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Barriers and facilitators for the practice of occupational therapy in mental health: findings from a global practitioner survey of the World Federation of Occupational Therapists

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Abstract

Background Occupational therapists are health professionals with knowledge and capacity to address mental health (MH) needs and reduce MH workforce shortages worldwide. However, occupational therapists working in MH are often underrepresented within the MH and occupational therapy workforce.

Aim Using the perspective of occupational therapists with MH practice, the study aimed to: identify barriers and facilitators for occupational therapy practice in MH, and analyze differences in respondent or country level characteristics.

Methods The study involved secondary ecological analysis of survey responses. The survey was developed and disseminated by the World Federation of Occupational Therapists. Ordinal logistic regressions were used to determine whether individual- and country-level variables (e.g., demographic, socio-economic factors) significantly affected the survey responses.

Results Survey responses ($n = 1102$) were obtained from 67 countries or territories. Of the nine surveyed factors, six (66%) were rated more often as barriers for practice, including “waiting times”, “services funding”, “intervention costs”, and “therapists availability”. “Screening & referral” and having “education /preparation for MH” were practice facilitators. Responses did not substantially vary by respondent or country-related factors, except for the Socio-Demographic Index which substantially and significantly affected the response pattern for “safety concerns” (estimate: 11.08; 95% CI:7.09-15.07; $p < .0001$).

Conclusion The results of this large worldwide survey of occupational therapists on the facilitators and barriers for practice in MH can help inform strategies to strengthen practice in this field. While referral and screening mechanisms should be reinforced to facilitate access to occupational therapy, such actions need to be complemented with

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adequate service funding, career attractiveness, and therapist availability; otherwise, increased service demands may result in unmet needs and service constraints. Further research is needed to investigate why “safety concerns” was a reported barrier particularly for countries with a lower Socio Demographic Index.

Keywords Occupational therapy, Occupational therapists, Mental health, Medically underserved area, Supply and distribution, Health services needs and demand

Introduction

Occupational therapists are health professionals who promote functional performance and occupational engagement for individuals or communities experiencing, or at risk of experiencing, physical, mental, and other impairments and disabilities [1]. Despite their key role, a global shortage of occupational therapists has been well-documented, particularly in low- and middle-income countries (LMICs) where the workforce is either under-represented or absent [2, 3]. Even in countries with better supply, there are significant inequities in the distribution of occupational therapists, including across practice areas. Mental health (MH) is an area where occupational therapy is often underrepresented, with the number of MH practitioners in the workforce insufficient to meet vacancies or population needs [3, 4]. For example, in the United States, only 2.2% of occupational therapists work in MH, making up just 0.2% of the total MH workforce that excludes physicians [5, 6]. This proportion is in stark contrast to the 59.3 million adults (23.1% of the population) in the U.S. who experience MH conditions [7]. Approximately 122 million U.S. residents — about half of the population — live in areas with a shortage of MH professionals [8].

Globally, mental disorders continue to be among the top ten leading causes of disease burden, with no evidence of a decreasing trend [9]. In contrast, MH workforce shortages continue to abound worldwide, with a resultant need for capacity building programs [10]. Despite this need, workforce data indicates occupational therapists dedicated to providing MH services remain scarce in many countries, if such details are known at all [2, 3, 5]. The World Health Organization’s Global Health Observatory includes the *number of occupational therapists in the mental health sector (per 100,000 population)* as an indicator, acknowledging the important role of the profession in the MH field. Given the scarcity of available information however, no data is reported for occupational therapists, although data is reported for this indicator for psychiatric nurses, psychologists, and social workers [11].

Occupational therapists have a long history of working in MH contexts [12, 13]. Occupational therapy aims to promote positive MH, prevent mental illness, and assist people to recover from MH challenges, allowing individuals to lead fulfilling lives [14]. People with MH conditions often experience disruptions in their daily

occupations [15]. MH is not merely the absence of mental illness; it includes positive psychological attributes, social functioning, and the ability to adapt to or cope with life’s challenges [15, 16]. Occupational therapy practice focuses on enhancing meaningful participation in daily activities—such as education, leisure, and work—particularly in real-world environments, when these are impacted by health conditions, including those affecting MH [17].

Overall, occupational therapists can be part of the solution to address worldwide MH workforce shortages [14, 18, 20] if structural barriers affecting demand, access, and practice are identified and addressed. Several reports have identified key barriers to the development, practice, and allocation of occupational therapists to MH intervention, including issues related to workforce supply and education, health systems, legal concerns, and financial constraints [14, 18, 19, 21]. In the related health and rehabilitation field, similar types of barriers have been identified [22, 25]. However, to our knowledge, no global, large-scale survey has studied the perspectives of occupational therapists with experience working with people with MH conditions regarding factors that influence their practice in MH.

