

Practice Patterns: A Survey of Occupational Therapists in Bermuda

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Abstract

Unlike some countries, there are currently no investigational studies of the Bermuda occupational therapy workforce. A survey study was conducted to capture the viewpoint of twenty Bermudian occupational therapists regarding current healthcare services. In search of a description of the Bermuda occupational therapy service, this article will explore the characteristics and practice patterns of the occupational therapy workforce to provide data to support the public's awareness and understanding of the range of occupational therapy services in Bermuda. Participation in a survey was requested of licensed occupational therapy practitioners with the Council for Allied Health Professions by The Bermuda Occupational Therapy Association (BOTA). Analysis of the results provided occupational therapy demographics, perceptions, and clinical practices in Bermuda. Indications proposed continued data collection for promotion of the profession, protection of the profile, and scope of occupational therapy practice.

KEY WORDS: *Bermuda, occupational therapy, workforce data, demographics, practice patterns*

Introduction

In healthcare systems, the workforce includes healthcare professionals, practitioners or providers (World Health Organisation (WHO), 2006) who maintain health in humans through the application of the principles and procedures of evidence-based medicine (International Labour Organisation (ILO), 2012; WHO, 2010) in order to deliver effective, quality, and safe health care. These professionals play an essential role in improving quality health by delivering healthcare services (WHO, 2017) to individuals based on their scope of practice. They advocate for health promotions to meet health needs and expectations of the population to improve outcomes (WHO, 2013).

The WHO describes advocacy for health as a “combination of individual and social actions designed to gain political commitment, policy support, social acceptance, and systems support for a particular health goal or programme” (1995, p. 2). As policies change, it is important to advocate for fairness in distribution of resources (Blank, Kimball, McDonald, & Merino, 2002; Hubinette, Dobson, Scott, & Sherbino, 2017) and inclusiveness in decision-making procedures to ensure consistency with current knowledge and practice (Canadian Nurses Association (CAN), 2002; 2017; International Council of Nurses (ICN), 2010).

Significance to occupational therapy. As the economy grows, the systems in which occupational therapy is practiced changes (Holmes & Scaffa, 2009). It is important for the profession to define how these changes enhance quality and provide value (American Occupational Therapy Association (AOTA), 2015b). According to AOTA's Centennial Vision 2017, occupational therapy is “envisioned as a powerful, widely recognised, science-driven, and evidence-based profession with a globally connected and diverse workforce meeting society's occupational needs” (AOTA, 2007 p. 613). Occupational therapy is practiced in a variety of settings where clients are actively involved in the therapy process (World Federation of Occupational Therapists (WFOT), 2010c; 2012c) which brings many variations on defining the profession. The WFOT defines occupational therapy as:

A client-centred health profession concerned with promoting health and wellbeing through occupation. The primary goal of occupational therapy is to enable people to participate in the

activities of everyday life. Occupational therapists achieve this outcome by working with people and communities to enhance their ability to engage in the occupations they want to, need to, or are expected to do, or by modifying the occupation or the environment to better support their occupational engagement. (2010c, para. 1)

Although the Occupational Therapy Practice Framework (AOTA, 2014) and many professional organisations (WFOT, 2013) define occupational therapy, an overall representation of occupational therapy practice is unable to be obtained due to the operations of healthcare systems in different countries. The Centennial Vision 2017 (AOTA, 2007) gives insight into the direction in which the profession has taken and defines how it has built on current knowledge and integrated expert information and concepts to evolve in practice by identifying factors of change. Considerations for healthcare costs and reimbursement, preventative care/medicine, technological advances, societal issues such as aging, lifestyle values, and increasing populations will determine the future needs of the profession (AOTA, 2007). In the collection of analytical data, justification for the profession can be achieved within a country's healthcare system and provide evidence of occupational therapy practice (AOTA, 2006) including current workforce data, practice patterns, and a description of patient care for a country.

Partnerships and promotion. The WFOT states that collaborative efforts between occupational therapists and consumers are essential to the philosophy and practice of occupational therapy (2010a). Partnerships and advocacy (Servaes and Malikhao, 2010) for improved quality of life in society are essential for awareness politically, culturally, publicly, and professionally. It also provides access to the occupational therapy profession (WFOT, 2010a). For decision-making and action-oriented activities, the ILO describes statistical delineation, description, and analysis as useful. The occupational therapy profession, with the combined assistance of statistical delineation (ILO, 2012) and strong advocacy can address policy change (ICN, 2010; WFOT, 2010a; 2016b) and health promotion (WHO, 2013).

