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Employee Benefits Managers' Understanding of Occupational Therapy and Their Influence on Employees' Knowledge

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Dedication

This thesis is dedicated to my grandparents, David and Verna Heiberg, and to their daughter, my mom, Laura Noble. Every step of my life and my education up to this point was possible thanks to their love, the values they instilled in me, and their confidence in me. Even though our family has always been small, and is now smaller, they gave me everything I needed to become the person I am today. David and Verna are now at rest, but the lessons they taught me and the love they gave me, through words and through example, will continue to guide me throughout the rest of my days so that I will always be a person they can be proud of. My family's love has been the greatest gift of my life, and I will always be deeply thankful for it.

Abstract

This study investigated what employee benefits managers know about occupational therapy and the influence they have on employees' knowledge of, and access to, occupational therapy services. This qualitative research focused on what employee benefits managers know about occupational therapy, how they learned what they know, how they prefer to learn about healthcare services in general, and the reasons they would or would not recommend occupational therapy services to their employees. The study included ten semi-structured interviews with ten employee benefits managers who were employed at nine different organizations. The interviews were coded and analyzed to develop categories and themes in accordance with grounded theory principles. Four primary results emerged from the data. The participants had little or no knowledge of occupational therapy. They learned about occupational therapy through informal, inconsistent methods while at their current job. The participants' preferred sources for healthcare related information; benefits brokers, seminars/webinars, and employee benefits manager-related organizations, had not provided them with any education on occupational therapy. The participants consistently reported that employee benefits managers could influence what their employees know about occupational therapy and employee access to occupational therapy services, but they did not know enough about occupational therapy to discuss it with employees. These findings can help guide future research, education, and advocacy efforts to improve stakeholders' knowledge of occupational therapy and the ability for potential clients to learn about and access occupational therapy services.

Keywords: occupational therapy, employee benefits managers, knowledge of, advocacy, education, outreach

Table of Contents

Introduction

For people to benefit from healthcare services, they must first be connected to an appropriate professional through a well-informed recommendation or referral. Occupational therapy (OT) is a form of healthcare that focuses on enabling clients to participate in roles, habits, and routines in the different settings of their lives (American Occupational Therapy Association [AOTA], 2014), often following the onset or exacerbation of an illness, injury, or other type of life-disruption. There are key stakeholders that impact whether or not a person who would benefit from OT is connected with OT services after such a disruption. However, a wealth of research has demonstrated that physicians, nurse practitioners, medical students, and other stakeholder groups who refer clients to OT often do not have an accurate understanding of the profession (Deitch, Gutman, & Factor, 1994; McGrath-Daly, 2004; Patel & Shriber, 2000; Pottebaum, & Svinarich, 2005; Warner, 2010). This can result in missed or inappropriate OT referrals. Importantly, referring healthcare professionals are not the only group that can influence who is and is not connected with OT services when warranted.

Employers who provide benefits are a significant stakeholder group whose impact on what employees know about OT, or employee access to OT services, has not been previously studied. Most Americans receive health insurance and worker's compensation coverage through their employer (Barnett & Berchick, 2017), and, as of July, 2020, approximately 143,532,000 individuals were employed in the U.S. (U.S. Department of Labor, 2020c). As a result, the healthcare coverage of many millions of Americans is connected to their employer and the benefits they provide. Employee benefits managers (EBMs) are specifically relevant in this area as they are responsible for, among other things, overseeing employee education on benefits and

managing the delivery of benefits to employees (Hurley & Thompson, 1993; U.S. Department of Labor, 2020a).

This study explored EBMs as a population that may influence what employees in the U.S. know about OT, and employees' ability to access OT services when relevant. Past research has found that stakeholder groups often lack an accurate or comprehensive understanding of OT, and this study builds upon this past research by focusing on EBMs, a previously unexamined stakeholder group. This thesis investigated what EBMs know about OT, and how they learned that information; how they learned information about healthcare services in general; and what EBMs think about discussing OT with their employees. The findings of this thesis are meant to help guide education and advocacy efforts to promote awareness of, and access to, OT services, as well as to help direct future research in this field.

Literature Review

Introduction

Occupational therapists (OTs) are present in most U.S. hospitals and also work in a variety of other settings. In the U.S., the most common practice setting for OTs is in hospitals. In 2018, there were 133,000 people working as OTs in America, and 27% of them worked in hospitals (U.S. Department of Labor, 2020b). This means that, as of 2019, roughly 36,000 OTs were working in America's 6,210 registered hospitals (American Hospital Association, 2019). OTs also work in office/clinic settings alongside other therapy professions such as physical therapy (PT) and speech therapy (26%), in schools (11%), in nursing care facilities (9%), and in clients' own homes (9%) (U.S. Department of Labor, 2020b). The work that OTs perform varies by context and by the needs of the client. They may address activities of daily living (ADLs), instrumental activities of daily living (IADLs), rest and sleep, education, work, play, leisure, and social participation (AOTA, 2014). Within the broader occupational category of work, OTs may collaborate with a client to evaluate their interests and limitations, to develop skills needed to seek and acquire employment, to prepare for and adjust to retirement, and to help them perform their current job (AOTA, 2014). In addition, OTs are involved in the rehabilitation process following injuries or the development of other medical/health conditions.

How a client is connected with OT services varies by both setting and state. As laid out by AOTA and the State Affairs Group (2020), each state's licensure law establishes the scope of practice for OT that defines what OT is, what OTs are qualified to do with clients, and any requirements necessary for a client to receive services from OTs. For example, Alabama and Kansas allow chiropractors to refer clients to OT, and Idaho and Arizona make no statements regarding any referral requirements (AOTA, State Affairs Group, 2020). Minnesota law also

makes no blanket referral requirements on the provision of OT services. However, these state-based laws are distinct from the policies of insurance companies that may have their own policies that determine what services they will cover, under what circumstances they will cover OT services, and the degree to which they will cover them.

Changes made in recent years to government-based insurance policies have impacted coverage of OT services. In February of 2018, a longstanding cap that limited outpatient therapy services billed under Medicare Part B was permanently repealed (AOTA, 2018). This change has allowed OTs to continue to provide services to clients beyond the former limit of $2,010 per beneficiary per year, provided that the services are medically necessary as per Medicare's coverage criteria. Another change came under the Affordable Care Act (ACA) which was passed in 2010. It required the Health Insurance Marketplace® and the Small Business Health Options Program, which help individuals and the employees of small business obtain health insurance, respectively, to cover a set of 10 essential health benefits, including coverage of rehabilitative and habilitative services and devices (U.S. Centers for Medicare & Medicaid Services [CMS], n.d.-b). Habilitation services help individuals keep, improve, or learn skills, particularly those used for daily living (CMS, n.d.-a). Rehabilitation services help people regain, improve, or keep skills that were lost or impaired as a result of sickness, injury, or disability (CMS, n.d.-c). The ACA requirement has specific relevance to OTs, as the OT scope of practice falls directly within these services (AOTA, 2014).

Despite the requirement that Health Insurance Marketplace® and Small Business Health Options Program plans include coverage for rehabilitative and habilitative services, specific information about this coverage is not always accessible to consumers. According to the AOTA, in 2016 only 19% of the Summary of Benefits and Coverage (SBC) documents, which individual

states produce to allow consumers to compare available Health Insurance Marketplace® plans, included fundamental information about OT coverage (Hooper, 2016). Based on these findings, the AOTA advocated for changes to the SBC to the U.S. Departments of Labor, Health & Human Services, and Treasury and to a National Association of Insurance Commissioners subgroup, all of whom were responsible for forming and revising the SBC template and guidelines. As a result, changes were made to the SBC that instructed states to include information on OT, and any quantitative limits on OT services under the Rehabilitation and Habilitation sections, starting in 2018.

Due to the breadth of services OTs provide, the variety of settings they work in, and the various regulations that obtaining OT services are subject to, many studies have been conducted that examine what different stakeholders know about OT services, and what influences they have on OT practice. Stakeholders include consumers, medical professionals qualified to make referrals, legislators, and insurance providers, as well as nurses, teachers, and others who work alongside OTs.

Past Research on the Understanding of Occupational Therapy

There is a significant existing body of research that examines the understanding of OT held by different stakeholder groups. The studies focus on what areas of practice different groups associate with OT, how useful they perceive OT to be, and how they learned what they do know about OT. An understanding of outside perceptions of OT can reveal misconceptions and gaps in knowledge that should be addressed by the profession and can also identify which groups education and advocacy efforts should be directed towards. As previously described, some states legally require a referral from a designated medical professional prior for the provision of OT services, which makes the knowledge of OT held by those practitioners especially important.

Multiple studies have been conducted that specifically examine what referring medical practitioners know about OT, and these studies have often identified similar issues in how OT is perceived, learned about, and utilized.

Research on referring professionals' understanding of occupational therapy.

Research has demonstrated that referring professionals often have limited formal education on OT and limited understanding of OT practice. A thesis that interviewed six physicians from four different specialties and general practice found that the participants gained their knowledge of OT through observation of and experiences with OT, and not from their formal education (McGrath-Daly, 2004). The study's participants had a general understanding of OT, but their view of the scope of OT practice was limited primarily to ADLs related to dressing, grooming, and hygiene. The participants did not associate OT with any domains beyond musculoskeletal function. This finding was also identified in a study on medical residents. Deitch et al. (1994) found that medical residents who reported possessing knowledge of OT primarily received information on it through informal personal contacts and secondary sources, such as direct contact with OTs, and that classroom lectures and other formal education sources were not associated with knowledge of OT. Similarly, a study on psychiatrists found that even though 75% of the participants reported they were "introduced" to OT during their professional education, they demonstrated a highly limited understanding of OT (Pottebaum & Svinarich, 2005). Ten of the 12 participants associated OT with ADL interventions, while only four associated OT with motor skills and only one was aware that OTs address cognitive skills. These findings indicate that the participating psychiatrists' formal education on OT contained little beyond its role in addressing ADLs.

Similar trends have been found in research conducted on nurse practitioners. Warner (2010) surveyed 60 nurse practitioners in New York across a variety of practice settings. Like McGrath-Daly (2004), Warner found that the participants also primarily referred clients to OT for assistance with ADLs (85% of participants). The second most common reason for referral Warner found was for help adapting the home environment (68%). Inappropriate reasons for referring clients were also found, such as for gait training (37%), neck pain (17%), and foot orthoses (15%). It should be noted that addressing gait patterns is within the OT scope of practice, specifically regarding their role in daily life activities (AOTA, 2014), the AOTA reports that gait training is a practice area that is primarily the domain of PT and not OT. As such, while an OT may address topics that involve gait, like a client's ability safely navigate their bathroom, a referral to OT alone for gait training would not be considered to be an appropriate referral. Altogether, in Warner's (2010) study, only an average of 53% of the respondents were able to correctly identify appropriate reasons to refer clients to OT. Additionally, Warner determined that 70% of participants did not learn about OT in their graduate program, a finding that mirrors those made by McGrath-Daly (2010) and Deitch et al. (1994). Warner also found that 54% learned about OT through an acquaintance, such as working with an OT (42%), and that 20% had not learned about OT at all. Fifty percent of the participants felt that they had sufficient knowledge of OT to make referrals, and 50% did not.

