Journal of Pioneering Medical Sciences
Received: August 01, 2026 | Accepted: October 09, 2026 | Published: November 15, 2026
Volume 15, Issue S02, Pages 230-235

DOI https://doi.org/10.47310/jpms202615S0227



Barriers and Facilitators to Occupational Therapy Referrals in Saudi Arabia: A Cross-Sectional Study of Medical Professionals

Fahad Somaa[1*], Shoag Naif Almarwani[2], Alhanuf Mohammed Alhammad[3], Asmaa Omar Bamusa[4] and Azka Khan[5]
[1-4]Occupational Therapy Department, Faculty of Medical Rehabilitation Sciences, King AbdulAziz University Jeddah, Saudi Arabia
[5]Faculty of Rehabilitation and Allied Health Sciences, Riphah International University, Islamabad, Pakistan

Author Designation: [1-4]Occupational Therapy

*Corresponding author: Fahad Somaa (e-mail: fsomaa49@gmail.com).

©2026 the Author(s). This is an open access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0

Abstract **Objectives:** Occupational Therapy (OT) plays a vital role in patient rehabilitation and holistic care. However, in Saudi Arabia, OT services remain underutilized due to limited awareness and systemic barriers. This study explores the barriers and facilitators influencing OT referrals among licensed medical professionals. **Methods:** A descriptive cross-sectional design was used. Sixty-four medical professionals from various specialties across Saudi Arabia completed a structured online survey. The questionnaire assessed demographic information, referral frequency, knowledge of OT, perceived importance, and factors influencing referral decisions. Descriptive statistics and chi-square tests were conducted using SPSS 27, with significance set at $p<0.05$. **Results:** Among 64 respondents (mean age 36.86 years; 54.7% male), 20.3% reported frequent referrals, 35.9% occasional referrals and 17.2% no referrals. Respondents most often identified functional limitation (42.2%) and service availability (25.0%) as referral considerations, and lack of awareness (34.4%) and service unavailability (25.0%) as barriers. Statistical claims for familiarity, specialty and referral frequency require reanalysis because contingency tables contain sparse categories; the reported percentages are descriptive. **Conclusion:** In this convenience-based, regionally concentrated survey of 64 clinicians, referral frequency varied and awareness-related responses were descriptively associated with referral patterns. Sparse specialty cells and small sample size limit the reliability of chi-square comparisons. The results do not establish causal effects of familiarity or represent nationally representative Saudi practice.

Key Words: Occupational Therapy, Referral Practices, Healthcare Professionals, Barriers and Facilitators, Saudi Arabia

INTRODUCTION

Occupational therapy stands as a fundamental healthcare profession which helps patients meet their health needs by encouraging purposeful activity participation. The practice enables all age groups to perform everyday tasks through methods that deal with challenges which affect both function and independence [1-2]. Through OT interventions therapists help clients by making environmental adaptations or developing new skills and adapting daily activities to support routines such as self-care and work and community involvement [2]. Occupational therapists worldwide establish essential contributions to healthcare team cooperation across numerous settings through their work across prevention strategies and rehabilitation and health promotion programs [3].

The implementation of OT began in Saudi Arabia during the late 1980s when healthcare professionals started to develop their national system [1,4]. Professionals benefit from local training opportunities together with growing institutional backing which boosts recognition and trustworthiness of their field [5]. OT experiences limited use among healthcare providers because physicians refrain from sending their patients to treatment. Healthcare professionals continue to display an insufficient understanding of Occupational Therapy scope and benefits so they fail to refer patients correctly [5, 6]. The professional uncertainty among physicians regarding OT service integration into patient care leads to fragmented rehabilitation while preventing patients from receiving needed services [1,6].

Multiple structural limitations along with professional obstacles lead to the underutilization of OT services. The national deficit of qualified occupational therapists remains a key barrier because it affects rural areas and underprivileged communities the most. The growth of occupational therapy education has not solved the minimal workforce shortage or the unequal distribution of

practitioners across territories [5-6]. Additionally, the implementation of OT services for routine care is inhibited by logistical barriers related to inadequate facilities and minimal rehabilitation supplies and slow medical referral systems inside hospitals [6].

