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The Role of Filipino Occupational Therapists in Substance Addiction and Rehabilitation: A Q-Methodology

Michael P. Sy[a,b] [iD], Nobuo Ohshima[a], and Ma. Patricia Nicole R. Roraldo[c]

[a]Department of Occupational Therapy, Tokyo Metropolitan University, Tokyo, Japan; [b]Department of Occupational Therapy, Angeles University Foundation, Angeles City, Philippines; [c]Department of Occupational Therapy, Mariveles Mental Hospital, Bataan, Philippines

ABSTRACT

More than the shortage of manpower, occupational therapists (OTs) in substance addiction and rehabilitation (SAR) practice have remained underused and misunderstood in the Philippines. This study aimed to identify the role of Filipino OTs in people with SUD based on the perspectives of OTs, mental health professionals, and former service users and carers in the community. Using Q-Methodology (QM), this research revealed a tripartite role for Filipino OTs in SAR: (a) "Promoter of occupational participation," (b) "Collaborator to enhance participation and well-being," and (c) "Facilitator of environmental supports for occupational participation."

Introduction

Globally, the number of people with mental, neurological, and substance use (MNS) disorders is steadily increasing. One in 10 people have a mental health disorder, but only 1% of the global health workforce provides mental health care (World Health Organization [WHO], 2016). The World Drug Report of 2012 confirmed that the continual increase in the use of illicit substances is exacerbated by the incessant illegal production and distribution of these substances in many parts of the world (United Nations Office on Drugs and Crime [UNODC], 2012). The same report described how more than 30 million individuals have become substance dependent from being mere substance users. Aside from inadequate health care services, lack of manpower, and budget constraints, people with substance use disorder (SUD) have high risks of committing crimes (to sustain their lifestyle) and death (250,000 casualties per year) (UNODC, 2012). Concurrently, the WHO released standard guidelines on assessment and management for mental, neurological, and substance use disorders (WHO, 2016). Although these guidelines included screening tests and a set of psychosocial

interventions, there was only a marginal statement on the referral to occupational therapy (OT) only upon availability (WHO, 2016).

In the Philippines, SUD is within the top 7 and 8 risk factors causing both death and disability in 2005 and 2016, respectively (Institute of Health Metrics and Evaluation, 2016). Regardless of the unchanged status of SUD in the country, a stand-alone legislation for mental health is absent with some mental health policies enacted only partially (WHO, 2014). The "Mental Health Act of 2016" is still continuing toward legislation (Hontiveros-Baraquel, 2016). This senate bill aims to provide integrated mental health services to the public, protect the rights and freedoms of persons with mental health needs, and provide the direction for a unified response to the national mental health issues.

In 1972 occupational therapists (OTs) played an active role in the establishment of the Dangerous Drug Board (DDB) by being part of the team that spearheaded the substance addiction and rehabilitation (SAR) program in the Philippines (Bondoc, 2005). Activities of the DDB included mandating the "Drug Abuse Prevention and Control Week" every November (1972); preventive education (1974); international and national conferences (1970s); legislative amendments (1982); national campaigns on drug prevention called "OPLAN Iwas Droga" [Operations Plan Avoid Drugs] (1995) and "Mamamayan Ayaw sa Droga" or MAD [Citizens Against Drugs] (1999); expansion of partnerships to national agencies as a result of the approved "Comprehensive Dangerous Drugs Act" (2002); use of information technology through a project called "Integrated Drug Abuse Data and Information Network" (IDADIN) (2006); and peer-based programs called "Barkada Kontra Droga" [Peers Against Drugs] (DDB, 2013). Despite being part of the inaugural team that formed the DDB, OT's contributions to the agency were unfortunately not recorded since its inception until present.

The earliest published work on the role of OT in SAR was a descriptive review written by Clarey and Felstead (1990) who described OTs as team members with an unclear professional role. They described the main role of OTs as limited to assisting people with SUD in both detoxification and rehabilitation phases by using activities to develop life skills for community re-integration. OTs are among the manpower that provide mental health services in the Philippines. However, the World Federation of Occupational Therapists (WFOT) human resource project in 2016 revealed that the Philippines is recognized to have a shortage of OTs with only 3 OTs per 100,000 Filipinos (WFOT, 2016). This scarcity is even greater in the mental health sector where there is only 0.06 OT per 100,000 Filipinos (WHO, 2014).

There are currently 50 drug treatment and rehabilitation facilities across the country operated by a team of professionals, including OTs (DDB, 2013;

Department of Health (DOH), 2016). Basco, Garcia, and Mendoza (2004) surveyed that only 4 of 30 (13.3%) drug treatment and rehabilitation facilities in Metro Manila (National Capital Region) offered OT services that focused on social skills training, withdrawal symptom management, and counseling. After more than a decade, there are currently one OT officially employed by the Philippine government specifically for SAR (Leabres, personal communication, March 27, 2017). Today, OTs in SAR are expected to operate within any of these modalities as recommended by the DDB (2013): (a) Therapeutic Community (behavioral modification and value reformation); (b) Hazelden Program (a belief that a Power greater than oneself could restore mental health); (c) Faith-based Model (faith is seen to be an inspiration to recover and be a more productive person); or (d) Multidisciplinary Team Approach (combination of all treatment modalities with the help of physicians, social workers, and psychologists). These modalities have their merits, but without outcome measurements, their effectiveness cannot be evaluated, making it problematic to hire more OTs in SAR. Aside from manpower inadequacy and the use of multiple approaches, OT has been documented to promote recreational activities, sports, and culture within a community-based treatment and care service framework for people with SUD (UNODC, 2015). As acceptable as it may seem, health authorities in the Philippines appear to underuse and misunderstand the capacity of OTs as a human resource in SAR.

The national campaign instigated by the new government called "war on drugs" continues to be a polarizing issue among those who are for and against enforcing punitive measures toward people who are using, abusing, and trading illicit substances. The media has been covering news about "extrajudicial killings," which was believed to be the goal of the head of state to eradicate illegal drugs nationally. However, while these allegations are not settled yet, the government managed to revamp the campaign to "bloodless" war on drugs by creating teams who will perform the antidrug operations composed of at least four policemen, a member of the local Anti-Drug Abuse Council (ADAC), a human rights advocate, and sometimes a religious leader.

As a health profession with a historical connection to mental health, OT deserves to assume its contribution in the area of SAR (Paterson, 2014). Although the scarcity of Filipino OTs working in SAR magnifies the profession's neglected role in this area of practice, champions of the profession are called to lead scientific inquiry and empirical documentation to establish the role of OT in SAR. This study aimed to identify the role of Filipino OTs in people with SUD based on the perspectives of OTs, mental health professionals, and former service users (clients and caregivers) in the community.

Method

Ethical consideration

This research received full ethics approval from the Tokyo Metropolitan University Research Ethics and Safety Committee with a reference number of 17016. Moreover, this research was conducted in collaboration with the Philippine Academy of Occupational Therapists, Inc., which gave a signed letter of agreement of support and collaboration. All participants signed a written informed consent.

