

Facilitators of implementing occupation based practice among Iranian occupational therapists: A qualitative study

Mohammad Khayatzaheh Mahani¹, Afsoon Hassani Mehraban^{*2}
Mohammad Kamali³, Soroor Parvizy⁴

Received: 12 August 2014

Accepted: 4 January 2015

Published: 15 December 2015

Abstract

Background: The Occupation-Based Practice (OBP) is a central core of occupational therapy (OT). It refers to using a meaningful occupation based on the client's interests, needs, health and participation in daily life. This study aimed to explore the facilitators of implementing OBP among Iranian occupational therapists.

Methods: Fourteen occupational therapists participated in this study. Data were collected through semi-structured interviews, and the sampling method was purposeful. The interviews were continued until data saturation was reached, and data were recorded and transcribed verbatim. Data were analyzed through qualitative content analysis using constant comparative analysis.

Results: Our analysis explored two themes: Factors attributed to context, and factors attributed to therapists. The first theme consisted of three subthemes: Educational programs of OT department, public information about OBP and clinical setting compatible with OBP. The second theme also contained three subthemes including: Positive attitude regarding effectiveness of OBP, emphasis on client-centered and family-centered practice and convincing the clients to utilize OBP.

Conclusion: The facilitators of implementing OBP are attributed to factors internal to the therapists as well as to issues in the external environment and context. Understanding these factors will help occupational therapists, OT educational staff, administrators and rehabilitation team members to facilitate the implementation of OBP.

Keywords: Occupation Based Practice; Occupational therapist; Facilitators; Qualitative study.

Cite this article as: Khayatzaheh Mahani M, Hassani Mehraban A, Kamali M, Parvizy S. Facilitators of implementing occupation based practice among Iranian occupational therapists: A qualitative study. *Med J Islam Repub Iran* 2015 (15 December). Vol. 29:307.

Introduction

The Occupational therapy (OT) that was founded in 1917 has been based fundamentally on using occupation as a mean or as an end (1). It is assumed that participation in every day occupations has a positive effect on health and wellbeing (2). Occupation has been defined as "a set of activities that is performed with some consistency and regularity, which brings a structure into everyday life and is given meaning by indi-

viduals and a culture" (3). Occupation-based practice (OBP) involves a type of client-centered practice in which both the occupational therapist and the client collaboratively choose and design meaningful activities based on the client's interests, needs, health and participation in daily life (4).

During the mechanistic paradigm, the OT profession shifted toward the medical model of the practice focusing on the bottom-up

¹. Lecturer and Occupational Therapy PhD Candidate, Department of Occupational Therapy, School of Rehabilitation Sciences, Iran University of Medical Sciences, Tehran, Iran. mahany2010@gmail.com, mahany2002@yahoo.com

². (**Corresponding author**) Associate Professor, Department of Occupational Therapy, Rehabilitation Research Center, School of Rehabilitation Sciences, Iran University of Medical Sciences, Tehran, Iran. mehraban.a@iums.ac.ir, afsoonmehraban@hotmail.com

³. Associate Professor, Department of rehabilitation management, School of Rehabilitation Sciences, Iran University of Medical Sciences, Tehran, Iran. kamali.mo@iums.ac.ir

⁴. Associate Professor, Iran Nursing and Midwifery School, Center for Educational Research in Medical sciences, Iran University of Medical Sciences, Tehran, Iran. s_parvizy@iums.ac.ir

approaches that continued until the 1970s (5). A few professional pioneers such as Mary Reilly tried to return the OT profession to its roots during the emerging paradigm (6). This paradigm shift induced the emergence of various occupation based models such as Model of Human Occupation (7). Despite these changes, some studies conducted in Western countries have shown a deviation from using OBP in both physical and psychosocial fields (6, 8-10). Some factors have been attributed to this deviation including reliance on habits, reimbursement challenges, negative attitudes, misinformation about documentation and time pressure (6,8-12). It seems there is a similar scenario for implementing OBP among Iranian occupational therapists. The result of a cross-sectional study conducted in Iran on occupation usage demonstrated a significant difference between American and Iranian occupational therapists in favor of Americans (13).