The theoretical framework of the scope of practice can serve as an informative guide to practitioners, managers, academic course coordinators, employers, consumers, regulatory agencies, funding bodies, policy makers, etc. (AOTA, 2014; Occupational Therapy Australia, 2017). The WFOT argues for the importance of promoting the core and value of occupational therapy to government organisations, non-governmental organisations and the wider public (2010b). It is important for occupational therapists to have a clear definition of their professional identity. Lack of definition places the profession at risk of identity confusion or adoption of the identity by other allied health professions (Edwards & Durette, 2010; Whitcombe, 2013; Turner & Knight, 2015).

Advocacy may differ in terms of the approach. Within the profession, practitioners may advocate for social change, globally as a group for populations or for an individual within their practice (Gruen, Pearson, & Brennan, 2004; Loue, 2006; Hubinette, Ajjawi, & Dharamsi, 2014; Dobson, Voyer, Hubinette, & Regehr, 2015). The choice of advocacy strategy will vary based on the concern and what is expected (Servaes & Malikhao, 2010). Despite this difference, advocacy serves as a key strategy in health promotion (Gould, Fleming, & Parker, 2012). Medical and health professionals can affect societal ideals and decisions in health by recognising the imperative need and benefits due to their expertise and working experiences (Marmot, Friel, Bell, Houweling, & Taylor, 2008). Understanding the range of expertise a healthcare professional possesses cannot be obtained solely through interpersonal communication. Although strong advocacy is critical in addressing policy changes (ICN, 2010), a combination of supportive professional and academic evidence (Servaes & Malikhao, 2010) such as statistical delineation, description, and analysis are useful for decision-making and action-oriented activities (ILO, 2012).

Occupational therapy practice. Periodically, data collection and identification of trends have been analysed in occupational therapy practice by surveys for the development and establishment of competencies (Occupational Therapy Board of New Zealand (OTBNZ), 2017; Technical Advisory Services (TAS), 2017), informing and advisement of consumers (OTBNZ, 2017), and assistance in strategic planning, decision-making or policy changes (Canadian Institute for Health Information (CIHI), 2016; Royal College of Occupational Therapy Practitioners (RCOT),

2016). Additionally, in 2012, the Australian Institute of Health and Welfare (AIHW) utilised the workforce data to create a National Health Workforce Dataset (NHWDS) for all registered health professionals (Commonwealth of Australia, 2017).

However, the AOTA and the OTBNZ sort to utilise the data within the profession, arguing that through unlimited data access, projections for further detailed investigations, systematic updates for the constantly changing profession (AOTA, 2015) and revisions to practitioner competencies in response to identified workforce challenges (OTBNZ, 2017) would be outlined. On the contrary, New Zealand and the Royal College of Occupational Therapists (RCOT) explored the recruitment and retention of the occupational therapy workforce (RCOT, 2016; TAS, 2017). As a result, these efforts to identify changes within the profession allowed for strategic employment relations advice (TAS, 2017) and the distribution of health care providers (CIHI, 2016).

A survey conducted in Hong Kong focused on researching the profile and scope of occupational practice (Tse, et al., 2005). The researchers identified with the future challenges of the new healthcare-services system in Hong Kong by proposing four strategic plans to ensure sustainable development and understanding of the profession within the local context (Tse, et al., 2005). A second study explored the current OT resources available in Beijing, China (Shi & Howe, 2016). Although a pilot study, the researchers plan to expand it nationwide to gain an in-depth and comprehensive understanding of the OT workforce in China (Shi & Howe, 2016). The findings of the study served as the first step in planning the response to the increasing demand for OT service and solutions in promoting occupational practice in China (Shi & Howe, 2016). Thus, data collection is crucial for identifying the occupational therapy characteristics and establishing an occupational therapy profile.

Practice patterns. The study, conducted in 2014 by Holmqvist, Ivarsson, and Holmefur, reported that the term practice patterns has been used to describe clinical practice. Much of the literature on occupational therapy practice patterns involves the exploration of interventions utilised in occupational therapy practice. Watling, Deitz, Kanny, & McLaughlin (1999) and Koh, Hoffmann, Bennett, & McKenna (2009) explored the use of theoretical frameworks and intervention techniques to guide practice. Similar studies, explored service delivery by compensatory strategies or remediation approaches (Spencer, Turkett, Vaughan, & Koenig, 2006; Koh et al., 2009; Cramm & Egan 2015) and team dynamics in practice patterns (Watling et al., 1999; Weintraub & Kovishi, 2004; Holmqvist et al., 2014). One of the major goals of examining practice patterns is to describe occupational therapy work, thereby developing a profile of occupational therapy practice.

Despite the evidence of workforce surveys, Bermuda has not examined its occupational therapy practice. The WFOT has collected information from WFOT delegates or alternate delegates of member countries on practice patterns since 1998 (Cipriani et al., 2003). Practice patterns included occupational therapy characteristics, work settings, client age ranges and health conditions, assessments, reimbursement systems, goals, changes to practice patterns, and suggestions for advancing practice standards with a goal in establishing recommendations for the advancement of the occupational therapy practice in the global market (Cipriani et al., 2003).