The referral process becomes complicated because healthcare providers face communication challenges when interacting with patients. The primary communication barriers between therapists and patients include language mismatches and cultural differences combined with time pressure and missing interprofessional teamwork [7]. Furthermore, occupational therapy can be overlooked and misunderstood by healthcare teams since professionals within the team sometimes lack clear role definitions leading to reduced utilization of occupational therapy services[3,7]. Several positive factors show potential to enhance occupational therapy (OT) referral methods even though various obstacles persist. The establishment of university-level OT training programs has built a skilled graduate workforce which steadily increases professional numbers [1,5]. The integration of occupational therapists into healthcare teams proves essential for improving referrals because teams gain better communication and referral accuracy through mutual understanding between professionals [3,8]. Additionally, educational initiatives involving workshops and in-service training for non-OT healthcare professionals prove efficient in building awareness regarding OT value and increasing recognition of OT patient-centred care functions [5,8].

The present research about Barriers and Facilitators to Occupational Therapy Referrals in Saudi Arabia emerges at a critical time. The potential of Occupational Therapy to tackle multiple health needs does not translate into effective referral practices at current healthcare settings in Saudi Arabia. The study's primary objective is to assess the frequency with which doctors across various medical specialties refer patients to OT services in Saudi Arabia. In doing so, the research aims to explore the key factors that influence physicians' decisions regarding OT referrals, including their knowledge, experiences, and perceptions of the profession. A crucial aspect of the study involves identifying the barriers that hinder effective referral practices, whether they are related to systemic challenges, professional misconceptions, or infrastructural limitations. Additionally, the study seeks to evaluate how doctors perceive the role and importance of occupational therapy in contributing to holistic patient care. Finally, the research intends to gather feedback and recommendations from the medical professional about the referral process improvements for better OT service accessibility and patient success optimization.

METHODS

Study Design

A descriptive cross-sectional research design was used.

Study Population and Sampling

Medical professionals with licenses from various specialties throughout Saudi Arabia participated in this research. Participants needed to be medical practitioners anywhere in their specialty with at least a year of clinical work experience. A total of 64 completed surveys were analysed in the final assessment.

Survey Instrument

Based on the existing literature a structured questionnaire was developed. The questionnaire divided its content into three distinct parts. The initial section of the survey requested participants to provide information about their gender together with medical specialty and years of experience as well as region and practice setting. The second section assessed the frequency of referrals to occupational therapy services and familiarity with OT roles and contributions. It also included questions about the perceived importance of OT in patient care and the types of conditions most frequently referred for OT services. The final section explored specific factors influencing referral decisions. It also identified key barriers to OT referral.

Procedure

Ethical Committee of King Abdulaziz University granted approval for the study. All participants joined the survey voluntarily while their responses received strict confidentiality protections. Researchers implemented Google Forms to develop the online questionnaire which they disseminated through multiple social media sites. Each participant had to review the informed consent form before beginning the survey and show their consent via agreement.

Data Analysis

SPSS version 27 was used for data entry and analysis. First, normality of the data was checked so that the tests could be decided. Descriptive statistics was applied and Chi-square tests were employed to determine associations with a significance value set at $p<0.05$.

For each cross-tabulation, the denominator used in displayed percentages should be explicitly stated. Because several specialty-by-frequency expected counts may be below five, Pearson chi-square p values must be reassessed with exact or appropriately combined-category alternatives. The original cell-level counts are required for valid inferential reanalysis; percentages alone should not be treated as proof of significance.