Several authors recommended some facilitators for implementing OBP. Enhancing professional skills and relationships has been recommended to facilitate OBP (14). The use of assessment tools have also been suggested as a facilitator of OBP (15). The application of healthcare frameworks such as the World Health Organization's International Classification of Functioning, Disability and Health (ICF) have been recommended for the facilitation of OBP (16). In addition, the physical environment change has been noted as a facilitator of OBP (17). All the mentioned studies were conducted in developed communities; and to our knowledge, no researches were found on the facilitators of implementing OBP in Iran.

Implementing OBP in developing countries like Iran seems to be more challenging than in developed countries because of the differences in cultural, physical and social contexts. The cultural context is recognized to have a profound influence on occupation and OBP (18). Iwama (19), Whiteford and Wilcock (20) have viewed culture as a characteristic of clients and therapists that

affects OBP. Iranian culture is unique and different from the culture of developed countries. This cultural uniqueness comes from diversities of ethnic groups with their own specific values and beliefs (21). The physical context of Iran is very different from Western countries where the OBP has been developed. There is an obvious difference in the social contexts in terms of norms, role expectations, social routines, and organizational, political and economic systems.

Hence, because of the critical role of the OBP in shaping our professional identity, it is important to facilitate its implementation. Due to a paucity of literature on this subject, particularly in our context, and considering the contextual differences between our society and that of the Western countries, conducting a qualitative study seems necessary to explore this phenomenon. Therefore, we conducted a qualitative content analysis to identify the strategies recommended by Iranian occupational therapists to facilitate OBP. Our study aimed to explore the facilitators of implementing OBP among Iranian occupational therapists.

Methods

Study design

A qualitative conventional content analysis was conducted in this study to explore the facilitators of implementing OBP among Iranian occupational therapists who were working in different clinical settings. Qualitative content analysis is designed to reduce and categorize raw data into themes based on a reasonable inference and interpretation (22).

Participants

The participants were 14 key informant occupational therapists (7 males and 7 females) whose characteristics have been illustrated in Table 1. Our inclusion criteria were as follows: At least two years of clinical experience in OT practice; at least Bachelor of Science in OT; and willingness to participate in the study. All informants

Table 1. Demographic characteristics of participants in the study

Participant	gender	Age in year	Experience in year	Clinical field	Clinical setting	Education
P-01	Male	25	3	Pediatrics, Mental	Private clinic	MSc*
P-02	Female	47	25	Adults, Physical	Governmental clinic	PhD student
P-03	Female	29	7	Pediatrics, Physical	Hospital	PhD student
P-04	Female	26	4	Adults, Mental	Governmental clinic	MSc
P-05	Male	33	8	Pediatrics, Physical	Private clinic	BSc**
P-06	Male	44	15	Pediatrics, Physical	Private clinic	MSc
P-07	Female	39	16	Pediatrics, Mental	Private clinic	BSc
P-08	Female	37	10	Adults, Physical	Hospital	MSc
P-09	Female	35	13	Adults, Mental	Hospital	MSc
P-10	Male	37	15	Pediatrics, Physical	Private clinic	MSc
P-11	Male	45	22	Pediatrics, Physical	Governmental clinic	BSc
P-12	Male	46	20	Adults, Physical	Private clinic	MSc
P-13	Male	46	20	Pediatrics, Mental	Private clinic	PhD student
P-14	Female	49	27	Pediatrics, Physical	Governmental clinic	BSc

* Master of Science, ** Bachelor of Science

participated voluntarily and were selected through purposeful sampling. Recruitment continued until data saturation.

Data Collection

Semi-structured interviews were used for data collection. The interviews were done at participant's workplace or at the OT department in Iran University of Medical Sciences (IUMS) in Tehran from March 2013 to January 2014. The interviews were started with the two following questions: What is your experience of using OBP in your field work? What factors facilitate your use of OBP? The interviews were recorded and then transcribed verbatim immediately after each interview. The interviews duration was between 30 to 91 minutes (mean = 67 minutes).