Therefore, data collection is important to the profession for establishing the scope of occupational therapy practice (AOTA, 2006). The collection of data can also promote international cooperation among associations, advance standards of practice and education, facilitate the exchange of information and promote research (Cipriani et al., 2003). In this study, the findings of Bermuda's occupational therapy workforce are highlighted providing an in-depth look into the occupational therapy practice in Bermuda.

Methodology

STUDY DESIGN

Approval to conduct research on individual or group characteristics or behaviour or research employing survey, interview, oral history, focus group, programme evaluation, human factors evaluation, or quality assurance technologies was attained through Quinnipiac University's Institutional Review Board (IRB) in accordance with

capstone requirements for the Online Post-Professional Occupational Therapy Doctorate (OTD). In order to conduct research in Bermuda or by a Bermuda researcher that involves human participants, approval was attained through the BHB Ethics Committee Research Ethics Sub-Committee. The study used an exploratory, survey design. Using a descriptive analysis approach, an online survey was conducted with Bermuda's occupational therapy practitioners. Participants filled out the questionnaire relating to the practise of occupational therapy including professional titles, initial licensing country, practice area, qualifications, years of experience and practice patterns.

POPULATION AND SAMPLING

The participants of the study population included registered Bermuda occupational therapy practitioners with the Bermuda Health Council. Of the 20 participants, 100% were occupational therapists and 0% were occupational therapy assistants. Participants were able to understand and respond to questions posed in English. Participants had access to a computer and had internet access in order to participate. Participants were not excluded based on their age, race, gender, sexual orientation, religion, or marital status.

DATA COLLECTION

Development of questionnaire. Through an extensive review of scholarly literature and a review of occupational therapy workforce surveys from several countries to reproduce concepts and devise questions on demographics and practice settings, a self-administered questionnaire was designed by the co-investigator. Similar surveys from other professionals were used as resources to devise the questions on practice patterns and perceptions/professional satisfaction.

Pilot study to refine questionnaire. A pilot study using a convenience sample of eight participants (non-Bermudian occupational therapy practitioners with occupational therapy practice experience and other professionals) was conducted via SurveyMonkey in the same format as the final survey to establish face validity. The sample did not include a panel of experts demonstrating experience in research. Feedback from the sample was gathered regarding structure, flow, clarity, and concepts in the survey. On the basis of the recommendations received, revisions to a survey developed by Effgen and Kaminker (2014) and further review of the literature, the questionnaire was updated and modified. It consisted of closed-ended questions for the collection of demographics, work practice, occupational therapy service characteristics, and a Likert scale for job satisfaction. One open-ended question was used to provide data on the perceptions of occupational therapy in Bermuda.

Dissemination of questionnaire. The Bermuda Occupational Therapy Association (BOTA) e-mailed their membership on the co-investigators behalf. The recruitment e-mail included a brief explanation of the purpose and inclusionary criteria, link to survey URL and (snowball sampling) consideration of forwarding information to the invitee's colleagues. The membership were invited to click on a link to access the survey on SurveyMonkey, read the consent page, and denote consent by clicking next for the survey. A total of 36 occupational therapy practitioners are licensed under Bermuda Health Council (BHeC, 2017). There were twenty questionnaires returned. Participants that did not denote consent to participate were exited out of the survey. Following the consent, the second question exited out anyone that answered 'no' to currently practicing occupational therapy in Bermuda.

DATA ANALYSIS

The quantitative data received through the survey was analysed using SurveyMonkey and Microsoft Excel programme to generate descriptive analysis (e.g., frequencies and percentages) of trends, perceptions, and practices for final charting. Demographic information was calculated using descriptive statistics. A count was obtained for all questions and converted to a percentage to provide a ratio of responses to the total number of participants. Open-ended responses were summarised and themed.

ETHICAL CONSIDERATIONS

Data collection via SurveyMonkey was password protected. SurveyMonkey settings were adjusted to uphold confidentiality by not tracking IP addresses of the participants. In addition, no personally identifiable data was gathered. Access to the data within the SurveyMonkey database or the excel format was restricted to the researcher’s password protected on the researcher’s computer.

Results

DEMOGRAPHICS

Twenty survey participants completed the survey, which is just over half of the total workforce of thirty-six licensed occupational therapy practitioners in Bermuda (BHeC, 2017). Zero occupational therapy assistants completed the survey. Occupational therapists accounted for one hundred percent of the responses with ninety-five percent holding either a Master’s degree (50%) or a Bachelor’s degree (45%).

