore how technology can facilitate participation in occupations, or if it has detrimental effects on some aspects of participation.</p> <p>Scope: This could include both everyday technology as well as high-level systems level technology, and how it relates both to the practice of occupational therapists as well as the participation of clients and communities in valued occupations. It could include the use of telehealth or providing interventions via distance mode, specific technologies to improve independent engagement in occupations, the design of technologies, knowledge, and confidence about the use of technologies by occupational therapists, and the adoption of technology by clients and carers.</p>
Occupational therapy professional issues	<p>Rationale: To be an effective agent of change and gain recognition from other discipline groups and funding bodies, the occupational therapy profession needs to be able to research itself to determine if occupational therapists are being adequately supported and educated to practice effectively.</p> <p>Scope: This could include topics such as the effective education of entry-level occupational therapy students (e.g., attitudes, effective learning strategies, diversity of the student body, effectiveness of fieldwork models, and relationship of fieldwork experiences to future competencies), needs of occupational therapists in particular areas of practice, effectiveness of continuing professional education, evaluation of international competencies, and improving the awareness of the profession among the public and other discipline groups.</p>

Table 4. Ratings and Ranking for Final Eight Research Priorities.

Priority	Member organization mean rating and (overall rank)	95% CI	Universities mean rating and (overall rank)	95% CI
Effectiveness of OT interventions	8.74 (1)	[7.84, 9.63]	9.60 (1)	[9.14, 10.00]
Evidence-based practice and knowledge translation	8.79 (2)	[8.24, 9.33]	8.53 (2)	[7.65, 9.41]
Participation in everyday life	7.21 (4)	[6.03, 8.39]	7.47 (3)	[6.38, 8.55]
Healthy aging	7.42 (3)	[6.79, 8.03]	8.10 (6)	[7.07, 9.10]
Occupational therapy and chronic conditions	6.84 (6)	[5.86, 7.82]	8.20 (4)	[7.28, 9.12]
Community development and populations	6.70 (6)	[5.40, 8.00]	8.58 (7)	[7.88, 9.27]
Technology and occupational therapy	7.21 (8)	[6.28, 8.14]	7.87 (4)	[6.69, 9.05]
Occupational therapy professional issues	6.68 (5)	[5.54, 7.82]	6.67 (8)	[5.27, 8.07]

Note. CI = confidence interval; OT = occupational therapy.

worldwide in focused research activity. Inevitably, some of this work will consist of early stage exploratory research. Some WFOT members are much further ahead than others in their research capacity, and these priorities may assist in linking researchers who have common interests and can assist in developing the research capacity of others. It is not clear what the future impact of these research priorities will be for the occupational therapy profession internationally; however, the first step has now been taken, and future work can build on this. Further research will be needed to determine how these research priorities are being adopted by WFOT members and universities, and how different WFOT regional areas differ in their research priorities.

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Authors' Note

Procedures were followed in this study according to the institutional ethics approval which is consistent with the 2000 Helsinki Declaration. (Approval number: 2014/770)

Declaration of Conflicting Interests

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References

American Occupational Therapy Foundation. (2015). Retrieved from <http://www.aotf.org/aboutaotf/researchpriorities>