Warner's study in 2010 followed a previous study by Patel and Shriber in 2000 that was also set in New York and conducted with nurse practitioners. Patel and Shriber found many similar trends, such as 75% of survey respondents reporting that they did not learn about OT in graduate school, and that the majority of them learned about OT through direct contact with OTs. In both studies most nurse practitioners correctly linked OT to practice settings such as hand

rehabilitation, geriatrics, pediatrics, and orthopedics, but both found that OT was often overlooked or not valued in settings that included neonatal care, cardiac units, and schools (Patel & Shriber, 2000; Warner, 2010).

One important implication that can be taken away from Patel and Shriber's 2000 study and Warner's 2010 study is that knowledge of OT can decline with time. In Warner's 2010 study, nurse practitioners' awareness of OT's role in mental health dropped by 52% from what was found in Patel and Shriber's 2000 study, and the average number of respondents who correctly identified the areas of practice for OT dropped from 83% to 53%. Since these studies were both conducted with nurse practitioners in New York they provide a clear example of how knowledge of OT can decline over time, rather than improving or even remaining the same. This highlights the importance of advocacy efforts that promote awareness and understanding of OT among referring professionals.

Between the work by Deitch et al. (1994), McGrath-Daly (2004), Patel and Shriber (2000), Pottebaum and Svinarich (2005), and Warner (2010), there is a body of research spanning 26 years that indicates that referring medical professionals receive minimal formal education on OT in their graduate programs. Instead, these students and professionals often learn what they know of OT through informal means such as personal contact with OTs. The research by McGrath-Daly (2004), Patel and Shriber (2000), Pottebaum and Svinarich (2005), and Warner (2010) also indicates that these professionals commonly have a limited awareness of OT's scope of practice, with McGrath-Daly, Pottebaum and Svinarich, and Warner identifying ADLs as the area of practice that participants connected with OT most often.

Research on medical coworkers' understanding of occupational therapy. Similar results have been found in studies that have examined both referring professionals as well as

other healthcare professionals who work alongside OTs. A study examining employees of the University of Missouri Healthcare system found that while nearly all had heard of OT and agreed or strongly agreed that it was a vital healthcare profession, they primarily associated it with ADLs (Bonsall, Mosby, Walz, & Wintermute, 2016). In the study, only 45% of participants felt they were knowledgeable about OT, 59% knew OTs work with sensory integration, 37% knew they perform splinting, and 53% inaccurately connected OT with gait training. Likewise, a recent study found that in a group of 43 medical, nursing, pharmacy, and social work students, a majority of students reported only being able to guess what OT is (Woodnorth & Davidson, 2019). The study also found that the students' clinical preceptors, who were physicians and nurse practitioners, did not utilize referrals for OT during care planning for patients. These findings indicate that the participating students did not learn about OT during their formal education, and also did not learn about OT from practicing medical professionals during their observed clinical experience. Another study at a large Midwestern university found that nursing and physician assistant students thought they knew more about OT than they did (Jamnadas, Burns, & Paul, 2002). The participants primarily saw OTs' role as addressing ADLs, but nearly all also connected it to range of motion, ergonomics, and home safety evaluations. Despite these accurate connections, the participants nonetheless saw OT as having a much narrower range of practice than it does, and a majority of the students in both groups also inaccurately connected OT with gait training.

Studies that specifically examine the people who work alongside or parallel to OTs, rather than simply referring patients to them, have found many similar gaps in these groups' understanding of the profession. In a study that specifically examined nurses and OTs in an acute care setting, researchers found that both groups demonstrated some misunderstandings of the

domains and roles that the other group performed in this setting (Loy, Micheff, Nguyen, & O'Brien, 2015). For example, one nurse interviewee did not connect OT with addressing ADLs, and inaccurately differentiated OT from PT on the basis of OTs' use of "gadgets" with patients. The researchers determined that role confusion and overlap, time constraints, personality factors, and a lack of advocacy for OT were the primary factors preventing collaboration between the professions (Loy et al., 2015). An Australian study that examined the understanding held by OTs and physiotherapists of each other's professional values found limited awareness on both sides (Aguilar, Stupans, Scutter, & King, 2014). Participating OTs self-identified 61 values as vital to their profession, while the physiotherapists identified just 5 values as significant for OT, a contrast that reflects an underestimation of the scope of OTs' values by other healthcare professionals. A study by Atwal in 2002 investigated perceptions that OTs, nurses, and care managers had of each other's professions and found that all three groups lacked comprehensive understanding of each other's roles. Each group was also often unaware of the constraints the other professions faced. A study by Cheung in 2013 that examined OT in the context of home health also found that non-OTs commonly have trouble understanding the role of OTs, which has the potential to result in missed OT referrals or OT services being used incorrectly.

However, more positive research findings exist as well. Cheung's 2013 study also suggested that OTs were viewed positively for their ability to collaborate effectively, accurately assess clients' needs, and perform rehabilitation. An Australian study that specifically focused on perceptions of the role of OT on acute medical wards found that the participating nurses, physiotherapists, and speech therapists accurately understood the OTs' current role as focused on assessing patients to ensure they could discharge safely (Kingston, Pain, Murphy, Bennett, & Watson, 2019). Some of the participants also recalled that OT used to be more involved in

conducting home assessments and rehabilitating patients, and that OT's role in these areas was important. This indicates that the participants were aware that the site's OTs were not performing their full scope of practice. It should be noted, however, that the study did not assess what its participants knew about OT beyond what was relevant to an acute medical setting, and thus the study cannot provide insight into how accurately its participants understood the full scope of OT practice.

In contrast to the findings of Cheung (2013) and Kingston et al. (2019), other studies have found negative views of OT held by healthcare team members. A study on the perception of OT held by nurses in Australian inpatient mental health services found that the nurses felt their own understanding of OT was inadequate, that misunderstandings occurred between the groups, and that OTs were not viewed as integral team members (Smith & Mackenzie, 2011). Some nurses felt that OTs were valuable as a pair of extra hands rather than for any specialized skill sets. Another Australian study examined this subject in the context of community child and adolescent mental health services (Henderson, Batten, & Richmond, 2015). The participants included social workers, psychologists, psychiatrists, and nurses. Again, the participants had a general limited understanding of OT, but their perception of OT was influenced by prior experiences. When OT was previously established as a part of a multidisciplinary team, the members viewed it as integral to the team's outcomes. The participants who did not have prior firsthand experience with OTs as team members were unsure of what benefits OT could offer (Henderson et al., 2015). This finding may seem to contradict the previously described studies in which healthcare employees were found to lack a comprehensive or even cursory understanding of OT, despite working together in the same practice setting. However, the other studies did not

examine how closely other the professions had worked with OTs in the past (Aguilar, et al., 2014; Atwal, 2002; Loy et al., 2015).

Each of these studies provide information on a specific population of medical professional, and in doing so also contribute to a collective body of research that helps to establish larger trends in how OT is understood across multiple populations and settings in the realm of healthcare. Perhaps the most frequently occurring finding is that OT is most well-known for addressing ADLs, which has been found in groups ranging from psychiatrists to nursing students (Bonsall et al., 2016; Jamnadas et al., 2002; McGrath-Daly, 2004; Pottebaum & Svinarich, 2005; Warner, 2010). OT is commonly perceived to have narrower practice lines than the reality, while gait training is a specific practice area that OT is often associated with despite it being more appropriate for PT (Bonsall et al., 2016; Jamnadas et al., 2002; Warner, 2010). There is minimal education on OT within the curriculums of other healthcare professions, which often results in knowledge of OT coming from informal means such as direct contact with OTs (Deitch et al., 1994; Jamnadas et al., 2002; McGrath-Daly, 2004; Patel & Shriber, 2000; Warner, 2010; Woodnorth & Davidson, 2019). None of the studies discussed found that OT was consistently and comprehensively understood by fellow healthcare professionals. This lack of accurate understanding of OT can result in missed referrals, inaccurate recommendations, and limited opportunities for OTs to implement their full scope of practice.

The understanding of occupational therapy in non-English-speaking countries. Research has also been conducted on the understanding of OT held by medical personnel in countries whose primarily language is not English. A study conducted on final-year health sciences students at Kuwait University in Kuwait found that while 94% of radiologic science students reported having knowledge of OT, only 17% of medicine students did (Alotaibi,

Shayea, Nadar, & Tariah, 2015). Alotaibi et al. (2015) found that only 28.1% of students learned about OT from their academic program, a proportion that closely matches the 25% to 30% of nurse practitioners in New York who reported learning about OT in their graduate programs (Patel & Shriber, 2000; Warner, 2010). Another study conducted in Kuwait tasked health professionals and educators with identifying whether or not OT was involved in 14 different OT practice areas, and on every item more participants were wrong than were correct (Alotaibi, Manee, Murphy, & Rassafiani, 2019). A study conducted with Nigerian medical and health sciences undergraduates found that 80% of participants were aware of OT, with less than 40% having good knowledge of OT and over 60% having moderate to poor knowledge of it (Olaoye, Emechete, Onigbinde, & Mbada, 2016). A study set in Jordan found that among physicians, nurses, and PT from two hospitals, 20% of respondents had not heard of OT before, and only 58% believed that OT positively benefited patients' lives (Tariah, Abulfeilat, & Khawaldeh, 2012). Another study from Jordan conducted with a broader group that included healthcare personnel, clients who had received OT, and members of the general population found that 76% of the participants had poor knowledge of OT, no knowledge about it, or were not aware of it (Darawsheh, 2018). These studies consistently indicate that, on a global level, healthcare professionals are not formally taught about OT and often possess limited or no knowledge about OT.

International research has also tied limitations in understanding of OT to limitations in referrals made to OT services. A study based in Mekkah, Saudi Arabia found that healthcare professionals (physicians, nurses, physical therapists, and social workers), when assessed on their knowledge of OT, had a mean score that fell into the category of "no or poor knowledge" about OT (Meny & Hayat, 2017). Additionally, 84% of the study's physicians reported that they

did not refer any patients to OT. Similar results were found in a study of medical practitioners in South India, in which 68% of participants reported either having only heard about OT or not being unfamiliar with it, and 68% of participants also reported that they had never referred a patient to OT (Mani & Velan, 2020).

There is a substantial body of research on the understanding of OT that spans the globe and indicates that the issues surrounding the knowledge of OT held by healthcare students and practicing professional are present on a global basis. Of the studies described in previous sections, one has been set in Britain (Atwal, 2002), one has been set in Nova Scotia (Cheung, 2013), and three have been set in Australia (Aguilar et al., 2014; Kingston, et al., 2019; Smith & Mackenzie, 2011). These studies, together with studies set in non-English-speaking countries (Aguilar et al., 2014; Alotaibi et al., 2015; Alotaibi et al., 2019; Atwal, 2002; Cheung, 2013; Darawsheh, 2018; Mani & Velan, 2020; Meny & Hayat, 2017; Olaoye et al., 2016; Smith & Mackenzie, 2011; Tariah et al., 2012), indicate that shortcomings in healthcare professionals' understanding of OT is a global issue, rather than one that is limited to the U.S.