Participants

A total of 28 participants were recruited through poster advertisement in selected local institutions and social media. A nonprobability purposive sampling strategy was used because Q-Methodology (QM) is partially qualitative in nature, which aided the study in recruiting the most knowledgeable people possible to illuminate the role of OT in SAR (Dilaway, Lysack, & Luborsky, 2006). The sample size for this study was deemed appropriate based on the 20–40 participant range set in past QM studies within OT (Corr, Neill, & Turner, 2005; Corr, Phillips, & Capdevila, 2003). The sample size was reached upon combining the 5 participants from the pilot test and the 23 participants from the actual QM administration. This decision of combining the two sample sizes was made because the sampling procedure and methods used were similar and to promote efficient data analyses (Thabane *et al.*, 2010).

There were 15 males (mean age = 35.1, SD = 11.1, range = 32) and 13 females (mean age = 46.5, SD = 16.6, range = 48) with a diverse background composed of OTs ($n = 11$, mean age = 31.7; 6 males, 5 females), mental health professionals ($n = 7$, mean age = 41.1; 2 males, 5 females), and former clients and caregivers from the community ($n = 10$, mean age = 49.5; 7 males, 3 females). The participants in the two professional groups had valid licenses to practice, with at least six months of work experience in mental health settings and prior training in mental health care competencies via internship, certification, or professional seminars. The last group was composed of former service users (clients) and caregivers with prior experience of undergoing drug rehabilitation or caring for people with SUD, respectively. All participants were able to comprehend high school level English.

The Q-methodology

This study used QM (also known as operant subjectivity) that provides a complementary approach to quantitative and qualitative research methods

(Corr, 2006). SAR as a research topic may possibly be influenced by political, cultural, and social biases of researchers, research units, and funding agencies; thus, QM was deemed to be the most appropriate research design to reduce bias while exploring and generating a greater understanding of people's perspectives, attitudes, and beliefs at a certain point in time. QM is considered a mixed-methods research design with four distinct phases (Corr, 2006). The four phases in QM are Developing the Q-Sort Statements (QSS) (Phase 1), Administering the Q-Sort or Q-Sorting (Phase 2), Factor Analysis (Phase 3), and Interpreting Factors (Phase 4). Specifically, QM is classified under the "sequential exploratory design" type, which initially requires the collection of qualitative data through relevant literature and expert opinions (via Web-based survey) to create the QSS followed by the development and validation of a quantitative tool (i.e., 5-item Q-Sort Package [QSP]). Consequently, the QSP prototype underwent a pilot test and focus group discussion (FGD) for tool refinement before it was used for actual data collection. Collected data were digitized by using the PQMethod Software 2.35 (Schmolck, 2014) for ease in factor analyses and interpretation.

Phase 1: Developing the Q-sort statements

Each QSS containing a role of OT in SAR was derived and established from relevant literature within the scope of OT and SAR, opinions from OT experts in mental health (i.e., a qualified expert must either have at least 10 years of experience as an OT or published one peer-reviewed article in an OT/mental health journal), and a pilot test with FGD.

A total of 33 QSS (i.e., first QSS is coded as QSS1, second QSS is coded as QSS2, and so on and so forth) pertaining to the roles of OT in SAR based on relevant literature were initially encoded in a Web-based survey application (Survey Monkey™) for expert validation. Seven experts from six countries were invited to validate the 33 QSS through a Web-based binary questionnaire, but only three experts (average years of professional experience = 14.3) completed the questionnaire within the given time frame. One of three expert[s] stated that QSS18 (To facilitate spiritual approaches in collaboration with spiritual leaders i.e., discussions on healing, testimonial sharing, and retreats) is not a role of OT in SAR. However, QSS18 was still included because only one expert disagreed. Another expert suggested to revise QSS30 by including psychiatrists in performing psychotherapy for clients and to add a new statement (QSS 34) stating "To educate clients about SUD and its impact on sexual activities and sexually transmitted disease."

The final set of QSS was composed of 34 statements that sought to capture the constellation of possible roles of OT in SAR. Then a pilot test and an FGD were conducted, causing the reformulation of 4 statements (either by adding [QSS1 and QSS33] or changing words [QSS19 and QSS29]); no statement was removed nor added in the final set of QSS. However, it is important to note
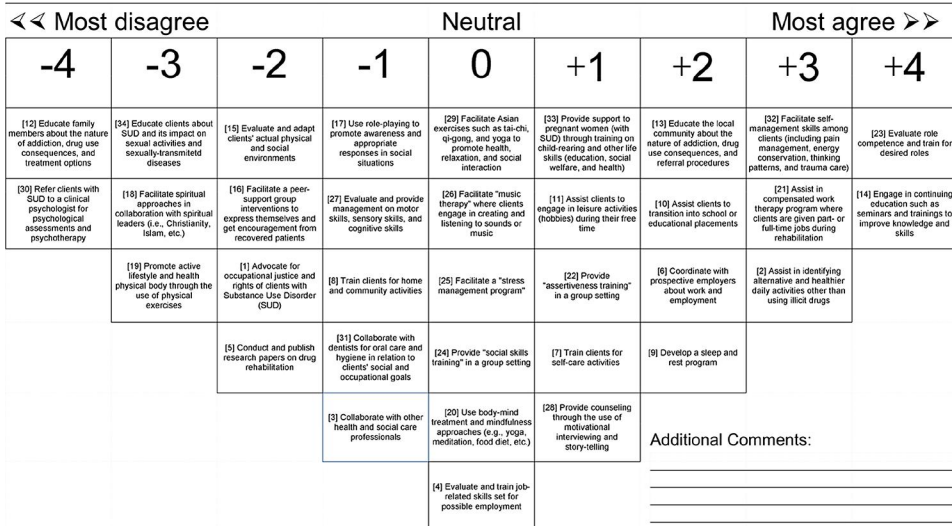
Figure 1. Sample Q-sort from a participant. *Note*: The design of this sorting grid was adapted from Corr, Neill, and Turner (2005). Comparing occupational therapy definition and consumers' experiences: A Q-Methodology study. *British Journal of Occupational Therapy, 68*(8), 338–346. The Q-sort package included this grid, the 34 QSS, glue, pen, and informed consent form.

that these identified roles can be characterized by any treatment activity, method, or approach as used by OTs in SAR practice. The complete list of QSS is presented in a sample Q-Sort (representing one datum) in Figure 1.

Phase 2: Administering the Q-sort
The collection of the Q-Sorts (data set) commenced with an orientation (15 minutes) where the rationale of the research, ethical provisions, and QM instructions were discussed. All participants were then tasked to (a) read and sign the informed consent, (b) sit in their designated places, (c) receive the five-item Q-Sort Package (6-page informed consent document, 34 QSS cards, 1 sorting grid, 1 pen, and 1 glue stick), (d) complete the demographic profile sheet, and (e) ask any questions before proceeding to the actual Q-Sorting. The participants also were informed that three research aides and a qualified counsellor would be available anytime to help participants with problems comprehending QSS and who feel fatigued or anxious as a result of the activity, respectively.