The World Federation of Occupational Therapists (WFOT) is committed to advancing the occupational therapy workforce across the globe. For example, WFOT has undertaken a multistage research, consultation, and development process to launch the first *Global Strategy for the Occupational Therapy Workforce* [26, 27]. A priority of this strategy for the entire occupational therapy workforce is the equitable distribution of occupational therapists, particularly for underserved practice areas of the profession such as MH [27]. In recognition of this priority, WFOT released a position statement on the need for strengthening occupational therapy in MH [19].

To further inform strategic initiatives aimed at strengthening occupational therapy practice in MH, WFOT conducted a global survey to explore factors that may be current barriers or facilitators for practice of occupational therapy in MH. The objectives of this study were:

1. To identify factors rated as positively or negatively affecting the practice of occupational therapy with people with MH needs across the world.

- To analyze the statistical significance of response differences across individual-respondent characteristics and country-level ecological variables, such as demographic and socio-economic characteristics, population health needs, and health spending indicators.

Methods

Overview

This study conducted a secondary ecological analysis of cross-sectional survey responses. The survey was developed by WFOT, and distributed to a global contact list that included member organisations and other network contacts. Participants provided consent for the analysis and public use of information they provided. After de-identification by WFOT, survey responses were analyzed externally, including combining country-level factors as potential ecological predictors of country-level variability in the survey responses. To conduct the study, a data-sharing agreement was established, a priori, between WFOT and the Ohio State University: Agreement ID: A2024-2516.

Survey design

The survey was designed by the WFOT team, based on knowledge of international occupational therapy practice and relevant research literature. Knowledge of the research literature was gained from the results of a multi-pronged scoping review conducted by WFOT as part of the process of developing the *Global Strategy for the Occupational Therapy Workforce*, and complemented by expert and stakeholder consultations [3, 26, 28]. A second literature review was also conducted to identify research findings directly related to MH and the profession, such as funding or workforce availability prevalent in the occupational therapy and rehabilitation literature [14, 18, 19, 21, 25]. From the combination of these sources, two WFOT experts (CvZ and RL) drafted the survey questions, which were then reviewed by the primary author (TJ), and finally refined through consensus together.

Table 1 outlines the final nine factors included in the survey that were rated by respondents regarding their impact for the practice of occupational therapy in MH. A five-point Likert-based scale was used (high negative-impact, low negative-impact, no impact, low positive-impact, and high positive-impact). Factors rated with a negative impact were identified as barriers; positively rated factors were facilitators. Using this scale, the selected response outlined both the direction and magnitude of the impact of each surveyed factor. Respondents also could provide an “unknown” or “not applicable” answer if unable to appraise a given factor or the factor was not applicable to their context.

The survey, initially developed in English, was translated and disseminated by WFOT in three additional languages (French, German, and Spanish). The survey was created initially in English. Translation software (DeepL) was subsequently used to develop a translation of the English survey into French, German and Spanish. The translated survey, plus the original English survey was then sent to a WFOT volunteer translator to review the translation and correct errors as necessary to ensure a good quality translation. WFOT has a volunteer team of translators that regularly translate WFOT documents into French, German and Spanish. The translation of the survey in each language was then checked by a second member of the WFOT translation team, before it was entered into Survey Monkey for use in the study. The respondents were asked to select the language of choice, their country or territory and respond to socio-demographic questions before answering the main survey questions.

Survey procedures

In November of 2023, WFOT sent the survey on the Survey Monkey platform to occupational therapists throughout the world using a multi-pronged approach. Specifically, the survey link was sent to over 100 WFOT member organizations (countries or territories) who were in turn asked to circulate the survey information to their

Table 1 Survey questions and likert-type of answers for the factors affecting the practice occupational therapy in mental health

Introductory question:	Factors rated:	Likert rating scale:
Please rate the degree to which the following factors affect your ability to provide quality occupational therapy services for people with mental health needs:	<i>Screening & referral</i> : Screening and referral mechanisms to identify people needing occupational therapy	1) “High Negative Impact”
	<i>Waiting times</i> : Wait time for occupational therapy intervention	2) “Low Negative Impact”
	<i>Therapist availability</i> : Availability of occupational therapists	3) “No impact”
	<i>Intervention time</i> : Availability of time to provide needed intervention	4) “Low Positive Impact”
	<i>Supplies</i> : Availability and suitability of equipment / supplies	5) “High Positive Impact”
	<i>Services funding</i> : Funding for occupational therapy services	OR
	<i>Intervention costs</i> : costs of occupational therapy intervention for the user	- “Unknown”
	<i>Safety concerns</i> : Personal safety concerns	- “Not applicable”
	<i>Education /preparation for MH</i> : Education /preparation to provide occupational therapy for people with mental health needs	

members. WFOT also provided the link and information about the survey directly to occupational therapists using the WFOT e-newsletter (approximately 14,100 recipients), and via social media. In addition, the survey link was posted on the WFOT website for six weeks.