Non-Medical Personnel's Understanding of Occupational Therapy

While studies on the understanding of OT have been conducted extensively on fellow medical professionals, these studies have also been conducted on other important groups. The three main additional groups are teachers who work alongside OTs, individuals and families who have received OT services, and the general population.

Teachers' understanding of occupational therapy. Research has been conducted to understand how OT is viewed within the context of schools. In this practice setting, OTs work as part of a multidisciplinary team with teachers and other contributors to support children with disabilities in both academic and non-academic areas (AOTA, 2010). Thus, the understanding of

OT that teachers hold has an influence on the success of OTs' and the overall team's efforts. One study found that while a majority of participating teachers (77%) saw OT as a valuable component of the Individualized Education Program (IEP) team, the teachers reported feeling that OTs' involvement was limited in strength (Benson, Szucs, & Mejasic, 2016). However, in the study most participants attributed this shortcoming to contextual barriers such as the OTs having a high caseload.

However, a scoping review of six articles, which did not include the previous study, found consistent reports of a lack of knowledge of OTs' role by teachers, and frequent surprise over their scope of practice in school settings (Truong & Hodgetts, 2017). Similarly, one recent study found that 56% of the participating teachers reported that they did not understand the services that OTs can provide in schools, despite nearly every teacher reporting that they valued or highly valued school OT services (Bolton & Plattner, 2020). The OTs in the study reported that they rarely or never received referrals from teachers to address social interactions, life skills, or navigating lunchroom, bus, or general school environments. A study on teachers' awareness of OTs' ability to address fine motor difficulties set in Australia found a lack of awareness regarding this specific practice domain (Jackman & Stagnitti, 2007). Based on the recognition that a collaborative approach is important to the success of the team's efforts, an evidence-based project was implemented and evaluated to help increase awareness of school-based OT services and encourage collaboration (Christner, 2015). Christner's project is an example of how research in these fields has enabled the production of intervention methods regarding OT awareness.

Clients' and their families' understanding of occupational therapy. Research done on the clients of OT services, and their families, is important as it helps to establish the perceived efficacy of OT services, and in what specific ways OT was found to be or not be beneficial. An

example of this research can be found on the specific topic of OT in palliative care. In this setting, OTs work as part of a multidisciplinary team to help the client participate in daily routines and activities that are meaningful to the client, ranging from ADLS such as getting dressed and eating to participation in leisure activities (AOTA, 2015). Research by Marston, Agar, and Brown in 2015 demonstrated that OT was perceived by caregivers and clients as enabling the client to discharge home from an inpatient palliative setting. However, the researchers also found that the clients viewed the assistive technology provided by OT as less helpful than their caregivers did, and that the participants were unsure of who within the discharge team they should direct their questions to. Ivy (2016) found that after receiving OT as a part of their palliative care, all study participants identified that their session was beneficial and "worth it." As prior research has demonstrated that OT's role in palliative care is not adequately utilized nor consistently understood (Halkett et al., 2010; Keesing & Rosenwax, 2011), this research both enables the profession to improve itself through feedback and enables OT practitioners to provide empirical evidence to advocate for retaining and expanding OTs' involvement in palliative care.

The general public's understanding of occupational therapy. Research has also been conducted on the understanding of OT held by the general public. Rahja and Laver (2019) used an online survey to collect 1004 responses from the public to assess what the general population of Australia knew about OT for older adults. They found that only about 10% could provide a good or advanced description of OT, over 50% reported having some limited knowledge of it, and 33% said they had no knowledge about OT at all or did not answer the question. The half of participants who had some knowledge of OT tended to broadly describe it as addressing either general health, physical movement, or workplace related treatment.

Other studies have also aimed to both assess and apply efforts to increase awareness of OT in the general public. Two examples were connected to educational expositions aimed at school-aged children (Mu, Royeen, Paschal, & Zardetto-Smith, 2002; Royeen, Zerdetto-Smith, Duncan, & Mu, 2001). These studies found that while few of the children claimed an understanding of OT and almost none could say what OTs do, following the intervention, roughly 75% reported some understanding of OT. Similar to Christner's 2015 project and study, these efforts were founded on the body of research that informs OTs of what is known and understood of their profession, and were implemented to advocate for and advance the knowledge held of OT by those outside the profession.

It is worth noting that these studies comprise a more recent and primarily Western examination of the understanding of OT. In order to present contemporary research, this literature review did not include a number of articles addressing this subject that were conducted in the early 1990s and 1980s.

Employee Benefits Managers: Who are They?

The research described in the preceding sections establishes the breadth and value of efforts taken by those within the field of OT to uncover and understand what is known about the profession. Despite the numerous studies that have been conducted, this field of research has not been exhausted. EBMs are one group whose understanding of OT has the ability to influence the field of OT, and who have not been previously studied.

Not all individuals who act as an EBM have EBM as the title of their job. EBM is one of the variations in job titles that describes the same overall profession. Other terms for this position include benefits manager (Davidson, 1997; U.S. Department of Labor, 2020a), human resources manager, personnel manager (McFarland, Lierman, Penner, McCamant, & Zani, 2003), and,

specifically regarding Fortune 500 companies, senior benefits managers, director of health benefits, director of compensation, and vice president of human resources (Maxwell & Temin, 2003). The title of EBM is used in this thesis as a blanket term for these, and potentially other, professional titles.

EBMs play an important role in managing the benefits of an organization and communicating benefits to employees. EBMs are broadly responsible for making or helping make decisions about health insurance for an organization (McFarland et al., 2003). The specific responsibilities of EBMs include administering their organizations various benefits programs and insurance policies, selecting vendors and health plans, managing enrollment, monitoring claims and use data, developing plan design proposals and revisions, managing the delivery of benefits to employees, and overseeing employee education on benefits (Hurley & Thompson, 1993; U.S. Department of Labor, 2020a).

Employer-based health insurance is specifically relevant to healthcare providers. Among those in the U.S. who had health insurance in 2016, 55.7% received their coverage through an employer (Barnett & Berchick, 2017). This makes employer-based health insurance the primary source of health insurance for Americans. In the introduction of this thesis, the ACA was identified as a noteworthy recent influence on the access that many individuals have to OT services. However, the federally designated 10 essential health benefits that individual and small-group health plans in the Health Insurance Marketplace® must cover do not apply to employers who are self-insured and pay for employee healthcare costs directly (CMS, n.d.-d). As such, the individuals, such as EBMs, who help to manage and inform employees of health insurance coverage have an influence on whether or not employees are connected with various healthcare services.

Research Conducted on Employee Benefits Managers

The relevancy of EBMs in the areas of health insurance and access to care has been illustrated by prior literature. Davidson (1997) described a multidisciplinary forum held to discuss current practices for treating type II diabetes in Texas. The article identified EBMs as being responsible for staying informed on topics such as preventative care services, coverage for diabetes services, treatment standards, and treatment goals and their associated costs. Davidson (1997) stated that when employers are uninformed on diabetes treatment, employees are more likely to be unaware of their benefits and less likely to seek necessary medical care. Comparably, Chwedyk (2004) described how, based on a survey conducted by the Washington Business Group on Health, now called the National Business Group of Health, the organization found that there was minimal awareness of the healthcare disparities experienced by racial minorities in American. The group issued recommendations, such as selecting insurance plans that include minority physicians in their provider networks, in order to help address these disparities. The articles by Chwedyk (2004) and Davidson (1997) indicate how EBMs' lack of awareness on aspects of healthcare services and healthcare needs can detrimentally impact employee health.

The literature also shows the importance of EBMs in the area of behavioral healthcare. McFarland et al. (2003) found that EBMs had less confidence in the providers of alcohol/drug treatment and mental health treatment than they had in other types of healthcare providers. The authors concluded that EBMs need "considerable education about the value of treatment for people with addictive disease" (McFarland et al., 2003, p. 27). This research parallels educational articles that were written for EBMs to provide information and statistics on substance abuse, the impact of addiction, and the utilization of mental health and addiction services (Pflaum,1992; Poznanovich, 2012). The same articles also recommended EBMs control

costs by encouraging the use of outpatient services over inpatient services, promoting an internal atmosphere that reduces stigma around addition, publicizing treatment resources through Employee Assistance Programs, and more (Pflaum,1992; Poznanovich, 2012).

The literature also demonstrates what EBMs prioritize when managing healthcare benefits, how they obtain information, and what influences their decisions on benefits. Two studies have found that EBMs did not use outcome quality measures to assess health plans, and instead relied on consultants to assess and monitor clinical outcome quality while EBMs themselves focused on process measures such as types and number of complaints, employee satisfaction surveys, and customer service (Maxwell & Temin, 2003; Thompson, Draper, & Hurley, 1999). Hurley and Thompson (1993) found that the degrees of specialization and compartmentalization of benefits management is influenced by company size and the degree to which their workforce is concentrated or dispersed. In fact, during the 1990s employers decreased their contributions to covering employee and family health insurance, increased employee cost responsibility, increased employee choice in health plans, and increased use of managed care plans (Thompson et al., 1999). In addition, when large corporations had EBMs with backgrounds in finance, those corporations better controlled costs, such as having lower rates of premium increases, than companies who had EBMs with traditional HR backgrounds (Briscoe, Maxwell, & Temin, 2005). Collectively, these articles clearly illustrate that EBMs are a group that has influence on their employees' benefits.

Conclusion

The current body of research on the understanding of OT held by outside groups lacks explorations of potentially influential stakeholders. The three basic groups that have been previously studied are professionals who make referrals to OT, professionals who work

alongside OTs, and clients who have or may receive OT services. Individuals and groups who do not fit into one of these categories can still influence who can access OT services. For example, when a person is sick or injured there may be individuals within their company who has an influence on what therapy services the employee is connected to. The current literature does not address what is known regarding how employers and insurers stay informed about OT and what is passed along to employees regarding OT services.

Education and advocacy efforts by OTs need to be guided by research and accurate information. Targeted efforts can help to increase the number and relevancy of referrals made to OT, improve access to OT services at insurance and legal policy levels, increase client awareness and intentional pursuit of OT services, and more. This thesis investigated how EBMs fit into this complex system by assessing what EBMs know about OT, how they learned what they know about OT, and what kind of influence their knowledge has on what their employees know about OT, or their access to OT services.

Research Methodology

Thesis Research Goals

The purpose of this thesis was to discern basic information on EBMs' knowledge of OT, and the amount of influence they have on what their employees know about OT or their employees' ability to access OT services. To address these topics, the study focused on answering three specific questions:

- What is the understanding that EBMs have of the profession of OT?
- How have EBMs gained the knowledge of OT they possess?
- Under what circumstances do EBMs help connect employees with OT services?

Other questions of interest were how EBMs prefer to learn about healthcare services in general, how EBMs understand the differences between OT and PT, how employees at their organization are informed of their benefits, and more. The responses to these questions are intended to help inform and guide future research and advocacy efforts that can increase awareness of OT among groups who are influential within an employer-based health insurance system. This thesis focused specifically on how EBMs' knowledge may impact employees' awareness and use of OT services. Other affected parties, such as the dependents of employees who may benefit from OT services, are not addressed by this thesis.