In the actual Q-sorting, all participants were tasked to rank the 34 QSS according to their agreeability or otherwise (general sorting). Afterward, they were asked to place each QSS in their respective columns ranging from −4 (least agree) to +4 (most agree) based on their opinion and prioritization on the role of OT in SAR (specific sorting). For example, a participant would initially agree (general sorting) that OTs "assist clients to engage in leisure

activities (hobbies) during their free time [QSS11]" but would later on place the statement within column +2 (specific sorting). After all cards were placed on the sorting grid, participants were reminded to ensure no card was left unsorted. If none, they glued the QSS cards to secure their placements on the sorting grid. A comment box on the sorting grid was provided for feedback. Most participants managed to complete their Q-Sorts within 45 minutes (20 minutes longer than the expected time). Furthermore, a 30-minute optional forum was held after the Q-Sorting task to allow participants to further communicate and verify their opinions. Participants' comments were transcribed electronically by one of the research aides.

Phase 3: Factor analysis

All demographic data and comments were encoded by using Microsoft Excel for Mac (version 15.31) program, while the 28 Q-Sort data, each representing participant's opinion on the role of OT in SAR, were entered into the free PQMethod (version 2.35) software (Schmolck, 2014). Each Q-Sort was correlated with every other Q-Sort, and then their intercorrelation matrix was factor-analyzed by using the Principal Component Analysis (PCA) with Varimax Rotation. In other words, the correlation analysis compared the views among participants to find similarities and differences among participants' opinions while the factor analysis categorized correlated participant's opinion (as represented by his/her Q-Sort) under different factors. Originally, eight factors were extracted, all of which had eigenvalues exceeding 1.00 (from 1.3 to 6.6). However, because there is no absolute standard in determining how many factors must be extracted, the author's theoretical knowledge and judgement were used to choose only three factors for extraction (Webler, Danielson, & Tuler, 2009) to provide a simpler method to interpret the factors, which will be called "role perspectives" (based on OT roles in SAR).

Phase 4: Interpreting factors

Upon the application of correlation and factor analyses, perspectives were created on the basis of the normalized factor scores (z-scores, which indicated the ranking of each statement within each perspective). These quantitative data outputs were then compared to the demographic profile of the participants and their comments during the forum. The interpretations are described in the results and discussion sections.

Results

Factor loadings indicating the degree of correlation between an individual Q-Sort and each factor as well as factor score correlations are shown in Table 1. The first column lists the 28 Q-Sort collected (respondent code), the second column indicates each participant's age and gender, and the third

Table 1. Factor loadings based on the 28 Q-sorts through principal components analysis with varimax.

Respondent Code	Age & Sex	Role	Factor 1	2	3
7	37, M	Former User	**0.62X**	−0.22	−0.11
13	40, M	OT	**0.58X**	0.01	0.48
14	26, M	OT	**0.72X**	−0.02	0.34
16	24, M	OT	**0.66X**	0.02	0.01
18	22, F	OT	**0.55X**	0.39	0.09
19	23, M	OT	**0.53X**	0.49	0.08
20	24, M	OT	**0.71X**	0.25	0.08
23	30, M	Psychiatrist	**0.77X**	0.09	0.00
24	63, F	Psychiatrist	**0.77X**	−0.07	0.07
1	55, M	CW (Leader)	−0.08	**-0.64X**	0.12
2	50, M	CW	−0.04	**-0.28X**	−0.07
4	70, F	CW	0.03	**-0.63X**	−0.07
5	47, M	CW	0.24	**-0.63X**	−0.23
9	42, M	CW	0.07	**-0.30X**	0.09
10	56, F	Former Carer	−0.22	**0.60X**	0.38
12	26, M	OT	0.41	**0.66X**	−0.06
25	34, F	Psychiatrist	0.12	**0.41X**	0.35
26	33, F	Pharmacist	0.12	**0.71X**	0.08
28	29, M	Counselor	0.36	**0.53X**	0.47
3	25, M	CW	0.16	−0.06	**0.28X**
6	65, F	CW	−0.13	0.15	**−0.30X**
8	48, M	CW	−0.36	0.04	**0.39X**
11	35, F	OT	−0.13	0.24	**0.42X**
15	44, F	OT	0.42	−0.10	**0.65X**
17	63, F	OT	0.01	0.04	**0.68X**
21	22, F	OT	0.41	0.25	**0.50X**
22	42, F	CW	−0.08	0.14	**−0.14X**
27	56, F	Psychologist	0.25	0.16	**0.64X**
Percentage of Explained Variance			18	14	12
Number of Defining Variables			9	10	9

Note: "OT" means occupational therapist while "CW" means community worker. After rotation of factors, both automatic and manual flagging (X) were performed before completing the analysis.

column specifies their professional background. The numbers represent the factor loadings, which are correlation coefficients indicating the extent to which each of the 28 Q-Sorts is similar or different to each of the four composite factor arrays. The three factors identified explain 44% of the total variance within the range of data.

The rows denote the participants' opinions while the values signify the loading of each respondent's views to each factor. In other words, a positive value means that a participant shares subjectivity with others on that perspective, while a negative value means that the participant rejects the perspective. For instance, the opinions of Q-Sort 7 (former client) correlate highly with Perspective 1, while the opinions of Q-Sort 12 (occupational therapist) tend to correlate more with Perspective 2 than 3. Values with an X at the end are "flagged" meaning that they are the most defining sorts for each of the three factors. However, it is also important to note that in using the PQMethod (version 2.35) software not all Q-Sorts were

automatically flagged; thus, some Q-Sorts were initially not flagged and required manual flagging to avoid being dropped from the analysis (Schmolck, 2014).

Group 1: "Promoters of occupational participation"

There were six OTs, two mental health professionals (psychiatrists), and one former user who shared this group. They responded that the primary role of OT is to train people with SUD for role competence (23, +4 [QSS 23, ranked +4]), identify leisure pursuits (11, +4), train job-related skills (4, +3), and to explore alternative and healthier daily activities (2, +3). The group, however, did not consider the following to be a key role of OT in SAR: education to the community (13, −3), family (12, −4), and about sexually transmitted disease (34, −4); facilitating peer support groups (16, −1), physical exercises (19, −1), and psychotherapy (30, −1). These roles are assumed to be performed by other professionals, such as social workers, physical therapists, and psychologists. As illustrated in Table 2, it is evident that

Table 2. Distinguishing QSS for group 1 "promoters of occupational participation".