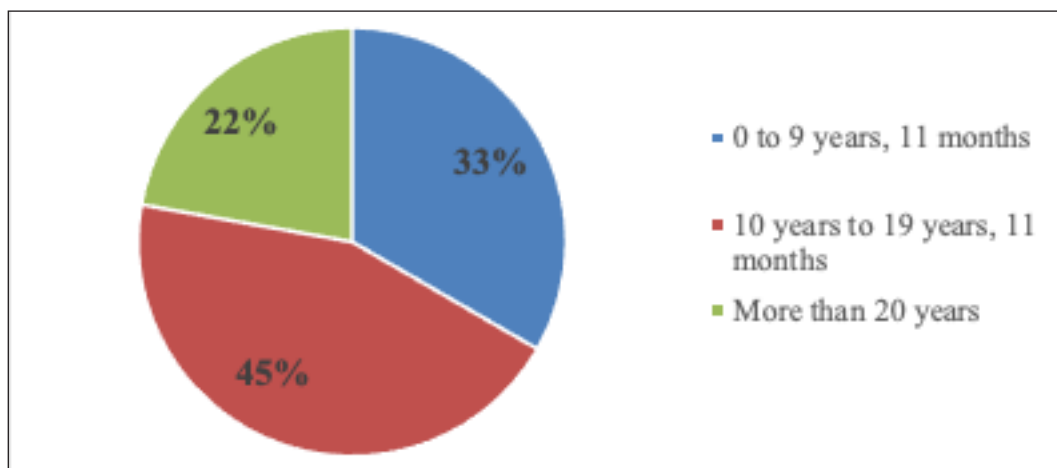
Highest degree earned	%	n
Associate’s degree	0	0
B.A./B.S.	45	9
M.A./M.S.	50	10
OTD	5	1
PhD, EdD, or other non-OT doctoral degree	0	0

Note. N = 20. B.A. = Bachelor of Arts; B.S. = Bachelor of Science; M.A. = Master of Arts; M.S. = Master of Science; OTD = Occupational Therapy Doctorate; PhD = Doctor of Philosophy; EdD = Doctor of Education.

A wide range of clinical experience in the occupational therapy profession was reported indicating the majority to be skilled practitioners. The vast majority (67%) had more than 10 years of clinical experience with twenty-two percent possessing more than twenty years of clinical experience.

Chart 1: Participants’ Years of Experience

Chart 1. N = 20.



The occupational therapy practitioners practiced in all three service sectors (hospital-based, community-based and private practice) in Bermuda, but most (63.16%) practiced in the community.

Chart 2: Primary Practice Settings

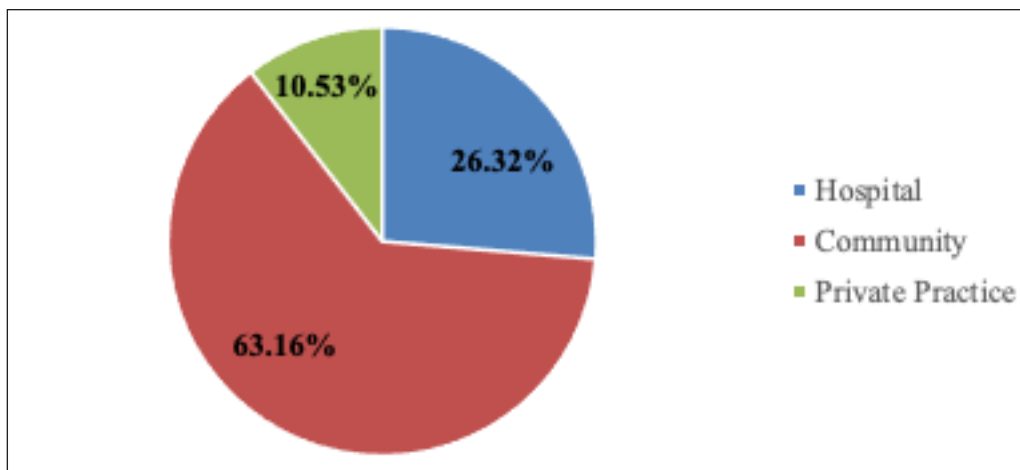


Chart 2. N = 19.

A variety of overseas jurisdictions was recorded as the initial licensing for the occupational therapy practitioners. The highest percentage of the occupational therapy practitioners (37%) were initially licensed in the UK. Data was not surprising as Bermuda is an overseas territory of the UK (Government of the United Kingdom, 2017). The next two highest countries reported were the USA (26.32%) and Canada (15.79%). The remaining participants (21.05%) reported that they had received their initial licensing from the Philippines (5.2625%), Australia (5.2625%), Zimbabwe (5.2625%), and Ireland (5.2625%).

