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Medication Management in Home Health Care Occupational Therapy Practice

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Medication Management in Home Health Care Occupational Therapy Practice

Abstract

Background: Many community-dwelling adults do not adhere to their medication regimen, which results in high rates of emergency department visits and subsequent hospital admissions. Occupational therapists, as members of the home health care team, provide medication management in the occupational therapy scope of practice. There is sparse information in the literature regarding occupational therapists' involvement in medication management in home health care practice.

Methods: The researchers interviewed nine occupational therapists practicing in home health care. Using a qualitative interpretive phenomenological study, the researchers explored the participants' experiences addressing medication management.

Results: The researchers identified three themes: professional reasoning, interprofessional involvement, and professional competence and confidence. The participants reported that they were addressing medication management in accordance with occupational therapy scope of practice; however, they did not feel confident because of their lack of knowledge about pharmacology.

Conclusion: Preparing entry-level occupational therapy students and practicing occupational therapists with interprofessional education about medication management will improve occupational therapists' competence and confidence. Occupational therapists who know their role in medication management and are well-informed about medication can collaborate with the home health care team more effectively.

Comments

The authors report no conflicts of interest to disclose.

Keywords

Home health care, medication management, occupational therapy

Cover Page Footnote

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Credentials Display

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Health care providers prescribe medication with the intention of improving health and curing and managing illnesses. The Agency for Healthcare Research and Quality (Gerteis et al., 2014) reported that 16% of Medicare beneficiaries receiving home health care (HHC) took five or more medications. Improper use of medication, however, resulted in high rates of emergency department visits and subsequent hospital admissions (Geller et al., 2014; Hug, Koehane, Segar, Yoon, & Bates, 2012). A common goal among health care professionals is to reduce hospital visits, thereby preventing unwarranted costs and improving health outcomes (Beasley, 2009), all of which are impacted by clients' adherence to their medication regimen. Occupational therapists have a unique ability to perform client-centered activity analyses necessary to evaluate all aspects of medication management, which provides them with a distinct value in medication management in all practice settings (Schwartz & Smith, 2017). In 2012, Craig identified medication management as the most frequently addressed instrumental activity of daily living (IADL) by HHC occupational therapists. However, the extent of occupational therapists' involvement in addressing medication management in HHC practice remains unknown. The purpose of this phenomenological qualitative study was to explore occupational therapists' experiences with medication management in HHC. Understanding occupational therapists' experiences of working with HHC clients to manage their medications will provide useful information to develop appropriate medication management guidelines and competency standards to improve overall occupational therapy in HHC practice.

Literature Review

The Occupational Therapist's Role in HHC

The occupational therapist's role in HHC is to assess and address client factors, performance skills, and performance patterns that may interfere with occupations that are necessary for clients to live safely and productively in their home environments (American Occupational Therapy Association [AOTA], 2013). In 2013, AOTA held the position that occupational therapists practicing in HHC should assist HHC agencies in implementing administrative requirements and optimizing patient outcomes. Occupational therapists can make substantial contributions to the outcome measures that address personal activities of daily living (PADLs) and IADLs in HHC. They are skilled at analyzing the performance skills and patterns necessary to engage in these occupations and can contribute to improving these outcomes by educating and training clients to modify habits and routines or to develop new ones.

According to Craig (2012), there was limited information in the literature from the years 2000 to 2009 regarding the practice of occupational therapy in Medicare-based HHC. However, since 2009, current health care changes have influenced an increase in occupational therapists' involvement in community-based health care. There has been a concurrent emphasis by AOTA in the literature outlining occupational therapists' role in treating clients in the community and their approach to addressing chronic conditions (AOTA, 2015; Sokol-McKay, 2011). Occupational therapists practicing in HHC can apply AOTA's position by teaching their clients adaptive strategies, modifying activities to manage the physical demands of the chronic condition, and helping clients to develop behaviors and routines to support physical and psychosocial health and well-being in their home environments. These health management activities involve medication management as defined in *The Occupational Therapy Practice Framework: Domain and Practice* (AOTA, 2014).

The Occupational Therapist's Role in Medication Management

Occupational therapists can contribute effectively to medication management (Cole, 2011; Schwartz & Smith, 2016) by identifying the problems that make it difficult for clients to adhere to medication routines and by helping them to integrate medication administration into their individualized daily life routines (Renda, Lee, Keglovits, & Somerville, 2016). Occupational therapist can also address safety concerns and performance skills that may be altered by medication side effects. Guariglia and Smallfield (2015) provided specific examples of how occupational therapists have addressed medication management in acute care settings by issuing adaptive equipment, training clients and/or caregivers, and working with clients to optimize their daily schedules based on medication effects while the clients are in the hospital. The authors suggested that occupational therapists address medication management by developing new routines and providing external cues, such as using large charts or calendars with written reminders or training clients to use medication reminder alarms upon returning home from the hospital. Even though it has been suggested in the literature that occupational therapists can address medication management with detailed strategies, there is a need for data-driven studies because it is unknown to what extent these strategies may be used in HHC practice.