Data Analysis

The interview's transcriptions were run in MAXQDA2007 software. The transcriptions were read several times to obtain a sense of the whole to extract the meaning unit. The condensed meaning units were conceptualized and labeled with a code. The codes were compared based on their differences and similarities and were categorized into the subthemes. The subthemes

were eventually sorted and abstracted into themes (22).

Data Trustworthiness

The maximum variation sampling was used to enrich the data, so participants from different settings (different academic degrees, job experiences, field works and gender) were included. To increase data trustworthiness, member checking and peer checking were used. All research processes have been clearly documented and the transcripts were peer reviewed by the research team to increase data transferability. All subthemes and themes were discussed and revised by the supervisors and participants.

Ethical Considerations

This study was approved by the Ethical Committee of IUMS. All participants signed the written consent form before entering into the study. They were insured about data confidentiality and anonymity. To ensure confidentiality, each participant was identified with a number, and each interview transcript was coded and stored securely.

Results

Our analysis uncovered two themes: Fac-

Table 2. Emerged themes and subthemes

Themes	Subthemes
Factors attributed to context	Educational programs of OT department Public information about OBP Clinical setting compatible with OBP
Factors attributed to therapists	Positive attitude regarding effectiveness of OBP Emphasize on client-centered and family-centered practice Convincing the clients regarding OBP

tors attributed to the context and factors attributed to the therapist. Each theme consisted of three subthemes. The emerged themes and subthemes are displayed in Table 2.

Theme 1: Factors Attributed to Context

This theme implies to facilitators attributed to the context and consisted of three subthemes including educational programs of OT departments, public information about OBP and clinical setting compatible with OBP.

Educational Programs of OT Departments

It is hypothesized that the therapists learn OBP at universities throughout their curriculum. Although there are some theoretical and practical credits for OBP in OT curriculum, participants expressed that more credit has to be assigned for OBP. Besides, they reported that the curriculum has to be more practical to facilitate using OBP. One of the participants said,

"We have some credits regarding OBP in our curriculum such as play therapy, activities of daily living, consultation, but they are not sufficient for our profession that is based fundamentally on the occupation. Most of our credits are related to the medical model of practice. Furthermore, most of this occupation related credits are theoretical or are taught theoretically. I think they have to be taught more practically. The teachers should emphasize more on the top down approaches in evaluations and interventions, particularly in practical settings." (P-13)

Some participants implied to outdated activities that are taught during some credits such as activity analysis. One of the partic-

ipants noted,

"We have to up to date some credits; for example, in a credit named "Activity Analysis", the activities such as carpentry or straw weaving are not acceptable among students anymore. We should consider updated tools such as computers for activity analysis to motivate students' engagement in the educational process." (P-02)

Another concern reported by some participants was related to OT teachers and tutors. Participants reported that some teachers do not have enough knowledge about OBP. One of the participants noted,

"Some teachers focus on bottom up techniques, so the trainings relevant to OBP are too limited and confined to theory. There is a gap between theory and practice; for instance, a teacher teaches about self-care training in theoretical classes, but another teacher does the exact opposite in the clinic. The teachers have to be convinced and coordinated in group meetings.... Some teachers may not have enough knowledge about OBP, so they have to be informed and motivated through educational courses." (P-04)

Another reported by some participants was related to novice teachers. One of the participants commented,

"Unfortunately, some occupation related credits are delegated to some novice teachers who did not have enough experience, so they cannot provide the students with satisfying information about OBP ... The department has to assign the credits more consciously...especially the OBP relevant credits should be taught by informed and experienced teachers to motivate the students." (P-10)

Public Information about OBP

Participants implied to unknown position of OT profession in the society. They stated that this inappropriate position caused some problems for implementing OBP. One of our participants stated,

"OBP has been interwoven with OT practice; unfortunately, the OT practice has not been recognized as a specific profession in our community... so, we have to advertise our profession and OBP through different Medias such as TV, radio programs, magazines, newspapers, books, films, internet and virtual social networks such as face book."(P- 01)

Participants also pointed to the anonymity of their profession among the medical team. One of the participants stated,

"Most of the medical team members do not know about our profession and its services, even its name; for example, in the hospital, the physicians and nurses do not know anything about our field of work and always ask the following questions: What is your responsibility in the team? What do you do? Are you working under the supervision of a physiotherapist? Therefore, we should inform the therapeutic team about our profession and its domain of concerns; it takes time and energy, but it is necessary to maintain our professional identity."(P-08).