Chart 3: Distribution of Responses by Initial Licensing Country

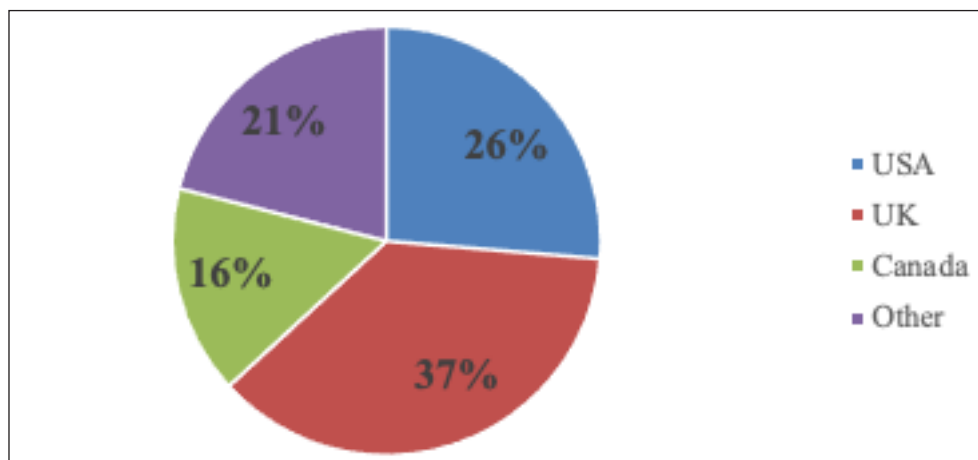


Chart 3. N = 20. Other = the Philippines, Australia, Zimbabwe, Ireland

PRACTICE PATTERNS

There were several important findings on practice patterns: the utilisation of occupation-based practice, team dynamics, the application of theoretical frameworks, and time management were explored. The findings indicated a high percentage (61.11%) of the occupational therapy practitioners utilised occupation-based practice in their evaluations and interventions which is a core fundamental foundation of the profession’s service delivery (WFOT, 2010c, 2012a; AOTA, 2014).

Table 2: Occupational Therapy Practice Statistics for Evaluation

Evaluation	Never		Rarely		Occasionally		Usually		Always	
	%	n	%	n	%	n	%	n	%	n
Each discipline (OT, Physio, SLP) screens, evaluates and reports on the client separately	11.11	2	0.00	0	11.11	2	66.67	12	11.11	2
The primary use of occupation-based evaluations is to address the needs of each client	0.00	0	0.00	0	5.56	1	33.33	6	61.11	11

Note. N = 18. OT = occupational therapy; Physio = physiotherapy; SLP = speech-language pathology. Adapted from “Nationwide Survey of School-Based Physical Therapy Practice,” by Effgen, S. K., & Kaminker, M. K., 2014, *Pediatric Physical Therapy: The Official Publication of the Section on Pediatrics of the American Physical Therapy Association*, 26, 4, pp 398-399. Copyright 2014 Wolters Kluwer Health, Lippincott Williams & Wilkins and the Section on Pediatrics of the American Physical Therapy Association.

The WFOT states that teamwork through client participation, family and caregivers support, and other healthcare professional collaborations are key for cooperation and holistic practice (2012b). Most occupational therapy practitioners reported that they participated in numerous collaborative duties. Approximately half of the occupational therapy practitioners (55.56%) reported that they usually participated in training other team members to help maintain the client’s current level of functioning and half indicated that they usually collaborated to design and implement strategies to meet the needs of the client. Most occupational therapy practitioners (61.11%) reported they usually participated in duties related to discharge and/or transition planning.

Table 3: Occupational Therapy Practice Statistics for Team Dynamics

Team Dynamics	Never		Rarely		Occasionally		Usually		Always	
	%	n	%	n	%	n	%	n	%	n
OTs train other team members (professionals and disciplines) to help clients maintain their current level of functioning	5.56	1	0.00	0	22.22	4	55.56	10	16.67	3
OTs and other professionals collaborate to design and implement strategies to meet the needs of the client	11.11	2	0.00	0	5.56	1	50.00	9	33.33	6

OTs regularly attend scheduled meetings to discuss progress	5.56	1	16.67	3	22.22	4	44.44	8	11.11	2
OTs schedule training sessions with caregivers	0.00	0	0.00	0	16.67	3	61.11	11	22.22	4
OTs participate in decisions about discharge and/or transitioning	0.00	0	5.56	1	33.33	6	44.44	8	16.67	3

Note. N = 18. OT = occupational therapy. Adapted from “Nationwide Survey of School-Based Physical Therapy Practice,” by Effgen, S. K., & Kaminker, M. K., 2014, Pediatric Physical Therapy: The Official Publication of the Section on Pediatrics of the American Physical Therapy Association, 26, 4, pp 398-399. Copyright 2014 Wolters Kluwer Health, Lippincott Williams & Wilkins and the Section on Pediatrics of the American Physical Therapy Association.

Three frames of reference were identified as most commonly used; Developmental (61.11%), Neurodevelopmental Theory (44.44%) and Sensory Integration (44.44%).