Methodology

Principles of grounded theory were used during the development of the thesis to guide the collection and analysis of the data. Grounded theory is a methodology for conducting qualitative research that focuses on developing theories from the data that is gathered, thus minimizing the impact of preconceived ideas on the outcomes of the research (Strauss & Corbin, 1998). As no prior research had been conducted on the thesis topic, the researcher and thesis advisor decided

to use an approach designed to minimize the influence of biases and assumptions, in order to allow the data itself to guide the findings. This was an important consideration because past research has consistently shown limited understanding of the OT profession among those whose work with OTs or refer others to their services, as described in the preceding section. Use of grounded theory methodology helped minimize potential influences from the findings of related past research, which was necessary to conduct unbiased research with a population whose understanding of OT had yet to be investigated. The study was approved by the St. Catherine University Institutional Review Board in July of 2018 (see Appendix A).

Sample

The target population was EBMs at organizations with 100 or more employees, headquartered in Hennepin or Ramsey county in Minnesota. The researcher chose this organization size based on the assumption that companies with over 100 employees would likely employ an individual specifically to oversee benefits offered to employees. The researcher purchased a customized Minnesota Business Snapshot list from the Office of the Minnesota Secretary of State to identify qualified organizations. This information was purchased due to difficulties with identifying eligible organizations and arranging interviews through publicly available online information. The document provided the names of all businesses located in Hennepin and Ramsey counties, and the category of full-time employees each business has (0-5, 6-50, 51-200, 201-500, or over 500 employees). The researcher prioritized businesses with 201-500 or over 500 employees to ensure they met the criteria of the study.

The researcher looked up eligible organizations online to obtain either an email address, a webpage through which a request for information could be submitted, or a phone number through which the organization could be contacted. A sample template frequently used to contact

organizations is provided in Appendix B. The researcher contacted a total of 162 organizations, and ultimately conducted ten interviews with individuals who were employees of nine different organizations. Eight participants were female, and two were male. All participants were Caucasian. The participants had worked with employee benefits for an average of 15.2 years and had been with their current organization for an average of 13.3 years. Additional demographic information can be found in Appendix C.

Table 1 provides the specific job titles of the participants and basic information about their organization. As Table 1 shows, most participants have distinct job titles, and the exact roles of the participants varied at each site. However, each participant identified themselves as having a direct role in managing employee benefits, overseeing benefits, or communicating information on benefits to employees. Brief summaries of their job responsibilities, as described by each of the participants, can be found in Appendix D.

Instrument

The researcher and thesis advisor used grounded theory principles to help develop the interview questions. They chose a semi-structured interview format to gather information from participants in accordance with the qualitative nature of the research and a lack of prior research on the specific topic of the thesis. Fifteen interview questions were developed prior to the interviews and used in each interview to guide discussion. The researcher used additional questions to clarify statements from participants and gather supplemental information on potentially relevant topics brought up by participants. The interview questions were adjusted once during the data collection phase to add a dedicated question on the total number of benefits-eligible employees at each organization. The initial set of pre-determined interview questions can be found in Appendix E, and the final set of questions can be found in Appendix F. To help

ensure that the information obtained during the interviews reflected participants' day-to-day knowledge of the topics of interest, participants were not provided with a copy of the questions in advance.

Table 1

Participants' Organizational Demographic Information

Participant	Job title	Organization (NAICS code)	Number of benefits-eligible employees
1	Environmental health and safety manager	Real estate rental and leasing (code 53)	600
2	Associate director of compensation and benefits	Educational services (code 61)	N/A
3	Director of human resources	Construction (code23)	280
4	Vice president of human resources	Manufacturing (codes 31-33)	330
5	Total rewards analyst	Professional, scientific, and technical services (code 54)	600
6	Chief financial officer	Manufacturing (codes 31-33)	255
7	Human resources director	Retail trade (codes 44-45)	400
8	Human resources supervisor	Other services (except public administration) (code 81)	190
9	Human resources director	Wholesale trade (code 42)	750-800
10	Benefits specialist	Wholesale trade (code 42)	750-800

Note. The Organizations' NAICS Codes were obtained from the Minnesota Business Snapshot purchased from the Office of the Minnesota Secretary of State.

Interview Process

The researcher scheduled interviews based on the availability of the participants and conducted the interviews at their place of business. All interviews took place in person. After meeting, and prior to initiating the interview, the researcher provided the participants with an informed consent form. The consent form was reviewed with participants, two copies of the form were signed and dated by both the participant and the researcher, and each party kept one of the signed consent forms for their records. A copy of the informed consent form can be found in Appendix G.

During the interviews, the researcher wrote memos of observations, potential topics of interest, and other relevant details of the interviews. Audio of the interviews was recorded on the researcher's personal, password-secured cell phone. The audio was transcribed to a text format using Dragon NaturallySpeaking 12 Home software, to expedite the transcription process. To ensure transcription accuracy, the audio of the interviews was played back, often multiple times, to correct errors and revise the text as appropriate. Identifying information, such as organization names, was removed from the transcripts to protect the participants' identities.

The interview transcripts were labeled according to the order the interviews occurred in, and a single written key was developed that identified the transcript with the specific organization the participant was a member of. The key was kept in a locked filing cabinet in the office of the thesis advisor. Participants were provided with a copy of their interview transcription via email to review for accuracy. No participants requested any changes to the transcripts.

Data Analysis

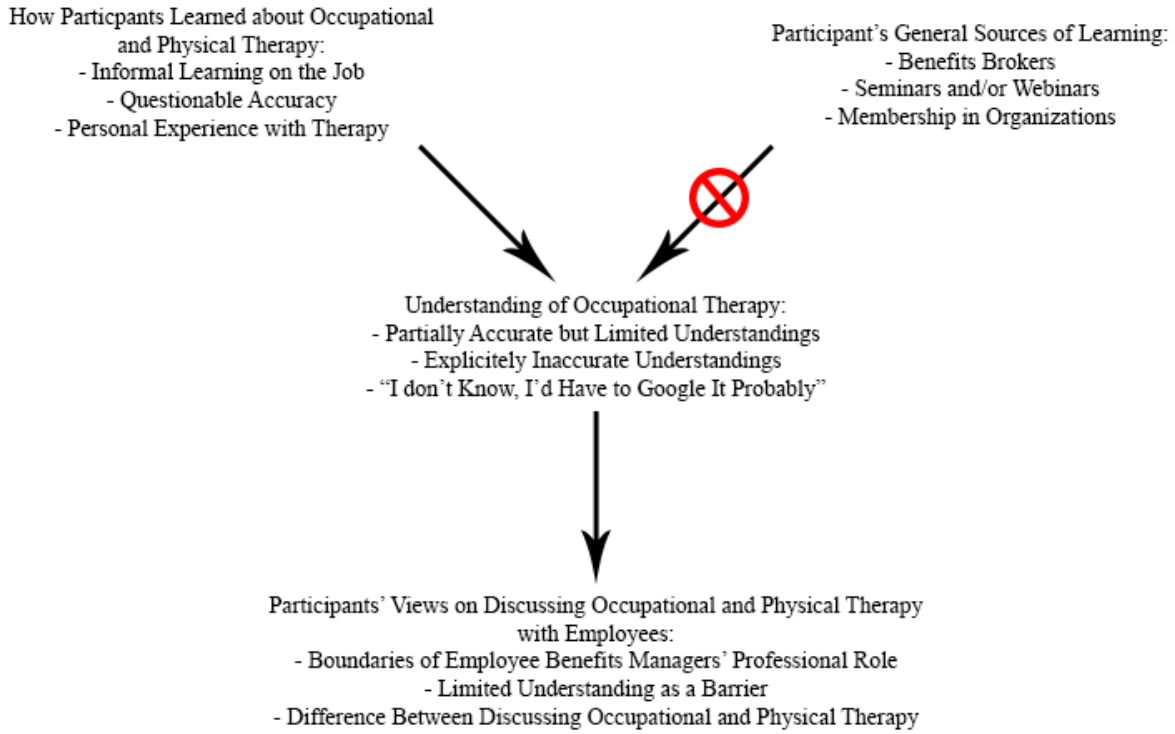
After the transcription of the interviews was completed, the researcher and faculty advisor independently coded the content using the NVivo 12 program and an open coding approach, in line with grounded theory. Open coding is a process of analysis intended to discover concepts and their properties in the data, in which codes are the individually meaningful pieces of information (Strauss & Corbin, 1998). The quotes of the participants were segmented into distinct codes. The researcher and the thesis advisor completed this coding process independently. During the coding process, in accordance with the grounded theory approach, potential categories, subcategories, and general observations were continuously noted as they were observed in the data. Categories are abstract groupings of related codes, such as similar actions, objects, or occurrences (Strauss & Corbin, 1998). Following the completion of the coding process, the researcher and the thesis advisor discussed the categories/subcategories that had been found in the data, and identified the larger themes and subthemes that had emerged. These findings will be discussed in the following section.

Results

Four main categories related to the understanding of OT emerged from analysis of the data. These main categories are (1) participants' understanding of OT, (2) how participants learned about OT and PT, (3) participants' general sources of learning, and (4) participants' views on discussing OT and PT services with employees. Figure 1 helps illustrate the relationship between these categories.

Figure 1

The Relationships Between Results Categories



All the participants reported that they are involved in the communication of information on benefits to employees. This topic was necessary to explore in order to determine the participants', and EBMs' in general, capacity to educate employees on benefits and therapy services. Directly answering employee questions about benefits or accommodations, educating or

supervising other individuals who directly talk with employees about benefits, and designing regular emails or newsletters on benefits were roles that more than half of the participants reported holding. One EBM reported, "I'm involved in selecting the benefits that we offer and designing the communications around that and delivering a lot of communications to employees about what their benefits are and how they can access them." The participants reported that they communicate with employees through paper and online materials, a website, open enrollment meetings, weekly newsletters, and other means. Some participants indicated that they had a more frontline role, such as, "I work with employees on any questions they might have on our benefits that are offered. So, I'm the point person for any questions." Each of the EBMs also indicated that they have multiple roles in educating employees about benefits, or multiple avenues for communicating benefits information to them.

Understanding of Occupational Therapy

Each participant communicated what they understood about OT, and also how they understood OT and PT to differ. and their understanding of what OT is fell into three basic subcategories. Some participants had reasonably accurate but limited knowledge of what OT is, some had inaccurate understandings of OT and PT, and some said that they did not know, avoided answering the questions, or explicitly guessed.