The survey targeted occupational therapists who were actively involved with people with “MH health needs or conditions”. A definition of MH needs and conditions was provided [29]. Response to the survey was sought from occupational therapists with experience in working with people with MH issues in practice, research or education. Those who self-identified on the online survey as occupational therapy researchers or educators were directed to different survey questions related to research and education, with responses not included in this analysis. This report focuses on factors affecting “practice” as appraised by those in practice roles. The survey remained open on the Survey Monkey platform for six-weeks, with reminders regarding the survey included in WFOT e-newsletters twice during this period.

Statistical analysis

For the first objective, the researchers used descriptive statistics and developed graphics of the Likert-based responses for each of the nine survey items. Data transformation involved assigning positive and negative weights to the responses: i.e., two points assigned to “high positive impact”; one to “low positive impact”; zero to “no impact”; one negative point to “low negative impact”; and two negative points to “high negative impact”.

For the second study objective, inferential statistics were used with *ordinal logistic regression* models, one for each of the nine survey items as the single dependent variable. An *ordinal logistic regression* was selected to identify whether the likelihood of providing an answer on the Likert scale (i.e. ordinal variable) varied according to the any of the potential predictors, either individual-respondent and ecological variables from the country or territory of the respondents. Table 2 identifies those potential predictors, which were treated as exploratory independent variables. Of note, the ecological data was obtained from various public domain global datasets, as derived from the country of each individual respondent. That public domain data was obtained by the external analysts during October 2024, and their selection was informed by a prior ecological study of the factors affecting the rehabilitation workforce supply and demand [30]. A minority of public domain data was not available for a few countries/territories (e.g., indicators not available for territories such as Hong Kong). Supplementary Table 1 reports which data was not available and how we handled those missing ecological values for statistical modelling.

All the *ordinal logistic regressions* were run in the SAS Studio on Demand for Academics software, initially

using all the potential predictors as possible explanatory variables. After retaining the results of those full models (Supplementary Table 2), we ran reduced models using only relevant subsets of the possible predictors to obtain more parsimonious models, with lower levels of multicollinearity.

For the reduced models, we selected the explanatory variables that cumulatively had $p < 0.10$ and Variance Inflation Factor (VIF) < 5 (i.e., acceptable multicollinearity) in its preceding full model, in addition to any variables that were outright significant predictors ($p < 0.05$) in the full model - irrespective of VIF values. Then, using the reduced model (first version), we re-introduced, one by one, the outstanding variables into more comprehensive reduced models, until a “best fit” was achieved. The best fit here was determined by the Akaike Information Criterion (AIC) value of the evolving models, which weights both prediction capacity and added complexity. Whenever a higher AIC value (i.e. worse fit) was found in an evolving reduced model, we would stop adding predictor variables at that point and retain the previous version and variables of the reduced model. We considered $p < 0.05$ as statistically significant but also as Bonferroni-corrected.

Results

We obtained responses from 1102 participants worldwide, all reporting some experience of working with people with MH needs. Most participants (56%) had > 10 years of practice experience. Many responses (85%) came from high-income nations. A total of 58% of the responses came from Europe & Central Asia as a World Bank world region. However, responses were from 67 different countries or territories of seven world regions, which included 43 responses from a total of nine Sub-Saharan African countries. Regarding the language of the survey, most participants (57%) responded in English, whereas 22% completed the Spanish version.

Factors affecting practice in MH

Figure 1 provides the non-weighted survey results, including the “no impact” answers, for each of the nine surveyed factors. “Screening & referral” was the factor more often rated with a “high positive impact” (37% of the respondents), while “service funding” was more frequently rated with “high negative impact” (29%). “Safety concerns” was more frequently rated as having “no impact” (42%), while “therapist availability” was rated as having “no impact” for only 11% of the respondents.