Table 4: Theoretical Frameworks Most Commonly Used

Theoretical Frameworks	%	n
Developmental Frame of Reference	61.11	11
Neurodevelopmental Theory	44.44	8
Sensory Integration Frame of Reference	44.44	8

Note. N = 18.

When analysed by age population, in paediatrics, the most common theoretical framework utilised by occupational therapy practitioners was the Developmental. Sensory Integration was reported as second. The Biomechanical and Rehabilitative theoretical frameworks were most utilised for the adult population. However, in the older adult population, the Rehabilitative was also reported as most utilised.

Chart 4: Reported use of Theories and/or Frames of References When Working with Older Adults, Adults and Paediatrics

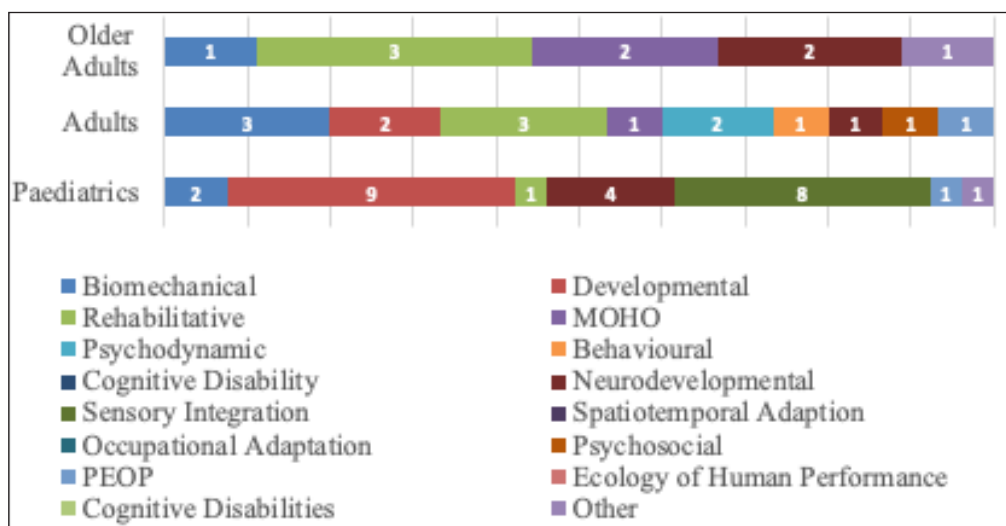


Chart 4. N = 18. Other = Cognitive-Behavioural (paediatrics), Needs Driven Dementia Model (older adult). Older adults were aged 65 years and up. Adults were aged 19 through to 64 years. Paediatrics were aged birth to 18 years.

These results indicated elements of a bottom-up approach (Trombly, 1993) which “tend to examine small, separate components of a client’s skills or occupational performance components” (Brown & Chien, 2010, p. 95). These were frequently used, but top-down approaches (Trombly, 1993) were also prominent. Also referred to as remedial approach, “a bottom-up approach to assessment and treatment focuses on the deficits of components of function, such as strength, range of motion, balance, and so on, which are believed to be prerequisites to successful occupational performance or functioning” (Trombly, 1993, p. 253). While top-down (Trombly, 1993) or compensatory approaches focus on “critical roles as well as occupational performance issues, which include the ability to engage in activities of daily living, education, work, play, leisure and social participation,” (Brown & Chien, 2010, p. 95).

Table 5: Occupational Therapy Practice Statistics for Service Delivery

Service Delivery	Never		Rarely		Occasionally		Usually		Always	
	%	n	%	n	%	n	%	n	%	n
The majority of OT service provision is occupation-based or is through participation in occupation	0.00	0	0.00	0	11.11	2	55.56	10	33.33	6
The majority of OT service provision is remediation of underlying skill deficits	0.00	0	5.56	1	33.33	6	50.00	9	11.11	2
The majority of OT service provision is providing caregivers with educational information, compensatory strategies or making modifications or adaptations	5.56	1	11.11	2	44.44	8	33.33	6	5.56	1
OTs participate in the client’s transition process to the most appropriate setting	0.00	0	5.56	1	38.89	7	33.33	6	22.22	4

Note. N = 18. OT = occupational therapy. Adapted from “*Nationwide Survey of School-Based Physical Therapy Practice*,” by Effgen, S. K., & Kaminker, M. K., 2014, *Pediatric Physical Therapy: The Official Publication of the Section on Pediatrics of the American Physical Therapy Association*, 26, 4, pp 398-399. Copyright 2014 Wolters Kluwer Health, Lippincott Williams & Wilkins and the Section on Pediatrics of the American Physical Therapy Association.

In describing a typical day, occupational therapy practitioners divided their time during their most recent work week by estimating the percentage of time they had spent doing a variety of work-related activities. The greatest percentage of time was spent providing direct intervention (treatment sessions and hands-on) to clients (an average of 46.11% per week). Indirect intervention which consisted of education and consulting with the team and others consumed less time of the work week (an average of 10.63%).