The Interprofessional HHC Team

Medication management is a complex process that involves collaboration between clients taking medications and their health care providers (Adhikari, Tocher, Smith, Corcoran, & MacArthur, 2014; Canadian Pharmacist Association, 2013; Hemingway, Baxter, Smith, Burgess-Dawson, & Dewhirst, 2011). Addressing how qualified health care providers manage medication may contribute both to improved medication compliance and to a reduction in adverse effects. It is important to understand the roles of all health care professionals who address medication management in HHC practice to optimize interprofessional collaboration and to support best practice for clients. The literature defines the roles of physicians (or other health care providers who prescribe medication), nurses, and physical therapists in medication management. Medication management is initiated by the physicians or health care providers who prescribe medications. They also give instructions for taking medications, adjust dosages, and discontinue medications. Nurses, regulated by the state in which they practice, are responsible for educating patients and assessing medication appropriateness (National Council of State Boards of Nursing, 2016). Some agencies require nurses to complete a medication reconciliation form as part of a comprehensive assessment for HHC patients. Physical therapists have standards documented in a position paper published by the American Physical Therapy Association (2013) stating that physical therapists address medication management by screening, evaluating, and collecting information about clients' medications and identifying adverse medication reactions and educating clients about their medications. AOTA recently published a position paper on occupational therapy's role in medication management, reporting that "occupational therapy's distinct contribution to medication management is addressing actual performance of these management activities in the context of the client's daily life" (Siebert and Shwartz, 2017, p. 2). However, there remains a dearth of research specifically describing occupational therapists' involvement on the interprofessional team addressing medication management in HHC. Decreased understanding of the specific role that HHC occupational therapists play in medication management limits evidence-based practice to best support the clients' ability to adhere to their medications. Therefore, the purpose of this study was to explore the experiences of a group of HHC occupational therapists who practice medication management.

Method

Study Design

The researchers used a phenomenological qualitative research approach to explore occupational therapists' experiences addressing medication management in HHC. According to Smith, Flowers, and Larkin (2009), using a phenomenological research approach provides researchers with the meaning, structure, and essence of a person's or a group's experiences. Researchers using an interpretive phenomenological analysis (IPA) interpret the participants' experiences while reflecting on their personal experiences with the phenomenon. Smith et al. (2009) described the hermeneutic circle as understanding the whole experience, dissecting the individual parts, and referencing it back to the whole experience. This process of reflection of the researcher's experience in addressing medication management provided a source for insight into gathering detailed information from the interviews and understanding the participants' responses.

Participants

The participants were five men and four women who had 2 to 35 years of experience as occupational therapists working full time, part time, or per diem in HHC. All of the participants had experience addressing medication management in the past year. Six of the participants practiced in Florida, one in Virginia, one in North Carolina, and one in New York.

Data Collection

Following approval by the Institutional Review Board, the primary researcher employed purposive and snowball sampling to include eligible occupational therapists who had a minimum of 1 year of experience in HHC and worked with clients who take medications. This researcher contacted eligible occupational therapist colleagues and invited them to participate. An informational flier about the study was provided to pass along to other prospective participants working in HHC. The primary researcher interviewed the first eight eligible occupational therapists who responded via email. The information collected from the participants was consistent; however, the eighth participant offered new information. Therefore, a ninth responder was interviewed. After interviewing the ninth participant, no new information was shared. Therefore, saturation was obtained.

The primary researcher conducted face-to-face and Skype audio-recorded interviews. Before initiating each individual interview, the researcher described the study, reviewed the consent form document, and provided the participant with the opportunity to ask questions. The researcher used a semi-structured interview guide that was piloted prior to the interviews with another researcher. An impartial colleague provided a critical review of the research methodology and the interview guide to ensure that the questions were not leading the participants' responses. The interview guide included closed-ended questions to collect demographic and descriptive information about the participants and open-ended questions to explore the participants' views and beliefs to understand the meaning of their experiences of providing medication management with HHC clients (see Table 1). The semi-structured nature of the interview guide provided prompts to cue the researcher to ask probing questions about the participants' initial responses. These prompts allowed the researcher to fully capture a rich description of each participant's experience. The researcher audio-recorded all of the interviews and wrote field notes during the interviews. The recorded interviews were transcribed verbatim. Each participant received his or her verbatim transcript to review for dependability and to allow the participants the opportunity to confirm their narratives or provide further clarification if desired. To maintain

anonymity, each participant was assigned a code pseudonym. The transcribed interviews and field notes were categorized and securely stored.

Table 1

Interview Questions

Closed-Ended Questions
How many years have you practiced occupational therapy in HHC?
For whom do you work?
What is the age range of your clients?
What are the medical conditions or multiple medical conditions of your clients?
Is your practice located in a suburban, urban, or rural area?
Are you required by your employer to address medication management in home care practice?
Open-Ended Questions
How do you define medication management?
Tell me about your experience with your HHC clients.
Tell me about the issues you see in your clients that are related to medication management.
Tell me about how you address medication management in your HHC occupational therapy practice.
Thinking about some of your clients for which you address medication management, tell me how or why you decided to address medication management with these clients.
Tell me the agency's policy regarding medication management for clients.
What professionals are responsible for medication management in your HHC agency?
How do you describe the role of occupational therapists in addressing medication management?
*How do you feel about occupational therapists not being included in the role of medication management? *(If OTs are not included)
Why do you think that _____ professionals are responsible (instead of occupational therapists)?
* If you were to address medication management, how would you do that as an occupational therapist? *(If OTs are not included)
Tell me about your preparation to address medication management.
Tell me how occupational therapists' role addressing medication management in HHC aligns with the American Occupational Therapy Association's position on addressing medication management.