In turn, Fig. 2 shows the weighted direction of these findings, after removing the “no impact” answers and providing a weight for the magnitude (i.e., ‘high impact’ counting twice vs. ‘low impact’). For easier comparison, the figure also translates the findings into 100% stacked bars for each factor.

Table 2 Variables potentially predicting variation in survey responses, organized by individual- and country-derived variables

Country-Lever Ecological Variables		
Domain & Variable(s)	Year	Data Source
Geographies		
REGION: World Regions	2024	World Bank [31]
Demography		
LAND SIZE: Territory Size (SqKm)	2021	Food and Agriculture Organization, electronic files and web site [32]
POPULATION: Population Size (n)	2023	United Nations Population Division; Eurostat: Demographic Statistics [33]
RURAL: Rural Population Percentage (%)	2023	World Bank [34]
Socio-Development and Democracy		
DEMOCRACY INDEX: Democracy Index	2022	Economist Intelligence Unit (2006–2023) – processed by Our World in Data [35]
SDI: Socio-Demographic Index	2021	Global Burden of Disease Study 2021 (GBD 2021) Socio-Demographic Index (SDI) 1950–2021 [36]
Economics (Income Level Indicators)		
INCOME LEVEL: Income Level	2024	World Bank [31]
GNI: Gross National Income (US\$/capita)	2022	World Bank national accounts data, and OECD National Accounts data files [37]
Health-Economic Indicators		
GOVERNMENT FUNDED: Domestic General Government Health Expenditure (%)	2021	World Health Organization Global Health Expenditure database [38]
EXPENDITURES: Current Health Expenditure Per Capita (US\$/capita)	2021	World Health Organization Global Health Expenditure database [39]
Population Needs		
YLDs RATE: Years Lived with Disability Rate for Mental Disorders and Substance Disorders	2021	Global Burden of Disease [40]
YLDs PERCENT: Years Lived with Disability Percent for Mental Disorders and Substance Disorders	2021	Global Burden of Disease [40]
INDIVIDUAL-RESPONDENT socio-demographic variables: available from the survey		
<i>Years of work</i> : Years of experience working in occupational therapy		
<i>MH service load</i> : Volume of work that addresses people with specific mental health needs		
<i>Self-rated competency</i> : Level of preparation/Education to work with people with mental health needs		
<i>Fieldwork in MH</i> : Fieldwork/practice placement in mental health during education		

Figure 2 illustrates that most factors (66.6%; six out of nine) were rated more negatively than positively, with “waiting times” (63%), “service funding” (62%) and “intervention costs” (58%) respectively as those more frequently seen in negative light. On the other end, “screening & referral” and “education /preparation for MH” stood out as factors that positively influence the practice in MH. For instance, “screening & referral” had a positive weighted ratio of nearly 3:1 (74% vs. 26%), followed by “education / preparation for MH” with nearly a 3:2 ratio (66% vs. 34%).

Variability of factors across respondent contexts

Table 3 shows the *best fit*, reduced ordinal logistic regression models for how the responses to each rated factor varied according to respondent context, either individual- or country-level.

Among these models, only “screening & referral” had no explanatory value (p value of the whole model > 0.05).

For the seven remaining, the whole models and some of possible predictors had significant, independent explanatory value and therefore affected the response pattern. At the 95% confidence level, up to five possible predictors influenced the participant responses for the models on: “intervention costs” and “safety concerns”, dropping to up to three predictors for “safety concerns”. However, the magnitude of any of those significant associations were frequently low: the 95% confidence intervals contained values between -1 and 1 .

One notable exception was identified. The socio-demographic index (SDI), a composite indicator of country development status, had a strong positive association with the direction of “safety concerns” responses (estimate: 11.08; 95% CI: 7.09–15.07, $p < 0.0001$). Respondents from countries with lower SDI were therefore more likely to report safety concerns as a barrier, and vice versa.