Table 6: Average Percentage of Time Spent and Means in Most Recent Week for Each Activity

Percentage of time	Assessments	Direct Intervention	Indirect Intervention	Preparation	Travel	Admin	Other
5	5	1	3	4	5	5	2
10	7	0	8	10	5	5	0
15	2	0	1	0	1	0	0
20	1	2	1	0	2	4	0
25	0	0	0	0	0	0	1
30	1	2	1	0	0	1	0
35	0	2	0	0	0	0	0
40	1	2	1	0	0	0	0
45	0	1	0	0	0	0	0
50	0	0	0	0	0	1	0
55	0	2	0	0	0	0	0
60	0	2	0	0	0	1	0
65	0	1	0	0	0	0	0
70	0	0	0	0	0	0	1
75	0	0	0	0	0	1	0
80	0	1	0	0	0	0	0
85	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0
M							
	8.89	46.11	10.63	7.78	10.63	11.11	37.50

Note. N = 18. Admin = Administration. Other = Project planning, informal CEU. Percentages of time are calculated based on the total number of hours spent in a work day.

Further analysis yielded results based on weighted averages. The weighted average assigns a weight to each observation (quantity) in the dataset prior to calculating to a single average value whereas the weight determines the relative importance of each quantity on the average (Matthews & Kosteiles, 2011; DePoy & Gitlin, 2015). By far, the greatest portion of a typical day was devoted to direct client intervention, inclusive of assessments, with a weighted average of 54.84%. Indirect intervention received a weighted average of 13.33%. A major finding indicated a significant amount of their time was spent completing administrative tasks (weighted average of 20.56%) and other functions (weighted average of 34.82%) such as meetings, phone calls, emails, stats, preparation, project planning or informal CEUs.

Chart 5: Weighted Average Results of a Typical Work Week

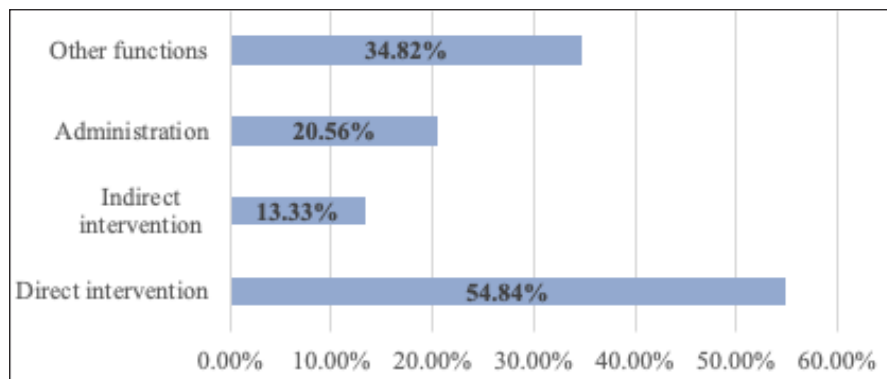


Chart 5. N = 18. Other functions = Project planning, informal CEU.

Perceptions of Bermuda Occupational Therapy Practice

In addition to the major findings in demographics and practice patterns, professional satisfaction was measured by each occupational therapy practitioner and further analysed by collapsing the categories into satisfied, neutral, and dissatisfied. The nature of the job was weighed by 88.89% of occupational therapy practitioners as satisfied in actual practice. The majority of occupational therapy practitioners (61.12%) reported they were satisfied with communication within the job; satisfied working with co-workers (83.33%); and satisfied with pay (66.67%). One relative concern or dissatisfaction reported was operating procedures at 44.44% of the OTPs.

Table 7: Professional Satisfaction

Categories	Dissatisfied		Neutral		Satisfied	
	%	n	%	n	%	n
Pay	11.11	2	22.22	4	66.67	12
Promotion	33.33	6	27.78	5	38.89	7
Supervision	27.78	5	27.78	5	44.45	8
Fringe Benefits	38.89	7	44.44	8	16.67	3
Contingent Rewards	38.89	7	38.89	7	22.22	4
Operating Procedures	44.44	8	33.33	6	22.22	4
Coworkers	5.56	1	11.11	2	83.33	15
Communication	5.56	1	33.33	6	61.12	11
Nature of Job	11.11	2	0.00	0	88.89	16

Note. N = 18. Adapted from “Employee Voice and Job Satisfaction: An Application of Herzberg Two-factor Theory,” by Alfayad Aburumman, Zaid & Mohd Arif, Lily, 2017, International Review of Management and Marketing, 7, p 150-156.