Accurate but limited understandings. Accurate but limited understanding of OT included associating OT with upper body rehabilitation, return to work following injury (such as in workers' compensation cases), mental health, hand therapy, and workspace redesign. One participant stated, "I think it's a key element in anybody's return to work, dependent upon the nature of the injury," and, "You know they tend to focus more on… on the arms, the hands, and the fingers." As many OTs work with upper body impairments this impression is accurate but

highly narrow. This same participant also stated, "I'm aware of the services that are offered, but how they do the services, I don't," conveying that they felt able to describe what OTs address but not any of their methods. Only one EBM connected OT with mental health; however, they found it difficult to provide any specific information. They stated, "I would say occupational therapy is… is more along the lines of our health and um… whether it would be mental, or… not necessarily financial, but… more so encompassing other than a specific physical injury." Workplace ergonomics was linked to OT by two participants, one of whom reported, "They gave us some advice about how things were laid out. Like they had some occupational therapists tell us, you know, 'You should move these workspaces in different ways, so that they're better laid out for people.'" Altogether, three of the ten participants were able to provide a description of OT that was partially accurate and within the scope of OT practice. It should be noted that none of the participants connected OT with ADL interventions, the practice domain which OT is connected to most often by healthcare practitioners.

Additionally, only two participants provided somewhat accurate descriptions of the differences between OT and PT. One EBM stated,

> My sense is that occupational therapy is pretty broad, where physical therapy is more limited, and maybe that means in some ways more specialized, but my assumption would be occupational therapy, you could help in a lot of different ways and it's very, it's very practically based on what people need to do to live a full life as opposed to physical therapy which again would be focused on physical movement only.

This description accurately reflects OT's scope of practice; however, it lacks any specificity that would indicate a comprehensive understanding of what OT interventions can entail. A second reasonable representation of the professional distinction was provided by an EBM who stated,

"Physical therapy is more of the lower body. Occupational therapy is more of the upper body." This response, while confidently worded, is a highly simplified way of differentiating OT and PT that limits the scopes of both OT and PT. One participant who was able to provide a partially accurate description of OT was not able to describe how OT different from PT.

Explicitly inaccurate understandings. Other EBMs provided descriptions of OT that were explicitly inaccurate. Two participants tied OT to career counseling or assistance with finding employment. A participant stated the following:

> You know…occupational therapy I have a few different… depending on the person, different ways you could view it. I know I do have; I have worked with some occupational therapists helping people decide what they, the career path they want to go.

Another participant correctly reported that OT is involved in addressing workplace ergonomics, but also erroneously linked OT to drug screening: "I can tell you one of the things we've looked at with [a local clinic] for occupational therapy, is one of the drug testing programs." These participants attributed practices to OT that are generally outside of the OT scope of practice.

In two instances, participants attributed practice domains within OT to PT instead. Not only were ADL interventions not connected to OT by any participants, the only participant who mentioned ADL treatment connected the practice to PT, rather than to OT: "Physical therapy is getting you rehabilitated to get back into your daily living skills, and activities that you like to do if you've had an injury." Similarly, only two participants brought up the practice domain of mental health interventions, with each participant attributing its practice to different professions. One participant, as previously quoted, stated that OT could be "mental" and "more so encompassing other than a specific physical injury." In contrast, another EBM stated, "I would say physical therapy could be um… I would say that it could actually be mental or physical."

Whether or not hands-on intervention was involved in OT was another reoccurring source of misconceptions. This sentiment was clearly communicated by one EBM:

> I don't know if the occupational therapist puts hands on a person or not. I don't know that. […] Occupational therapists I think is more directing the care than physically doing it, but I don't know that. That's just a guess on my part.

This participant was also familiar with qualified rehabilitation consultants (QRC), and the work of occupational health physicians, but struggled to identify who OTs are or what their distinct role is. Two other participants implied they thought there was a similar distinction between OT and PT in how they defined PT specifically. As one participant described PT in contrast to OT, "Physical therapy is where they're actually going for treatment on their body part." The participant choosing to say that PT "actually" involves treatment suggests the participant believes that OT does not usually involve hands on interventions for clients.

"I don't know, I'd have to Google it probably." Roughly half of the participants reported having no clear idea of what OT was. When prompted to describe OT, one participant responded, "Occupational therapy, I'd be very vague I would say. I don't know, I'd have to Google it probably." Other participants were able to provide fairly reasonable and broad descriptions of OT, but they acknowledged that they were largely inferring what OT was based on the name and context of the discussion. As one EBM said regarding what OT is, "Uh, I would be honestly taking a guess. Of people going to get, going to get medical help that helps them to do their job?" While not inaccurate, descriptions of OT such as this lack any specific information about OT that could not be extrapolated based on the title of the profession.

Likewise, some participants straightforwardly reported that they were not sure how OT and PT differ from each other. One participant laughed when asked about this topic, then stated,

"Oh, you know what? I don't think I can answer that." Other participants, again, indicated that they were guessing at how the two professions differed, often based on the names themselves. "I don't know. [Laughs] I mean I guess I think about it as kind of like physical therapy, maybe more related to your job, perhaps?" said one participant, regarding the OT scope of practice. On this same topic another participant stated, "Well, I mean I guess just by the title. I would just, I don't know, I would assume that the occupational therapy is really more focused on your particular job or getting you back into the workforce, but I don't know." As such, participants who indicated they were guessing about how OT differed from PT primarily assumed that OT was related to employment and returning to work.

How Participants Learned About Occupational and Physical Therapy

How the interviewed EBMs learned what they knew about OT and PT was also of interest, and they consistently reported learning about OT and PT from informal sources. Most learned about OT and PT during the course of their current job's responsibilities, and half reported learning about PT through personal experiences with it.

Informal learning on the job. Informal learning that occurred during the course of their current job was the most common way participants reported learning about OT and PT. Some participants knew employees who had received services directly. One EBM reported, "For occupational therapy, it was a um, it's a, well the most recent one was a hand injury. And um… for them to get full mobility back in the use of their hand, they utilized occupational therapy." Another stated, "I mean I've talked to hundreds of employees I know have had physical therapy, so yeah." One participant reported having learned of OT through doing research on behalf of employees: "I would say I've looked up minimal stuff about when people have had questions about what our health plans offer." Another EBM, who was previously quoted regarding their

familiarity with OT's role in ergonomics, stated that their office "had some occupational therapists come and do some reviews of some of our work." In total, six participants reported they had encountered OT through informal but professional means such as these, and eight reported they had learned about PT this way.

Questionable accuracy. However, it was not consistently clear whether or not participants who reported having encountered OT through their current professional role were correct in who they believed were OTs. One EBM reported having interacted professionally with OT in the context of a drug screening program, which is outside of the OT scope of practice. Another participant described OT practice, and how they learned about it, in the following way:

> Occupational therapy, that is, in my understanding, is when… an injured worker… The times I've seen it used would be in a work comp injury where they're trying to bring an employee back to work. So, it might be providing them with different type of job, not so much skills, but just assistance with the pieces of it.

During the interview, this participant also erroneously stated, "I mean [OT] could be helping them in seeking new employment. It could be in, you know, if it's pieces such as helping them refresh a resume." While OTs do work with injured workers, the roles this participant described may be more accurately attributed to a career counselor or to a QRC. Although many QRCs are also OTs, in circumstances like the one described above the individual would be functioning as a QRC, not as an OT. Other participants as well mentioned experiences with workers' compensation cases and QRCs as a source of learning about OT or PT. As such, it is unclear if these participants understood the distinction between a QRC and an OT.

Personal experiences with therapy. Half of the participants reported learning about PT through personally attending PT sessions, while only one participant reported of having learned

of OT this way. The EBM who directly participated in OT reported, "Honestly my understanding of it has to do with personal usage more than anything. I haven't really ever studied it, but I had to do occupational therapy for some smaller hand injuries I've had." Several other participants reported knowing people in their personal lives who had attended PT or who were physical therapists, and none reported of learning about OT this way. One participant said, "I went to a university that had a physical therapy program, and I have friends from high school, college and on that have become physical therapists and I know people who have used physical therapists." This participant said they learned about PT, "[…] probably more personally than professionally." Collectively, these participants reported that they learned more about PT through their personal lives than they did during the course of their current job responsibilities.

Participants' General Sources of Learning

In addition to how EBMs learned about OT and PT specifically, the participants indicated that they learn about new and existing healthcare services in general through three primary methods: from benefits brokers, seminars and/or webinars, and through membership in EBM related organizations. Participants also mentioned other sources of information more sporadically, such as through independent online research and magazines. None of the participants reported personal experience as a preferred way of learning about healthcare services. Additionally, no participants reported that they learned about OT or PT from their preferred sources of information.

Benefits brokers. Seven of the ten participants identified benefits brokers, who help to manage contracts between employers and benefits providers, as a primary source of education for them during the course of their job responsibilities. One EBM described benefits brokers as

"a neutral party in helping us select which plans we're going to use." Another participant provided this detailed description:

> They'll analyze all your data, as far as claims etcetera that we had, and help negotiate down with carriers, "Ok, nope, we think you're a little overpriced. How about," …you know, "this is what our recommendation is," and negotiate prices for us so that we get the best deal. They also help, you know, there's probably 6-8 carriers I work with, maybe more, for all of our different benefits. It gives me one place I can contact my broker.

Several EBMs emphasized having positive relationships with their benefits brokers. Another identified other topics on which benefits brokers may provide education, stating that their broker, "will notify us of specific offerings. They will usually… they're really good at coaching us through different things, and making sure that we're aware of different… either offerings or um, government changes or anything like that." The participants made it clear that they communicated with their benefits brokers on a regular basis and frequently relied on them for information on a variety of topics.

Seminars and webinars. Seminars and/or webinars were also identified by several participants as one of their sources of information on healthcare services, which are often conducted by benefits brokers, or by EBM-related organizations. "They're typically not conferences, although once in a while there will be kind of a day-long or half-day thing that'll have multiple presentations and topics. Typically, I will pick out specific topics that I need to learn more about," said an EBM to describe information sessions hosted "by the broker themselves." One participant made it clear that the seminars they attend are often hosted by benefits brokers they are not already partnered with: "I try to get out to a number of different seminars […] Maybe it's another broker group that we're not affiliated with, but they're always

trying to get your business. They're always inviting you to different seminars." This indicates that EBMs obtain information from both benefits brokers that they are partnered with and from ones they are not partnered with. Some participants did not indicate whether the sessions or webinars they participate in are conducted by benefits brokers.

Membership in organizations. A few participants identified their membership in different organizations as a source of information for them. The Society for Human Resource Management (SHRM) was the most commonly referenced group, which three participants reported being members of. "I'm a member of SHRM, so I get their daily newsletter and so if there's anything else going on, any…legislation, pending legislation, it's there. I can read it, see what the scoop is," said one EBM. Another reported being both a member of SHRM and of the College and University Professional Association for Human Resources. A third participant reported:

> I'm a member of a local chapter for certified employee benefits specialists, and that is how I've gained most of my knowledge behind employee benefits. […] So, the acronym's CEBS. And so, they host monthly luncheons that you can attend, covering all different topics. They'll host biannual seminars, and then of course they send legislative updates.

Some of the sources of education provided by these organizations overlap with the sources of learning that other participants reported learning from on an individual level, such as seminars. What one participant may read about independently from an online news source, another participant may read about in a newsletter provided by SHRM.