No.	Q-Sort Statement	Rank	Z-Score
23	To evaluate role competence and train for desired roles necessary for community re-integration.	4*	1.94
11	To assist clients with substance use disorder to engage in leisure pursuits (hobbies).	4*	1.65
4	To evaluate and train job-related skills set for possible employment upon discharge.	3*	1.62
2	To assist clients with SUD in identifying alternative and healthier daily activities that do not involve drug use and abuse.	3*	1.50
7	To train clients for "self-care activities" (activities of daily living).	2*	1.49
14	To engage in continuing professional education (seminars and trainings) on mental health care and SAR.	1*	0.26
32	To facilitate self-management skills among clients (e.g., pain management, energy conservation, thinking patterns, stress management, trauma care, and relaxation).	1	0.16
9	To develop a sleep and rest program that will support the health and activity engagements of the clients with SUD.	0*	−0.08
1	To advocate the human rights of clients with SUD by connecting them to agencies that can support their legal representation.	0	−0.20
16	To facilitate "peer support" group interventions where clients can freely express themselves to peers who have recovered.	−1*	−0.45
19	To use physical exercises to promote an active lifestyle and a healthy physical body during recovery.	−1*	−0.51
30	To refer clients with SUD to a clinical psychologist or psychiatrist for psychological assessments and psychotherapy, respectively.	−1*	−0.62
13	To educate the local community about the nature of addiction and its consequences.	−3*	−1.36
12	To educate family members about the nature of addiction and its consequences.	−4*	−1.61
34	To educate clients about SUD and its impact on sexual activities and sexually transmitted disease.	−4*	−1.85

Note: The rank is derived from the weighted composites, where the sign *indicates significance at $p < .01$. The original statements are shortened to make them simpler.

the group describes OTs as promoters of health through the use of occupations; hence, this group is called "Promoters of occupational participation."

Group 2: "Collaborators to enhance occupational participation"

The second group was composed of one OT, three mental health professionals (1 psychiatrist, 1 pharmacist, and 1 counselor), and six caregivers (1 community leader, 4 community workers, and 1 former wife of a former user). They shared an outlook explaining how OTs are seen to be working closely with other health and social care professionals (3, +3) and service users to promote alternative and healthier occupations (2, +4), train job skills (4, +2), and facilitate self-management skills (e.g., pain management, energy conservation, thinking patterns, stress management, and trauma care) (32, +2). As a team member, OTs are also expected to coordinate with health and social care experts in advocating the human rights and legal representation of clients with SUD (1, +3) as well as in conducting research (5, +4) that will improve SAR programs in the country. On the other hand, this group did not think that mindfulness approaches (20, −3) and compensated work therapy (CWT) (21, −4) are roles of OTs in SAR. Considered to be the most diverse (based on professional or personal background) among all groups, this group's strong outlook toward the involvement of other professionals and people from the community to accomplish goals resulted in the group name "Collaborators to enhance occupational participation" as shown in Table 3.

Group 3: "Facilitator of environmental supports toward occupational participation"

The last group was composed of four OTs, four caregivers (community workers), and one psychologist. This group perceived OTs to have a role in evaluating and identifying physical and social environments to promote activities resulting in non-use of drugs (abstinence) (15, +2). They believed that the physical environment necessitates comprehensive evaluation and adaptation toward occupational participation particularly for employment opportunities (4, +4) and for facilitating alternative and healthier activities (2, +2). The social environment is believed to be within the expertise of OTs because they are perceived to effectively engage clients' family members (12, +3) throughout the rehabilitation and recovery processes. The group also supported the idea that a supportive social environment entails improving clients' assertiveness skills (22, +2), regular counseling sessions (28, +1), and awareness of basic human rights and legal support. However, this group did not support that it is within the role of OT to facilitate alternative techniques, such as music therapy (26, −3), Asian-based exercises (i.e., qigong and tai-chi) (29, −3), and self-management techniques (32, −2) within SAR practice. Given

Table 3. Distinguishing QSS for group 2 "collaborators to enhance occupational participation".

No.	Q-Sort Statement	Rank	Z-Score
5	To conduct researches focused on improving programs in mental health and SAR.	4*	2.19
2	To assist clients with SUD in identifying alternative and healthier daily activities that do not involve drug use and abuse.	4*	2.12
1	To advocate the human rights of clients with SUD by connecting them to agencies that can support their legal representation.	3*	1.70
3	To collaborate with other health and social care professionals, e.g., psychiatrists, pharmacists, psychologists, nurses, social workers, special educators, anthropologists, policemen.	3*	1.51
4	To evaluate and train job-related skills set for possible employment upon discharge.	2*	0.98
32	To facilitate self-management skills among clients (e.g., pain management, energy conservation, thinking patterns, stress management, trauma care, and relaxation).	2	0.69
12	To educate family members about the nature of addiction and its consequences.	1*	0.63
31	To collaborate with dentists for oral care and hygiene in relation to clients' social and occupational goals.	0*	−0.16
11	To assist clients with substance use disorder to engage in leisure pursuits (hobbies).	−1*	−0.51
10	To assist clients with SUD to transition into school placements after discharge (high school, vocational, or college education).	−1*	−0.67
20	To use body-mind treatment and mindfulness approaches (e.g., yoga, meditation, food diet).	−3	−1.38
21	To assist in compensated work therapy program where clients can be provided part- or full-time employment during recovery.	−4*	−1.49

Note: The rank is derived from the weighted composites, where the sign *indicates significance at $p < .01$. The original statements are shortened to make them simpler.

their strong outlook on the importance of environment to facilitate occupations among clients with SUD, this group was called "Facilitators of environmental supports toward occupational participation" as illustrated in Table 4.

Group comparisons

The group analyses based on Q-Sort values revealed that there are four common statements (OT roles) across the groups (QSS2, QSS4, QSS11, and QSS12). Figure 2 depicts each group's perspectives across the OT roles in SAR, which aims to assist OTs in creating or revising existing SAR programs. For instance, data show that training for job-related skills (QSS4) and facilitating alternative and healthier activities (QSS2) are essential OT roles among all groups. However, it is evident that assisting in leisure pursuits (QSS1) is generally an essential OT role for health professionals (Group 1), but not necessarily for those from community workers and social care professionals (Group 2 and 3). This can assist decision makers in prioritizing their program development efforts toward work evaluation and training and the promotion of alternative activities to enable abstinence from using illicit drugs. The data can also help facility administrators and

Table 4. Distinguishing QSS for group 3 "facilitator of environmental supports toward occupational participation".

No.	Q-Sort Statement	Rank	Z-Score
4	To evaluate and train job-related skills set for possible employment upon discharge.	4*	2.56
12	To educate family members about the nature of addiction and its consequences.	3*	1.39
15	To evaluate and adapt clients' actual physical environment (home, school, work place, neighborhood) and social environment (relationships with family, peers, and coworkers) to promote controlled use or non-use of drugs.	2*	0.97
22	To provide "assertiveness training" in a group setting to train clients to state their own views and desires and act confidently in daily living and social situations	2*	0.80
2	To assist clients with SUD in identifying alternative and healthier daily activities that do not involve drug use and abuse.	2*	0.61
28	To provide counselling through the use of motivational interviewing and storytelling to clients with SUD and family members.	1*	0.32
1	To advocate the human rights of clients with SUD by connecting them to agencies that can support their legal representation.	1	0.28
8	To train for "home and community activities" (instrumental activities of daily living).	0*	0.16
11	To assist clients with substance use disorder to engage in leisure pursuits (hobbies).	0*	0.14
27	To evaluate and provide management on motor skills, sensory skills, and cognitive skills.	−1*	−0.40
32	To facilitate self-management skills among clients (e.g., pain management, energy conservation, thinking patterns, stress management, trauma care, and relaxation).	−2*	−0.91
29	To facilitate Asian-based activities to promote health, relaxation, and social interaction (e.g., qi gong, tai-chi).	−3*	−1.40
26	To facilitate "music therapy" where clients engage in active (creating sound or music) or receptive (listening to sound or music) musical expressions to improve health.	−4*	−2.04

Note: The rank is derived from the weighted composites, where the sign *indicates significance at $p < .01$. The original statements are shortened to make them simpler.

the government in prioritizing continuing education activities as well as purchasing assessment tools, materials, and equipment for the OT facility.