Limitations and Future Implications

When conducting survey research, there are known limitations. The use of an investigator-developed questionnaire may raise questions of validity and reliability. Definitions and instructions could have been clearer with effective wording. The pilot study sample did not use a panel of expert researchers for descriptive testing of the survey. Although snowballing was used to reach practitioners who were not BOTA members, the primary invitation was received by BOTA members. Therefore, the results may not accurately represent non-members. Furthermore, survey research designs are descriptive and do not determine underlying causes of the variables being examined

(Matthews & Kosteiles, 2011). More qualitative information may be useful in future research to understand occupational therapy practitioners' practice in each sector and how these responsibilities and duties impact occupational therapy practice. Other trends in this practice could be presented in the questionnaire, which can be helpful data to identify considerations for decision-making and action-oriented activities (ILO, 2012), and collaborative efforts with consumers (WFOT, 2010).

Discussion

The use of an online survey allowed for twenty of the thirty-six registered occupational therapy practitioners in Bermuda (BHeC, 2017) to participate; all occupational therapist (100%) despite employing the snowballing technique. Although a large percentage of participants practiced in the community (63.16%), there were fewer in private practice (10.53%) and hospitals (26.32%). Different facilities serviced particular patients; the majority of the occupational therapy practitioners who worked in the hospital attended adults (21.05%), while community-based practitioners' focus was paediatric care (31.58%). This reflected that the majority of paediatric occupational therapy care were offered in the community.

The survey results indicated that all participants were initially registered in overseas jurisdictions. Indeed, this finding was not astonishing for an international location like Bermuda. Furthermore, over 50% of the participants acquired a degree of Master's or higher and obtained more than 10 years of experience. This demonstrated that professional practices of occupational therapy are not localised and acquired outside of Bermuda. In comparison, the results from a similar survey conducted in Hong Kong in 2004 indicated that 49.6% of occupational therapists had obtained a Master's degree or higher (Tse, et al., 2005).

Concerning the scope of this therapeutic practice, the study indicated occupational therapists utilised a variety of methods in service delivery while maintaining the core concepts of the profession. When *always* and *usually* were combined, greater than three-quarters of occupational therapists (88.89%) ideally deliver occupation-based service or service through participation in occupation indicating occupational therapy in Bermuda is based on occupation-based practice. In addition, occupational therapist demonstrated the use of theoretical frames of reference to guide service. Despite that the majority of occupational therapists working in community-based paediatrics utilised two main theories, Developmental and Sensory Integration, a variety of theories in other facilities and settings guided practice indicating a wide spectrum service and diversity in the nature of the profession.

A sense of satisfaction amongst the surveyed occupational therapist was noted. Several factors may have contributed, as was revealed by the results; nature of the job, pay, co-workers, and communication. Adversely, a significant amount of time was spent completing administrative tasks, meetings, phone calls, emails, stats, preparation, project planning, or informal CEUs where participants reported their dissatisfaction with these operating procedures.

Conclusion

This study provided supportive information related to the occupational therapy practice which was used as a baseline to explore the true representation of the entire occupational therapy workforce in Bermuda. This research revealed that the occupational therapy workforce in Bermuda was not obtained as a result of limited access. Developing surveys for establishing evidence-based research and workforce data will often address advocacy and funding, allowing for resources to become available (Blank et al., 2002). AOTA has described benefits of increased responses and unlimited access to the data received for ongoing analyses and opportunities to continue to provide its association with up-to-date information on the changing population (AOTA, 2015b). Bermuda occupational therapy practice must incorporate similar aims of the Centennial Vision and the WFOT to ensure society value and promotion of the profession through individuals, policymakers and populations (AOTA, 2007; WFOT, 2016a). The WFOT supports and encourages proposed projects and partnerships aimed to promote internationally recognised research (2016a) and states the importance of promoting the core and value of occupational therapy practice to the community, government, and non-government organisations (2010b). Through evidence-based research, trends

in the population and occupational therapy practice can be identified to prepare for society's future occupational needs, guide challenges with change, and provide opportunities for the profession (AOTA, 2007).

A critical next step to identify challenges, changes, and trends in the Bermuda occupational therapy workforce would be data collection of workforce data and practice patterns of the profession on a regular basis (AOTA, 2015a). Stakeholders can utilise the data, along with the contribution of occupational therapy expertise with the following:

- developing and establishing competencies (OTBNZ, 2017; TAS, 2017) to improve quality of life outcomes (WFOT, 2010a);
- informing and advising consumers (OTBNZ, 2017) by advocating for client issues and raising cultural, public, professional, and political awareness (WFOT, 2010a);
- assisting in strategic planning, decision-making, or policy changes (CIHI, 2016; RCOT, 2016) to address occupational therapy practice enhancements (WFOT, 2010a).

The goal is to value and promote Bermuda occupational therapy practice of engaging in participation of the activities they value and ensuring an individual's ability to improve one's physical and mental health, well-being, and quality of life (AOTA, 2007). We plan to expand this study by presenting to the entire occupational therapy workforce in Bermuda to gain an in-depth understanding of the profession and its services.

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