Data Analysis

The researchers independently reviewed and analyzed the transcripts. Prior to coding, we obtained an overall impression of each participant's experience. We independently completed open coding of the transcripts by identifying meaningful words, statements, and phrases, and then we reviewed the open codes to reach consensus on the initial codes. After obtaining the initial codes for each participant, the primary researcher further reduced the data by grouping similar codes based on relationships, frequency, importance, and contextual elements of the codes to create overall categories. We reviewed these categories to reach a consensus on the final codes. The primary researcher then listed the categories in a table according to the meaning ascribed to the category, and then regrouped the categories according to the content, the language used, and the conceptual components. After this

process was completed for each participant, the primary researcher completed cross-case analysis by regrouping the final conceptual categories for each participant into emerging final themes according to formulated meanings and patterns across all of the participants. The second researcher then reviewed the final themes to ensure validity of the results. The themes were emailed to all of the participants, who could then review and confirm the themes or offer further clarification for validation. To reduce bias throughout this process, the primary researcher engaged in a process of reflexivity by periodically reviewing a personal statement about her experience with medication management in HHC. This provided a lens with which to interpret the participants' meaning of their experiences, thereby contributing to the hermeneutic circle of analysis.

Results

Participants

The nine participants provided occupational therapy services in clients' private homes, condominiums, independent living facilities, and assisted living facilities. Three of the participants indicated that their employers did not require them to address medication management; however, throughout the interview, they expressed addressing medication management with their clients. Table 2 provides the participants' demographic data.

Table 2

Demographics

Practice State	Participant	Gender	Years in HHC	Client age range	Required to be involved
NY/ Suburban	2	Male	4	65-99	Yes, every visit
VA/ Suburban	7	Male	4	50+	Yes
NC/ Suburban	3	Female	6	65+	No
FL/ Suburban	4	Female	5	70-90	Yes
FL/ Suburban	5	Female	6	65-100	Yes
FL/ Suburban	9	Male	7	65-104	Yes
FL/ Suburban	1	Female	35	65-105	Yes
FL/ Suburban	6	Male	2	50+	No
FL/ Urban, Suburban	8	Male	7	65-100	No

Themes

Three superordinate themes emerged from the data: professional reasoning, interprofessional collaborative practice, and professional competence and confidence. The participants further discussed professional reasoning as comprising two separate components: the cognitive process and the specific intervention strategies used to address medication management. The cognitive process of professional reasoning occurs in the mind of the occupational therapist during the therapeutic activity and the interaction between the occupational therapist and the client (Boyt Schell, 2014). This process includes four aspects of reasoning: pragmatic, procedural, narrative, and scientific and diagnostic reasoning. It also includes three aspects of interventions: preparatory and training methods, education, and advocacy.

Theme I: Professional reasoning. The participants described the aspects and interactions that informed their decision-making about the assessment and intervention strategies used to meet the medication management needs of their clients.

Cognitive process.

Pragmatic reasoning. Pragmatic reasoning was exemplified when the participants reportedly used their employment agency's policies to determine if and how they would address medication management. Some of the occupational therapists gave examples of the policies they are required to follow during the HHC visits. One of the therapists stated, "Every visit I am required to ask if there have been changes in medication. If there are changes, I contact the nurse and let her know what those changes are and which doctor made these changes." Another therapist revealed his limited role in medication management: "The only thing I am required to do is to document their current medication and note any changes. That is my only connection." Other participants indicated that they are required to confirm a client's medications by checking the medication bottles, and that they are required to educate clients about the importance of maintaining an up-to-date medication list. Most of the participants reported that they are required by the agency to call a registered nurse or physician if there are any concerns with a client's medications.

The participant with 35 years of experience in occupational therapy indicated that she is required to address medication management, even though it is not included in the agency's job description for occupational therapy. She described how this ambiguous policy caused her to have a difficult time deciding how to approach medication management with her clients. She indicated, "Occupational therapists must tread lightly, it is not in the occupational therapists' job description." This therapist reported that she thought the nurse would be offended because, territorially, it was the nurse's duty. Regardless of the agency's policies concerning medication management, it was evident that these participants addressed medication management with their clients.

