

Integrated Care: Provider referrer perceptions of occupational therapy services for homeless adults in an integrated primary care setting

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Abstract.

BACKGROUND: Occupational therapists have a long history of addressing community performance and participation challenges faced by individuals with complex, chronic conditions, including those with serious mental illnesses (SMI) and cognitive issues that present with a traumatic brain injury (TBI). Healthcare reform has shifted incentives to support practices that promote successful community life for people with complex medical conditions. Community based care models emphasizing integrated primary care, such as Federally Qualified Health Centers (FQHC) are emerging, and a generalist role for occupational therapy is being defined. Those with complex comorbid conditions such as mental illness, substance abuse and traumatic brain injury are at risk for negative health outcomes that are further compounded by homelessness. There is a critical need to understand effective treatment options for this population to reduce the negative effects of chronic health conditions. As occupational therapists further define a role serving traditional clients in less traditional settings, such as the FQHC, it is helpful to explore the perceptions of the utility of OT services on the part of provider referrers.

OBJECTIVE: This study explored provider referrer perceptions of a new occupational therapy service for homeless adults in an FQHC to assist effective allocation of scarce resources.

METHODS: Twelve provider referrers at an FQHC were interviewed regarding their perception of the role and utility of occupational therapy in this setting. Interviews were then coded for themes.

RESULTS: Providers identified the unique value of occupational therapy, emphasizing critical information gleaned from the performance-based assessment of functional cognition, and the positive impact on team interactions and subsequent care decisions.

CONCLUSION: Occupational therapy provides a distinct perspective on client performance in FQHC settings indicating benefit for inclusion of services.

Keywords: Federally qualified health centers, primary care, integrated care, team-based care, complex comorbidity

1. Provider referrer perceptions of occupational therapy in emerging community practice

There is limited research on the role of occupational therapy in integrated primary care settings serving homeless adults, including contributions to

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the interdisciplinary team within this setting [1–3]. Federally Qualified Health Centers (FQHC) as a form of integrated primary care are designed to provide comprehensive primary and integrated health care to individuals who are low income and/or experiencing homelessness [4]. As an emerging practice area, research is scarce regarding occupational therapy interventions within primary and integrated health care sites such as an FQHC [5]. The purpose of this study was to explore provider referrer perceptions of the utility of a new occupational therapy service in an FQHC providing comprehensive health, mental health and social services for homeless individuals. Qualitative methods of naturalistic inquiry of providers in their environment or context were employed [6].

2. Literature review

There has been support within the profession of occupational therapy for a role in primary care, particularly in response to the redesign of community practice in integrated settings as a result of legislative changes [7–9]. The role has often been presented as a generalist, or a therapist with both range and depth of skill to intervene across health conditions in a primary care or integrated health delivery setting [8, 10].

Perceived barriers to practice in integrated primary care settings include a historic delivery model that emphasized solo practice and the tradition in occupational therapy of remediation rather than prevention, as well as lack of funding [2, 8]. As the role of occupational therapy within integrated care settings develops, it is critical to study the efficacy of occupational therapy interventions with those with complex co-morbid conditions in such settings, and to understand how these interventions can contribute to best practices and allocation of scarce resources.

There have been numerous studies promoting efficacious community practice through integrated health delivery models in which care for those with chronic, complex conditions is coordinated and delivered by a consistent group of providers [11–15]. These models have identified critical environmental supports for such a model such as strong leadership and political will and an organizational culture of collaboration and teamwork [11–15].

Limited research exists surrounding referral behavior and perception of occupational therapy in primary care settings. Some found that physician's

referral behavior was influenced by complex patient presentation such as pain [16]; patient need relative to chronic disease management [2]; and active outreach on the part of the occupational therapist [2, 7]. A study of nurses' perception of occupational therapy [OT] in inpatient mental health emphasized the need for education regarding role delineation to assist interdisciplinary understanding of the potential value of occupational therapy contribution to client recovery [17]. Other studies echoed themes relative to perceived added value and quality of life, and the need to prioritize referrals [2, 18]. Increased referrals were identified in settings with a strong history of team behavior and inter-professional communication, as well as a better understanding regarding the role of occupational therapy.