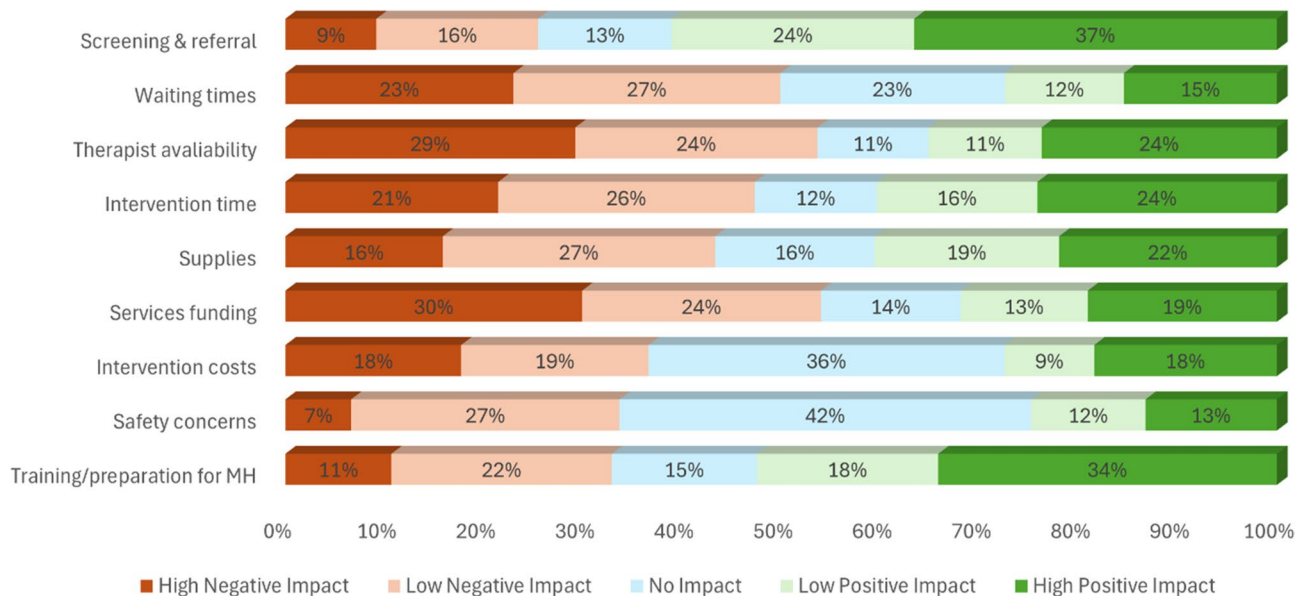


Fig. 1 Non-weighted results, including the “no impact” answers, of factors affecting the practice in mental health

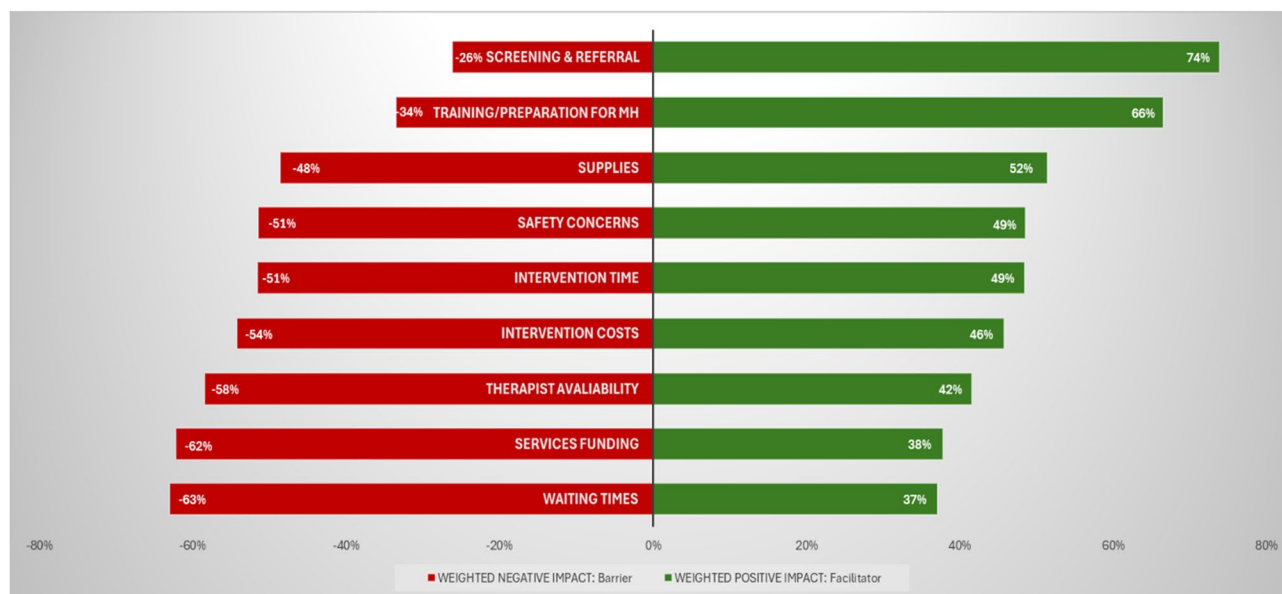


Fig. 2 How each factor had a more positive and negative influence for the practice in mental health. Legend: Factors were weighted, ranked, and translated into 100% stacked bars. The values reflect a differential weight for the magnitude of the response direction (i.e., high negative’ impact answers counting 2x more than the ‘low negative’ responses for the red bar; ‘high positive’ impact counting 2x more than the ‘low positive’ responses for the green bar). The weighted results were then ranked, from the most positive to the most negative influence. Finally, the weighted, ranked results were translated into 100%-stack bars (i.e. sum of the red and green bar for the same item = 100%) for easier interpretation of whether each factor was seen as having a more positive (green bars with >50%) or negative influence (red bars with >50%)