Five consensus statements were identified. In other words, these five OT roles were not distinguishable in any of the groups (factors). Using of role-playing to promote appropriate responses in social situations (QSS17), providing a social skills training group (QSS24), and facilitating a stress management program (QSS25) were perceived as neutral (scored 0) roles of OTs across groups. In addition, all groups disagreed that the role of OT should include the use of spiritual approaches in collaboration with spiritual leaders (QSS18) and providing pregnant women with SUD support and training on child rearing activities (QSS33). This can inform decision makers that OTs are not perceived to be performing these roles because other professionals are more skilled in doing them, or there is a call to conduct a comprehensive evaluation or needs assessment for such approaches or programs.
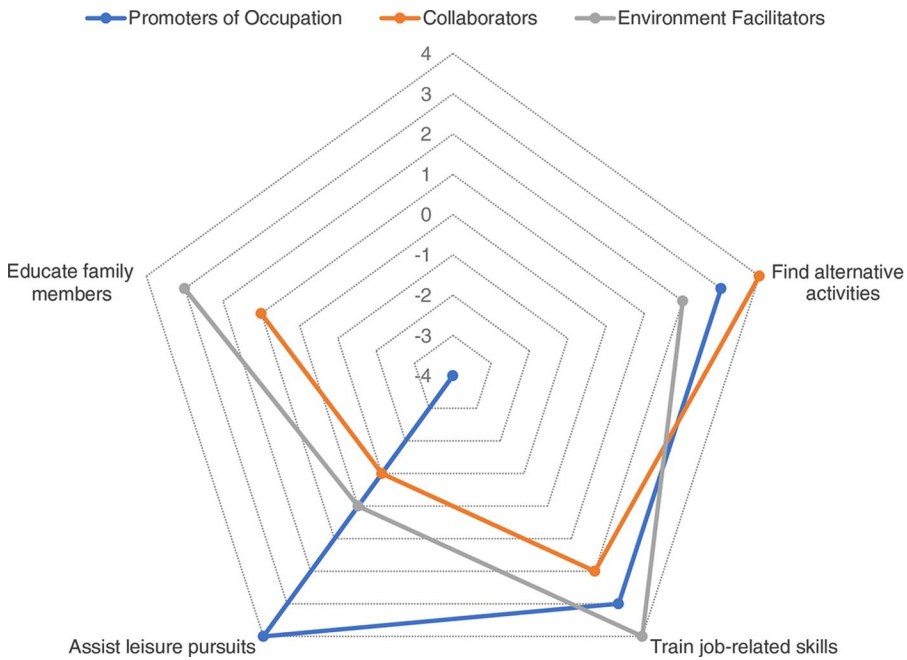
Figure 2. Group outlooks across commonly distinguished OT roles in SAR based on Q-methodology findings.

Discussion

SAR role perspective 1: Promoter of occupational participation

"Occupational participation" means one's engagement in work, play, or activities of daily living is part of one's sociocultural context and desired and/or necessary to one's well-being (Forsyth *et al.*, 2014). The first identified role perspective "promoter of occupational participation" implies that OTs therapeutically use tasks, activities, and occupations to [re]habilitate people with SUD. Facilitating occupational participation applies to all areas of occupation (i.e., activities of daily living, instrumental activities of daily living, rest and sleep, education, work, leisure, and social participation) (American Occupational Therapy Association, 2014). However, promoting work and leisure occupations to develop occupational roles necessary for community re-integration is emphasized in this section because the results show that these areas of occupations received the highest agreeability for the first SAR role perspective identified.

In the Philippines, OTs in SAR practice work with job coaches and vocational trainers to evaluate and train job-related skills for clients. Usually coined as "vocational training," this program aims to [re-]establish necessary skills for a work of choice to close the gap between disability and employment (Webb, Shakeshaft, Sanson-Fisher, & Harvard, 2009). Prior to discharge,

client skills and health status are re-assessed in preparation for paid employment. Today, a wide gap still exists between the drug rehabilitation center (DRC) and the community causing problems during community re-integration, such as placement in the same environments, inability to overcome stigma, and unemployment. Studies reveal that this gap could be resolved when recovering clients are assisted to gain employment through peer referral while going through follow-up interventions and psychosocial skills training (Webb *et al.*, 2009). Among OT work programs, Compensated Work Therapy (CWT), a program that allows clients to have part-time or full-time employment while undergoing rehabilitation, is evidenced to reduce addiction tendencies, episodes of imprisonments, homelessness, and to improve overall physical health of people with SUD (Kashner, Rosenheck, Campinell, Suris, & CWT Study Team, 2002).

Work programs in Philippine DRC are currently being developed with the Technical Education and Skills Development Authority (TESDA). For instance, the lead OT in a therapeutic community located in the City of Taguig partnered with TESDA to provide training on automotive and bartending skills for male residents and aesthetic and massage (hilot) skills for female residents. The partnership is generally seen as positive; however, client centeredness may be compromised because there is only one OT working with hundreds of residents, thus missing the opportunity to thoroughly evaluate their goals and desired occupational roles during early recovery (Sells, Stoffel, & Plach, 2011). There is also no established system that safeguards the work placement of discharged residents, which often leads to returning to old habits and environments. Hence, multiple reentries to the DRC is common.

As experts in work rehabilitation, OTs must also take into consideration that illicit substances (specifically cannabis and methamphetamines) are often used by people to improve work productivity (i.e., altered level of energy, improved attention, enhanced enjoyment, and relief from stress) (Kiepek, 2016, pp. 12–13; Twinley, 2013). The social pressure to be productive today may have urged some people to resort to illicit substances for what they perceive to be its short-term effects. However, the long-term effects of these illicit substances pose detrimental effects during recovery especially when transitional services and alternatives to illicit substance use are not provided.

Aside from work, leisure is seen to be vital in daily living among people with SUD. OTs have expertise in assisting clients with mental health problems to overcome barriers and facilitate social supports to enable leisure participation and identify leisure options (Pieres & Craik, 2004). Some individuals with mental health problems have experienced repeated failures, social stigma, or both, so it is important to have an understanding of the challenge-skill ratio when developing interventions toward leisure participation (Howells, 2011).

In Philippine DRC, leisure activities are integrated in their programs particularly using sports activities, physical exercises, and film viewing. Although OTs were given a key role in facilitating leisure pursuits in DRC (UNODC, 2015), limited leisure activities are provided from the highly structured programs in the DRC. As a result, DRC residents may experience occupational deprivation and alienation. Hence, the role of OT may be emphasized by partnering and collaborating with the residents in selecting and engaging in positive leisure and social participation. Through the use of a supported socialization model (Howells, 2011) residents can engage in actual occupations with intermittent therapies for skills training and processing.

The first role perspective identified asserts that addressing leisure pursuits, job-related skills, and self-care skills during OT develops role competence or community re-integration. Occupations are seen as tools used by OTs to promote not only health but social inclusion for people with SUD.