Participants' Views on Discussing Occupational and Physical Therapy with Employees

One of the core intentions of this thesis was to assess why EBMs would or would not recommend OT services for their employees. Participants were asked for their views on recommending OT and PT services to their employees, and whether or not they thought EBMs, as a profession, had an impact on employee access to therapy services. The participants were evenly divided between having positive, neutral, and negative attitudes about their own ability to discuss therapy services with their employees. However, nine out of ten participants agreed that EBMs could have an impact on employee awareness of, or access to, OT services.

Boundaries of employee benefits managers' professional role. Several participants emphasized that it was the responsibility of others, primarily healthcare providers, to educate employees on any needed therapy services. An EBM stated, "I don't feel that it's my job to educate, um, an employee on, you know, what services are available to them. Because I'm not a trained medical professional. So, I rely upon the trained medical professionals to do that." There was widespread consensus among the participants that it was not within the professional scope of EBMs to recommend whether or not an employee needed therapy services. However, several EBMs reported that they can help connect employees with therapy services by providing information about available benefits, or by encouraging their employees to use their benefits. One EBM described their role in connecting employees with therapy services as follows:

> I don't know of any reason that I wouldn't recommend them. I guess I would more be in the position to say, "This is what our plan covers, and this is what we can help you with, but you would need to seek like guidance from your physician. And then we'll do our best to accommodate as you deem necessary during working hours."

Another participant stated, "Work is sometimes a purpose for people, and so getting them back at their full capacity is very important to team members and we try to coach them through that

piece." The participants who expressed a positive attitude towards discussing therapy services with employees saw their role as coaching or encouraging employees to follow the recommendations of their employees' medical providers or insurers.

Limited knowledge as a barrier. Some EBMs linked their inability to discuss OT and/or PT with employees to the EBM's own lack of knowledge about therapy services. Many participants reported that they did not know enough about OT to discuss it with their employees, a view neatly summarized by an EBM who said, "I don't think I have enough information to be a recommender of these services." Another participant stated, "Yes, it definitely could, because if I knew more about [OT], I would talk about it more to employees." One EBM emphasized that they are in a position to educate employees about OT but cannot due to their limited knowledge about OT: "I am the front line when [employees are] asking about benefits. So, if I don't know something, I'm not gonna pass it along to them." The participants consistently thought that their limited knowledge of OT restricted their ability to educate their employees about OT.

While some participants knew they lacked knowledge of OT, some other participants thought they knew things about OT that were actually inaccurate. One participant reported:

> Another case would be, and I don't know that's really, if you would call it me recommending [OT], but our work comp insurance would recommend and work with employees if their injury will prevent them from going back to a construction career, and help work with them to find a new career path then.

This participant thought that they could supplement the information provided to their employees about OT by their worker' compensation insurance company. However, this participant was incorrect in what they thought OTs do and may have provided a different answer to the question

of whether or not EBMs have an influence on employees' knowledge of, and access to, OT services if they had had an accurate understanding of OT.

Difference between discussing occupational and physical therapy. Some of the participants believed that EBMs' knowledge of PT has an impact on employee's knowledge of or access to PT services. Other participants thought that their knowledge of PT was not influential. Regarding their own influence on employee knowledge of PT, one EBM stated:

> I don't know so much about that because that seems, at least from my experience, something that is so commonplace that at least the employees I know of already are utilizing [PT] so much that I don't know that that would make much difference."

This view was shared by several participants. While nine out of ten participants agreed that EBMs' knowledge of OT could impact employee knowledge of or access to OT services, some of the participants thought that their employees were already knowledgeable about PT and PT services. These participants thought that EBMs' knowledge of OT, but not PT, could have an impact on employees' knowledge of, and access to, those therapy services.

Conclusion

Altogether, there were several general findings that emerged from the data. First, the participating EBMs had either a partially accurate understanding of OT, an inaccurate understanding of OT, or no knowledge about OT. Second, the participants exclusively learned about OT and PT through informal means, primarily while preforming the responsibilities of their current job. Third, the participants largely preferred to learn information about healthcare services through benefits brokers, seminars and/or webinars, and from EBM-related organizations. Fourth, the participants consistently reported that EBMs could influence what employees know about OT and employee access to OT services.

Discussion

Minimal Knowledge of Occupational Therapy

The results of this study demonstrated a consistent lack of comprehensive knowledge of OT among the participating EBMs. This finding mirrors the trends established by previous research regarding the understanding of OT among fellow healthcare practitioners and other relevant groups.

The current study's participants presented either an incomplete, inaccurate, or total lack of understanding of OT. The practice areas of OT that participants accurately attributed to OT included addressing upper body rehabilitation (such as hand therapy), workspace redesign, mental health, and return to work following injury. While these practice areas were correctly attributed to OT, the three participants who made these connections fell substantially short of providing a description of OT that encompassed the full scope of OT practice. Even among the participants that had some idea of what OT practice entailed, their descriptions were never comprehensive. Comparably, past research found that fellow healthcare practitioners were often not aware of OT's role in addressing practice areas such as mental health (McGrath-Daly, 2004; Warner, 2010). In the current study, several participants indicated that they were guessing as to what OT consists of, much like the healthcare students in the Woodnorth and Davidson (2019) study who primarily reported only being able to guess what OT is. The current study's findings are also similar to those of Darawsheh (2018) and of Rahja and Laver (2019), as each study included members of the general public who do not specifically work in healthcare, and both found that most participants had some limited knowledge about OT or no knowledge about it.

However, a difference between the present and past research is that limited knowledge of OT was found to be much more extensive in the current study than in previous research. The

most substantial difference is that the EBMs in the current study did not explicitly connect OT with ADL interventions. The closest any participant came to this topic was one who described OT as being "practically based on what people need to do to live a full life." While this language is a reasonable way to describe the broad intention of OT interventions, including addressing ADLs, the participant did not use the term ADLs or an equivalent phrase to directly connect their understanding of OT with ADL interventions. In contrast, previous research showed that OT was linked to ADL interventions by other healthcare practitioners more often than any other practice domain (Bonsall et al., 2016; Jamnadas et al., 2002; McGrath-Daly, 2004; Pottebaum & Svinarich, 2005; Warner, 2010). Additionally, even though the research by McGrath-Daly (2004), Patel and Shriber (2000), Pottebaum, and Svinarich (2005), Warner (2010) and others indicated that healthcare practitioners were not aware of OT's complete scope of practice, they were more likely to be familiar with at least some additional basic elements of OT practice beyond addressing ADLs than the EBMs in this study. For example, 68% of nurse practitioners in Warner's (2010) study knew that OTs address home environment adaptations, a practice domain that none of the EBMs in the current study discussed or connected to OT. Even though both the past and the current research have demonstrated a trend of other professions having limited awareness of OT's scope of practice, the EBMs in the current study demonstrated having much less awareness of OT than the professions previously studied. In the current study only three out of ten participating EBMs were able to provide even a partially accurate description of OT, which indicates that their knowledge of OT is noticeably more limited than the participants of past research.

The EBMs interviewed also made more significant errors in their descriptions of OT than the participants in previous studies. The most common misattribution made by participants in

previous studies was that OTs address gait training (Bonsall et al., 2016; Jamnadas et al., 2002; Warner, 2010), and even though a referral specifically for gait training is more appropriate for PT than for OT (AOTA, n.d.), addressing gait is not fully outside of what OT addresses. However, in the current study, several EBMs mistook OT to be a different profession in an entirely different field, a more substantial mistake. Examples were described in the Results section, with OT being described as being involved in drug testing and career counseling. While OTs may work with clients to seek and acquire employment, this is done in the context of working with a person who is ill, injured, developmentally delayed, or who has another healthcare related circumstance that warrants aid from a health professional to enable them to participate in these tasks. A few participants also incorrectly guessed or implied that OTs do not conduct physical interventions with their clients.

These findings indicate that EBMs have less knowledge of OT than groups previously studied, which is important as prior research has demonstrated that inaccurate or limited knowledge of OT can result in unwanted outcomes. For example, a nurse practitioner may mistakenly refer a patient to OT for gait training (Warner, 2010), or a referring professional may miss an opportunity to refer a patient to OT for splinting (Bonsall et al., 2016) or to address mental health (Warner, 2010). Likewise, previous literature on EBMs indicates that EBMs' knowledge on healthcare related topics, such as diabetes treatment and treatment for addiction, can influence the knowledge employees have of these services (Davidson, 1997; McFarland et al., 2003). The above findings from past research, combined with the results of the current study, indicate that employees who would benefit from OT services are unlikely to be accurately informed about their existence or availability from their EBM(s), or from the informational

sources EBMs oversee, due to the limited and something highly inaccurate understanding of OT held by EBMs.

The idea is further supported by the current study's finding that a sizeable majority of the participating EBMs believed that their profession's knowledge of OT could impact employees' general awareness of OT, and even employee access to OT services. It is worth considering that the participants who were explicitly inaccurate in their understanding of OT may have provided a different response to this question if they had a more accurate understanding of OT. However, the participating EBMs' belief that their profession could impact employee knowledge about OT was consistent and strong among both participants who had a partially accurate understanding of OT and those who were able to accurately guess a broad, reasonable description of OT. As such, the current data suggests that if participants with an inaccurate understanding of OT were provided with an accurate description of the profession, they would likely still agree that their profession can impact employee awareness of and access to OT.

The participating EBMs did not appear to be aware of the fact that healthcare professionals also often lack comprehensive knowledge about OT. Several EBMs reported that they felt it was the role of doctors and therapists to educate people on OT and PT services. However, as past research has repeatedly indicated, many healthcare professionals also do not have a comprehensive understanding of OT. This suggests that EBMs often assume that doctors and other healthcare providers know more about OT than they actually do. As a result, employees who would benefit from OT services may not be receiving relevant or accurate information about OT from two of the sources they would reasonably expect to provide them with accurate and comprehensive education—their healthcare providers who make referrals, and their employer who provides their health insurance plan and who educates them on available

benefits. Not only do EBMs have limited knowledge of OT, they are also not aware that other relevant professions have limited knowledge of OT, which may discourage EBMs from seeking out information about OT that they could pass along to their employees.

Characteristics and Impact of How EBMs Learned About Occupational Therapy

The participating EBMs' lack of exposure to OT had many consequences and implications that this section will discuss. Some of the trends found in the current study mirror those found in past research, however, as EBMs are a stakeholder group that has not been previously studied in this context, many of the findings do not have any clear points of comparison to research done on other stakeholder groups' understanding of OT.

Limited exposure to occupational therapy. In the current study, the participating EBMs indicated that they learned about OT through a narrow range of means that were inadequate to provide a reasonable understanding of what OT is. They most often learned about it through the course of their current job duties, such as looking up information in response to an employee question or working with an employee who needed therapy for an injury. However, none of the ways in which participants described learning about OT were adequate to produce even a surface-level understanding of OT and the general range of OT practice domains. Furthermore, the participants indicated that their preferred sources of information on healthcare services had not provided them with any education about OT. As a result of learning about OT through these informal means that varied from person to person, some participants fundamentally misunderstood what OT is.