Clinical Setting Compatible with OBP

Some participants stated that appropriate clinical environment could facilitate using OBP. One of the participants expressed,

"We should change the environment of our clinics to be compatible with OBP; you know, most of OT clinics are not compatible with OBP nowadays. We have to make them happier. Our pediatric clinics have to be full of attractive toys. The colors and the decorations have to be cheerful. It is best to have a playground with some attractive things such as an aquarium, a swing, a slide etc. At our adult clinics, we should have a space for the activity of daily livings training such as a toilet, bathroom, and kitchen with natural objects. The variety of

assistive devices such as canes, walkers, etc. should also be available."(P-11)

Theme 2: Factors Attributed to the Therapists

This theme refers to facilitators attributed to the therapists and consists of three sub-themes including developing a positive attitude about effectiveness of OBP, emphasizing a client centered and family centered practice and convincing the clients about OBP.

Developing a Positive Attitude about the Effectiveness of OBP

Participants referred to the therapist's positive attitude about the effectiveness of OBP as a facilitator of its implementation. One of the participants commented,

"I believe the OBP is more effective than the bottom up techniques. When we use a play, the child is calmer during the OT session. He/she pays more attention and can tolerate the painful exercises more. We have the same scenario in the adult settings. The client will be more engaged in meaningful and purposeful activities than in rote exercises. They will do more repetitions during OBP, and they will be more satisfied."(P- 06)

Emphasizing a Client Centered and Family Centered Practice

Participants who were working in pediatric settings stated that OBP occurs through a client centered practice and family-centered practice. One of the participants commented,

"The therapists, who implement OBP in their work, try to engage the family in their practice. Sometimes, we have to train the family as well. When a child comes to a clinic once a week for 45 minutes, It is necessary to train the family how to care and handle the child as one OT session in a week is not enough. In addition, we should consider the whole family in our program, and we should know about their problems and co- occupations. One part of our practice is dedicated to clients and the other

part is related to their families and care-givers."(P-05)

Convincing the Clients about OBP

Participants mentioned the importance of explanation of the therapeutic services for informing clients about OBP. One of the participants reported,

"The clients and their families do not know about our practice. They do not know what approach is more effective; they do not know about the bottom up or top down approaches. Therefore, we should inform them about our practice to make them participate in the therapeutic program. Also, we have to explain about our practice to make them choose among different approaches."(P-03)

Participants also noted that they have to provide explanations to the clients and their families with a comprehensible language. One participant noted,

"We have to explain about our program to clients and their family, especially to those from lower social/educational classes. We should explain to them in a simple, easy- to- understand language to make them understand our statements. When our clients are physicians, we use special terminology to convince them, but when they are illiterate, they are difficult to convince, and we have to use simple words." (P-07)

Participants also reported that they had to explain therapeutic goals to clients to make them participate in the OT program before starting the OT sessions. One of the participants shared her experience,

"We should have some initial convincing sessions before starting the OT sessions to inform the clients and their families about the therapeutic program and its aims; for example, when I play with a child to improve his social, communicative and cognitive skills, I should explain these aims to his mother; otherwise, she may think I am playing with the child aimlessly and am wasting their time and money, and this idea may frustrate her and she may discontinue the program."(P-14)

Discussion

This study explored the facilitators influencing OBP among Iranian occupational therapists. Based on our findings, these facilitators were related to internal factors attributed to the therapists as well as to external factors attributed to the environment and context. The participants in this study signified the importance of contextual factors as a facilitator of implementing OBP.