Procedural reasoning. The sequence of clients' medical procedures provided cues for some of the participants when deciding to address medication management. A majority of these occupational therapists indicated that they reviewed medications with clients following a hospital stay or after a physician's visit. The therapists expressed that sometimes clients do not understand the instructions, dosages, and side effects associated with the new medications or a change in medication dosage. A typical response was, "I ask the client if there are any medication modifications, and if necessary, I make changes to the client's home medication list, or inform the nurse." Several of the therapists considered the timing of their home visit in relation to the nurse's visit when deciding to address medication management with a client. One therapist reported, "Nurses always go in first . . . basically, medication management issues are addressed on the start of care, so I do not run into that immediately." Another therapist reviewed the nurse's directives with clients because he recognized that occasionally clients were still confused with medication routines following a visit by the nurse. Despite previous medication management interventions by the nurse with the clients, the participants decided to address medication management because they felt that additional guidance would benefit the client.

Narrative reasoning. The participants also considered how the clients' narration of their life circumstances and events impacted their ability to manage medications. The occupational therapists used narrations to guide decisions about if and how to address medication management with their clients and considered the interrelated conditions that effect independent medication management. Some of the participants spoke of contextual factors that influenced a client's medication routine, such as changes in a client's environment or daily schedule or living alone. One occupational therapist reported that it was important to know if her clients had visitors because this often created a deviation from their daily routine, causing them to forget to take their medications. Other therapists reported that they considered

the impact that living alone had on medication management. One therapist reported that she had a client who was cognitively intact but lived by himself and had no family. The therapist stated,

His situation now is a little difficult for him, and the thing is, he is on 20 to 21 medications. The client is overwhelmed by taking multiple medications, so I reviewed the medications with him, and wrote out the instructions for each medication.

Another therapist indicated that some clients who lived alone reported having irregular sleeping patterns that altered their medication schedules. She stated, “The problem is when patients live by themselves and are forgetful. I come and they either haven’t taken their medication because they forgot, or say they have to eat first and they haven’t made their meals yet.” The occupational therapists used the clients’ narration of their daily routines to influence decisions about how to address medication management.

The clients’ stories of their personal experiences provided the participants with an understanding of the clients’ behavior. One participant described his encounter with a client who exhibited symptoms of drug dependency because the client could not cope with his disability. Upon hearing the client’s portrayal of his current situation, the therapist called the physician because the client needed medication management intervention beyond the scope of occupational therapy practice. Another participant considered the financial situation of her client to guide medication management decisions. The client, who had difficulty managing medication, told her that she showered in the clubhouse because she could not afford bathroom safety equipment. The therapist asked the social worker to find community services to assist with medication management and safety equipment. One therapist reported that a client told her that he was fearful that HHC services would terminate if he managed his medication successfully, so he deliberately mistook his medication. This therapist indicated that the client might not accept medication management intervention. These occupational therapists indicated that listening to clients’ stories gave them insight into the clients’ motivation or lack of motivation to improve health and manage medications and helped the therapists develop an appropriate intervention plan.

Scientific and diagnostic reasoning. Occupational therapists used this form of reasoning to understand diagnoses, signs and symptoms associated with diagnoses, and the side effects of medications. The participants assessed client factors related to diagnoses to make informed decisions. For example, they used scientific reasoning when they evaluated a client with diabetes and considered how low vision and hypoglycemia might interfere with independent medication management. Some of the occupational therapists monitored their client with diabetes for behavioral symptoms of hypoglycemia, and if there were symptoms related to medications, then they called the physician or the nurse. Most of the participants reported that they monitored the vital signs of clients diagnosed with hypertension and tachycardia with the understanding that if abnormalities in blood pressure or heart rate were present, then the clients’ medications may be off. Therefore, they had to determine quickly if it was a medication management issue that could be solved by occupational therapy intervention, or if they needed to cancel the session and report the issue to the nurse or physician.

Several of the occupational therapists’ understanding of medications, interactions, and the side effects of medications guided them in implementing a course for intervention. One therapist reported that he understood that blood pressure medications could cause drowsiness and dizziness; therefore, he worked with clients to alter their routines. He considered that the client might not have the stamina to perform tasks; therefore, he trained the client to use energy conservation techniques and fall prevention strategies. Another therapist indicated that she used her understanding of pharmacology by looking for adverse side effects if a client was taking multiple medications. She indicated that if she saw any

adverse effects, then she would call an emergency responder and forego occupational therapy services for that session. Other therapists indicated that they lacked a basic understanding of pharmacology, which they believed limited their involvement in medication management. One occupational therapist stated, “I don’t understand some of the terminology that describes how to take medication in terms of route, dosage, and frequency, and I don’t know the side effects.”

Intervention. The participants identified three primary types of intervention strategies: preparatory and training methods, education, and advocacy. These are not necessarily mutually exclusive. These are consistent with the interventions classified in *The Occupational Therapy Practice Framework: Domain and Practice* (AOTA, 2014). The most popular intervention the therapists discussed using was preparatory and training methods to assist their clients with managing their medications.

Preparatory and training methods. The participants spoke of the scope and nature of the clients’ performance deficits related to physical and cognitive skills and how these deficits interfered with medication management. They developed individualized training for clients to learn the skill of using assistive devices and techniques to compensate for these deficits so that they could prepare and manage their medications. For example, the therapists trained clients with low vision to use devices, such as closed-caption television, magnifying glasses to enlarge print, or contrast strategies to see the pills. One therapist trained his clients to modify behavior by integrating energy conservation techniques and fall prevention methods into their daily tasks. He indicated that he individualized strategies by developing and organizing the clients’ daily activities in relation to their medication routines and worked with the clients to practice the techniques.