These trends and issues around how EBMs learned about OT are similar to the findings of past research done on other stakeholders. None of the participants learned about OT through their formal education, and instead learned about it informally while at their job. Likewise,

previous research also found that healthcare professionals often had minimal formal education on OT in their programs, and that students and professionals more often learned about OT through informal means like personal contact with OTs (Alotaibi et al., 2015; Deitch et al., 1994; McGrath-Daly, 2004; Patel & Shriber, 2000; Warner, 2010). One difference between the findings of past research and those of the current study is the participating EBMs had fewer interactions with OTs and even less formal education on OT than the subjects of past research. For example, while 25% of nurse practitioners in Patel and Shriber's (2000) study reported learning about OT in graduate school, none of the EBMs in the current study reported learning about the field in school. Since there is no specific degree required to become an EBM, EBMs do not have a uniform formal education, in contrast to most healthcare professions. Nonetheless, these findings are consistent with the previously discussed trends: EBMs and healthcare professionals both primarily learn about OT through informal means, but as EBMs have even fewer forms of exposure to OT than healthcare professionals do, they also have even more limited knowledge of it.

Disconnect between preferred sources and actual sources of information. Another significant finding from the current study is that the participating EBMs' preferred sources of information about healthcare-related topics had not provided them with any education about OT. As previously described, most of the participants reported that they learned about OT through informal means, such as knowing an employee who directly received OT services. However, when the participants were asked about how they preferred to learn about healthcare services, they reported that they learned primarily through benefits brokers, from information provided by their membership organizations, and through seminars and webinars (often hosted by benefits brokers or by EBM-related organizations). There was no overlap among any of the participants

in how they reported they preferred to learn about healthcare services, and how they actually learned about OT. This relationship, or lack thereof, was illustrated in Figure 1 in the Results section: the sources that the participants routinely relied on generally for healthcare-related information did not provide them with any information about OT that they were able to recall.

These findings indicate additional avenues for advocacy and education about OT to help better educate EBMs about the field, and thus provide U.S. employees with increased opportunity to both learn about OT and access OT services. Benefits brokers are of especially high interest, as they were the source of information most consistently emphasized by the participating EBMs. The data also indicated that EBMs can learn information from many benefits brokers, both those who they are already partnered with, and those whose seminars or webinars they attend. The significance of benefits brokers in educating EBMs is comparable to a finding of past research on EBMs as well, which found that EBMs rely on consultants to assess and monitor clinical outcomes quality for employees (Maxwell & Temin, 2003; Thompson et al., 1999). This finding from past research helps to reinforce the degree and consistency to which EBMs rely on outside groups, in this case specifically benefits brokers, to educate them on healthcare related topics. EBM-related organizations, like SHRM, also have the ability to provide information and education to many active EBMs. As EBMs do not receive a uniform education prior to becoming EBMs, groups that systematically provide information to working EBMs are especially important for disseminating information about healthcare related topics like OT.

Significance of differences in exposure between occupational and physical therapy. EBMs and their employees had fewer encounters with OT than PT, and this discrepancy further highlights the need for increasing the number of opportunities employees have to learn about

OT. The participants encountered PT more often than OT through both professional and personal avenues. Half of the participating EBMs reported having personally attended PT sessions, while only one reported the same for OT. Several participants also reported knowing people in their personal lives who had attended PT, or who were physical therapists, while none reported having personal connections to OT clients, or personally knowing any OTs. Additionally, more EBMs reported having encountered PT than OT while at their current job. These findings demonstrate that EBMs and those around them, all of whom are members of the general population, are less likely to encounter and learn about OT than they are PT. This discrepancy demonstrates that there is a need to increase the number of opportunities the general public has to learn about OT. Since knowledge of OT is low within the general population, which has also been demonstrated by past research (Rahja & Laver, 2019), the impact that can be made by individuals, like EBMs, who are in a position to disseminate information, is substantial.

This point is further reinforced by another trend in the data: several participants thought that EBMs' knowledge of PT would not influence employees' knowledge of PT, or their access to PT services. These participants felt that their employees were already adequately informed about PT. However, most of these participants still reported that EBMs' knowledge of OT could influence what employees know about OT and their ability to access OT services. These participants recognized that they, and their employees, were less familiar with OT than PT, and that as a result EBMs were still likely to be influential in shaping employees' knowledge of, and access to, OT services.

Limitations of the Current Study

The current study has several limitations that restrict the generalizability of its findings. One limitation concerns the methodology of the study. This was the first study conducted on

EBMs' knowledge of OT and their potential impact on employees' knowledge of, and access to, OT services. As a result, there was no prior research could be used to specifically guide the development and implementation of the current study. As this study is qualitative, it can provide useful and guiding information about a topic that has not has prior research conducted on it, but the results it can provide are subjective and cannot be verified with objective data, such as documentation of how many of the participants' employees have received OT services. The participants may have forgotten to provide applicable information, misremembered past events, or altered the information they provided based on what they thought the researcher wanted to hear. For example, some participants may have avoided directly stating that they were unfamiliar with OT out of concern for appearing uninformed to the researcher. Additionally, the number of participants was small (ten participants employed at nine companies), which is not uncommon with time-intensive qualitative research but nonetheless limits how strongly the findings of the study can be generalized.

The study is also limited by the demographic characteristics of the participants and the companies they worked for. Each of the companies included in the study employed somewhere between 190 and 800 benefits-eligible employees, as reported by the participating EBMs, which means that the findings of the current study may not be generalizable to larger or smaller companies. All of the companies were located in two counties in the same state, which means that the current study's findings may not be applicable to companies headquartered in cities, counties, or states that operate within different legal parameters. Additionally, as the companies in the study represented only eight different industries, these findings cannot be considered to be representative of EBMs working in all industries.

The study's generalizability may also be limited by the characteristics of the participating EBMs. The participants in the study were not a racially or ethnically diverse group. There may also have been systematic differences between the EBMs who did consent to participate in the current study and those who did not. Additionally, as limited demographic information was gathered about the participants, there may be potential demographic influences that could not be analyzed or discussed in the current study. For example, participants were not asked about their age, and information about participants' educational history was not systematically gathered.

Conclusion and Direction for Future Research

Past research has thoroughly established the need for stakeholder groups to gain a better understanding of OT in order to better connect people who would benefit from OT with OT services. The current study successfully answered the core research questions it set out to investigate: what do EBMs know about OT, how have EBMs learned what they know about OT, and under what circumstances to EBMs help connect employees with OT services? The following are the key findings that emerged from analysis of the data.

EBMs have minimal knowledge about OT. All participants either had a narrow understanding of the profession, did not know about the profession, or had an explicitly incorrect understanding of it. EBMs do not formally learn about OT, and what they have learned typically occurs through informal, inconsistent experiences with OT that they have had while in their current job. These informal means were not EBMs' preferred way to learn about healthcare-related topics and did not provide them with an accurate understanding of OT. Finally, this study determined that while EBMs do not see it as their role to make referrals or recommendations for healthcare services, there was widespread agreement that EBMs can influence what employees know about OT, and employee access to OT services. One participant perfectly captured this

finding: "So, if I don't know something, I'm not gonna pass it along to them." This quote highlights the role that EBMs play in disseminating information to employees about the benefits that are available to them, and that when EBMs are uninformed about a topic such as OT, employees will not receive any information about it from them.

Future research can expand upon the findings of the current study to further explore what education and outreach efforts might best advance public knowledge of OT, and utilization of OT services. Both qualitative and quantitative research methods could be used to investigate a more robust sample of EBMs that better reflects the full population of employers in the U.S. This would strengthen the validity of research conducted on EBMs, allow for greater generalizability of research findings, and better establish the merits of advocacy and education efforts with EBMs. The groups that are influential to what EBMs know about healthcare related topics could also be a target of future research, such as EBM-related organizations like SHRM. Benefits brokers should be a specific target of such research, as they were identified in the current study as a group with a high degree of influence on EBMs' own knowledge of healthcare services. This research would allow for even more targeted education and advocacy efforts by OTs to improve the ability of employees in the U.S. to connect with relevant OT services.

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Appendix A

IRB Approval Documentation

To: Andrew Noble
From: John Schmitt, IRB Chair
Subject: Protocol #1114
Date: 07/31/2018

Thank you for submitting your research proposal to the St. Catherine University Institutional Review Board (IRB). The primary purpose of the IRB is to safeguard and respect the rights and welfare of human subjects in scientific research. In addition, IRB review serves to promote quality research and to protect the researcher, the advisor, and the university. By submitting an IRB application to the IRB Committee you are agreeing to adhere to the St. Catherine University Research Involving Human Subjects Policy.

On behalf of the IRB, I am responding to your request for Exempt level approval to use human subjects in your research. The application **# 1114: The Understanding of Health and Rehabilitation Services and Benefits among Employee Benefits Managers** has been verified by the St. Catherine University Institutional Review Board as Exempt according to 45CFR46.101(b)(2): Anonymous Surveys - No Risk on 07/31/2018. The project was approved as submitted. You may begin your research at any time.

Please note that changes to your protocol may affect its exempt status. You must request approval for any changes that will affect the risk to your subjects using the Amendment Request Form. You should not initiate these changes until you receive written IRB approval. Also, you should report any adverse events to the IRB using the Adverse Event Form. These documents are available at the Mentor IRB system homepage, which can be accessed through the St. Catherine University IRB homepage. When the project is complete, please submit a project completion form.

If you have any questions, feel free to contact me or email via the Mentor messaging system. We appreciate your attention to the appropriate treatment of research subjects. Thank you for working cooperatively with the IRB; best wishes in your research!

Sincerely,

John Schmitt, PhD
Chair, Institutional Review Board
jsschmitt@stkate.edu

Appendix B

Sample of Template Used to Contact Eligible Organizations

The following is a template of the emails sent to eligible organizations in order to initiate the process for recruiting participants.

> Email subject: Contacting an Employee Benefits Manager
>
> Hello,
>
> My name is Andrew Noble. I am conducting research for a thesis at St. Catherine University on the knowledge and practices of employee benefits managers on the topic of health and rehabilitation benefits/services.
>
> I am writing to ask if I could get in touch with an employee benefits manager at _____ to request their participation in this research.
>
> Thank you,
>
> Andrew

The wording of this template varied as appropriate when contacting an organization through a built-in messaging system on an organizations website, or when contacting an organization by phone.

Appendix C

Expanded Participant Demographic Information

Table 2

Participants' Demographic Information—Expanded

Participant	Job title	Organization (NAICS code)	Number of benefits-eligible employees	Time working with benefits	Time working for current organization
1	Environmental health and safety manager	Real estate rental and leasing (code 53)	600	10 years	21 years
2	Associate director of compensation and benefits	Educational services (code 61)	N/A	23 years	6 years
3	Director of human resources	Construction (code23)	280	17 years	17 years
4	Vice president of human resources	Manufacturing (codes 31-33)	330	"Entire career"	5 years
5	Total rewards analyst	Professional, scientific, and technical services (code 54)	600	4 years	1 year
6	Chief financial officer	Manufacturing (codes 31-33)	255	30 years	30 years
7	Human resources director	Retail trade (codes 44-45)	400	26 years	13 years
8	Human resources supervisor	Other services (except public administration) (code 81)	190	8 years	3 years
9	Human resources director	Wholesale trade (code 42)	750-800	6 to 7 years	20 years
10	Benefits specialist	Wholesale trade (code 42)	750-800	12 years	14 years

Note. The Organizations' NAICS Codes were obtained from the Minnesota Business Snapshot purchased from the Office of the Minnesota Secretary of State.