Educational programs of OT departments play an important role in facilitating OBP. Our findings are congruent with those of Colaianne (17) and Pierce's (23) studies. According to our findings, the OT curriculum should be revised quantitatively to foster implementing OBP. The OT is taught in universities that are mainly medical dominant in Iran. This dominance has influenced OT curriculum so that a few credits of OT bachelor level have been allocated to OBP (about 15 credits of 130) (24). Hence, implementing more credits should be considered to foster OBP in OT curriculum. In addition, the courses have to be revised qualitatively to make them more practical and updated. To enhance OBP, we need occupation-based educational programs in every field (25). Furthermore, the teachers, especially the novice ones, should be updated through continuing education and workshops held by tutors who are expert in OBP. It has been reported that novice teachers were anxious to precept students and often felt unsure about their ability to meet the expectations and demands of clinical teaching, so the well informed teachers could have a significant influence on students' feelings of success in the clinical practice regarding OBP and could change their attitude toward OBP as well (26). At last, the partnerships between the clinical and academic occupational therapists would be beneficial (17).

Another point is public information about OBP. Unfortunately, the OT profession and its services still have not been known in the Iranian community even among the specialists. According to Canadian OT codes of ethics, the occupational therapists are ex-

pected to promote the profession to the public, other professional organizations and government at regional, provincial and federal levels (27). The information could be given to public community through variety of Medias such as TV, newspapers, movies, books, internet and virtual environments to enhance the public knowledge about OT and its core service named OBP. It is also recommended to promote rehabilitation team members' knowledge about OBP through continuing education, congress and research literatures providing evidence regarding OBP. Holding seminars, journal clubs and presenting case studies is one recommended strategy for building the kinds of professional relationships that can enhance implementing OBP (17).

The main goal of OBP is client's enablement to engage and participate in real life situations (28). This enablement could be best provided in natural settings such as home, school, workplace and community (4), so the clinical settings should be simulated as much as possible with natural environments and be incorporated with natural devices such as kitchen utensils to support OBP. The pediatric clinics have to be more playful and attractive for children and their parents. It is suggested that some effective changes be made to the clinic environment such as the addition of functional stations. Functional stations are areas that have adequate space and allow easy access to supplies to facilitate engagement in occupation-based activities such as cooking, gardening or child care. In addition, experts in

OBP recommend a creative use of the hospitals, clinics and the community to expand the available space for occupation-based interventions (14).

There are lots of literatures on the effectiveness of participation in meaningful occupations (29-33). There is evidence that some patients gain more enjoyment from participation in a purposeful activity rather than participation in exercises. In Jackson and Schkade study (34), patients with a hip fracture who were treated using the Occupational Adaptation model had significantly

higher levels of satisfaction than those treated using the biomechanical-rehabilitative model. In a study of pediatric burn patients (35), both participants consistently rated play as more fun than rote exercises. Although the literatures show the effectiveness of OBP compared to the bottom up approaches, most of these literatures were attributed to the physical domain of the practice rather than the psychosocial field, and the amount of literatures on the effectiveness of OBP is little. However, some Iranian occupational therapists seem to have little knowledge about the effectiveness of OBP, so their attitude towards OBP may be affected. These problems may arise due to the lack of sufficient attention to the evidence based practice (EBP) in OT practice (36). It is recommended to conduct more research to strengthen the body of knowledge on the OBP in all domains of the practice. It is also suggested to facilitate EBP in OT to inform the occupational therapists about OBP.

The next point in the facilitation of OBP is the promotion of the client centered and family centered practice. One of the main core skills of occupational therapists is a collaborative relationship with the clients (37). The OBP emphasizes the meaningful occupation that the meaning arises from the therapist-client interaction during a therapeutic process (38). This meaningful occupation could be a joyful play for a child, so the therapist should prepare, plan and create a playful situation to engage the child in the therapeutic process. Also, all family members have to be engaged in the therapeutic plan, and they should be trained well. The family members' co-occupations have to be considered in the therapeutic program (39).