RESLTS

A total of 64 participants were included in the study. Participants' ages ranged from 26 to 64 years, with a mean age of 36.86 ± 8.51 years. The duration of clinical practice ranged from 1 to 31 years, with an average of 10.17±7.57 years. The frequency distribution of participant characteristics, including gender, medical specialty, practice setting, region of practice, OT referral patterns, familiarity with OT services, perceived importance of OT, conditions referred, influencing factors, barriers, accessibility, and additional comments, is presented in Table 1. Normality of the data was assessed using the Shapiro–Wilk test, which

Table 1: Frequency Distribution of Participant Characteristics, Practice Settings, Familiarity with Occupational Therapy Services, Referral Patterns, and Related Factors

Variable	Category	Frequency (n)	Percentage
Gender of Participants	Male	35	54.70%
	Female	29	45.30%
Medical Speciality	Preventive medicine	2	3.1%
	General Practice	6	9.4%
	Gastroenterology	1	1.6%
	Rheumatology	2	3.1%
	Plastic surgery	2	3.1%
	Urology	1	1.6%
	Anaesthesia ICU	1	1.6%
	Laboratory medicine	1	1.6%
	Oncology	1	1.6%
	Endocrinologist	1	1.6%
	Obstetrics and gynaecology	1	1.6%
	Internal Medicine	6	9.4%
	Neurology	1	1.6%
	Orthopaedics	8	12.5%
	Paediatrics	13	20.3%
	Psychiatry	1	1.6%
	Surgery	13	20.3%
	Family Medicine	3	4.7%
Practice Setting	Public Hospital	40	62.5%
	Private Hospital	18	28.1%
	Private Clinic	3	4.7%
	Community Health Centre	3	4.7%
Region of Practice	Central (Riyadh, Qassim, etc.)	2	3.1%
	Eastern (Damman, Khobar, etc.)	2	3.1%
	Western (Jeddah, Makkah, etc.)	59	92.2%
	Southern (Abha, Jizan, etc.)	1	1.6%
How Often Specialists Refer Patients to OT	Rarely	9	14.1%
	Sometimes	23	35.9%
	Frequently	13	20.3%
	Always	8	12.5%
	Never	11	17.2%
Familiarity with role of OT services provided by occupational Therapists	Not familiar at all	5	7.8%
	Not very familiar	14	21.9%
	Somewhat familiar	29	45.3%
	Very familiar	16	25.0%
How Important are OT Services in Patient Care	Not important	2	3.1%
	Somewhat important	8	12.5%
	Very important	31	48.4%
	Extremely important	23	35.9%
Type of Conditions Typically Referred to OT Services	Post-surgery rehabilitation	24	37.5%
	Neurological conditions (e.g., stroke)	16	25.0%
	Musculoskeletal conditions (e.g., fractures)	16	25.0%
	Cardiovascular conditions (e.g., myocardial infarction)	1	1.6%
	Cognitive impairments	7	10.9%
When referring a patient to OT, what factors influence/facilitate your decision	Patient's age	3	4.7%
	Severity of the condition	12	18.8%
	Patient's/Family request	2	3.1%
	Patient's functional limitations	27	42.2%
	Availability of OT services	16	25.0%
	Familiarity with OT roles and services	1	1.6%
	Recommendations from colleagues/specialist	1	1.6%
	Insurance coverage	2	3.1%
Barriers Preventing from Referring Patient to OT Services	Lack of availability of OT services in your region	16	25.0%
	Insurance coverage issues	9	14.1%
	Patient financial constraints	5	7.8%
	Lack of awareness of the benefits of OT	22	34.4%
	Patient resistance to rehabilitation	2	3.1%
	Scheduling difficulties	10	15.6%
Accessibility of OT Services in your Region	Easily accessible	21	32.8%
	Somewhat accessible	25	39.1%
	Difficult to access	16	25.0%
	Not available	2	3.1%