Studies of referrals demonstrate a range of findings. Although clients improved on goal attainment scales and in housing status when receiving OT services addressing functional cognition, referrals appeared to be in response to client performance problems rather than to promote performance using a preventative orientation [1]. Authors referred to acceptance of decline and subsequent decrease or plateauing of referrals as non-OT providers followed a "reactive" form of referral rather than preventative one. For example, non-occupational therapy providers in outpatient rehabilitation settings identified the clients with complex co-morbidities, such as TBI, psychiatric conditions, and substance abuse, as more challenging to engage in care [19]. Clinicians noted that quality healthcare services and the involvement of an interdisciplinary team facilitated treatment for people with TBI, where barriers such as training and resources were limiting [20]. Backer and Howard [21] noted that many service providers who work in settings with homeless individuals often lack training and expertise to address the needs of individuals with cognitive impairment and other significant disabilities. However, adults who are homeless with a history of head injury and mental illness are more likely to experience adverse outcomes, and could be considered a high-risk group most needing specialized services [13, 15, 22].

Occupational therapy services for individuals experiencing homelessness primarily have occurred within shelter settings or as an adjunct to care in hospital based practice [23, 24]. However, the chaotic environment of the shelter or inconsistency of shelter staff can affect the regularity of participation. Occupational therapy services in these settings may also rely primarily on group interventions, or limited

consultation by occupational therapy within a student supervisor role, limiting the individualization or complex clinical reasoning that a full-time, experienced occupational therapist can provide [25, 26]. The National Health Care for the Homeless Council (2010) recommends that models of health care for adults experiencing homelessness should be integrated and interdisciplinary, flexible in service delivery, and assist clients in accessing secondary and tertiary medical care, such as occupational therapy. By co-locating within FQHC sites, occupational therapists have the opportunity to provide individual interventions and collaborate with other health care providers to provide comprehensive care to a complex population [27].

It is clear that with multiple factors contributing to a homeless individual's restricted functioning, occupational therapy intervention to address these factors can be beneficial. A systematic review done by Thomas et al. [28] identified OT needs for the homeless population with serious mental illness (SMI) including money management, coping skills, employment and education, and leisure activities. Additionally, adults who are homeless experience restricted roles, habits, or contexts that inhibit their participation in valued occupations [29]. Current evidence demonstrates effectiveness of interventions targeting IADLs such as health and medication management, money management, community safety, and home management for individuals who are homeless and for individuals experiencing mental illness. Additionally, there is increased awareness in those serving homeless persons that TBI specifically is very common and complicates successful housing and other goals. However, there are limited studies addressing the more complex client that is homeless with TBI [4, 28–34, 40].

Several studies have employed performance-based occupational therapy evaluations and cognitive assessments with individuals who are homeless to assess instrumental ADL performance relative to functional cognition, safety, and community living [31, 35–40]. These studies demonstrate that occupational therapy evaluation can adequately assess for ongoing functional difficulties, and identify effective treatment plans in order to increase independence for individuals with SMI and TBI. However, due to lack of access of rehabilitation services for individuals with mental illness and TBI of more than one year post injury, many of these individuals are unable to access evaluation or intervention. Access to occupational therapy services in a setting such as an

FQHC enables screenings and potential interventions to identify potential challenges such as TBI that may be preventing successful goal attainment. This study explored provider referrer perceptions of the usefulness of occupational therapy services in an FQHC providing comprehensive health, mental health and social services for homeless individuals, as a component of program evaluation.

3. Methods

3.1. Setting

The study was conducted at a not-for-profit FQHC that provides comprehensive services for 6,400 homeless individuals annually in an urban area in the Mid-Atlantic United States [41, 42]. Over 70,000 patient services were documented annually, including medical care, mental health and addiction counseling, case management, chronic disease management, occupational therapy, and supportive housing [41]. Services are delivered on-site by interdisciplinary teams including physicians, nurses, social workers, case managers and registered occupational therapists. The setting meets requirements as an FQHC, such as providing care on a sliding fee scale based on ability to pay and operating under a governing board that includes clients [43].