Appendix D

Participants' Descriptions of Their Job Responsibilities

Table 3

Participants' Descriptions of Their Job Responsibilities Related to Employee Benefits

Participant	Job title	Description of job responsibilities
1	Environmental health and safety manager	"I manage and see over all of our benefits and wellness program."
2	Associate director of compensation and benefits	"I am responsible for all of the compensation and benefits[…] I'm the primary source [here] for [connecting employees with healthcare services], and the primary point of contact for that."
3	Director of human resources	"I am in charge of both selecting our benefits and doing benefit renewals with our carriers, as well as communicating all of those changes and open enrollments with our employees and administrating them[…] I facilitate any work comp claims."
4	Vice president of human resources	"I am the main decision maker with regard to employee benefits[…] So, I'm involved in selecting the benefits that we offer and designing the communications around that and delivering a lot of communications to employees about what their benefits are and how they can access them."
5	Total rewards analyst	"My responsibilities, um I work with employees on any questions they might have on our benefits that are offered. So, I'm the point person for any questions. And then I'm also on an annual basis reviewing our Total Rewards package, well, and specifically our total benefits package, and we are analyzing if we're competitive in the marketplace for offering the right programs. If we need to go to market for any particular plans to confirm that we are priced competitively as well, with our benefits broker."
6	Chief financial officer	"My responsibility is for benefits, would be, I'm the primary contact with the vendor and the salesperson for the vendor. And uh, determining costs and working with

		ownership and determining how we eventually, what we do and do not provide."
7	Human resources director	"I oversee the benefits implementation and the annual renewals."
8	Human resources supervisor	"I uh, administer the day to day benefits to employees. I conduct our open enrollments. I sit in with our brokers when we're discussing or deciding benefit changes, if we want to add, subtract…You know when you're hit with kind of cost increases, how do you balance that between the employer and the employee without raising the cost too much so, kind of the whole circle of benefit management."
9	Human resources director	"So, my responsibility is related to benefits. I oversee [our] benefits programs. So, I'm responsible for the design of our benefits and our offerings of our benefits[…] My role is less with the day-to-day direct employees and more with the benefit design and benefit offerings. So, it's less of a one-on-one direct employee, that that's less of my…once in a while I work directly with employees. So, my connection with employees is more about our plan design and making sure our plan is something that's going to be able for employees to navigate easily, or resonates for employees, or is easy for employees to assess, or that our communications, um, our communications and things are going to be effective."
10	Benefits specialist	"My responsibility is educating employees and enrolling them in our benefit plans available to them. Helping them navigate through network providers, costs according to our plan design, etcetera yeah."

Note. Every participant reported being involved in the decision-making process for purchasing health insurance and/or workers' compensation insurance, either as a decision maker or by providing direct recommendations to the decision maker(s).

Appendix E

Initial Set of Interview Questions

1. What is your job title, and how would you describe your job responsibilities regarding employee benefits?
2. How long have you worked as an employee benefits manager, and how long have you been with your current company?
3. How would you describe the role you play in connecting employees with healthcare services?
4. Who is involved in choosing what health insurance and workers comp insurance your company uses?
5. How are employees informed about their healthcare benefits? What role do you play in that process?
6. In a situation where an employee has been injured or has a condition that requires accommodations to be made for them in the workplace, what are the titles of the people who that employee would talk to in order to potentially receive those accommodations? Are external consultants used?
7. How do you like to learn about existing and new healthcare services?
8. How would you describe occupational therapy? How would you describe physical therapy?
9. What is your understanding of the scopes of occupational therapy practice and physical therapy practice? How do you think the two differ?
10. How did you learn what you know about occupational therapy? How did you learn what you know about physical therapy?

11. Are you aware of any changes that occurred in your company's health insurance policy because of the Affordable Care Act in 2010 regarding occupational therapy, physical therapy, or broader rehabilitative and habilitative services coverage? If so, can you describe them?
    - Do you anticipate any future changes in the laws that would affect what benefits are made available to employees?
12. What are the reasons you would recommend occupational therapy services to your employees and what are the reasons you would not recommend them? Why might you recommend or not recommend physical therapy services to employees?
13. Do you know of any employees who have received occupational therapy services? Under what circumstances have employees received OT services and what were the outcomes? Can you describe the circumstances and outcomes of any employees who have received physical therapy services?
14. Do you think that the knowledge held by employee benefits managers about occupational therapy has an influence on the awareness of employees regarding what occupational therapy services exist and what services are available to them? Do you think your profession's knowledge of physical therapy has an influence on employees' awareness of physical therapy and their access to those services?

Appendix F

Final Set of Interview Questions

1. What is your job title, and how would you describe your job responsibilities regarding employee benefits?
    - Could you tell me roughly how many benefits-eligible employees your company has?
2. How long have you worked as an employee benefits manager, and how long have you been with your current company?
3. How would you describe the role you play in connecting employees with healthcare services?
4. Who is involved in choosing what health insurance and workers comp insurance your company uses?
5. How are employees informed about their healthcare benefits? What role do you play in that process?
6. In a situation where an employee has been injured or has a condition that requires accommodations to be made for them in the workplace, what are the titles of the people who that employee would talk to in order to potentially receive those accommodations? Are external consultants used?
7. How do you like to learn about existing and new healthcare services?
8. How would you describe occupational therapy? How would you describe physical therapy?
9. What is your understanding of the scopes of occupational therapy practice and physical therapy practice? How do you think the two differ?
10. How did you learn what you know about occupational therapy? How did you learn what you know about physical therapy?

11. Are you aware of any changes that occurred in your company's health insurance policy because of the Affordable Care Act in 2010 regarding occupational therapy, physical therapy, or broader rehabilitative and habilitative services coverage? If so, can you describe them?
    - Do you anticipate any future changes in the laws that would affect what benefits are made available to employees?
12. What are the reasons you would recommend occupational therapy services to your employees and what are the reasons you would not recommend them? Why might you recommend or not recommend physical therapy services to employees?
13. Do you know of any employees who have received occupational therapy services? Under what circumstances have employees received OT services and what were the outcomes? Can you describe the circumstances and outcomes of any employees who have received physical therapy services?
14. Do you think that the knowledge held by employee benefits managers about occupational therapy has an influence on the awareness of employees regarding what occupational therapy services exist and what services are available to them? Do you think your profession's knowledge of physical therapy has an influence on employees' awareness of physical therapy and their access to those services?

Appendix G

Informed Consent Form

ST CATHERINE UNIVERSITY
Informed Consent for a Research Study

Study Title: The Understanding of Health and Rehabilitation Services and Benefits among Employee Benefits Managers

Researcher(s): Andrew Noble, (OTS, BA), Karen Sames, OTD, OTR/L, FAOTA

You are invited to participate in a research study. The study is being done by Andrew Noble, a graduate student in the Master of Arts Occupational Therapy program at St. Catherine University in St. Paul, MN. The faculty advisor for this study is Dr. Karen Sames of the Occupational Therapy department at St. Catherine University.

The purpose of this study is to gather qualitative information on the knowledge of health and rehabilitation benefits and services held by employee benefits managers, how they gained their knowledge, and under what circumstances employees are connected with to those services. Approximately 8 to 12 people are expected to participate in this research. Below, you will find answers to the most commonly asked questions about participating in a research study. Please read this entire document and ask questions you have before you agree to be in the study.

Why have I been asked to be in this study?

The target population for the study is employee benefits managers of companies or organizations with corporate locations in Hennepin or Ramsey county that employ at least 100 people. Organizations of this size were chosen in order to increase the likelihood that they would employ an employee benefits manager.

If I decide to participate, what will I be asked to do?

If you meet the criteria and agree to be in this study, you will be asked to do these things:

- Coordinate a time to hold an in-person meeting. Location is flexible, as interviewer will travel for the convenience of participants.
- Participate in a semi-structured interview that is expected to take 15 to 30 minutes, based on the availability of the interviewee. Interviews will be recorded and later transcribed.
- Participants will be given an opportunity to read and verify the transcript of the interview.

In total, this study will take approximately 15 to 30 minutes over 1 session with additional time to read and verify the transcript.

What if I decide I don't want to be in this study?

Participation in this study is completely voluntary. If you decide you do not want to participate in this study, please feel free to say so, and do not sign this form. If you decide to participate in this study, but later change your mind and want to withdraw, simply notify me and you will be removed immediately. You will be provided with a copy of the interview transcript and be asked to verify and/or comment on its accuracy within 2 weeks of receipt. During this time, you may reconsider your participation and withdraw if desired. Your decision of whether or not to participate will have no negative or positive impact on your relationship with St. Catherine University, nor with any of the students or faculty involved in the research.

Withdrawal from the study can occur until December 31, 2018. After this date withdrawal will no longer be possible.

What are the risks (dangers or harms) to me if I am in this study?

Participation in the study involves minimal risk as no foreseeable forms of possible harm have been identified for the participants.

What are the benefits (good things) that may happen if I am in this study?

There are no direct benefits to you for participating in this research. The study intends to benefit the fields of healthcare and rehabilitation and their practitioners by helping to guide future education, advocacy, and outreach efforts, and clients who could benefit from access to appropriate services in the future.

Will I receive any compensation for participating in this study?

You will not be compensated for participating in this study.

What will you do with the information you get from me and how will you protect my privacy?

The information that you provide in this study will be recorded at the time of the interview and later transcribed. Participants' names and employer will be removed from the data and stored on a separate key. I will keep the research results on a personal, password protected computer and only I and the research advisor will have access to the records while I work on this project. I will finish analyzing the data by December 23rd, 2019. I will then destroy the key and any other sources of information that can be linked

back to you. The recordings of the interviews will also be deleted at this time, and at no point will they be shared with other individuals.

Any information that you provide will be kept confidential, which means that you will not be identified or identifiable in the any written or oral reports or publications. To ensure confidentiality, the name of your employing organization will also not be provided in any written or oral reports or publications

Are there possible changes to the study once it gets started?

If during the course of this research study I learn about new findings that might influence your willingness to continue participating in the study, I will inform you of these findings.

How can I get more information?

If you have any questions, you can ask them before you sign this form. You can also feel free to contact me at 612-203-5731, or at adnoble722@stkate.edu. If you have any additional questions later and would like to talk to the faculty advisor, please contact Dr. Karen Sames at 651-690-8805, or at kmsames@stkate.edu. If you have other questions or concerns regarding the study and would like to talk to someone other than the researcher(s), you may also contact Dr. John Schmitt, Chair of the St. Catherine University Institutional Review Board, at (651) 690-7739 or jsschmitt@stkate.edu.

You may keep a copy of this form for your records.

Statement of Consent:

I consent to participate in the study and agree to be audiorecorded.

My signature indicates that I have read this information and my questions have been answered. I also know that even after signing this form, I may withdraw from the study by informing the researcher(s).

_____

Signature of Participant Date

_____

Signature of Researcher Date