Discussion

This global survey study is the first to gauge the perspectives of occupational therapists to identify factors that positively or negatively affect the practice of occupational therapy in MH. Screening and referral mechanisms and education /preparation for addressing MH needs stood out as practice facilitators. In turn, current waiting times, service funding, therapist availability,

and intervention costs were more frequently rated as barriers. Importantly, these response trends were often similar across individual-respondent characteristics and country-level ecological variables. The notable exception was for the composite country development indicator SDI, highly affecting participants’ responses on the “safety concerns” item. All these findings warrant discussion.

Table 3 Best fit reduced ordinal logistic regression models for each of the eight survey items as single independent variables

Survey Item (whole-model p value)	Predictor	VIF	Estimate	95% CI		P value
Screening & referral (0.0607)	<i>Years of work</i>	1.00	0.0742	-0.0029	0.1513	0.0594
Waiting times (0.0021*)	POPULATION	1.11	-3.76E-10	-1E-09	2.46E-10	0.2357
	SDI	1.88	-3.2539	-5.0493	-1.4584	0.0004**
	DEMOCRACY	2.02	0.1424	-0.0085	0.2934	0.0644
	YLDs PERCENT	1.05	-4.4543	-9.6735	0.7648	0.0944
	<i>MH service load</i>	1.02	-0.1244	-0.2557	0.0070	0.0634
Therapist availability (0.0002*)	INCOME	1.00	-0.0638	-0.2650	0.1374	0.5343
	LAND	1.00	6.54E-08	3.12E-08	9.95E-08	0.0002**
	<i>Years of work</i>	1.00	0.0859	0.0132	0.1586	0.0205*
Intervention time (0.0004*)	LAND	1.04	6.27E-08	2.87E-08	9.66E-08	0.0003**
	GOVERNMENT	1.04	0.0093	0.0010	0.0177	0.0291*
Services funding (0.0002*)	REGION	1.64	0.0630	-0.0321	0.1582	0.1943
	POPULATION	1.32	-8.53E-10	-1.5E-09	-1.6E-10	0.0158*
	LAND	1.49	7.11E-08	2.95E-08	1.13E-07	0.0008**
	SDI	1.78	-2.0354	-3.7459	-0.3250	0.0197*
	GOVERNMENT	1.87	0.0119	0.0004	0.0234	0.0417*
	<i>MH service load</i>	1.01	-0.0991	-0.2284	0.0303	0.1334
	<i>Fieldwork in MH</i>	1.05	0.1573	-0.0381	0.3526	0.1146
Intervention Costs (<0.0001*)	INCOME	2.31	-0.4692	-0.7867	-0.1516	0.0038**
	POPULATION	1.38	-5.87E-10	-1.3E-09	1.13E-10	0.1003
	LAND	1.47	5.21E-08	7.65E-09	9.66E-08	0.0216*
	DEMOCRACY	1.88	-0.1010	-0.2500	0.0481	0.1845
	YLDs RATE	1.86	0.0005	0.0002	0.0008	0.0039**
	<i>MH service load</i>	1.01	-0.1510	-0.2917	-0.0102	0.0355*
	<i>Fieldwork in MH</i>	1.03	0.2397	0.0302	0.4493	0.0249*
Safety concerns (<0.0001*)	INCOME	6.47	-1.3219	-1.8594	-0.7845	<0.0001**
	SDI	8.64	11.0802	7.0913	15.0692	<0.0001**
	DEMOCRACY	1.93	-0.1249	-0.2754	0.0256	0.1038
	EXPENDITURES	4.05	-0.0001	-0.0002	0.0000	0.0098*
	GOVERNMENT	2.37	0.0120	-0.0013	0.0254	0.0773
	YLDs RATE	2.45	0.0009	0.0005	0.0012	<0.0001**
	<i>Years of work</i>	1.02	-0.0911	-0.1695	-0.0127	0.0227*
	<i>Fieldwork in MH</i>	1.06	0.1845	-0.0199	0.3889	0.0768
	INCOME	1.79	-0.1004	-0.3673	0.1665	0.4610
Education /preparation for MH (<0.0001*)	GOVERNMENT	1.78	-0.0096	-0.0207	0.0015	0.0911
	<i>Years of work</i>	1.07	0.1032	0.0275	0.1790	0.0075**
	<i>Preparation</i>	1.06	0.1542	-0.0096	0.3179	0.0650
	<i>Fieldwork in MH</i>	1.03	-0.2778	-0.4670	-0.0885	0.004**