The last point on the facilitation of OBP is related to convincing the clients about OBP. OBP occurs as a process between the therapist and the client. The clients should be convinced about the OT services and their aims to participate better in the program (38). The aim of OT services should be explained to the client with a compre-

hensible language with the consideration of the clients' social, cultural and educational level. Attention should be paid more to those clients from lower socio-economic levels.

Strengths, Limitations and Recommendations

The present study was the first to explore the facilitators of implementing OBP in Iran. However, it has some limitations: most participants were working in the pediatric field. The authors recommend conducting further studies on the implementation of OBP in specific field works such as hand therapy, adult neurology or adult mental health.

Conclusion

The facilitators of implementing OBP are attributed to factors internal to the therapists as well as to issues in the external environment and context. Understanding these factors will help occupational therapists, OT educational staff, administrators and rehabilitation team members to facilitate the implementation of OBP.

Acknowledgment

The authors would like to thank the occupational therapists who kindly participated in this study.

References

1. Crepeau EB, Cohn ES, Boyt SB. Willard and spackman's occupational therapy. 11th ed. Lippincott Williams and Wilkins; 2009.pp:205-208.
2. Law M. Participation in the occupations of everyday life, 2002 Distinguished Scholar Lecture. American Journal of Occupational Therapy 2002; 56: 640-649.
3. Polatajko HJ, Davis JA, Hobson S, Landry JE, Mandich AD, Street SL, et al. Meeting the responsibility that comes with the privilege: Introducing a taxonomic code for understanding occupation. Canadian Journal of Occupational Therapy 2004; 71(5): 261-264.
4. American Occupational Therapy Association. Occupational therapy practice framework: Domain and process (3rd ed). American Journal of Occupational Therapy 2014; 68(Suppl.1): S1-S48.
5. Aiken FE, Fourt AM, Cheng IKS, Polatajko HJ. The meaning gap in occupational therapy: Finding meaning in our own occupation. Canadian Journal of Occupational Therapy 2011; 78:294-302.
6. Rodger S. Occupation-centered Practice with Children: A Practical Guide for Occupational Therapists. United Kingdom: John Wiley & Sons Pub, Wiley-Blackwell; 2010.pp.5-16.
7. Keilhofner G. Conceptual Foundations of Occupational Therapy Practice (4th ed). Philadelphia: F. A. Davis; 2009.pp.42-44.
8. Molineux M. Occupation: The two sides of popularity. Australian occupational Therapy Journal 2001; 48:92-95.
9. Nielson C, Youngstrom MJ, Glantz C, Henderson ML, Richman N, Smith Roley S, et al. Implementing Occupation Based Practice 2005; Available from American Occupational Therapy Association website: <http://www.aota.org/News/Centennial/AdHoc/41327/41346.aspx>.
10. Colaianni D, Provident I. The Benefits of and Challenges to the Use of Occupation in Hand Therapy. Occupational Therapy in Health Care 2010; 24(2):130-146.
11. Thomas A. Are Occupational Therapists' assessments occupation focused? The Plymouth Student Journal of Health & Social Work 2012; 4: 46-60.
12. Estes J, Pierce DE. Pediatric therapists' perspectives on occupation-based practice. Scandinavian Journal of Occupational Therapy 2012; 19: 17-25.
13. Khazaeli K, Rassafiani M, Sourtiji H. A study on employing occupation during intervention by occupational therapists in Isfahan and Tehran Iran. Research in Rehabilitation Sciences 2012; 8(1):132-144 (In Persian).
14. Dale L, Fabrizio A, Adhlakha P, Mahon M, McGraw E, Neyenhaus R, et al. Occupational therapists working in hand therapy: the practice of holism in a cost containment environment. Work 2002; 19: 35-45.
15. Hocking C. The Issue Is: Implementing occupation-based assessment. American Journal of Occupational Therapy 2001; 55: 463-469.
16. Fitzpatrick N, Presnell S. Can occupational therapists be hand therapists? British Journal of Occupational Therapy 2004; 67: 508-510.
17. Colaianni DJ. A phenomenology of occupation-based hand therapy. A dissertation Submitted to the John G. Rangos School of Health Sciences, Duquesne University 2011; 30-34.
18. Rudman DL, Dennhardt S. Shaping knowledge regarding occupation: Examining the cultural underpinnings of the evolving concept of occupational identity. Australian Occupational Therapy Journal 2008; 55: 153-162.
19. Iwama M. Toward culturally relevant epistemologies in occupational therapy. American Journal of Occupational Therapy 2003; 57: 582-588.
20. Whiteford G, Wilcock A. Cultural relativism:

Occupation and independence reconsidered. Canadian Journal of Occupational Therapy 2000; 67: 324–336.