Table 2: Continued

Variable	Category	Frequency (n)	Percentage
Additional Comments or Suggestions Regarding Occupational Therapy and Patient Referrals	No comments	57	89.1%
	Outpatient follow-up for stroke patients to ensure ongoing OT support and recovery.	1	1.6%
	Increase staff and streamline processes for efficient OT referrals without delays or complications.	1	1.6%
	Allow OT referral for cognitive and functional limitations	1	1.6%
	Need OT referral form by patient type (e.g., post-op) to ease referral and unify process.	1	1.6%
	Both doctors and patients need better orientation, and hospitals need more specialists for effective care.	1	1.6%
	Increase awareness and availability of services for better access and support.	2	3.1%

Table 2: Cross Tabulation of Medical Specialty and How Often Do You Refer Patients to OT Services

	How Often Do You Refer Patients to OT Services				
Medical Specialty	Rarely	Sometime	Frequently	Always	Never
Preventive medicine	0%	0%	0%	0%	3.1%
General Practice	1.6%	1.6%	4.7%	0%	1.6%
Gastroenterology	0%	0%	0%	0%	1.6%
Rheumatology	0%	0%	1.6%	0%	1.6%
Plastic surgery		1.6%	1.6%	0%	
Urology	0%	0%	0%	0%	1.6%
Anaesthesia ICU	0%	0%	0%	0%	1.6%
Laboratory medicine	1.6%	0%	0%	0%	0%
Oncology	0%	0%	0%	1.6%	0%
Endocrinologist	0%	0%	1.6%	0%	0%
Obstetrics and gynaecology	0%	1.6%	0%	0%	0%
Internal Medicine	0%	4.7%	3.1%	1.6%	0%
Neurology	0%	0%	1.6%	0%	0%
Orthopaedics	1.6%	4.7%	1.6%	4.7%	0%
Paediatrics	7.8%	7.8%	3.1%	0%	1.6%
Psychiatry	0%	1.6%	0%	0%	0%
Surgery	1.6%	10.9%	1.6%	4.7%	1.6%
Family Medicine	0%	1.6%	0%	0%	3.1%

Table 3: Cross Tabulation of Factors Influencing OT Referrals and the Frequency of Referrals

	How Often Do You Refer Patients to OT Services				
Factors influencing OT referrals	Rarely	Sometime	Frequently	Always	Never
Patient's age	0%	3.1%	1.6%	0%	0%
Severity of the condition	1.6%	7.8%	4.7%	3.1%	1.6%
Patient's/Family request	1.6%	1.6%	0%	0%	0%
Patient's functional limitations	9.4%	15.6%	4.7%	4.7%	7.8%
Availability of OT services	0%	7.8%	7.8%	1.6%	7.8%
Familiarity with OT roles and services	1.6%	0%	0%	0%	0%
Recommendations from colleagues/specialist	0%	0%	0%	1.6%	0%
Insurance coverage	0%	0%	1.6%	1.6%	0%

Table 4: Cross Tabulation of Association Between Respondents' Familiarity with OT Services and How Often They Refer Patients to OT Services

	How Often Do You Refer Patients to OT Services				
Familiarity with OT services	Rarely	Sometime	Frequently	Always	Never
Not familiar at all	1.6%	1.6%	1.6%	0%	3.1%
Not very familiar	6.3%	4.7%	0%	1.6%	9.4%
Somewhat familiar	4.7%	26.6%	6.3%	3.1%	4.7%
Very familiar	1.6%	3.1%	12.5%	7.8%	0%

indicated that the data were not normally distributed ($p<0.05$). Accordingly, non-parametric statistical tests were applied for inferential analyses.

The Chi-square test showed no statistically significant association between medical specialty and frequency of OT referrals, χ^2 (68) = 84.338, p = 0.087. The cross-tabulation of medical specialties and referral frequency is presented in Table 2. Similarly, no significant association was found between the factors influencing OT referrals and referral frequency, χ^2 = 32.218, p = 0.266, with a small-to-moderate effect size (Cramer's V = 0.355). The cross-tabulation of referral-influencing factors and frequency of OT referrals is shown in Table 3. In contrast, a statistically significant association was observed between participants' familiarity with OT services and frequency of referrals, χ^2, $p<0.001$. The strength of association was high, as indicated by Phi = 0.770 and Cramer's V = 0.445, suggesting that greater familiarity with OT services is associated with more frequent referrals. The cross-tabulation of familiarity and referral frequency is presented in Table 4.

