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Use of Assessments in Occupational Therapy Physical Disability Settings

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USE OF ASSESSMENTS IN OCCUPATIONAL THERAPY
PHYSICAL DISABILITY SETTINGS

by

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An Independent Study

Submitted to the Occupational Therapy Department

of the

University of North Dakota

In partial fulfillment of the requirements

for the degree of

Master of Occupational Therapy

Grand Forks, North Dakota

May 14TH, 2016

This Independent Study, submitted by Caitlin Brown and Jana Carroll in partial fulfillment of the requirement for the Degree of Master of Occupational Therapy from the University of North Dakota, has been read by the Faculty Advisor under whom the work has been done and is hereby approved.


Cheri Gravo, MOT, OTR/L
Signature of Faculty Advisor

4/18/2016
Date

PERMISSION

Title Use of Assessments in OT Physical Disability Settings.
Department Occupational Therapy
Degree Master of Occupational Therapy

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 4/18/16

Caitlin Brown Date

 4/18/16

Jana Carroll Date

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ABSTRACT

Background: The aim of this study is to evaluate occupational therapists' (OTs) perceptions and use of informal observation and formal assessments in order to understand if differences exist between acute care and non-acute care occupational therapy (OT) adult physical disability settings. Non-acute settings may include but are not limited to home health, inpatient rehabilitation, transitional care, outpatient rehabilitation, and long term care.

Methods: Study design involved a nonexperimental survey. Qualtrics software was utilized to disseminate the survey across a five-state region to the population under study. Response rate included 88 OTs who answered consistently to the questions analyzed. Data analyses utilizing Statistical Package for the Social Sciences (SPSS) Statistics 23 was then conducted.

Findings: OTs in both types of settings utilize informal observations more often compared to formal assessments. However, the acute care setting was found to have used informal assessments 17% more of the time. A positive relationship exists between increasing years of experience and feelings of validity and ease of use of informal observations. Trends were recognized in the number of years spent in OT practice regarding use of assessments.

Conclusion: Findings enhance understanding of OT practice in acute care as compared to other adult physical disability settings in regards to the use of assessments. Implications involve the incorporation of teaching concepts of informal observations to the OT

curriculum as well as enhancing future practitioners' understandings of validity and reliability. The findings highlight the need for the development of formal assessments that consider the constraints of practice environments in order to enable their use. Implications for future study involve further investigation on the impact of years of experience in assessment use as well as additional studies to enhance understanding of occupational therapy in acute care.

CHAPTER I

INTRODUCTION

Occupational therapy (OT) as a profession is extremely diverse in the type of physical disability practice settings available to its consumers. From acute to long-term care and everything in between, the scope of practice offers an expansive set of delineations, each with their own set of specific challenges and skills necessary for performance. For example, the type and form of assessments used in each setting pose a unique element to certain areas of practice. In a study completed by Crennan and MacRae (2010), the authors found that occupational therapists in the acute care setting more often utilize skilled informal clinical observations as assessment methods as opposed to comprehensive formal evaluations such as standardized, norm-referenced, and published assessments.

This identification of the use of informal observational assessments in acute care established the foundation for the current study. Although Crennan and MacRae (2010) identified that occupational therapists (OTs) in the acute care setting utilize informal observations more frequently as compared to formal assessments, this question has not been posed to other settings within the occupational therapy scope of practice as evident through an extensive, multi-database review of the literature. The researchers of the current study are interested in the use of informal observation and formal assessments in acute as compared to non-acute care adult physical disability settings. In addition, the researchers are also interested in the perceptions OTs within these settings hold on

informal observation versus formal assessments as evaluative assessment measures as they relate to years of practice experience.

Statement of the Problem

In recent years, the field of occupational therapy has grown tremendously as a variety of specialty settings and unique areas of practice have emerged. From psychology to orthopedics to stroke rehabilitation, the profession continues to grow and develop. Similarly, as the future of healthcare in the United States continues to change, so will the practice of occupational therapy. With these changes, a need exists for continuous efforts by occupational therapists to remain relevant within all areas of practice. Each setting poses specific challenges for occupational therapists who must be able to manage time, skills, abilities, and standards of care in order to hurdle such obstacles.