A reduced model for a ninth factor ("supplies") is not reported here; no single possible predictor was significant or eligible to be included into a reduced model: see full regression models (Supplementary Table 2)

Variables in italic refer to individual-level variables while those in CAPS are country-level

VIF Variance Inflation Factor

*Statistically significant with 95% confidence

**Statistically significant also after Bonferroni correction

Screening & referral mechanisms can positively affect a needs-based demand for occupational therapy by facilitating the role of other health professionals for making appropriate occupational therapy referrals [41, 44]. Across countries, the history of MH as a practice field for occupational therapy widely varies, likewise the frequency of occupational therapists working in MH [3,

4, 12, 14, 18]. For contexts where established practices exist, greater awareness of the specific role of occupational therapy in MH may emerge among referral practitioners [21]. These can use formal or informal referral mechanisms, resulting in increased value, recognition, and demand for the profession. In contexts where occupational therapists do not have a widespread or historical

practice in MH, formal rather than informal referral mechanisms will likely be needed to generate an initial needs-based demand.

Increases in service demand must be balanced with simultaneous measures for assuring response capacity. Factors like waiting times, service funding, therapist availability, intervention costs, and intervention time were all more often rated as negatively influencing the practice of occupational therapy in MH. If better screening & referral mechanisms lead to an expected and desirable increase in needs-based referrals for service, the resulting demand must be met by an improved supply and funding of occupational therapy in MH. With failure to do so, increases in referrals can result in service restraints such as decreased intervention time and longer waiting periods. In addition, occupational therapists may be left feeling busy, stressed and under pressure, without capacity to continuously provide quality service [45]. Such working conditions may, in turn, lead to job dissatisfaction, hampering MH workforce retention. For these reasons, strategies to strengthen the occupational therapy practice in MH need to be systems-based to address demand and supply workforce concerns simultaneously [26, 46, 47].

For improving occupational therapy supply in the MH field, the literature points to the need to promote legislation, advocacy, and funding changes to develop or reinforce the jurisdictional status of occupational therapists as qualified, recognized, and reimbursed MH providers [18, 21]. Such activities should be complemented by strategies that add attractiveness of MH practice for occupational therapists. The existing occupational therapy workforce in MH may benefit from targeted recruitment or retention strategies and programs to improve engagement and job satisfaction, as well as development programs for early career MH occupational therapists [48, 50]. For students as future workforce practitioners, enhanced educational content and greater exposure to MH content or fieldwork practice during entry-level education may also improve the likelihood of a future practice in this field [4, 51, 53]. Congruent with this recommendation, “education/preparation for MH practice” was one of the factors survey respondents viewed as often positively influencing the practice of occupational therapy in MH.

We observed that the pattern of the survey responses was often either not significantly or not substantially changed by respondent- or country-level characteristics. This finding indicates that it is feasible to develop common, strategic directions for strengthening the occupational therapy practice in MH worldwide, although implementation needs be context-sensitive and responsive to local situational assessments [3, 27, 54, 55]. The results of this survey can be used for

a stakeholder-engaged design and refinement of such strategic directions. For example, to address personal “safety concerns”, strategic recommendations should particularly target countries with a low SDI. In our descriptive results, the worldwide trend appeared to indicate this factor had a neutral impact, being neither facilitator nor barrier. However, through inferential analysis, it was determined that respondents from countries with lower SDI more often rated this factor as negatively affecting the practice of occupational therapy in MH, whereas those from countries with greater SDI tended to rate this factor in a more neutral or positive light. This finding suggests the need for further research to study how and why this factor negatively affects occupational therapy practice in MH in countries with lower SDI. For example, if findings are due to the interaction of compromised working, safety, and service conditions (within the context of cultural, stigma, educational, and other socio-ecological determinants [56, 59]), tailored strategies can be designed accordingly to address the identified issues.