DISCUSSION

This cross-sectional study involved 64 Saudi doctors from various specialties. Males slightly outnumbered females (54.7% vs. 45.3%). Regarding OT referrals, 35.9% of participants reported referring patients sometimes, 20.3% referred frequently and 17.2% had never referred patients to OT services. Although 70.3% of participants reported being somewhat or very familiar with OT services, a significant portion demonstrated only moderate awareness. Nevertheless, the perceived value of OT was high, with 84.3% rating it as very or extremely important for patient care. The most common conditions leading to OT referrals were post-surgical rehabilitation (37.5%), neurological conditions (25.0%), and musculoskeletal conditions (25.0%). The primary facilitators for referral were patients' functional impairments (42.2%) and the accessibility of OT services (25.0%), while the main barriers included unawareness of OT benefits (34.4%) and unavailability of services (25.0%).

The finding that functional impairment was the most reported factor influencing referrals is consistent with Leland *et al.*, who highlighted functional ability as a significant predictor for rehabilitation referrals. Unlike the case in Leland *et al.* study, where the referrals ($p<0.05$) were systematically influenced by functional impairments, such a relationship was not found in the present study. Discrepancy from this may be due to systemic barriers in Saudi Arabia including limited availability of services and administrative hurdles, thus the inconsistency in prioritizing functional impairments during clinical decision making [3].

According to Cason [9], telehealth provides opportunities for expanding OT service accessibility particularly in underserved areas. Given that 25.0% of participants cited unavailability of OT services as a barrier, Cason's findings are highly applicable. Telehealth could help mitigate access barriers in Saudi Arabia. Additionally, Cason stresses the importance of clinician education in enhancing OT service utilization, aligning with the present study's finding that increased familiarity significantly correlates with higher referral rates ($p<0.001$). Policy initiatives, similar to those introduced under the Affordable Care Act, could be adapted within Saudi Arabia to promote telehealth OT services and improve referral pathways [9].

Further context to the present findings is being discussed by Aljuhani *et al.* [7] on communication barriers. Their study identified language differences and limited consultation time as significant barriers to effective communication between therapists and patients. Furthermore, the unawareness of OT benefits (34.4%) and their challenges in making referrals are likely to be worsened by these issues. Moreover, the cultural competence is shown by both studies. Improving healthcare providers' communication skills and cultural sensitivity may directly affect frequency and quality of OT referrals, which can increase the cost of health care [7].

However, because of the regional concentration of participants in the Western region (92.2%) there is a possibility of regional bias, just as has been found in Canada by Cott *et al.* [10] where giving rehabilitation services equally to all regions improved referral patterns. In Saudi Arabia, the cluster of OT services in urban centres such as Jeddah and Makkah likely results in rural disparities, as indicated by participants citing difficulty accessing OT services [10].

Al Ghamdi *et al.* [11] reported systemic barriers such as accessibility, affordability, and acceptability as major impediments to physical therapy services. The present study mirrors these systemic challenges, although it uniquely emphasizes the role of individual clinician awareness. The emphasis on the dual focus on systemic and individual barriers confirms the necessity of a holistic approach for solving both the provider education as well as the accessibility issue [11].

As shown by the scoping review of Shah Ali *et al.* [12], poor interprofessional collaboration, lack of knowledge by physicians regarding the roles of rehabilitation, and time constraints are the main barriers to the referral of rehabilitation services. A positive effect of higher awareness significantly affects referral rates ($p<0.001$) provides evidence that continuing professional education and role clarification is essential to encourage the effective use of the interdisciplinary collaboration [12].