Most of the participants indicated that they treated clients who had a stroke. One occupational therapist specifically reported that she evaluated the ability of her clients to access medications by opening a pillbox or medication bottles with the use of one hand. Several suggested that clients with physical limitations learn to use task modification strategies, such as leaving medication bottles open to compensate for upper-extremity functional limitations.

Other participants provided clients who had memory problems with calendars, charts, and journals and helped their clients list the medications and medication schedules in the journals. One of the occupational therapists trained a client to use a journal to put the correct pills in a pillbox. He described the process that he used: “I completed half the task and then had the client complete the other half using the journal. The following week I provided less assistance until the client was able to place all of the pills in the pillbox correctly.”

The participants explained that they did not limit training to the clients; they also provided training to other health care providers. One therapist who served HHC clients in an assisted living facility trained staff members to assist the clients with medication management. He emphasized that staff were trained to use strategies that maximized their clients’ performance when HHC was terminated. Another therapist educated assisted living facility staff about the importance of monitoring HHC clients for medication abuse and dependency. He taught the staff to be attentive when clients requested pain medications and to be aware of overdosing.

Education. The majority of the participants discussed their role in educating clients and/or caregivers about the purpose of medication and the necessity of taking medications as prescribed by their physicians. One therapist indicated that she educates clients to be compliant with medications so she can provide occupational therapy services. The therapist stated, “Clients who do not take their

medication correctly could generate changes in medical status that may contraindicate occupational therapy treatments.” Other participants explained that they educate caregivers to prompt the client to take his or her medications at a certain time. One of the therapists educated family members about methods or strategies to facilitate medication adherence by teaching them effective methods for taking medications as prescribed. He emphasized that he teaches clients when and how to take medication when clients have difficulty, and that he teaches clients about following physicians’ orders to ensure they understand what medications they are taking.

Several of the participants emphasized that they provided medication education to clients with a focus on safety. One therapist stated that medication safety is very important, and his role is to educate the clients, caregivers, and the assisted living facility to be aware of the medications the clients are taking. Another therapist defined medication management as, “A patient’s ability to safely manage medications as prescribed. I teach them how to follow doctors’ orders, recommended times, and schedules.” Some of the participants instructed their clients to read medication labels and update their medication lists and make them readily accessible. One occupational therapist described how he provided safety education to his clients:

I encourage my patients to keep a card in their wallet with all their medications that they are currently taking. The fire department in town where I work has a program called the Vial of Life. They give residents a bag and a sticker for the front door indicating that they have a bag on their refrigerator with their medicine bottles for the EMTs to take to the emergency room.

Advocacy. Two occupational therapists intervened when clients were not able to solve their issues independently. One therapist stated, “I find myself advocating for the patient, making sure they get their medications properly.” He reported that he intervened when his HHC client received the wrong medication due to a miscommunication between the physician, the pharmacy, and the assisted living facility staff where the client resided. He said that he collaborated with the nurse to ensure the client received the correct medication. The other therapist reported that she recruited the social worker to become involved in medication management with a client who could not afford to hire help. Without the occupational therapist’s assertiveness to involve the social worker, the therapist indicated that the client would continue to have difficulty managing medication by herself. Even though advocacy was not discussed by most of the participants as an intervention strategy, it was included as a component of the intervention theme because of the conviction with which the above examples were reported. The participants expressed the importance of occupational therapists standing up for the rights of their clients, especially when the clients were not able to do this themselves. The therapists consistently indicated that clients needed representation, support, and supervision to adhere to their medication management. Often, the participants implied that it took a team of professionals to deliver effective and efficient medication management intervention.

Theme II: Interprofessional collaborative practice.

Shared responsibility. The participants indicated that as HHC providers they worked autonomously in the client’s home. Although they were the sole providers during the visit, they indicated that they worked as a team with other professionals by sharing responsibilities and client information when addressing medication management. Most of the occupational therapists reported that all members of the HHC team were responsible for addressing medication management. They collectively identified the members of the team as the physician, the registered nurse, the occupational

therapist, the physical therapist, the speech and language pathologist, the social worker, the home health aide, the supervisory staff, the client, and the client's family.

Nurses' role. Although some of the participants did not know the medication management responsibilities of every member of the HHC team, several described the physicians' and the registered nurses' roles. These occupational therapists reported that the physicians prescribed medications, advised clients on what medications to take, how much to take, and when to take it. They indicated that the physicians directed the medication prescriptions to the nurses, and they consistently stated that the nurses are often the principal players of medication management on the HHC team and that "the nurses' role was to distribute medication." The nurses collected the medication information at the start of care and updated the medication lists in the clients' main charts and trained the clients to manage their medications. One therapist reported that if a client had medication issues, the agency assigned the nurse to visit the client. It was evident that all of the participants believed that the nurses had a significant role in medication management.