3.2. Occupational therapy service delivery

The occupational therapy role initially involved a limited consultative model for less than one year, in which the occupational therapist was available on-site one morning each week to complete cognitive and functional evaluations. The role then expanded to become a full-time, funded position. Initially, referrals were primarily completed by providers from the behavioral health and supportive housing teams of the FQHC. Referrals then expanded to all agency teams, inclusive of behavioral health, supportive housing, and medical. Most referrals were for persons with complex medical conditions, including TBI (See Table 1). Of the 45 clients completing a comprehensive occupational therapy consultative evaluation and routine 90-day follow up, over half had a history of head trauma (51%) and close to a third (31%) had history of a cerebral vascular accident (CVA). Occupational therapy services also expanded from evaluation only to evaluation and ongoing intervention as indicated. At all stages of service, the

Table 1
Mental health and chronic health conditions of
OT referrals* (n = 45)

	Totals	%
Mood Disorder	32	71
Substance Abuse Disorder	31	69
Head Trauma	23	51
Neurologic/CVA	14	31
Chronic Pain	13	29
Post-Traumatic Stress Disorder	11	24
Psychotic Disorder	7	16
Intellectual Disability	6	13
Diabetes	5	11
Anxiety Disorder	5	11
Cardiovascular	3	7
HIV	2	4

*Categories are not exclusive.

occupational therapist documented results and recommendations from evaluations as a narrative report within the agency's electronic medical record (EMR) for providers to review and access as needed, in addition to verbal consultation. This study was conducted in the first year the occupational therapy position was full-time.

3.3. Data collection

A total of 12 providers at the FQHC were recruited through a convenience sampling method of available participants that met the eligibility criteria [6]. Inclusion criteria included being an employee of the organization; providing at least one referral for OT services; and willingness to complete the informed consent process. The Institutional Review Board of Towson University approved the study.

Data collection involved individual, in-depth semi-structured interviews of 30 to 60 minutes each that took place in person or by telephone [6]. Interviews consisted of seven questions that helped elicit a dialogue between the interviewer and interviewee to gather descriptive data that emerged through a series of follow up questions and frequent case examples spontaneously provided by participants (See Appendix). The instrument was reviewed by experts in the field, piloted and found to be satisfactory for eliciting themes. An audit trail was completed to assure consistency of data collection and analysis and member checking contributed to overall trustworthiness [44]. Two trained researchers collected the data—one served as interviewer and the second used a Smartpen [45] to record written notes and audio during the interview. At the completion of the interview, notes and audio were saved and de-identified.

A verbatim transcript of the interview was provided to each researcher for data analysis. Member checking occurred and data analysis followed Creswell's six-step method [46]. This process included organizing all transcripts and notes from member checking and agreeing on a systematic analytic process; individual, independent initial readings of each transcript for overall general meaning; individual, independent initial coding of each transcript using representative word or phrase or actual language of participants; jointly reviewing codes and providing context to expand understanding and generate potential themes forming the narrative; articulating a method of presentation and what to include; and final interpretation including both quotes and table of themes and sub-themes.

Following transcription, the co-investigators independently reviewed each transcript to gain a general sense of meaning, and then to analyze and generate emerging codes. Then, they met to group codes into broader themes, which were arranged into a narrative. Finally, they interpreted the essence and overall meaning derived from the qualitative methods [46].

4. Results

Of twelve study participants, all were licensed health care providers, with 75% ($n=8$) Master's prepared social workers. Two were nurses, one a certified nurse practitioner (CNRP) and primary care provider for clients receiving monthly or bi-monthly visits, and the second nurse (RN) part of the medical nursing team with a weekly caseload. The physicians ($n=2$) had psychiatric case responsibility, again with monthly and bi-monthly client visits. The social workers ($n=8$) served on behavioral health or supportive housing teams ($n=7$), or as a program director ($n=1$). These providers saw clients on a weekly or bi-weekly basis. There was a wide range of years of employment at the agency (between 1 to 23 years). Most had prior experience working with the homeless (mean 5.3 years). This sample of providers was skewed towards behavioral health providers due to the initial referrals occurring from behavioral health providers serving individuals with mental illness and TBI as the clients transitioned into housing services.