21. Rassafiani M, Zeinali R, Sahaf R, Malekpour M. Occupational therapy in Iran: Historical review. Iranian Rehabilitation Journal 2013; 11(Special issue):81-84.

22. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. Nurse Education Today 2004; 24(2): 105-12.

23. Pierce DE. Occupation by design: Building therapeutic power 2003; Philadelphia: FA Davis.

24. Occupational therapy course credits (In Persian). Available from: http://old.sbm.ac.ir/SiteDirectory/RehabilitationSchool/Pages/واحدهای_درسی_کاردرمانی.aspx

25. Pierce D. How can the occupation base of occupational therapy be strengthened? Australian Occupational Therapy Journal 2003; 50: 1–2

26. Sequeira DD. A teaching resource for preceptors of occupational therapy students. Available from: <http://www.caot.ca/otnow/nov11/teaching.pdf>

27. Canadian Association of Occupational Therapists Code of Ethics. Available from: <http://www.caot.ca/default.asp?pageid=35>

28. Polatajko H J, Davis JA. Advancing occupation-based practice: Interpreting the rhetoric. Canadian Journal of Occupational Therapy 2012; 79: 259-263.

29. Guzelkucuk U, Duman I, Taskaynatan MA, Dincer K. Comparison of therapeutic activities with therapeutic exercises in the rehabilitation of young adult patients with hand injuries. The Journal of Hand Surgery 2007; 32A (9):1429–1435.

30. Jackson JP, Schkade JK. Occupational adaptation model versus biomechanical rehabilitation model in the treatment of patients with hip fractures. American Journal of Occupational Therapy 2001; 55: 531–537.

31. Earley D, Shannon M. The use of occupation-based treatment with a person who has shoulder adhesive capsulitis: A case report. American Journal of Occupational Therapy 2006; 60: 397–403.

32. Skubik-Peplaski C, Carrico C, Nichols L, Chelette K, Sawaki L. Behavioral, neurophysiological, and descriptive changes after occupation-based intervention. American Journal of Occupational Therapy 2012; 66(6):e107-113.

33. White C, Lentin P, Farnworth L. An investigation into the role and meaning of occupation for people living with on-going health conditions. Australian Occupational Therapy Journal 2013; 60: 20–29.

34. Jackson JP, Schkade JK. Occupational Adaptation model versus biomechanical-rehabilitation model in the treatment of patients with hip fractures. American Journal of Occupational Therapy 2001; 55: 531-537.

35. Melchert-McKearnan K, Deitz J, Engel JM, White O. Children with burn injuries: Purposeful activities versus rote exercise. American Journal of Occupational Therapy 2000; 54: 381-390.

36. Thomas A & Law M. Research Utilization and Evidence-Based Practice in Occupational Therapy: A Scoping Study. American Journal of Occupational Therapy 2013; 67:e55-e65.

37. College of Occupational Therapists. (2013). Definitions and core skills. London: COT Retrieved August 24, 2014 from, <https://www.cot.co.uk/sites/default/files/briefings/private/Definitions-and-core-skills2013.pdf>.

38. Price P& Miner S. Occupation emerges in the process of therapy. American Journal of Occupational Therapy 2007; 61:441–450.

39. Dalvand H, Rassafiani M, Hosseini SA, Khankeh HR, Samadi SA. Co-occupations: An Open Window to the World of Caring of Children with Cerebral Palsy. Journal of rehabilitation 2014; 14(6):8-16 (In Persian).