One such obstacle occupational therapists face is the use of effective formal assessment tools and skilled informal observations in combination to develop clinical reasoning for the intervention and treatment of clients in all treatment settings. With this challenge, a variety of questions emerge that have yet to be answered in terms of researched conclusions. For example, to what extent are formal assessments more beneficial than informal observations and vice versa? What combination of these assessment methods establishes the greatest understanding of the client's current level of performance? Does the type of setting dictate the use of different assessment tools and strategies? What are the perceptions occupational therapists hold regarding the use of different types of assessments and how does this influence their use?

Purpose Statement

The purpose of this research study is to evaluate the use of formal assessments and skilled informal observations in acute care as compared to non-acute care settings. In addition, the researchers will also identify the perceptions occupational therapists in adult physical disability settings hold regarding assessment methods as they relate to years of experience. These stipulations have not yet been identified in current OT literature and research.

Research Questions

Two research questions were asked in the development process of the current study. The first involves the influence of practice setting on the use of assessment methods. Specifically, do occupational therapists in acute care settings utilize informal observation assessments more frequently as compared to therapists in non-acute settings? Even more explicitly, do therapists in acute care use informal assessments more frequently in terms of initial evaluation, progress reports, and discharge evaluation?

The second question of the research study involves the identification of factors affecting the use of formal and informal observation assessments in each practice setting. Particular questions being, do years of experience impact personal beliefs about assessments? And, do the perceptions therapists hold regarding types of assessments affect their use? Each of these sets of questions were taken into the consideration during the formation of survey questions in attempting to justly identify solutions.

Theoretical Framework

Limited literature exists about the use of occupational therapy theory in the acute care setting. Blaga and Robertson (2008) recognized the biomechanical frame of reference, compensatory frame of reference, Model of Human Occupation (MOHO), and

the Canadian Model of Occupational Performance (CMOP) as the most commonly used models and frames of reference in the acute care setting. Additionally, Maclean, Carin-Levy, Hunter, Malcolmson, and Locke (2012) identify the Person-Environment-Occupation (PEO) model as a useful guide for practitioners in acute care settings because not only is it occupation-based as previously identified models (MOHO and CMOP) but also focuses on the impact of the environment and the “goodness of fit” between the patient, occupation, and environment (Maclean et al., 2012).

Explicitly, the PEO model takes into account three factors, the person, the environment, and the occupation, to address their impact on occupational performance. Law, Strong, Stewart, Rigby, and Letts (1996) describes the PEO model as a transactive relationship between these factors. As it relates to this study, these elements reflect the occupational therapist (person), acute care or non-acute rehabilitation settings (environment), and assessment of the client (occupation). Occupational performance within this model is described as “the dynamic experience of a person engaged in purposeful activities and tasks within an environment” (Law et al., 1996, p. 16). Occupational performance relates to the current study in the form of a therapist’s use of informal observation versus formal assessments.

Piernik-Yoder & Beck (2012) stated, “It is apparent that practice setting influences multiple aspects of assessment practice” (p. 107). A major strength of this model is its particular focus on environmental factors. The environment of the current study encompasses acute care and its characteristics as well as non-acute care settings. According to Law et al. (1996), the environment can encompass personal, social, cultural, and physical aspects that can be either facilitating or constraining to occupational

performance. Through a review of the literature, constraining environmental effects were found on the use of formal assessments within the acute care setting with time restrictions, cost, pressure for discharge, and complexity of clients being of most concern (Alotaibi, Reed, & Nadar, 2009; Crennan & MacRae, 2010; de Clive-Lowe, 1996; Robinson & Shotwell, 2011). Each of these factors have an effect on the clinical decision making of an occupational therapist, and their choice of assessment methods.

Within the PEO model, the relational fit between the three elements equates to the effectiveness of occupational performance. If fit is maximized, occupational performance is enhanced. In contrast, with decreased fit, occupational performance is diminished (Law et al., 1996). Law et al. (1996), uses the term “transaction” to describe a paradigm of relatedness between the person, environment, and occupation (p. 10). If one element changes, it affects the other two in relation. For example, restrictions within the acute care environment, such as time constraints, places pressure on the occupational therapist who therefore must compensate by using assessments that are easy and quick to administer, such as informal observations. Therefore, OTs often adapt their approach through the use of observations to enhance their environmental fit within acute care and as a result, maximize occupational performance.