Analysis of the transcripts revealed two overarching themes, each with several sub-themes (See Table 2). The most common statement by participants was an unsolicited statement of need for additional OT services. This was interpreted as an expression of

Table 2
Themes respondent perspective of occupational therapy services

Occupational Therapy provides an important, unique view of function
 OT has different view of function
 → Fills in the gaps of team understanding complex client presentations
 → Functional cognition perview of OT
 Complex clients require multiple viewpoints
 Performance versus verbal assessment is critical for clients with TBI
 Value of team perspective – trust and respect of OT knowledge
 Increased access to OT referrals
 Increased availability for immediate OT verbal consultation due to co-location
 Encourage unique role support and teamwork

Occupational Therapy enriches client services
 Results influence subsequent treatment decisions
 → Value of written summary recommendations
 Results lead to different ways of engaging clients
 → Observes client in real-life situations
 Results influence overall client care and QOL

Need for more occupational therapy services
 Providers pre-screen to prioritize referrals
 Desire 100% referral for supported housing
 Desire expanded interventions—older adults, individual in home/community and group

the value of OT so was subsumed into other themes. Two other themes emphasized a vital and unique perspective on function addressed by occupational therapy and how that influenced team interactions with clients as well as treatment decisions. This was often revealed in the form of a specific case example by respondents, and in relation to functional cognition.

4.1. *Occupational therapy offers a unique perspective*

Although a request for additional services was the most common response, each respondent also ascribed high value to the unique contribution provided by OT. All twelve respondents highlighted the performance-based aspect that OT evaluated and translated to client performance in a way that enhanced their understanding of client need. This was specifically stated in relation to clients with complex conditions, who were prioritized for OT referral. The most common complex condition for which there was an OT request was suspected cognitive impairment resulting from TBI, along with a co-morbid mental health condition. In these cases, the providers often had difficulty determining the capabilities of the client.

The physician respondents stressed more prominently than other providers the importance of OT services when identifying cognitive deficits that may impact a client's ability to participate in daily life activities. The referring physicians utilized OT ser-

vices to gain an in-depth understanding of the client's functional cognition, and to determine what supports the client needed to live safely and most independently. Referrals to OT appeared less diagnostically and more functionally driven. One physician respondent stated, "We see so little of what is going on with our clients, but being able to see somebody in the home is valuable information that you are never able to get in an office talking to somebody." The referring physicians stressed the importance of verbal, face to face meetings with OT following assessment, emphasizing their limited time to review comprehensive reports and trust and value of the occupational therapy assessment findings to guide their treatment decisions. One physician respondent stated, "there is a particular patient who has possible dementia, also depression and 2 or 3 substance abuse disorders... he struggled with meds. I was concerned because he was on 5,6,7,8 different meds not all from me. He wasn't taking his meds right so (OT) was seeing him very regularly, working on how do you take your meds, what's going on at home, how do you manage your budget, and talking with her and reading her notes have been extremely helpful." Another physician respondent stated, "I go right to the [OT] summary and to the recommendations usually... it is very clear and very accessible as what kind of steps or support a person may need which is wonderful, a lot of our diagnoses are soft as to what the diagnosis is and... [OT] really focuses on what the deficit is and what might be done."

4.2. Occupational therapy is a critical member of the team

The full-time, on-site OT is recognized as an integral team member and collaborator. The CRNP respondent serving as a primary care provider stated, "We have 15–30 minutes with a client—they have spent a lifetime figuring out strategies to cover up deficits . . . especially with polypharmacy, and we're doing a dose change . . . and you say we're going to increase your dose from 10 mg to 20 mg so just take two . . . well that is a really complex statement for me to make to a patient if they don't understand the concept of 10 mg times two is 20, therefore doubling up your dose . . . organization of pill boxes is really important, especially when you get into medications that have consequences."

Social worker respondents articulated the value of OT to help "fill in the gaps" where they did not necessarily have the time to provide the same level of treatment for the clients. Another sub-theme involved the referral to OT to get a snapshot of occupational performance in the community as a critical component in care decisions. One social worker respondent stated, "that whole piece of how they survive at home when we're not there. That's the piece that we don't have the time to commit to so OT gives us a different perspective on the client's situation." This sub-theme of occupational therapy as a critical team member to maximize an in-depth view of clients in a real life situation was consistent for those providers with day-to-day client responsibility and contact.

