

Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis for the strengthening of the occupational therapy workforce

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Abstract

Background: Occupational Therapists are needed for meeting the health, rehabilitation, and occupational needs of the population worldwide, but there is no strategy for strengthening the occupational therapy workforce against a backdrop of an insufficient and inequitable supply worldwide. **Objective:** To perform a situational assessment of occupational therapy workforce development and research toward informing a global human resources strategy for strengthening the profession. **Method:** A multi-methods design incorporating SWOT analysis based on scoping review findings, workforce development frameworks, and expert feedback. **Results:** Strengths included identified workforce research trends, gaps, and findings. Weaknesses included a shortage of workforce research, lack of uniform and readily available workforce datasets, absence of workforce research programs, over-reliance on descriptive and non-experimental research, lack of research on workforce topics (e.g., diversity), and lack of labor market or economic analyses. Opportunities are the availability of guidance and tools for strengthening the health and rehabilitation workforce worldwide, and increased membership from low- and middle-income countries (LMICs) in the international professional federation. Threats include the suboptimal funding of occupational therapy workforce research, the lack of profession-specific data on cross-professional datasets and studies, suboptimal educational capacity in LMICs, lack of universal professional regulation and uniform workforce data collection in many contexts, and a perceived lower priority of this health workforce focused on health and wellbeing rather than medical outcomes. **Conclusion:** This SWOT analysis identifies strengths and opportunities to be seized and weaknesses and threats to be addressed by development of a strategy for the global strengthening of the occupational therapy workforce.

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Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis for the strengthening of the occupational therapy workforce

Running Title:

SWOT analysis of the occupational therapy workforce

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Conflict of interest statement for all authors

Ritchard Ledgerd and Claudia von Zweck hold professional roles within the World Federation of Occupational Therapists. Tiago Jesus has a voluntary agreement with World Federation of Occupational Therapists for development of a strategy for strengthening the occupational therapy workforce.

Abstract

Background: Occupational Therapists are needed for meeting the health, rehabilitation, and occupational needs of the population worldwide, but there is no strategy for strengthening the occupational therapy workforce against a backdrop of an insufficient and inequitable supply worldwide.

Objective: To perform a situational assessment of occupational therapy workforce development and research toward informing a global human resources strategy for strengthening the profession.

Method: A multi-methods design incorporating SWOT analysis based on scoping review findings, workforce development frameworks, and expert feedback.

Results: Strengths included identified workforce research trends, gaps, and findings. Weaknesses included a shortage of workforce research, lack of uniform and readily available workforce datasets, absence of workforce research programs, over-reliance on descriptive and non-experimental research, lack of research on workforce topics (e.g., diversity), and lack of labor market or economic analyses. Opportunities are the availability of guidance and tools for strengthening the health and rehabilitation workforce worldwide, and increased membership from low- and middle-income countries (LMICs) in the international professional federation.

Threats include the suboptimal funding of occupational therapy workforce research, the lack of profession-specific data on cross-professional datasets and studies, suboptimal educational capacity in LMICs, lack of universal professional regulation and uniform workforce data collection in many contexts, and a perceived lower priority of this health workforce focused on health and wellbeing rather than medical outcomes.

Conclusion: This SWOT analysis identifies strengths and opportunities to be seized and weaknesses and threats to be addressed by development of a strategy for the global strengthening of the occupational therapy workforce.

Highlights:

- The occupational therapy workforce needs to be strengthened worldwide.
- A global situation analysis needs to precede a global strategy development.
- The SWOT tool was selected and useful for the workforce situational assessment.
- A strategy for the global development of this workforce will follow this SWOT.

Keywords: Health Workforce, Occupational Therapy, Situation Analysis

Background

The health workforce is a key pillar of the health systems.^{1,2} In turn, occupational therapists are healthcare professionals who aim to meet health, rehabilitation, and occupational needs of the population.^{3,4} To do so, the occupational therapy workforce must satisfy supply requirements, be equitably distributed (e.g., across geographic areas, service levels), and meet key competency standards.³ The development of the occupational therapy workforce worldwide has, however, been inconsistent across nations, even among those of similar income level. For instance, recent workforce data collated by the World Federation of Occupational Therapists (WFOT) shows that Italy has less than one-tenth of the population-adjusted occupational therapists than Denmark.⁵ In turn, the same dataset indicates that 54 out of 89 countries – many of which are low- and middle-income countries (LMICs) – had less than one occupational therapist per 10,000 inhabitants, with a per capita supply of up to 22,000 times less than Denmark's.⁵ Furthermore, occupational therapy workforce research also has shown inequitable distributions of occupational therapists within geographic areas (e.g., rural versus urban), sectors (e.g., public or private) or services (e.g., mental versus physical health) of the same country.⁶⁻⁸

The insufficient supply and inequitable distribution of the occupational therapy workforce occurs against a backdrop of an ageing population and a rise in burden of non-communicable conditions and disability, globally.⁹⁻¹⁴ For example, a 17% increase was observed in the world's physical rehabilitation needs per capita from 1990 to 2017.^{13,15} Hence, a high and increasing global disability burden exists for an insufficient supply and inequitable distribution of the occupational therapy workforce.

