Knowledge About Occupational Therapy in Makkah, Saudi Arabia. Where Do Health Care Professionals Stand?

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ABSTRACT

Objectives: This study was designed to assess Health Care Professionals' knowledge about occupational therapy in Makkah- Saudi Arabia. Methods: Convenience sampling was used and 320 of Health Care Professionals, including physicians, nurses, physical therapists and social workers, were recruited from three different hospitals in Makkah to fill in a developed questionnaire. Descriptive analysis was used for participant’s demographic data presentation. The mean percent scores were compared among four groups of professionals by using One-way ANOVA test with post hoc Tucky's Test. The comparison was done by using Chi-square test. Results: The study found that Health Care Professionals had poor knowledge about occupational therapy (49.35%, SD=7.36). It also exhibited that the highest percentage of knowledge about occupational therapy within the four groups was in physicians (51.97%) followed by physical therapists (50.81%, n=24) and nurses (48.32, n= 165), whereas social workers had the lowest percentage of knowledge (47.17%, n= 30). Conclusion: Health care professionals in Makkah lack adequate knowledge about occupational therapy, its goals and treatment methods. This dearth of knowledge among Health Care Professional requires to be addressed in order to improve the provision of service for patients in need of occupational therapy to subsequently improve their quality of life.

Keywords: Occupational therapy, Knowledge, Saudi Arabia, Health care professionals, Awareness and rehabilitation

1. INTRODUCTION

Occupational Therapy (OT) is an essential specialty in healthcare system\(^1\) that can be defined as enabling people to engage in everyday activities, such as self-care, productivity and leisure to improve their health and well-being\(^2\). It aims to maximize people’s functional abilities and performance. OT plays a vital role in improving patients' outcome and functionality in medical disorders that are treatable with medication and surgery but it is the backbone for the management of several conditions, which depend mainly on the rehabilitation rather than other medical interventions. Role of occupational therapy is not limited to but is outstanding in the management of disabling conditions like neurological disorders, orthopedic conditions\(^3\), autism spectrum disorders and people with learning disability\(^4\). Global burden of disease has increased significantly from 1990-2010 according to WHO world report\(^5\). WHO measures global burden of disease using DALYS that is a measure of the daily-adjusted life years due to disability.
Major burden of diseases in Saudi Arabia is due to disabling disorders like IHD, stroke, road injury and neuropsychiatric disorders\textsuperscript{(3,6)}. These conditions causing disabilities can benefit significantly from a multidisciplinary care approach, incorporating occupational therapy for rehabilitation and restoration of functional abilities\textsuperscript{(7)}.

In order to achieve this goal, the occupational therapists (OTs) need to collaboratively work with other Health Care Professionals (HCPs) such as physicians, nurses, physiotherapists (PTs) and social workers (SWs) in multi-disciplinary teams\textsuperscript{(8)}. Working within a team requires understanding the role of each other to provide the best service and treatment for patients\textsuperscript{(9)}. However, HCPs seem to lack sufficient awareness and understanding regarding importance and applications of occupational therapy. This adds to already mounting barriers to provide sufficient help and rehabilitation needed to maximize the patient's functionality and outcome.

Some studies have tried to explore the perceptions and knowledge of HCPs about occupational therapy and its importance and have found that there is a dearth of knowledge regarding this evolving branch of medicine\textsuperscript{(10,11)}. Some studies have also compared the level of awareness and knowledge about this field within different health care professionals' groups and have found inconsistent results\textsuperscript{(12,13)}.

OT is a relatively new forte in Arab countries, particularly in Saudi Arabia. It is expected that awareness about methods and implications about this discipline will not be plentiful and this can be a source of potential barricade in identification of deserving patients in need and their subsequent referral. Thus, as a first step, it is important to establish the degree of preexisting notions and knowledge of HCPs; nurses, physicians, SW and PT about occupational therapy in Saudi Arabia and this serves as a rationale of our research. Unfortunately, no such studies have been conducted here so far and there is lack of scientific data in this area.

We expect that our research will be a significant addition to the existing literature about occupational therapy and its understanding amongst health care professionals in our region. The National Program for Pervasive Developmental Disorders in the Ministry of Health is currently aiming to address the needs and capacity building of HCPs. Our proposed research might aid and motivate the authorities to initiate and implement practical and effective solutions and strategies in form of workshops or orientation programs and improve HCPs knowledge about this essential area to bridge the gap in understanding of this very important field of medicine.