Of note, the SDI has been developed and used by the Global Burden of Disease study as an alternative to the traditional World Bank’s four income levels [60]. As this indicator combines information on the economy, education, and fertility rates of countries around the world, it has been more closely tied to health outcomes and used to stratify the Global Burden of Disease results per level of country development [60]. Here, we used several socio-economic and development indicators (e.g. gross national income, World Bank’s income levels) as possible predictors of response variations. However, only the SDI was a significant as well as substantive predictor of responses for one of the survey items. This finding can inform others about selecting (composite) indicators that can be most sensitive to detect country-level variations in responses to global surveys.

Limitations

This survey study has several limitations. First, participants’ responses to the survey items addressed perceived barriers or facilitators and did not reflect objective measures of whether the rated factors were actual barriers or facilitators for occupational therapy practice in MH. Second, most survey responses came from high-income countries, limiting the analysis and generalizability of the findings; yet, beyond a skewed sampling, that unbalance might reflect the global status and under-development of the profession in many LMICs, with many having just a few or no occupational therapists [2, 3] even though LMICs collectively accounting for over three quarters of the global population need for rehabilitation services [61].

Third, the lower representation of LMICs may have limited the statistical power to detect more significant

differences for the ecological-level factors. Fourth, the inferential analysis involved country-level ecological variables, hence it was limited to participants that reported their country: a minority of the respondents ($n = 3$) did not identify their location; hence these three responses were excluded from the inferential analysis. Fifth, we had respondents from specific territories (e.g., Hong Kong) that had no territory-based values for some extracted ecological variables; those missing values were replaced by proxy estimates derived from countries or territories in a world region with similar income level (Supplementary Table 1).

Conclusion

This paper reports on a large worldwide survey of occupational therapists regarding the factors that affect their practice in MH. The results identified barriers or facilitators that were rated in a similar pattern worldwide. Screening & referral mechanisms as well as education/preparation in MH were often rated as facilitators. Factors such as waiting times, therapist availability, intervention time, and funding were rated more often as barriers. Overall, activities that create demand for occupational therapy in MH, for example, developing screening and referral tools, should be introduced concurrently with measures that improve the workforce accessibility and supply to avoid unmet needs and service constraints. Personal safety issues were reported as a barrier for the practice of occupational therapy in MH but more often in countries with low SDI. Further research should study how and why this factor may negatively affect occupational therapy practice in MH in countries with lower SDI. The findings of this survey and analysis will inform future WFOT discussions with experts and country representatives to provide future global guidance on how to strengthen the practice of occupational therapy in MH worldwide.

Abbreviations

AIC	Akaike Information Criterion
MH	Mental Health
WFOT	World Federation of Occupational Therapists
SDI	Socio-Demographic Index

Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12913-025-12996-z>.

Supplementary Material 1.
Supplementary Material 2.
Supplementary Material 3.
Supplementary Material 4.

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Authors' contributions

TJ: Wrote the main manuscript text; conceptualized the analytical approach; co-developed the data-sharing agreement; reviewed the manuscript. PM: Extracted the ecological data and conducted the statistical analysis; reviewed the manuscript. RL: Conceptualized and conducted the data collection, co-developed the data-sharing agreement; reviewed the manuscript. CvZ: Conceptualized and conducted the data collection, co-developed the data-sharing agreement; reviewed the manuscript. WFOT: Provided the structure for the survey development, delivery, and translations.

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Data availability

The datasets supporting the conclusions of this article are included within the article (and its additional files). The Supplementary file 3 contains a spreadsheet of the database used for the descriptive statistics and another one used for the inferential statistics which excluded three respondents with no country assigned.

Declarations

Ethics approval and consent to participate

The internal data collection was run by the WFOT as part of and to inform their program development or quality improvement, not as a research activity. Nonetheless, the survey procedure adhered to the Declaration of Helsinki and informed consent was obtained in the following manner: all participants responded "Yes" to the following initial survey questions:

"I understand that by sharing my personal data with WFOT, it will be used in accordance with the WFOT Privacy Policy: <https://www.wfot.org/privacy-cookies>," and to

"I consent to taking part in this survey and that my anonymized responses will be included in the aggregated dataset published by WFOT and publicly accessible."

Participants responded with their professional perspectives about the profession and although were 'human' respondents, their participation in the survey was not 'human subjects' research requiring ethical approval. Nonetheless, the above consent was taken, and the data was de-identified (e.g., removing email contact) before being shared with The Ohio State University. The country of the respondent was not removed to enable the ecological data extraction and analysis. A data-sharing agreement was established, a priori, between the WFOT and the Ohio State University: Agreement ID: A2024-2516.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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