In the abovementioned context, the WFOT initiated a process to develop a global strategy toward strengthening the worldwide occupational therapy workforce. The process began with the development of a three-pronged scoping review of the occupational therapy workforce research.¹⁶ First, we examined the global status of occupational therapy workforce research by mapping the volume of studies, as well as geographic areas addressed and the type of methods used, including stratifying funded and non-funded research.¹⁷ Second, we identified the types of findings that were generated by the occupational therapy workforce research worldwide, including trends in topics across nations.¹⁸ Lastly, limitations and future recommendations reported by the included papers were summarized and identified as possible facilitators or barriers for the strengthening of the occupational therapy workforce.¹⁹

In this *short communication*, we aim to build on this acquired knowledge, as well as on findings of an external environmental scan and feedback provided by experts, to perform a situational assessment of the development of occupational therapy workforce and its research - toward informing a global human resources strategy for strengthening the profession.

Methods:

We used a Strengths, Weaknesses, Opportunities and Threats (SWOT) framework to develop the given situational assessment. A SWOT framework²⁰, is an analytical tool often used for informing health workforce development,²¹⁻²⁵ and focuses on identifying which *Strengths* and *Opportunities* might be optimized, as well as *Weaknesses* and *Threats* to be minimized or overcome for advancing a system. Here, we used a SWOT analysis to lay the foundations, of need and opportunity, for the development of strategies for strengthening the worldwide occupational therapy workforce.

Within a SWOT framework,²⁰ *Strengths* and *Weaknesses* are considered internal factors, where *Strengths* represent a competitive advantage for that system or its own development, while *Weaknesses* refer to limitations of the system or organization that may hamper its progress; hence, both refer to properties of the system under study. In turn, *Opportunities* are any factors that may act as a facilitator to the progress of the system or organization, whereas *Threats* refer to barriers that serve as a disadvantage; both *Opportunities* and *Threats* refer to properties external to the system under review.

Drafting the SWOT

In the context above, the Strengths and Weaknesses of our SWOT framework were primarily identified from the findings of our recent scoping review of the occupational therapy workforce research. The three-pronged scoping review addressed: 1) the scope of the literature and its research methods,¹⁷ 2) the types of findings generated,¹⁸ and 3) the self-reported limitations and recommendations.¹⁹ Data and reports generated by WFOT were also used to inform the Strengths and Weaknesses, e.g., data from the WFOT human resources project, and secondary analyses using this information that is internal to the occupational therapy workforce research ecosystem^{3,5,8,26}.

The identification of Opportunities and Threats was based on major health workforce development frameworks and development activities. These include the Global Strategy on the Human Resources for Health,² which provides global guidance for workforce research and developments, and the Global Strategic Directions for Strengthening Nursing and Midwifery which provides a profession-specific development guide.²⁶ We also relied on a recent guidebook from the World Health Organization on developing health labor market analyses.²⁷ Furthermore, we used frameworks and tools (e.g., Rehabilitation 2030; Rehabilitation Competency Framework; Six Rehab Workforce Challenges)^{21,28,29} that can guide cross-professional rehabilitation workforce developments. Finally, we relied on a recent analysis of publication and funding trends on the health workforce literature,³⁰ and on the current occupational classification system and global databases for reporting health workforce data.³¹⁻³³

Based on the abovementioned sources, a subset of the authors (TJ, CvZ, and RL) elaborated on a draft SWOT analysis which was then subjected to expert review and refinement suggestions.

Consulting experts

Four experts were invited by WFOT to take part as advisors to provide feedback for the development of the occupational therapy human resources strategy. Three of the experts were external to the research team and included: the author most frequently cited in the preceding scoping reviews; an external consultant involved in rehabilitation workforce strengthening; and a research scholar in health economics and health workforce with expertise in LMICs. Finally, the panel also included one of our research authors (KM) not directly involved in drafting the SWOT analysis. This expert added workforce expertise for both high-income countries and LMICs. All experts, with the exception of the scholar in health economics were occupational therapists. Altogether, the advisors had occupational therapy, human resources policy and management, rehabilitation workforce, and health policy and economic expertise, across major global regions. The acknowledgement section provides the experts' names and positions for the three of the four advisors that consented to this acknowledgement.

Following the acceptance of a formal invitation from WFOT, which included terms of reference outlining the experts' volunteer participation, an online meeting with the advisors was held by the research authors. The draft SWOT analysis was made available to the experts a priori, and was reviewed during the one-hour

meeting. Open-ended, iterative, and verbal feedback was sought toward improving the SWOT analysis. Field notes were recorded by the research authors regarding missed or unclear elements of the analysis.

The field notes taken during the meeting were instrumental for refining the SWOT analysis. Using the input provided by the advisors, the SWOT analysis was iteratively edited by the research team. The advisors subsequently had the opportunity to individually provide written input regarding the final version.

Results

Table 1 provides the final SWOT analysis, which included seven *Strengths* , seventeen *Weaknesses* , eight *Opportunities* , and nine *Threats* .