Understanding the transactional relationship between acute care and non-acute care settings, the occupational therapist, and their use of assessments is the basis for this investigation. Therefore the PEO model, as it takes each of these elements into account, will be used as a guide in the current research study. Each factor will be analyzed in detail and connected to its effect on occupational performance of using assessments, whether formal or informal, in each of the settings under investigation.

Potential Significance

This study will provide a greater understanding regarding the use of evaluative assessment methods considering the nature of practice within acute care and non-acute care settings. It will also be useful to improve awareness on the perceptions OTs hold about their use of informal observations and formal assessments. Results will be useful to prepare professionals for specific types of settings, influence education on the development of informal observational skills for students, and also to understand how to improve, tailor, and develop assessments based on the setting in which they will be used. Each of these factors are significant to the continual development of the OT profession in order to stay relevant within current medical practices.

Assumptions

Several assumptions are identified within this research study. First, is that study participants, based on explanation of anonymity and confidentiality, answered each question truthfully and honestly. Honesty is also assumed for identifying themselves as registered occupational therapists as opposed to occupational therapy assistants based on professional standards within OT practice. Additional honesty based on professional standards is assumed that participants only partook in the survey one time. Finally, it is assumed gender of participants has no significance within this study.

Delimitations

The current study will address four distinct variables, informal observation assessment and formal assessments as well as acute care and non-acute care settings. The informal observation and formal assessment variables describe types of evaluative assessment measures in occupational therapy physical disability settings. Each evaluation

type will be analyzed for use within the acute and non-acute care settings, leading to four possible variable measures. Additional factors will also be analyzed including therapists' perceptions of the clinical worth each type of assessment has on practice as well as insight on influences affecting their use, such as years of practice experience.

Data was gathered for these variables via an online survey. Survey distribution was limited to a five state area including North Dakota, South Dakota, Minnesota, Montana, and Wyoming. These states were chosen as they offer a large scope of the upper Midwest region of the United States in addition to being affiliated with the University of North Dakota (UND) Occupational Therapy Department, the researchers' graduate school of education in which the current study is necessary for completion of a Master's level program. Additionally, surveys were limited to registered occupational therapists within adult physical disability settings.

Limitations

Limitations are identified for this study with potential unintentional effects on the outcomes. A number of limitations identified are associated with the survey itself. First, that a response rate could not be identified. It was unknown how many surveys were distributed by the intermediary fieldwork contact persons to their coworkers and employees. Second, the design of the survey utilized three different forms of measurements (i.e. constant sum scales, Likert scales, and multiple choice). This format could be identified as potentially confusing participants. Third, survey length with 32 questions may have had a fatiguing effect. Fourth, although definitions of key elements were outlined, subjectivity in interpretations by the participants may have been a factor. Lastly, unintentional researcher bias in the formation of survey questions and questions

were not tested for reliability or validity are also viewed as limitations. Additional limiting factors not related to the survey could involve the lack of generalizability due to the five-state region utilized as well as lack of control over settings and circumstances in which participants completed the survey. Sampling error may have been a factor because the distribution between non-acute settings (inpatient rehabilitation, home health, long-term care, etc.) in returned surveys is unknown.

Definition of Terms

Definitions of informal observations and formal assessments were developed by the researchers for the purposes of this study. A lack of clarification was identified in the literature, thus in order to separate and categorize each type of assessment measure a definition was identified. The researchers define formal assessments as any published, standardized, or nonstandardized assessment tool created for the evaluation of a client. This would include measures such as the Mini Mental Status Exam, Berg Balance Scale, St. Louis University Mental Status Examination (SLUMS), Rancho Los Amigos Scale (RLAS), Allen Cognitive Level Screen Assessment (ACLS), etc.

Likewise, the researchers determined informal observations to be defined as a method in which a therapist uses purely their own direct observations and clinical judgment as a means of assessment without the use of a formal, published, standardized, or nonstandardized assessment in mind. This would *exclude* assessment tools such as the Functional Independence Measure (FIM), the Cognitive Performance Test (CPT), and the Assessment of Motor and Process Skills (AMPS) along with other formal observational assessments. Although these assessments use methods that are observational in nature,

their data is compared or scored to a baseline criterion, decreasing the subjectivity of the results compared to a skilled informal observation by a therapist.

Acute care is identified in this study as acute hospitals in which occupational therapists focus on clients with physical disabilities. Lastly, for the purposes of this study, the researchers define non-acute care as any physical disability setting in which occupational therapists work other than acute hospitals. These could include but are not limited to home health agencies, inpatient rehabilitation, transitional care units, long-term care facilities, outpatient rehabilitation, and skilled nursing facilities.