In addition, Harper *et al.* [8] used the Capability, Opportunity, Motivation, Behaviour (COM-B) model to categorise barriers to implementation of OT recommendations. For instance, their findings about restricted service availability and low perceived match up with the present study's finding that service unavailability (25.0%) and lack of awareness (34.4%) are important barriers. Similarities with these also point to the need for systemic reform, targeted education and patient centred approaches to enhance OT referral and integration in primary care services. These similar elements further underline the importance of systemic reform, education directed at targeting referral to and the integration of OT services into primary care services [8].

CONCLUSIONS

In this small, mainly Western Saudi regional sample, respondents reported diverse occupational therapy referral practices and commonly cited awareness and service availability as barriers. Apparent associations between familiarity and reported referrals cannot be interpreted causally, and sparse specialty categories limit formal significance testing. Broader probability-based sampling and validated referral questions are needed before national inference or intervention recommendations.

Limitations

The sample was small (n = 64), recruited through an online convenience approach and concentrated in the Western region (92.2%). Self-report and a questionnaire with incompletely documented validation may introduce measurement and selection bias; the participation

denominator was not available. Multiple medical specialties had very low counts, making Pearson chi-square approximation potentially unreliable. Cross-sectional associations do not establish whether improved familiarity would cause more referrals or better patient outcomes.

Recommendations

Future research should incorporate larger, more geographically diverse cohorts to strengthen the validity of these findings. Additionally, qualitative investigations into medical professionals' perspectives and experiences regarding OT referrals could yield valuable contextual insights.

REFERENCES

[1] Aljabri, N.Q. *et al.* "The occupational therapy profession in Saudi Arabia." Occupational Therapy International, vol. 2024, no. 1, 2024, article 9982661.

[2] Edelman, C. and Kudzma, E.C. Health promotion throughout the life span. Elsevier Health Sciences, 2021.

[3] Leland, N.E. *et al.* "Advancing the value and quality of occupational therapy in health service delivery." The American Journal of Occupational Therapy, vol. 69, no. 1, 2015, pp. 6901090010p1–6901090010p7.

[4] Young, Y. *et al.* "Transformation of Saudi Arabia's health system and its impact on population health: what can the USA learn?" Saudi Journal of Health Systems Research, vol. 1, no. 3, 2021, pp. 93–102.

[5] Al-Heizan, M.O. *et al.* "Occupational therapy education in Saudi Arabia: barriers and solutions from a cross-sectional survey study." Cureus, vol. 15, no. 3, 2023.

[6] Aleisa, E. *et al.* "Rehabilitation services in Saudi Arabia: an overview of its current structure and future challenges." Journal of General Practice, vol. 2, no. 6, 2014, article 184.

[7] Aljuhani, T. *et al.* "Obstacles to effective communication between physical/occupational therapists and patients in the Saudi Arabian context: a cross-sectional study." BMC Health Services Research, vol. 24, no. 1, 2024, article 1597.

[8] Harper, K.J. *et al.* "Barriers and facilitating factors influencing implementation of occupational therapy home assessment recommendations: a mixed methods systematic review." Australian Occupational Therapy Journal, vol. 69, no. 5, 2022, pp. 599–624.

[9] Cason, J. "Telehealth opportunities in occupational therapy through the Affordable Care Act." The American Occupational Therapy Association, Inc., 2012, pp. 131–136.

[10] Cott, C.A. *et al.* "Reliability and construct validity of the client-centred rehabilitation questionnaire." Disability and Rehabilitation, vol. 28, no. 22, 2006, pp. 1387–1397.

[11] Al Ghamdi, A.H. *et al.* "Perceived barriers among healthcare professionals for access to physical therapy service in Saudi Arabia." Physikalische Medizin, Rehabilitationsmedizin, Kurortmedizin, vol. 29, no. 1, 2019, pp. 26–38.

[12] ShahAli, S. *et al.* "Barriers and facilitators of integrating physiotherapy into primary health care settings: a systematic scoping review of qualitative research." Heliyon, vol. 9, no. 10, 2023, article e20736.