Occupational therapists' contribution. When the participants were asked about their role on the HHC team in relation to medication management, many reported that it was to use professional reasoning to evaluate and provide intervention dependent on the clients' needs. Many of the therapists reported that they were contributors to the team addressing medication management by communicating regularly with the other team members by telephone, email, and documentation to inform them about the clients' medication changes and observed medication issues. These occupational therapists gave detailed explanations of how they contribute to medication management in HHC practice, yet they did not describe the occupational therapists' "distinct contributions" (Siebert & Schwartz, 2017, p. 1) to interprofessional efforts to address medication management.

There were several participants who reportedly had more experience in medication management. These therapists indicated that they were not completely satisfied with their roles. One therapist felt that the term medication management needed to be emphasized as part of occupational therapy practice. Another therapist expressed dissatisfaction with her role and stated, "Addressing a person's daily routine and their daily activities, that [it] includes managing medication is something [other disciplines] need to know we do." The therapist added: "Occupational therapists can do medication management, but we need to critically define it in our scope of practice and teach it because most people do not know that OTs do anything with medication. We could do more."

The participants who had more experience with medication management expressed frustration that other members of the health care team assumed the role of the occupational therapist was to simply support the nursing staff. They felt that other health care professionals did not understand the role of the occupational therapists in medication management; therefore, occupational therapists were not receiving referrals specifically to help clients manage medications. All of the participants indicated that occupational therapists were underused on an interprofessional team addressing medication management. The therapists revealed they had poor self-identity and difficulty with role clarification that is essential for effective interprofessional practice.

Theme III: Professional competency and confidence. Most of the participants indicated that they lacked confidence and did not feel self-assured when addressing medication management because they did not feel competent that they had the expertise to address it. Some of the therapists reported that they often did not recognize the medications, that they did not know the medications' side effects, that they did not understand terminology, and that they did not understand the effects of combining

medications. One occupational therapist indicated that she lacked the knowledge of drug interactions and terminology:

We do not have the tools to recognize that mixing two particular medications is going to be more of an issue than taking one of them. I do not understand some of the terminology that describes how to take medication in terms of route, dosage, frequency, and I do not know the side effects.

Some of the participants explained that their feelings of incompetency with medication management originated from a lack of formal education in occupational therapy course work. They provided comments like, “I am not comfortable addressing medication management in home care because I do not feel well-trained,” and “medication management education was weak.” Another therapist indicated that he was not clear about policies that govern occupational therapists’ role in medication management because it was not part of his professional preparation and training. They expressed that a lack of formal education in medication management was unlike other disciplines; for example, “nurses go to school for that” and “the physical therapists have courses in pharmacology.” These participants expressed a need for occupational therapy course work in medication management to foster future occupational therapists’ professional competence and confidence to address it.

Many of these participants obtained informal education and training by observing other health care professionals who were proficient in medication management. One occupational therapist stated, “I am grateful I worked in an acute care hospital for 10 years, I learned that medications can impact your plan of care and how you deal with the patients daily.” She emulated the strategies of her mentors. Another therapist reported he had training in medication management during his educational fieldwork experience in a hospital setting. “I learned a lot in the hospital setting because I worked closely with doctors, caseworkers, and other therapists.” Some of the participants reported that they engaged in self-directed education on-line through the Internet or using medication resource books. Two therapists reported that they attended required HHC agency-sponsored courses that addressed medication management. The therapists applied newly learned skills to clients’ treatments. The occupational therapists that had experience in medication management indicated that they were more involved and had more confidence as compared to the occupational therapists that had little to no experience.

Discussion

The HHC occupational therapists used multiple reasoning processes based on their knowledge and skills simultaneously, not always equally, to make clinical judgments to determine their intervention in medication management. The interventions included preparatory and training techniques, education, and advocacy. These findings were consistent with Siebert and Schwartz (2017).

It was clear that the participants used pragmatic and procedural reasoning as a fundamental component of reasoning. They relied most heavily on narrative reasoning to gather relevant client and contextual information through an occupational profile, which coincides well with the occupational therapy process. The occupational therapists used scientific and diagnostic reasoning most guardedly, expressing that they lacked competency and therefore confidence in this area (see Figure 1).

Pragmatic reasoning, which incorporated agency or governmental policies, was the most objective determinant for medication management involvement. The participants used this reasoning process to decide whether they were obligated to address medication management as part of the job responsibilities established by their employer. This reasoning process also informed them of the procedures they needed to follow as part of their job responsibilities. Three of the participants were not

required by their employer to address medication management but did so, indicating they believed it was an important occupation to address.

Figure 1. A conceptual representation of the professional reasoning model. The model includes four components of professional reasoning and three interventions the occupational therapists used to address medication management.

Pragmatic and procedural reasoning often occurred simultaneously and overlapped. For example, several of the occupational therapists reported that if they knew that their client met with the physician, they reasoned that the physician might have adjusted medication doses or prescribed a new medication. Therefore, according to agency or funding policies they were obligated to address medication management by asking the client if the physician made changes to his or her medications and then decided what to do based on the policy and procedures of the agency. The occupational therapists' initial reasoning was to determine if they should address medication management, for which they used pragmatic and procedural reasoning. After making that determination, they used narrative and diagnostic and scientific reasoning to determine how to address medication management.