Summary

Chapter one has identified the preliminary basis for the current research study offering research questions, identifying the problem and purpose, the theoretical framework, assumptions, limitations, delimitations, and definitions. The following chapters will outline the conceptualization, implementation, and findings of the study. Chapter two incorporates a scoping review of the literature of the variables of the study in terms of explanation of acute and non-acute care settings in addition to the limitations and strengths of both formal assessments and informal observations. Chapter three delineates the methods of the research study, particularly the development and implementation of the survey and procedures of analysis. Chapters four and five encompass analysis, summary of data, interpretations, implications, conclusions, as well as recommendations for its use and future studies. Finally, the appendix will include an example of the survey, Internal Review Board (IRB) approval documents, and other documents pertinent to this study.

CHAPTER II

LITERATURE REVIEW

The researchers' intentions in the following study are to explore and gather data on occupational therapists' use and perceptions of informal observations versus formal assessments in the adult physical disability practice settings. The authors chose to include all adult physical disability settings due to sampling methods utilized, but are specifically interested in results applicable to acute care in comparison to the other non-acute physical disability settings (skilled nursing facilities, long-term care, home health, inpatient rehab, etc.). Acute care was identified as a focus specifically due to a lack of research in that particular area of occupational therapy practice especially in the use of assessments and the unique finding that OTs in this setting distinctively utilize informal observations more often than formal assessments (Crennan & MacRae, 2010). Through a literature review, aspects of the acute care and other physical disability rehabilitation settings as well as the strengths and limitations of formal assessments and informal observations will be analyzed in order to develop a complete picture of the occupational therapist's role in assessment in each of these settings.

Acute Care

According to Robinson and Shotwell (2011), "the purpose of the acute or intensive care unit is to deal with immediate medical care and prepare the patient for discharge" (p. 2). Because of this paradigm, the acute care setting can be one of the more challenging settings for therapists due to complex environmental and clinical challenges

(Gorman et al., 2016). With ever-changing Medicare standards and evolving models of practice, this setting tends to translate to being fast-paced with high clientele turnover (Crennan & MacRae, 2010). In the past, the acute setting has largely focused on the medical model, which has been challenged by occupational therapists in recent years as the profession's theoretical perspective focuses on healing from a holistic point of view of occupational performance rather than treating diagnoses and alleviating symptoms (Griffin & McConnel, 2001; Law et al., 1996). Occupational therapists have had to adapt their style of care to stay true to their profession's core beliefs while also accommodating the demands of a fast-paced, quick-discharge setting that is driven by financial standards (Holdar, Wallin, & Heiwe, 2013).

For example according to the Center for Medicare and Medicaid Services (CMS) (2013), since 1990 the average length of a short-stay hospital stay decreased from 9.0 to 5.1 days in 2013. Due to this condensed time frame, interventions mainly focus on discharge planning and self-cares rather than actual occupational performance, a core belief of occupational therapy (American Occupational Therapy Association, 2014; Griffin & McConnell, 2001). In addition, in their study of the nature of OT in the acute care setting, Craig, Robertson, & Milligan (2004) also highlight other factors that contribute to a decrease in the amount of time occupational therapists spend with patients including the need for other healthcare disciplines to have access to clientele. Overall, they concluded that 88 percent of occupational therapists in the acute care setting identified the most limiting aspect of their practice to be time constraints (Craig, Robertson, & Milligan, 2004).

Such time restrictions and continual pressure for productivity equates to a work paradigm of efficiency while also meeting an exceptional level of care (Courtney, Tong, & Walsh, 2000). Unfortunately, this need for output in combination with various time and environmental constraints has caused detriments in certain aspects of practice for occupational therapists, specifically engagement in meaningful occupations (Eyres & Unsworth, 2005). For example, occupational therapists are encouraged to focus on safety and home support post discharge as opposed to functional tasks (Blaga & Robertsons, 2008; Crennan & MacRae, 2010). Occupational therapists who work under these circumstances are encouraged to complete assessment of functional status and make recommendations for discharge without actually providing treatment (Griffin & McConnell, 2001). However, some types of formal assessments simply do not exist within this area of practice. Currently no comprehensive discharge assessment exists for the acute care setting in occupational therapy as this would require an assessment that would prevent readmission and increase collaboration and communication between team members (Crennan & MacRae, 2010).