- Bannigan, K., Boniface, G., Doherty, P., Nicol, M., Porter-Armstrong, A., & Scudds, R. (2008). Priorities for occupational therapy research in the United Kingdom: Executive summary of the POTTER project. *British Journal of Occupational Therapy, 71*, 13-16.
- Bissett, M., Cusick, A., & Adamson, L. (2001). Occupational therapy research priorities in mental health. *Occupational Therapy in Health Care, 14*, 1-19. doi:10.1080/J003v14n02_01
- Colagiuri, R., Boylan, S., & Morrice, E. (2015). Research priorities for NCD prevention and climate change: An international Delphi survey. *International Journal of Environmental Research and Public Health, 12*, 12941-12957. doi:10.3390/ijerph121012941
- Department of Health and Children. (2014). *Tackling chronic disease: A policy framework for the management of chronic diseases*. Retrieved from http://health.gov.ie/wp-content/uploads/2014/03/tackling_chronic_disease.pdf
- Downing, J., Knapp, C., Muckaden, M., Fowler-Kerry, S., & Marston, J. (2015). Priorities for global research into children's palliative care: Results of an international Delphi study. *BMC Palliative Care, 14*, Article 36. doi:10.1186/s12904-015-0031-1
- Duncan, E., Munro, K., & Nicol, M. (2003). Research priorities in forensic occupational therapy. *British Journal of Occupational Therapy, 66*, 55-64.
- Fowler-Davis, S., & Hyde, P. (2002). Priorities in mental health research: An update. *British Journal of Occupational Therapy, 65*, 387-389.
- Hasson, F., Keeney, S., & McKenna, H. (2000). Research guidelines for the Delphi survey technique. *Journal of Advanced Nursing, 32*, 1008-1015. doi:10.1046/j.1365-2648.2000.01567.x
- Health Research Board. (2010). *The identification of research priorities for therapy professions in Ireland*. Retrieved from http://www.hrb.ie/uploads/tx_hrbpublications/Physical_Therapies_Priorities_Main_Report.pdf
- Hitch, D., & Lhuede, K. (2015). Research priorities in mental health occupational therapy: A study of clinician perspectives. *Australian Occupational Therapy Journal, 62*, 326-332. doi:10.1111/1440-1630.12223

- James, D., & Warren-Forward, H. (2015). Research methods for formal consensus development. *Nurse Researcher, 22*, 35-40. doi:10.7748/nr.22.3.35.e1297
- Marshall, A. (2004). Research priorities for Australian critical care nurses: Do we need them? *Australian Critical Care, 17*, 142-144, 146, 148-150. doi:10.1016/S1036-7314(04)80019-5
- McIntyre, S., Novak, I., & Cusick, A. (2010). Consensus research priorities for cerebral palsy: A Delphi survey of consumers, researchers, and clinicians. *Developmental Medicine & Child Neurology, 52*, 270-275. doi:10.1111/j.1469-8749.2009.03358.x
- NSW Government, Department of Family & Community Services, Office for Ageing. (2012). *NSW ageing strategy*. Retrieved from https://www.adhc.nsw.gov.au/__data/assets/file/0011/257276/1282_ADHC_NSW-AgeingStrategy_WEB.pdf
- Rudd, M., Ankley, G., Boxall, A., & Brooks, B. (2014). International scientists' priorities for research on pharmaceutical and personal care products in the environment. *Integrated Environmental Assessment and Management, 10*, 576-587. doi:10.1002/ieam.1551
- Rushon, A., & Moore, A. (2010). International identification of research priorities for postgraduate theses in musculoskeletal physiotherapy using a modified Delphi technique. *Manual Therapy, 15*, 142-148. doi:10.1016/j.math.2009.09.003
- Selman, L., Young, T., Vermandere, M., Stirling, I., & Leget, C. (2014). Research priorities in spiritual care: An international survey of palliative care researchers and clinicians. *Journal of Pain and Symptom Management, 48*, 518-531. doi:10.1016/j.jpainsymman.2013.10.020
- Vernon, W. (2009). The Delphi technique: A review. *International Journal of Therapy & Rehabilitation, 16*, 69-76. doi:10.12968/ijtr.2009.16.2.38892
- World Federation of Occupational Therapists. (2012). *Definition of occupational therapy*. Retrieved from <http://www.wfot.org/aboutus/aboutoccupationaltherapy/definitionofoccupationaltherapy.aspx>
- World Federation of Occupational Therapists. (2014). *Human resources project*. Retrieved from <http://www.wfot.org/ResourceCentre.aspx>
- World Health Organization. (2005). *Preventing chronic diseases: A vital investment*. Retrieved from http://www.who.int/chp/chronic_disease_report/full_report.pdf
- World Health Organization. (2011). *World report on disability*. Retrieved from http://www.who.int/disabilities/world_report/2011/en/
- World Health Organization. (2015). *Sustainable development goals*. Retrieved from <http://www.undp.org/content/undp/en/home/sdoverview/post-2015-development-agenda.html>
- World Health Organization Europe. (2012). *Policies and priority interventions for healthy ageing*. Retrieved from http://www.euro.who.int/__data/assets/pdf_file/0006/161637/WHD-Policies-and-Priority-Interventions-for-Healthy-Ageing.pdf?ua=1