Narrative reasoning is congruent with occupational therapy practice to use conversation to learn clients' motives, intentions, and barriers to occupational performance (Hamilton, 2008). The occupational therapists' use of narrative reasoning involved considering clients' values, beliefs, habits, routines, roles, cultural context, and personal context, consistent with *The Occupational Therapy Practice Framework Domain and Process* (AOTA, 2014). This reasoning is useful to analyze the clients' experiences, to determine what is meaningful to the clients, and then to determine an appropriate plan to address medication management. The participants learned about the clients' experiences living alone, their family involvement, their financial circumstances, and how they cope with life challenges through conversations and listening to their stories. For example, they discussed providing education

about the importance of following doctors' medication directives for maintaining health and adapting routines for clients who had unusual sleeping patterns that made it difficult to take their medication at appropriate times. In addressing medication management, the participants also considered clients' cultural contexts, including socioeconomic status and education level. When socioeconomic status and educational level were poor, the occupational therapists often chose advocacy intervention.

It was clear that these participants used pragmatic and procedural reasoning to determine if they would address medication management and narrative reasoning to determine how they might address medication management. The final type of professional reasoning that was exemplified is diagnostic and scientific reasoning. These HHC occupational therapists used this type of reasoning to help decide if and how to address medication management. The participants discussed how knowing the signs and symptoms of diagnoses influenced occupational therapy medication management assessment and intervention. Awareness of the diagnosis prompted many of the participants to review medication lists and closely monitor symptoms of the diagnosis. They talked about the crucial need to monitor signs and symptoms related to the clients' diagnoses and medications. When adverse effects of the medications were present, they altered their original intervention plan to address medication management issues with their clients. They were concerned about the life-threatening components that are linked to taking medication. However, many of the participants expressed that they lacked competence or understanding of medication to address it confidently.

Reflecting on procedural, pragmatic, narrative, and scientific and diagnostic reasoning processes, these occupational therapists used preparatory and training methods, education, and advocacy types of intervention based on the clients' needs. They discussed training clients, family, and caregivers to use devices and apply specific techniques to modify daily activities. If it was determined that the client needed advocacy, they advocated for their client. If the client or caregiver needed education, the occupational therapist proceeded to provide education. Even though education was one of the three types of intervention strategies identified by the participants, it was loosely discussed and often confused or combined with the training to use devices. The participants indicated that they educated clients, family, and caregivers about safety, adherence, the purpose of medication, and methods to improve adherence to medication routines. These participants indicated that they chose to educate clients as part of the reasoning process. However, they did not identify any specific teaching strategies.

Some of the participants discussed role confusion by not realizing their functional role on the team. One participant stated that occupational therapists are not responsible for medication management, but with training they would be able to address it effectively. Despite her perceived lack of training in medication management, she spoke about how she addressed it based on her skills as an occupational therapist by training clients to make schedules and to use pillboxes. This participant's experience of role confusion is an example of an obstacle that may hinder effective interprofessional team collaboration. Role confusion and misunderstandings can cause duplication of services or a lack of accountability.

The occupational therapists in this study indicated that they were contributors to an interprofessional collaborative team by addressing medication management. The participants described various degrees of involvement that was not based on formal delineation of responsibilities. Several of the occupational therapists indicated that they took a supportive role in medication management by assisting the nurses. Johansson-Pajala, Blomgren, Bastholm-Rahmner, Fastbom, and Martin (2016) found that nurses believed they were more competent and more responsible than other members of the

HHC team for medication management, making it difficult to trust members of the team who had insufficient understanding of the effects of medication on patient illnesses. Therefore, they often had to compensate for team members who lacked medication management knowledge and experience, further increasing their involvement in their patients' medication management.

Similar to the findings in the Johansson-Pajala et al. (2016) study of nurses, the participants who were seemingly more competent in medication management expressed more confidence, as evidenced by their discussion of assuming a greater role in medication management. The participants who discussed working together with other disciplines, sharing ideas, and coordinating medication management care increased competency through practice and learning from other disciplines. They gained confidence knowing they were able to address medication management with clients in the HHC setting.

The participants in this study who expressed feeling less competent in their professional reasoning with medication management reported that they lacked the ability to use scientific and diagnostic reasoning fully due to their limited understanding of pharmacology. They indicated that they needed to learn how to evaluate medication management more effectively. One participant said that if he was more familiar with standardized functional medication management assessments he would be able to identify issues that he, as an occupational therapist, could address. Most of the participants who felt less confident indicated that they needed further education to learn about the interactions of medications and the positive and negative effects of medications. Regardless of their experiences, the occupational therapists in this study indicated that more knowledge about medication would enable them to become more skilled in the professional reasoning process and allow them to have a greater role addressing medication management on the interprofessional team (see Figure 2). This concurs with Johanson-Pajala, Martin, Fastbom, and Blomgren (2014), who reported that nurses who had specific university courses relating to collection, detection, assessment, monitoring, and prevention of adverse effects of medication self-reported that they had more competence in medication management.