SAR role perspective 2: Collaborator to enhance occupational participation

Being able to collaborate is one of the core competencies an OT must possess regardless of practice setting: clinic, community, advocacy work, or research. Generally, it can be challenging to secure employment as an OT in SAR services because the field is predominantly supported by social workers, nurses, and diploma-level addiction counsellors (Kiepek, 2016). Despite this challenge, it is still workable when OTs start to introduce their contributions to an interprofessional team (Kiepek, 2016). The relatively positive attitudes of Filipino OTs toward interprofessional collaboration (Sy, 2017) can be cultivated to efficiently work with other professionals in developing and improving programs for people with SUD.

A prospective interprofessional-led program may focus on identifying alternative and healthier activities using a strengths-based approach as guided by a recovery-oriented mental health practice (Xie, 2013). The principles behind strengths-based approach is to work with the person rather than the problem, look for resources rather than deficits, explore possible and preferred futures, and interact with clients as experts in all their life aspects (Duncan, Ghul, & Mousley, 2007). One modality that can be used as an alternative activity operated within the strengths-based approach is art or creative therapies (Matto, Corcoran, & Fassler, 2003; Wasmuth, Pritchard, & Kaneshiro, 2015). Programs operated from this model aim to teach organizational and time management skills specifically making appointments and assuming responsibilities involving other people at home and in the community (White, Meade, & Hadar, 2007). OTs are expected to partner with

service users, other professionals, and agencies to effectively implement programs using a strengths-based approach (Xie, 2013).

For occupations to have a larger impact on people, programs for people with SUD necessitate advocacy. The "Mental Health Act of 2016" (Honti-veros-Baraquel, 2016) stipulates the strategic position of Filipino mental health professionals in advocating the rights of service users including those with SUD. In collaboration with social workers, lawyers, and law enforcers, OTs are expected to be aware of state legislations and legal consequences regarding usage and dealing of illicit substances to effectively advocate for the rights of people recovering from SUD (Lancaster & Chacksfield, 2014; Lim & Duque, 2011). This OT role has not yet been explored, but collabora-tive projects with government and nongovernment offices through lectures and seminars on occupational justice and participation can be a start in advocating for people with SUD.

Advocacy work can be strengthened through research. There is a call for OTs to conduct research to substantiate their practice in SAR settings. Kiepek (2016) suggested the following foci for future SAR-specific researches: (a) impact of substance use on injury, (b) occupation-focused assessments and interventions, and (c) understanding substance use within the context of occupational performance, engagement, and experience. However, realizing an increased research productivity in OT can only be achieved through colla-borative research either with clinicians or researchers from other professions (Kielhofner et al., 2006).

Despite the improved quality of OT research in Asia over the past decade, a research tradition in the Philippines has yet to be established (Lim & Duque, 2011). One of the solutions proposed is the formation of partner networks and interprofessional collaboration (Lim & Duque, 2011). Collaboration has been a stimulant for this Q-methodology research (i.e., partnering with institutions and communities; sampling professionals and researchers from different fields), which aims to yield results that would reflect different perspectives, enhance mental health practice, and promote policy changes.

The second role perspective identified asserts that OTs are not just clini-cians but also researchers and advocates to improve SAR practice and the people recovering from SUD. The effectiveness of OT in performing these roles relies on their ability to collaborate and partner with the service users, other professionals, people from the community, organizations, and the government.

SAR role perspective 3: Facilitator of environmental supports toward occupational participation

As a promoter of occupational participation, OTs also have a significant role in facilitating environmental supports and reducing environmental barriers.

Fritz and Cutchin (2016) argued that OTs' expertise on environmental and contextual modification can be used to enhance habit formation and training, which is a bridge toward building role competence and occupational participation.

According to the International Classification System for Functioning, Disability, and Health (ICF), environments can include: (a) physical elements (natural environment, products, and technology); (b) social elements (support and relationships); (c) attitudes; and (d) services, systems, and policies (WHO, 2001). These elements create a complex environment where occupations are performed. For instance, support programs for people with SUD (services, systems, and policies) are implemented in mental health centers and actual work placements (physical environment) under the guidance of health care professionals and employers (social environment), respectively. Despite these positive environmental supports, societal and personal stigma (attitudes) toward people with SUD affect how they perform and participate in their new routines as they transition from rehabilitation to recovery. The existence of stigma can be reduced with family education and support for the person with SUD (support and relationships).

OTs as collaborators enable them to maximize the social elements in the environment. OTs may act as mentors to clients with SUD through the use of empathy and personal experiences (occupational storytelling) (Vogel, 2011). They may also act as a peer-support facilitators in therapeutic groups that use occupations and target social participation outcomes, which is evidenced to reduce risk of relapse and reveal positive impact on recovery from substance addiction and homelessness (Boisvert, Martin, Grosek, & Clarie, 2008; Wasmuth et al., 2015).

In schools, OTs collaborate with a team of specialists to modify environments in prevention programs for vulnerable and disengaged youth by turning their out-of-school time (OST) into sports participation, supervised social activities, and enjoyable alternative substance-free activities (Andrabi, Khoddam, & Leventhal, 2017; Lee & Vandell, 2015). Preventive interventions also extend from school to the home through the use of a self-teaching workbook that aims to guide youth with SUD on how to live a substance-free life such as the Serigaya Metamphetamine Relapse Prevention Program (SMARPP) workbook in Japan (Matsumoto, Chiba, Imamura, Kobayashi, & Wada, 2011).

Group physical exercises, music therapy, and Asian-based activities (tai-chi and qi-gong) were perceived to be outside the scope of OT in SAR based on this QM study. These activities were found to be effective interventions as used by OTs to some extent (Wasmuth et al., 2015); however, the findings in this study may imply how these activities are perceived to be implemented by other professionals, or that it is necessary to carefully consider the cultural

environment and attitudes of people with SUD before providing these activities in DRC and SAR programs in the Philippines.

This last identified role perspective claims that OTs are environmental facilitators who see people recovering from SUD as occupational beings within a complex ecology of transacting environments and contexts. OTs in SAR practice are, therefore, called to be guided by paradigms and practices that are occupation-based, collaborative, and context-specific.

Consensus OT role perspetcives in SAR

Being a facilitator of spiritual approaches and a trainer of life skills for pregnant women with SUD and their children with fetal alcohol spectrum disorder (FASD) were unanimously perceived as outside of the role of OT.

The Philippines is a predominantly Christian nation, which explains how spirituality is inevitably infused within SAR programs. Activities that promoted personal pleasure, heightened sensory and emotional experiences, and excessiveness (Kiepek, 2016) are severely frowned upon in traditional Christian societies. Substance use possesses these three ingredients that can lead to an ungodly life, which can only be reconciled by religious confession, communion, or penance (Kantartzis & Molineux, 2012). In the Philippines, one way of reconciling is through institutionalized spiritual-based programs like the *Hazelden Program* (a belief that a Power greater than oneself could restore mental health) and *Faith-based Model* (where faith is seen to be an inspiration to recover and be a more productive person) (DDB, 2013). Certainly, these spiritual-based programs have been heavily used because of culture and religiosity and not necessarily science. Thus, it is essential to conduct periodic evaluation and research on these approaches to create empirical data that will show their effectiveness (or lack thereof) and to ensure achieving tangible outcomes on spirituality, health, and well-being among people recovering from SUD (Galanter, 2007; McColl, 2011).