The provider who initially supported inclusion of occupational therapy services highlighted the specific value of occupational therapy in assessing functional cognition relative to TBI. The provider described her history of work with the homeless and growing awareness of TBI in the population, as well as history working with OT that led her to advocate for hiring an OT to assess functional capabilities and deficits and develop effective intervention strategies. She described her confidence in the OT to work with the client to improve function and/or teach compensatory techniques. Although the other providers that were interviewed discussed the role of OT in assisting to identify functional and cognitive deficits, they did not speak specifically about TBI. The initial hire of the occupational therapist required a vocal and formal clinic leader with positive history working with occupational therapists treating clients with TBI.

4.3. Occupational therapy enriches client services

Provider respondents emphasized the contribution of OT information to their own practice. A social worker that serves as a program director stated, "It [OT consultation] does make a big difference around the quality of sessions that I have . . . I feel like there's an improvement in my interaction with clients." Providers noted that the OT evaluations provided a clearer picture of their client's actual skills, especially for clients perceived as more complex. One social worker stated "I pick the most complicated (who is referred to OT), because even though I've known them for years, I felt like I didn't know a whole lot about them. I saw this as an opportunity to learn about their functioning." Another social worker stated "The information that OT provides is wonderful because it is a guessing game . . . having a formal assessment is so helpful because clients will say they can do it all but when given the task it doesn't always work out so well." Providers emphasized that knowing clients' strengths and problem areas helped to focus their sessions better. In addition to adding to the quality of interactions between clients and referers, OT services were reported to provide a different perspective on how to address the clients' situation and personal needs. The importance of a collaborative approach to treatment and specific benefit of OT was emphasized. This collaborative approach enables team members to share the workload and provide more focused services for their clients. The utilization of written recommendations from the OT and verbal consultation promote collaboration on the best plan of care to support client needs.

4.4. Need for more occupational therapy service

When asked what other services would be helpful to the clients, the participants highlighted a need for more OT services and staff. Respondents expressed the desire for more OT treatment for older adults, individual clients and in community settings with assessments that focus around fundamental life skills. It is noteworthy that all respondents were asked what was not helpful or least helpful and the only response was the need for additional service.

5. Discussion

All respondents emphasized the coordination with OT through performance-based assessment of home-

less clients with complex comorbidities, including TBI. The introduction of OT offered to expand provider knowledge to enhance the daily lives of clients with this presentation.

Team based care is a core practice in integrated primary care settings, thus, providers working within these environments appreciate a variety of perspectives. Many respondents expressed that they lacked the knowledge to fully assess functional cognition, especially in regards to ADL performance and skills related to community living. When referring clients for occupational therapy, most respondents appreciated the alternative view of function provided through formal and informal assessments, and especially for the increasingly complex clients served within this setting. Additionally, the occupational therapy scope of practice views individuals from an alternative lens, often not reflected in traditional medical or mental health appointments. This finding is consistent with studies that identified the value of strong routine communication and understanding of the contribution of occupational therapy as enhancing success in an emerging practice environment [7, 8, 9, 27].

The respondents consistently reported utilizing OT information to better inform their treatment decisions and plans with their clients. Respondents identified that information on functional cognition broadened and diversified their approach to engage clients with a range of cognitive challenges with learning and understanding. Additionally, they felt better able to address the needs of their clients and support transitions, such as moving into more independent housing. Respondents stated that the broadened perspective, diversity in care, and ability to better meet the needs of their clients improved both the care they were able to provide, as well as the quality of life of their clients. This finding reflects the experiences of Donnelly et al. [8], who found that a generalist role emphasizing a focus on function was most typical of the role of occupational therapy in an emerging primary care environment that served clients with complex chronic conditions.

All respondents offered concrete examples of the positive impact of occupational therapy for their clients, and identified the need to expand and offer more within the setting. It is noteworthy that the OT role was expanded during the course of this study. Even with full-time occupational therapy services, respondents continued to consistently report the need for additional OT services, supporting the perception of value reported throughout the interviews. Respondents identified wanting more availability for their

clients to receive ongoing services and individualized care following evaluations. They also discussed how more OT services could enhance their particular practice area, such as in-home safety assessments or routine occupational therapy evaluations for every client transitioning into housing services. Although all respondents frequently referred clients for occupational therapy, they endorsed sending “the most complex” clients, citing the need to not overwhelm the occupational therapist’s schedule with “soft referrals” or clients with less significant needs.