However, generalized performance-based evaluations do exist, although are not used comprehensively within the acute care setting. For the purposes of this study, such performance-based assessments as they are published and often standardized, are considered formal assessments. In a study by Crennan and MacRae (2010), performance-based assessments such as the Kohman Evaluation of Living Skills (KELS), Assessment of Motor and Process Skills (AMPS), and Canadian Occupational Performance Measure (COPM) were evaluated for their use in acute care settings. It was found that the average amount of time to complete these assessments took approximately 45 to 60 minutes and

were therefore used only 30% of the time by therapists due to the time restrictions of the acute care setting. As a result, the primary form of assessment used in this setting was non-standardized functional observation-based assessments, in this study referred to as informal observation (Crennan & MacRae, 2010).

Performance-based standardized assessments, such as the AMPS, are able to provide pertinent information to the occupational therapists in context with the patient's environment (Crennan & MacRae, 2010). The AMPS specifically focuses on occupational performance and provides insight into the functioning level of a client especially in regards to safety. However, due to time constraints in the acute care setting, these types of assessments are not being utilized (Crennan & MacRae, 2010; Robinson & Shotwell, 2011). Additionally, when formal assessments are being utilized, it has been found that they mostly only address body structure and functions as opposed to occupational performance, a key outcome of occupational therapy (Alotabi, Reed, & Nadar, 2009; AOTA, 2014).

It is essential when any therapist is performing an assessment it should address the concerns of the client and any safety issues present (Robertson & Blaga, 2013). While attempting to incorporate client concerns and safety in assessments, occupational therapists in the acute care setting struggle to also encompass certain defining features of the occupational therapy profession due to the restrictions of the environment. For example, in their study of Australian occupational therapists in acute care, Griffin and McConnell (2001) found that important factors such as work and leisure occupations are not being taken into account in the acute setting and identified time constraints as the main culprit (Griffin & McConnell, 2001).

In order to evaluate clients, as well as compensate for the lack of time, occupational therapists practicing in acute care settings most frequently use informal observational assessments and interviews as opposed to comprehensive formal assessments (Craig, Robertson, & Milligan, 2004; Crennan & MacRae, 2010). Griffin (1993) states that, “from the minute you walk in the door till you get to the bedside you have already done your functional assessment” (p. 1089). Therefore, skilled informal observation is a key skill for occupational therapists in the acute care setting because it has been found to be both efficient and accounts for the restrictions of the environment, however the question remains as to its clinical worth in the medical world.

Non-Acute Rehabilitation

Non-acute adult occupational therapy rehabilitation settings such as skilled nursing facilities, transitional care units, home health, inpatient rehabilitation, and long term care, were chosen for this study as a means to compare the use of informal observations and formal assessments to the acute care setting. These non-acute settings were chosen due to stark contrasts in therapy practices and procedures in comparison to acute care with possibly the largest factor being length of stay. For example, in inpatient rehabilitation settings, patients are seen on an average of two to three weeks and have sessions on a daily basis ranging from 30-60 minutes (Timmer, Unsworth, & Taylor, 2015). Likewise, home health services were utilized on an average of 31 days in 2011 (CMS, 2011). These are opposed to acute care settings where patients, on average, are seen for less than 5 days (Center for Disease Control (CDC), 2010)

As previously noted, the limited amount of time occupational therapists receive in acute care settings in order to evaluate and treat clients played a critical role in the

assessments utilized (Crennann & MacRae, 2010; Craig, Robertson, & Milligan, 2004). In contrast, non-acute care settings have identified comprehensive evaluations as a major role of OT services (Roberts & Evenson, 2014). In fact, some assessments such as the FIM and the Outcome and Assessment Information Set (OASIS) are often mandated to be used within post-acute care settings (Rogers, Green-Gwinn, & Holm, 2001).

Other stark contrasts from acute care exist in these settings as well. In non-acute settings treatment is typically guided by the patient and what occupations they find meaningful. For instance, the three most common current procedural terminology (CPT) codes utilized in outpatient therapy services include therapeutic exercise, manual therapy procedures, and therapeutic activities (Liu, Stump, Ambuehl, & Clark, 2014). This is in contrast to acute care where self-cares are of most concern (Griffin & McConnell, 2001). These findings indicate an altogether different focus between the two types of care settings.