On the other hand, OTs working with women with SUD and children with FASD have dual roles, including (a) inquiring about alcohol use among all adult, female clients and (b) enforcing family-centered care approach when working with either children with FASD or mothers who appear to be using alcohol (Kiepek, 2016; Sells, Stoffel, & Plach, 2011). Although OTs still remain on the periphery of this practice area, a unique role as an educator or public health advocate can assist women with SUD and children with FASD (Kiepek, 2016).

Although perceived to be out of the scope of OT in SAR practice, addressing spirituality within recovery programs and working with women and children affected with FASD can be considered as role-emerging areas in Philippine SAR practice.

Limitations

Several limitations that may influence the results of this study were considered. Although the sample size ($n = 28$) obtained fits the methodology used, the profile of the respondents could have been more representative by having more former clients as well as OTs, community workers, and mental health professionals from areas other than Manila and Central Luzon. Although this QM research did not aim to generalize the role of OT in SAR, the findings intend to offer a localized yet systematic process of describing perspectives among stakeholders on the role of Filipino OTs in SAR. Moreover, the 25-minute time allotment for Q-sorting (Phase 2) might be too short for decision making, which could have compromised the reliability of the data collected. Cultural and political biases could also be present because the research respondents were recruited during the period of an ongoing national campaign against the use and trade of illicit substance.

Conclusion

The findings of this study serve as an initial step in asserting OT's contribution to the SAR practice in the Philippines. The tripartite role perspectives of Filipino OTs in SAR practice are promoters of occupational participation, collaborators to enhance participation and well-being, and facilitators of environmental supports for occupational participation. However, these identified role perspectives are found to be divergent to the OT role as perceived by health authorities in the country, which may possibly explain to some extent why Filipino OTs cannot secure jobs, develop practice, and create research in SAR practice. As an important human resource in mental health, OTs can only be maximized when their contribution to SAR is perceived by all stakeholders. Furthermore, this study shows that QM is not limited for program evaluation to improve OT services but also in conducting attitudinal, perceptual, and mixed-method research. In the future the identified tripartite role of Filipino OTs in SAR may be translated into research, continuing education modules, occupation-centered SAR programs, and a springboard for role-emerging practices.

Acknowledgments

ORCID

Michael P. Sy http://orcid.org/0000-0003-0849-2874

References

American Occupational Therapy Association. (2014). Occupational therapy practice framework: Domain and process (3rd ed.). *American Journal of Occupational Therapy*, *68* (Suppl 1), S1–S48. doi:10.5014/ajot.2014.682006

Andrabi, N., Khoddam, R., & Leventhal, A. M. (2017). Socioeconomic disparities in adolescent substance use: Role of enjoyable alternative substance-free activities. *Social Science & Medicine*, *176*, 175–182. doi:10.1016/j.socscimed.2016.12.032

Basco, M. A. A., Garcia, E. N., & Mendoza, T. C. (2004). *An assessment on the level of awareness of the health team on the role of occupational therapy in the rehabilitation of substance-abused clients* (Unpublished undergraduate thesis). University of the Philippines-Manila, Manila.

Boisvert, R. A., Martin, L. M., Grosek, M., & Clarie, A. (2008). Effectiveness of a peer-support community in addiction recovery: Participation as intervention. *Occupational Therapy International*, *15*(4), 205–220. doi:10.1002/oti.257

Bondoc, S. (2005). Occupational therapy in the Philippines: From founding years to the present. *Philippine Journal of Occupational Therapy*, *1*(1), 1–14.

Clarey, L., & Felstead, B. (1990). The contribution of occupational therapy to alcohol and drug rehabilitation: A descriptive review. *Australian Occupational Therapy Journal*, *37*(2), 85–88. doi:10.1111/j.1440-1630.1990.tb01240.x

Comprehensive Dangerous Drugs Act. (2002). Republic Act No. 9165. Retrieved from http://www.wipo.int/edocs/lexdocs/laws/en/ph/ph136en.pdf

Corr, S. (2006). Exploring perceptions about services using Q-methodology. In G. Kielhofner (Ed.), *Research in occupational therapy: Methods of inquiry for enhancing practice* (pp. 389–410). Philadelphia, PA: F. A. Davis.

Corr, S., Neill, G., & Turner, A. (2005). Comparing occupational therapy definition and consumers' experiences: A Q-methodology study. *British Journal of Occupational Therapy*, *68*(8), 338–346. doi:10.1177/030802260506800802

Corr, S., Phillips, C., & Capdevila, R. (2003). Using Q-methodology to evaluate a day service for younger adult stroke survivors. *Operant Subjectivity*, *27*(1), 1–23. doi:10.15133/j.os.2003.012

Dangerous Drug Board (DDB). (2013). *Dangerous drug board website*. Retrieved from http://ddb.gov.ph/

Department of Health (DOH). (2016). *List of accredited drug abuse treatment and rehabilitation centers in the Philippines*. Retrieved from http://gwhs-stg01.i.gov.ph/~dohgov/sites/default/files/datrc_090810.pdf

Dilaway, H., Lysack, C., & Luborsky, M. R. (2006). Qualitative approaches to interpreting and reporting data. In G. Kielhofner (Ed.), *Research in occupational therapy: Methods of inquiry for enhancing practice* (pp. 372–388). Philadelphia, PA: F. A. Davis Company.

Duncan, L., Ghul, R., & Mousley, S. (2007). *Creating positive futures: Solution focused recovery from mental distress*. London, UK: BT Press.

Forsyth, K., Taylor, R. R., Kramer, J. M., Prior, S., Richie, L., Whitehead, J., & Melton, J. (2014). The model of human occupation. In B. A. Schell, G. Gillen, M. E. Scaffa, & E. S. Cohn (Eds.), *Willard & Spackman's occupational therapy* (12th ed., pp. 505–526). Philadelphia, PA: Lippincott Williams & Wilkins, a Wolters Kluwer Business.

Fritz, H., & Cutchin, M. P. (2016). Integrating the science of habit: Opportunities for occupational therapy. *Occupational Therapy Journal of Research*, *36*(2), 92–98. doi:10.1177/1539449216643307

Galanter, M. (2007). Spirituality and recovery in 12-step programs: An empirical model. *Journal of Substance Abuse Treatment*, *33*, 265–272. doi:10.1016/j.jsat.2007.04.016

Hontiveros-Baraquel, A. T. (2016). *Mental health act of 2016 (senate bill no. 1190)*. Retrieved from https://www.senate.gov.ph/lis/bill_res.aspx?congress=17&q=SBN-1190

Howells, V. (2011). Leisure and play. In C. Brown, & V. C. Stoffel (Eds.), *Occupational therapy in mental health* (pp. 724–735). Philadelphia, PA: F. A. Davis Company.