The objectives of this study are to find out if the physicians, nurse, PTs and SWs have sufficient knowledge about occupational therapy and to compare amongst the four groups of HCPs.

2. METHODS

Permission was taken from hospital ethical committee. Convenient sampling technique was used. A developed structure questionnaire\textsuperscript{(13)} was utilized to collect data from HCPs working in main tertiary care hospitals of Makkah. The questionnaire consisted of seventy-five closed statements in five different aspects, including general knowledge about occupational therapy, knowledge about areas of occupational therapy practice, knowledge about goals of occupational therapy practice, knowledge about occupational therapy treatment methods and media and general impression of occupational therapy. The five-point Likert Scale (1=strongly disagree and 5=strongly agree) was used to measure the HCPs knowledge about occupational therapy.

A minimum of 0 and a maximum of 82 score could be obtained. This score was converted into mean percent score and categories were made. Any score less than 50 mean percent meant that no or poor knowledge was present whereas 50-70 was regarded as good and more than 70 was considered as excellent knowledge. The questionnaire took about 10-15 to be completed. Copies of Questionnaire were distributed by researchers to HCPs in each hospital and were taken back after completion simultaneously. The Statistical Package for Social Sciences (SPSS-version 21.0) was used for data analysis. Descriptive analysis was used for participant’s demographic data presentation. The mean percent scores were compared among different four groups of professions by using One-way ANOVA test with post hoc Tucky’s Test. The comparison was done by using Chi-square test where required. A p-value < 0.05 was considered significant.

3. RESULTS

The total number of participants recruited were 320 and 266 completed the survey showing a response rate of 97.11%. 22.6% (n= 60) of participants were male and 77.4% (n= 206) were female. Most of participants were Saudi nationals (51.91%, n= 138) whereas 33.5% (n= 89) were non-Saudi. About 14.7% did not disclose their nationality. The highest percentage of
participants aged from 20 to 30 years (60.2%, n= 160) whereas the lowest percentage of participants aged from 51 to 60 years (3%, n=8). The highest percentage of participants held a Bachelors degree (65.4%) whereas the lowest percentage of them held a PhD degree (4%). The percentage of participants from the three hospitals were nearly the same (30.5%, 36.8%, 32%). The mean percent score of the participants was 49.35 with a maximum and minimum of 20.00 and 71.40(SD=7.36). This specified that HCPs in our study did not have adequate knowledge about occupational therapy.

We found that there was no significant difference in knowledge about occupational therapy amongst groups regarding gender (P= .352 > 0.05), nationality (P=.596 > 0.05) or age range (P=.169 > 0.05). The highest percentage of knowledge about occupational therapy was among HCPs who had 11-15 years of work experience (49.97%).

Table 1: Comparison of Mean Percent Score with Respect to Profession

<table>
<thead>
<tr>
<th>Profession</th>
<th>N</th>
<th>Average of Mean Percent Score</th>
<th>Std. Deviation</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician</td>
<td>55</td>
<td>51.97</td>
<td>6.32</td>
<td>.014</td>
</tr>
<tr>
<td>Nurse</td>
<td>156</td>
<td>48.32</td>
<td>7.57</td>
<td></td>
</tr>
<tr>
<td>Physiotherapist</td>
<td>24</td>
<td>50.81</td>
<td>6.01</td>
<td></td>
</tr>
<tr>
<td>Social Worker</td>
<td>30</td>
<td>47.17</td>
<td>8.05</td>
<td></td>
</tr>
</tbody>
</table>

Table (1) shows comparison of knowledge about occupational therapy amongst four groups of HCPs. On comparing mean percent scores among different groups of HCPs, we found that the highest percentage of knowledge about occupational therapy among the four HCPs groups was in physicians (51.97%) whereas the lowest percentage was in social worker (47.17%). Difference was statically significant (P=.014).

Table 2: Multiple comparison with post hoc Tucky's Test

<table>
<thead>
<tr>
<th>(I) Profession</th>
<th>(J) Profession</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician</td>
<td>Nurse</td>
<td>3.64676*</td>
<td>1.13810</td>
<td>.008</td>
</tr>
<tr>
<td>Physical Therapist</td>
<td>3.15894</td>
<td>1.77546</td>
<td></td>
<td>.286</td>
</tr>
<tr>
<td>Social Worker</td>
<td>1.79394</td>
<td>1.64722</td>
<td></td>
<td>.697</td>
</tr>
</tbody>
</table>

Table (2) demonstrated that there was a statistically significant difference among physicians and nurses on post hoc Tucky's Test (0.008).