Although there were consistent themes across all respondents, there were variations in the emphasis and what aspects were most valuable. Physicians reported referring for and finding the most benefit from cognitive assessments to provide a more robust clinical picture of client function. They identified information as helpful for the diagnostic process, and to better consider a person’s baseline functional cognition. Alternatively, providers with more frequent and involved client contact, such as social workers, mental health therapists, or registered nurses, most frequently used both the cognitive and functional information. They identified needing to modify their treatment approaches based on the cognitive information, and also felt more able to meet the functional needs of clients by supporting use of adaptive strategies, integrating community supports, and understanding functional strengths and barriers more fully. These providers also reported finding benefit in the more functional skills of an occupational therapist to address ongoing needs in areas such as ADL or home safety, where these providers found they did not possess the clinical skills to address these themselves.

Consistently, all providers endorsed the benefit of on-site occupational therapy, as they were able to receive feedback and informal reports on clients’ performance through impromptu or scheduled face-to-face communication. Most providers identified if they read the documented evaluations, they “would skip to the recommendations,” due to time constraints and desire to learn more about strategies and approaches. Coordination of care and team based collaboration was continually emphasized as a critical component, which was enhanced by in-person communication with the OT [12–15]. The role of strong interpersonal relationships is similar to that found in other studies [22].

Limitations of the study include that the interviews were vulnerable to social desirability bias. Respondents may have addressed interview questions based on what they perceived would be viewed

as correct or desirable responses [13]. The on-site OT initially identified prospective respondents. Therefore, the findings of the interview may be limited by sampling bias [46]. Finally, since the researchers are also occupational therapists, the findings may be vulnerable to researcher bias [46]. These potential biases were addressed by separating the roles of the Co-investigators. The Co-investigator employed at the agency initially reached out to participants, but did not participate in any data collection, including obtaining consent. She only completed the analysis of de-identified data through review of transcripts with the other investigator. The other Co-investigator, who is not affiliated at the agency in any role, followed up and completed all referrals with trained graduate students, and obtained consent. There was consideration of interviewing non-referrers, but the team structure led the investigators to conclude that there were no potential respondents that did not have at least one client on their caseload that had been referred to occupational therapy.

Although there were minor differences in the perceived use of OT services across respondents, three overarching themes were identified: The value of an additional perspective on the team, focus on functional cognition and real life problem solving, and the need for more OT services to benefit more clients. Findings were similar to those of other studies that found that an emphasis on complex cases and respect for teamwork increased access to occupational therapy services [8] and limited access to services led to prioritizing of referrals by providers [18]. The perception of occupational therapy as a vital member of the treatment team is another similarity to other studies of increased referral behavior [8]. The increased number of referrals for clients with complex co-morbidities that affect performance in daily life, such as TBI, was similar to other studies [2]. A major difference in findings of this study is that there does not seem to be role confusion as was reported in a study of perception of occupational therapy by nurses on an inpatient mental health unit [40]. While beyond the scope of the study, this may be influenced by the realities of integrated primary care, where client challenges in executing activities of daily living are routinely demonstrated to team members and the role of occupational therapy is more easily understood, in comparison to an inpatient setting where high acuity and active symptoms of psychosis may restrict the type of real-life interventions and lead to some role confusion.

6. Conclusion

This study examined referrer perceptions of occupational therapy consultation in a large FQHC serving homeless adults. The primary implication for occupational therapy practice is support for assessment of functional cognition in context for complex clients with numerous co-morbidities. Each respondent articulated the unique role of OT as distinct and influential to team interactions and client care decisions. This also reveals the value of the generalist emergent role for OT in community health/primary care settings, where incentives are tied to client function in daily life. Further studies would be beneficial to assess efficacy of such interventions within this setting.

Conflict of interest

None to report.

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3. What information from the OT consultation was most helpful?

4. What information was not that helpful/was least helpful?

5. How have you used the information from the OT consultation?

6. Would you be likely to refer other clients for OT consultation?

7. What other services would be helpful for your clients relative to community success?

Appendix

Provider interview items

1. How did you make the decision to refer _____ for Occupational Therapy (OT) services? (criteria, reasoning?)

2. What kind of information were you looking for OT to provide?