Institute of Health Metrics and Evaluation. (2016). *Philippines: What risk factors drive the most death and disability combined?* Retrieved from http://www.healthdata.org/philippines

Kantartzis, S., & Molineux, M. (2012). Understanding the discursive development of occupation: Historico-political perspectives. In G. E. Whiteford, & C. Hocking (Eds.), *Occupational science: Society, inclusion, participation* (pp. 40–42). Oxford, UK: Blackwell Publishing Ltd.

Kashner, T. M., Rosenheck, R., Campinell, A., Suris, A., & CWT Study Team. (2002). Impact of work therapy on health status among homeless, substance-dependent veterans. *Archives of General Psychiatry*, *59*, 938–944. doi:10.1001/archpsyc.59.10.938

Kielhofner, G., Castle, L., Dubouloz, C. J., Egan, M., Forsyth, K., Melton, J., … Willis, S. (2006). Participatory research for the development and evaluation of occupational therapy: Researcher-practitioner collaboration. In G. Kielhofner (Ed.), *Research in occupational therapy: Methods of inquiry for enhancing practice* (pp. 643–655). Philadelphia, PA: F. A. Davis Company.

Kiepek, N. (2016). *Licit, illicit, prescribed: Substance use and occupational therapy*. Ottawa, Canada: CAOT Publications ACE.

Lancaster, J., & Chacksfield, J. (2014). Substance misuse. In W. Bryant, J. Fieldhouse, & K. Bannigan (Eds.), *Creek's occupational therapy and mental health* (5th ed., pp. 439–456). Edinburgh, Scotland: Churchill Livingstone Elsevier.

Lee, K. T., & Vandell, D. (2015). Out-of-school time and adolescent substance use. *Journal of Adolescent Health*, *57*, 523–529. doi:10.1016/j.jadohealth.2015.07.003

Lim, K. H., & Duque, L. (2011). The challenge for occupational therapy in Asia: Becoming an inclusive, relevant, and progressive profession. In Kronenberg, F., Pollard, N., & Dikaios, S. (Eds.), *Occupational therapies without borders: Vol. 2. Towards an ecology of occupation-based practices* (pp. 103–112). Edinburgh, Scotland: Churchill Livingstone Elsevier.

Matsumoto, T., Chiba, Y., Imamura, F., Kobayashi, O., & Wada, K. (2011). Possible effectiveness of intervention using a self-teaching workbook in adolescent drug abuses detained in a juvenile classification home. *Psychiatry and Clinical Neurosciences*, *65*, 576–583. doi:10.1111/j.1440-1819.2011.02267.x.

Matto, H., Corcoran, J., & Fassler, A. (2003). Integrating solution-focused and art therapies for substance abuse treatment: Guidelines for practice. *The Arts in Psychotherapy*, *30*, 265–272. doi:10.1016/j.aip.2003.08.003

McColl, M. A. (2011). Conclusion. In M. A. McColl (Ed.), *Spirituality and occupational therapy* (pp. 269–280). Ottawa, Canada: CAOT Publications ACE.

Paterson, C. F. (2014). A short history of occupational therapy in mental health. In W. Bryant, J. Fieldhouse, & K. Bannigan (Eds.), *Creek's occupational therapy and mental health* (pp. 2–13). Edinburgh, Scotland: Churchill Livingstone, Elsevier.

Pieres, Y., & Craik, C. (2004). Factors enabling and hindering participation in leisure for people with mental health problems. *British Journal of Occupational Therapy*, *67*, 240–247. doi:10.1177/030802260406700602

Schmolck, P. (2014). *PQMethod manual*. Retrieved from http://schmolck.org/qmethod

Sells, C. H., Stoffel, V. C., & Plach, H. (2011). Substance-related disorders. In C. Brown, & V. C. Stoffel (Eds.), *Occupational therapy in mental health: A vision for participation* (pp. 204–205). Philadelphia, PA: F. A. Davis Company.

Sy, M. P. (2017). Filipino therapists' experiences and attitudes of interprofessional education and collaboration: A cross-sectional survey. *Journal of Interprofessional Care*, *31*(6), 761–770. doi:10.1080/13561820.2017.1359509

Thabane, L., Ma, J., Chu, R., Cheng, J., Ismaila, A., Rios, L. P., … Goldsmith, C. H. (2010). A tutorial on pilot studies: The what, why and how. *BMC Medical Research*, *10*(1), 1–10. doi:10.1186/1471-2288-10-1

Twinley, R. (2013). The dark side of occupation: A concept for consideration. *Australian Occupational Therapy Journal*, *60*, 301–303. doi:10.1111/1440-1630.12026

United Nations Office on Drugs and Crime (UNODC). (2012). *World drug report 2012*. Retrieved from https://www.unodc.org/unodc/en/data-and-analysis/WDR-2012.html

United Nations Office on Drugs and Crime (UNODC). (2015). *Guidance for community-based treatment and care services for people affected by drug use and dependence in the Philippines*. Retrieved from https://www.unodc.org/documents/southeastasiaandpacific/cbtx/cbtx_guidance_EN.pdf

Vogel, J. (2011). Treating adolescent substance abuse through a perspective of occupational cultivation. In Kronenberg, F., Pollard, N., & Dikaios, S. (Eds.), *Occupational therapies without borders: Vol. 2. Towards an ecology of occupation-based practices* (pp. 41–46). Edinburgh, Scotland: Churchill Livingstone Elsevier.

Wasmuth, S., Pritchard, K., & Kaneshiro, K. (2015). Occupation-based intervention for addictive disorders: A systematic review. *Journal of Substance Abuse Treatment*, *62*, 1–9. doi:10.1016/j.jsat.2015.11.011

Webb, G., Shakeshaft, A., Sanson-Fisher, R., & Harvard, A. (2009). A systematic review of work-place interventions for alcohol-related problems. *Addiction*, *104*, 365–377. doi:10.1111/j.1360-0443.2008.02472.x.

Webler, T., Danielson, S., & Tuler, S. (2009). *Using Q-method to reveal social perspectives in environmental research*. Retrieved from www.ser-us.org.pubs/Qprimer.pdf

White, S., Meade, S., & Hadar, L. (2007). *OT cognitive adaptation: An intervention in time management for persons with co-occurring conditions* [electronic version]. *OT Practice*, *12*(11), 9–14.

World Federation of Occupational Therapists (WFOT). (2016). *WFOT human resources project 2016* (alphabetical, edited version). Retrieved from http://www.wfot.org/resource-centre.aspx

World Health Organization (WHO). (2001). *International classification of functioning, disability, and health*. Geneva, Switzerland: WHO.

World Health Organization (WHO). (2014). *Mental health atlas country profile 2014: Philippines*. Retrieved from http://www.who.int/mental_health/evidence/atlas/profiles-2014/phl.pdf?ua=1

World Health Organization (WHO). (2016). *mhGAP intervention guide for mental, neurological, and substance use disorders in non-specialized health settings*. Geneva, Switzerland: World Health Organization. Retrieved from http://www.who.int/mental_health/publications/mhGAP_intervention_guide/en/

Xie, H. (2013). Strengths-based approach for mental health recovery. *Iranian Journal of Psychiatry and Behavioral Sciences*, *7*(2), 5–10.