The majority of HCPs reported that they have heard about OT before (53.8%). The lowest percentage of HCPs who had ever heard about OT was SW (26.7%) whereas PTs had the highest percentage (87.5%) followed by nurses (58.33%) and physicians (40%). The difference between the four groups was significant at P= 0.000

More than half of HCPs reported that they did not know anyone who know or use OT services (69.5%). SWs showed the highest percentage of HCPs who did not know anyone who knew or used OT services (83.33%) followed by physicians (76.36%), PTs (66.66%), and nurses (65.38%). This signifies that nurses knew OTs more than any other group. (P= 0.128)

Regarding idea about OTs working with people with special needs, 70.8% of HCPs gave positive response. The highest percentage of positive response was among PT (87.5%) followed by nurses (72.90%), physician 65.45% and SW (56.6%)-(p=0.001).

45% of HCPs disagreed or strongly disagreed that occupational therapy was same as physiotherapy. The highest percentage of knowledge regarding the difference between two terms was among nurses (48.1%) and the lowest percentage was among physicians (36.5%).

In addition, there was a significant difference in knowledge regarding use of activities as a treatment method by OTs. (P=.000). The highest knowledge was among PTs (91.30%) whereas the lowest knowledge was among SWs (60%).

Regarding knowledge about the practice places of OTs, we found that 3.8% of HCPs did not agree that OTs work in hospital whereas 21.8% of them did not know where the OTs worked. More nearly, 1/4 of the HCPs did not know about OTs work place and it was statically significant (P= 0.00). More than 12% of HCPs thought that OTs work in factories and 39.3 were not sure whether the OTs works in factories or not.
Around 75.75% knew that OTs help in improving Activities of Daily Living and there was a statistically significant difference amongst HCPs in this area (P= 0.004). Another significant difference was found among them when they were asked about OTs helping patients to find a job (P= 0.002) and 59.30% of them agreed that OTs help people to find jobs.

Regarding knowledge about treatment methods and media in OT, 30.6% of HCPs agreed that OTs use herbs whereas 38 % did not know whether OTs use herbs or not. We also found that 30.5% of HCPs agreed that OTs did not include patients and their families in the treatment plan, but this was not statically significant among four groups. On the other hand, 17.42% of HCPs agreed that OTs prescribed medication based on the doctor's recommendation. A large number of HCPs agreed that OTs use paly as and intervention method (68.18%). There was statically significant differences among the four groups at P= 0.001

Regarding the general impression about OT, 70% of HCPs agreed that OT is important for patients and their families. The highest percentage of HCPs did not agree that OT has no effects of patient's quality of life. The highest percentage of HCPs who agreed or strongly agreed were again amongst PT (91.66%) while the lowest percentage was among SW (53.33%). However, about 50.94% of them reported that they did not agree (15.58%) and did not know (35.36%) whether they had enough information about OT. There was a significant difference among the HCPs groups at P= 0.002.

Physicians were asked whether they have ever referred patients to OT or not. Most of them reported that they did not refer any patient to OT (84.15%) whereas only 15.9% of them referred patients to OT. 4.44% of physicians reported that OTs do not work with patient with occupational and performance difficulties and more than 46% reported that they were not sure about it.

4. DISCUSSION

This analysis was carried out to explore the Knowledge about occupational therapy among HCPs in SA and was earliest of its kind. We included SWs as one of the groups which has never participated before in regional studies. We tried to include all big tertiary care facilities in the expanse to increase generalizability. We also made a comparison of knowledge about OT among HCPs to identify specific target groups which many need more edification. The questionnaire used was provided in both Arabic and English languages in order to cover all the Arabic and non-Arabic HCPs, as almost half of them were non-Arab natives.

Our study found that the total mean knowledge about occupational therapy of all four groups of HCP was 49.35% that came in the category of poor knowledge. This is consistent with the findings of other studies done worldwide which found that there was a lack of knowledge among HCPs(12,13). This was an expected finding as OT is a relatively new field in this part of the world and little is known about its goals, role and implications(13,14,15).