<Insert Table 1 around here>

In synthesis, the *Strengths* were related to the identification of workforce research trends, gaps, leverage points, and profession-specific workforce findings that emerged from cross-professional endeavours.

The *Weaknesses* include a shortage of workforce research, outdated research findings, lack of uniform and readily available workforce datasets, large heterogeneity in continuous professional development requirements, absence of workforce research programs, over-reliance on descriptive and non-experimental research, rare availability of research on some workforce topics (e.g., international mobility, diversity), and lack of comprehensive situational analysis or deliberative workforce planning and evaluation, among others.

The *Opportunities* include the existence of guidance and tools for strengthening the health and rehabilitation workforce worldwide, the increased membership from LMICs in WFOT as the international professional federation, and the opportunity to use licensing or registration bodies as a more reliable source of occupational therapy workforce data, to name a few.

Finally, *Threats* include, but are not limited to, the suboptimal funding of occupational therapy workforce research, the lack of profession-specific data on cross-professional datasets and studies, suboptimal educational capacity in LMICs, frequent lack of professional regulation and reliable workforce data collection, and the current lack of occupational therapy as a discrete profession in the International Standard Classification of Occupations.

Additions that emerged from the experts' feedback

Components of the final SWOT analysis that emerged specifically from the experts' input (i.e., bullets without a supportive reference in the Table 1) are outlined below.

Specifically, the additions are related to *Opportunities* arising from increased societal participation and economic productivity of populations served by occupational therapy as result of workforce scale up investments, as well from the increasing number of occupational therapists with doctoral and master's level education able to undertake workforce research. An additional *Threat* was identified in relation to occupational therapy being seen as a lower priority in the health agenda because of a focus on functional and wellbeing outcomes versus survival or other medical outcomes. Finally, the importance of one *Weakness* was reinforced, notably, the lack of labor market or economic analyses for occupational therapy (e.g., cost of scale ups; return-of-investment analyses); although identified in the scoping reviews,¹⁸ this weakness was not explicitly outlined in the initial SWOT.

Discussion

In this short communication, we highlight the process and results of a SWOT analysis regarding worldwide occupational therapy workforce development and research. In doing so, we integrated the results of a three-pronged scoping review – especially for internal-system components of the SWOT framework (i.e., *Strengths* and *Weaknesses*), and then used current health workforce development frameworks and expert consultation – especially for the external-environment components (i.e., *Opportunities* and *Threats*). This work is part of a wider, multi-staged project of the WFOT to build the first ever global strategy for strengthening the occupational therapy workforce. The initial design of the strategy must be preceded by a comprehensive,

yet balanced, situational assessment. Here, we described the completion of that assessment using a SWOT analysis.

Among the elements included in our SWOT analysis, Weaknesses were the most frequently identified. This finding may arise from the lack of a systematic program, agenda, or capacity toward developing and investigating the occupational therapy workforce and its strengthening, globally or in varying health system contexts.^{21,34-37} The numerous weaknesses reinforce the need to build global strategic directions for the occupational therapy workforce strengthening. In turn, the mapping of precise weaknesses may prove very helpful to the task of designing strategies that aim to specifically address the areas of concern.

Methodologically, the SWOT framework proved to be a useful and intuitive tool. Initially used in the management literature,²⁰ the SWOT analysis has been now utilised in health policy and service research topics, including in the disability and rehabilitation field^{21,38-43} and toward informing health workforce developments.²¹⁻²⁵ The framework facilitated the identification of *Strengths* and *Opportunities* to be seized, as well as *Weaknesses* and *Threats* to be addressed by global strategies, thus aligning with our development purposes. Moreover, the SWOT methodology focuses on both factors internal (i.e., *Strengths* and *Weaknesses*) and external (e.g., *Opportunities* and *Threats*), which is also congruent with our development tenets. We acknowledge the need to develop profession-specific workforce strategies that are responsive to profession-specific gaps and strengths. Yet, we also recognise the need to synergistically frame those developments within other (cross-professional) activities toward building the health and rehabilitation workforce.^{2,21,29,44} The SWOT framework was therefore instrumental for our strategy development.

The work has the following limitations. Although we consulted a range of experts, including those outside of the profession, we did not develop a wide stakeholder consultation. We plan to develop a larger consultation process on the strategies that will arise from this situational assessment. Also, experts were selected and invited by the researchers. Although it helped achieve a representative pool of experts, this approach can contribute to bias in the review of the SWOT analysis.

Conclusion

This SWOT analysis identifies strengths and opportunities to be seized and weaknesses and threats to be addressed when developing a strategy for strengthening the worldwide occupational therapy workforce. The SWOT framework was a useful and intuitive tool for the situational assessment purpose.

Strengths: A recent, multi-pronged scoping review synthesized the global occupational therapy workforce research: studies

Opportunities: Global cross-stakeholders input (“Rehabilitation 2030”; World Rehabilitation Alliance) on strengthening re

Table 1: Strengths, Weaknesses, Opportunities and Threats analysis of the occupational therapy workforce development and research worldwide. Legend: WFOT: World Federation of Occupational Therapists. WHO: World Health Organization. HICs: High-income countries. LMICs: Low- and middle-income countries.

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