A cyclical effect was described by the occupational therapists. Those who had more training, mostly informal, in medication management had more experience addressing medication management using professional reasoning and became more competent. The more competence the participants had addressing medication management, the more involved they were addressing it with the interprofessional HHC team, which in turn created greater competence and confidence. The participants who had less training and less experience but who were still addressing medication management expressed a need for more training and more knowledge. One participant stated, "I am not comfortable addressing medication management because I do not feel well-trained." Another participant reported,

We are not trained in medication management, so other than making schedules to make sure they get the medication or to help put the medication in their pillboxes, we do not have the training in medication management. I would need to get trained first to do more to address medication management.

Yet another participant reported that some of the occupational therapists with whom he worked were no longer allowed to address medication management with HHC clients because they did not possess the competence to do so. These occupational therapists lacked the knowledge and skill to address medication management; therefore, their role on the interprofessional team addressing medication management was terminated.

Figure 2. A conceptual representation of the experiences of the occupational therapists' involvement in medication management practicing in HHC. They engage in the professional reasoning process gaining competence and confidence. They use this knowledge to participate in interprofessional collaborative practice. Sharing information and collaborating with other home health care professionals further increases their competence and confidence. They use this knowledge in the professional reasoning process.

If HHC occupational therapists want to increase their involvement in addressing medication management, efforts need to be made to improve competence and confidence in addressing medication management. One way to do that is to increase their professional reasoning skills by improving their knowledge about medication. The occupational therapists expressed a desire to have a greater role in medication management, as surmised by one participant: "I believe that occupational therapists' should be addressing medication management. It is a critical part of health and health maintenance. I just wish there were more resources available to prepare occupational therapists."

Future research is suggested to determine if occupational therapists consider their involvement in medication management as contributing to an effective interprofessional practice. This study found that occupational therapists' involvement was inconsistent. There was no indication that they participated in successful sharing of professional roles, expertise, planning, and decision-making. Establishing the effectiveness of occupational therapists' interventions, improving the occupational performance of clients related to medication management, and promoting the role of occupational therapists as members of an interprofessional team can help improve medication adherence. There is an abundance of studies investigating interventions to improve medication adherence (Conn et al., 2009; Henriques, Costa, & Cabria, 2012; Lau et al., 2008); however, no such study has been conducted examining the effectiveness of occupational therapy intervention addressing medication management. As occupational therapists continue to address medication management autonomously using professional reasoning and increasing their involvement in the HHC team, it is essential to determine if occupational therapy interventions lead

to better outcomes. If occupational therapy interventions are shown to be effective, then there is reason to increase occupational therapists' role in addressing medication management in HHC. Finally, future quantitative research is recommended to assess the components of clinical reasoning about medication management and to determine which components best predict good decision-making in clinical practice.

Limitations

It is appropriate for the IPA researcher to conduct a single, in-depth interview with each participant; however, this procedure prevented further exploration of the participants' experiences that surfaced after reading the initial transcripts. There were several informal opportunities to validate the statements of each participant during each interview, and formal member checking was attempted. Each participant was emailed a copy of his or her transcript for review; however, none of the participants provided any further comments. The participants were also emailed a list of the final themes, and six of the participants confirmed theme accuracy.

The strengths of this study include the researcher's knowledge of the topic and the in-depth exploration of the participants' varied experiences with medication management. The sample of participants brought a richness to this study with their first-hand accounts of experiences with medication management. The participants were occupational therapists that practiced in HHC in different regions in the United States, had varying years of experience practicing in HHC, and worked for agencies with different policies governing their involvement in medication management. Looking forward, it may be appropriate to employ a broad, mixed-methods study with a larger sample of occupational therapists.

Conclusion

The purpose of this IPA qualitative study was to describe occupational therapists' experiences with medication management in HHC. Medication management is an IADL for most HHC clients and most HHC agencies require occupational therapists to contribute to this occupation. Occupational therapists deliver medication management services autonomously and collaboratively among interprofessional HHC teams. The therapists in this study relied on professional reasoning to decide how to intervene in medication management, but many reported that they lacked confidence in their ability to address medication management. This lack of confidence was due to their expressed decreased ability to use scientific reasoning to contribute to the professional reasoning necessary to make informed decisions about the most appropriate intervention. It is essential to prepare entry-level occupational therapists for their future role in medication management and to educate occupational therapy practitioners in their current role in medication management. Medication management should be addressed in the occupational therapy curriculum. Integrating interprofessional educational opportunities into the curriculum may also help to improve role delineation and support the role of the occupational therapist in medication management in HHC and other practice settings. Continuing education activities, such as peer reviewed studies, workshops, and medication reviews, will improve professional reasoning for current occupational therapy practitioners. This in turn will improve occupational therapists' competence and confidence, which will increase occupational therapists' involvement in medication management, foster the development of occupational therapists' role in interprofessional practice, and increase the use of evidence-based medication management interventions. As one participant stated, "It's very dangerous to go in and do it cold."

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