We found on further categorization and comparison among health professionals that physicians had more knowledge about OT as compared to the other three groups of HCPs. Also that the knowledge of physicians and physiotherapist falls within the category of adequate knowledge individually. This finding is contrary to the previous studies, which found out that PT had more knowledge about OT as compared to physicians(13). This could be explained by the fact that in two of the hospitals there was OT department so physicians might have more knowledge due to proximity and provision of service. Also in recent years, much literature has been published and role and importance of OT has been highlighted. This could have resulted in increased awareness about OT amongst physicians.

PTs were the highest percentage among HCPs who had knowledge about the treatment methods uses in OT. This finding is supported by studies done(13,14). This could be due that PTs works together with OTs in the same rehabilitation ward and sometime they carry out joint sessions for patients.

More than 21% of HCPs had limited knowledge about the OTs work place and 12% thought that they work in factories whereas a few of them thought they work in hospitals. These findings are conflicting with the study(15), which found that more than 70% of HCPs reported, that OTs work in rehabilitation centers. A possible explanation for disparities between the studies in this area could be that there are a few number of OTs in hospitals in our area and this field is not as familiar in this part of the world.

Surprisingly, above 59% of HCPs believed that finding jobs for other persons was one of services OTs provided. This is understandable, as HCPs might have linked the term of "occupation" with job that is its literal meaning as well.

The importance of OT for patients and their families was acknowledged by more than 70% of HCPs which
is in line with the aforementioned results\textsuperscript{(14)}. Belief that OT improves quality of life was highly reported by PTs and this was consistent with the earlier findings\textsuperscript{(13)}. We included a new group of HCPs i.e. social workers, in our study for the first time as we believe that SWs play an instrumental role in providing social support and contacting with other organisations, such as social affairs in order to provide financial assistance in obtaining medication or equipment that helps in improving patient's health and wellbeing. We found that least percentage of SWs believed that OT had positive effects on patient's quality of life. This finding is significant as lack in their knowledge may negatively affect the provision of required social services for patients and necessary liaison with OTs in case of need.

Although above 70\% of HCPs reported that OT is important for patient, more than 51\% reported that they have not had sufficient information about OT. Possible explanation could be that OTs in Makkah currently do not work with other HCPs in hospitals due to the shortage of staff, so HCPs would not know what kind of service they could provide. Additionally, there are very limited educational and awareness programmes about OT in SA. These finding are supported by the other studies as well\textsuperscript{(13,15)}. This study found out that most of physicians never referred patients to OT despite presence of OTs in the hospital. This could be because of their lack of knowledge about presence of OTs or about their role in helping patients with occupational performance difficulties. These finding are in line with the previous researches, which found out that most of the physicians and medical students showed lack of knowledge about OTs function and role\textsuperscript{(13,14,15)}. One unexpected finding in the study was that most of HCPs reported that they have heard about OT. However, on rest of the items regarding specific role and implications of OT, they scored low. This implies that they might have heard about OT from different sources but they did not have adequate or enough practical and scientific knowledge. In addition, a large number of participants in this study were from different countries such as India, Egypt and Philippines, which may have more OT services in their home countries. This finding was consistent with the preceding studies\textsuperscript{(13,15,16)} which found that the majority of HCPs had heard about OT but didn’t have suitable scientific knowledge. The study has clearly shown that there is a limited knowledge about OT in SA. Lacking knowledge in such an important field should be addressed. In order to tackle this significant issue several actions need to be taken. Firstly, OTs should conduct several courses, workshops and lectures to introduce the OT services and its role to the HCPs in hospitals and other places. Furthermore, it should be made a part of under graduate curriculum so that students have some basic knowledge about the field when they come in practice. OTs should be facilitated to help increase awareness about their subject not among HCPs only but also among the whole multidisciplinary team including SWs to increase their knowledge about the role and importance of OT. In addition to above mentioned proposals, using social media to educate masses and HCPs regarding OT and its services should also be considered like creating and running websites to impart scientific information about OT effectiveness, role and goals.

Our study had a few limitations like though we covered almost all HCPs working in tertiary care government hospitals, we could not include those working in dispensaries and private sectors. Additionally, due to the busy routines of nursing staffs, most of them returned the questionnaire at the end of their duty. This could have been a source of relative bias in their knowledge.

5. CONCLUSION

We found out that HCPs do not poses adequate knowledge and information regarding OT, its procedures and its implication. We found that physicians were most knowledgeable, followed by PTs, nurses and SWs respectively. However, overall there was a deficiency of knowledge regarding this much important and so ignored field of medicine.

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