In relation, much scrutiny of OT in the acute setting has amounted for its lack of occupation-based interventions outside of self-cares (Britton, Rosenwax, & McNamara, 2015). As the preceding findings of acute care outlined, many possible reasons for this exist. However, functional occupation-based treatments have been a staple of non-acute care settings (Roberts & Evenson, 2014). Common interventions within non-acute care settings include functional mobility, instrumental activities of daily living (IADLs), social interactions, work, and leisure (Roberts & Evenson, 2014). It is these and the other previously mentioned differences from acute care that allow for non-acute care settings to serve as the comparative variable within the current research study.

Strengths of Informal Observation

Whether consciously or subconsciously, occupational therapists use informal observation as a form of assessment by using their specific expertise and clinical judgment (Clemson & Fitzgerald, 1998). The skill of observation is used as a means of developing clinical reasoning about a client, which in turn, influences a plan of interventions, referrals, and discharge recommendations. Through training, experience, and mentorship, occupational therapists in particular have the unique ability to view clients' potential in terms of rehabilitation and recovery.

In a study looking at the eye movement patterns of occupational therapists and non-occupational therapists, MacKenzie and Westwood (2013) reported that occupational therapists utilize significantly different gaze patterns compared to those of non-OTs with a greater use of fixations and more saccades. Through these findings, the authors conclude that observational skills are not merely general ability of the masses, but are skilled and developed through training, experience, and are domain-specific to the profession. The authors concluded that these distinctive observational skills allow for a definitive, profession-specific base of therapeutic assessment (MacKenzie & Westwood, 2013).

One of the most exemplary benefits to skilled observation is its ability to capture a vast amount of information in a short amount of time (Brentnall & Bundy, 2009). In their study of occupational therapists in the acute care setting, Craig, Robertson, and Milligan (2004) found that the majority of OTs described time management to be the most beneficial skill in their practice. Observations facilitate this practice in that they may be performed upon arrival, during interventions, and during non-treatment times along with many other circumstances. This is in contrast to other methods of assessment such as

interviews that gather more general information over a longer period of time (Brentnall & Bundy, 2009).

Other benefits of the use of observation exist as well. In their position article, Brentnall and Bundy (2009) argue direct observations are a more valid and objective form of assessment as opposed to the subjective nature of client interviews. For example, in an interview a client may claim to be independent in dressing, when in reality a visual observation by the therapist of the task may result in the determination that the client does in fact need assistance. In addition, Mackenzie and Westwood (2013) point out that clinical observations are more telling of occupational performance in individuals who are unable to speak or accurately report their functional abilities due to cognitive impairments.

Lastly, using observation as a method of assessment has benefits for the therapist as well. In their study, Holdar, Wallin, and Heiwe (2013) explored the factors influencing the development of clinical reasoning skills for physiotherapists. The researchers found that communication between the therapist and client was a key factor in the development of clinical reasoning. They highlight that therapists not only listen to the client during a conversation, but visually observe and take into account a client's non-verbal communication as a form of evaluation and assessment. For example, by observing a client during a conversation, a therapist may be able to evaluate nonverbal signs such as breathing, gait, muscle tone and general body language (Holdar, Walling, & Heiwe, 2013). Such important informal observations play a major influence in a therapist's clinical reasoning and the development of an intervention plan for the client.

Limitations of Informal Observation

Although many benefits exist with the use of informal observations as an effective therapeutic assessment method, unfortunately it is not without challenges. The use of informal observations has resulted in scrutiny by many professionals in the healthcare field. Many view the use of informal observation as a subjective form of judgement that is purely based on opinion. For example, Kaplan (1996) describes observations as the most subjective form of assessment compared to all others. This subjective stance has been the cause of concern for the validity and reliability of such assessment practices in terms of error, inexperience, uncontrolled environments, and a lack of reliable outcome measures (Brentnall & Bundy, 2009).

According to Cone (1997), “the information gained from an assessment is only as sound as the method used to attain it is reliable, valid, and accurate” (as cited by Brentnall and Bundy, 2009, p. 65). One of the main causes for concern with informal observation is the amount of variation possible by the therapist as an observer. This is in relation to the reliability of such an assessment tool. Reliability has been defined as “the capacity of the instrument to yield the same measurement value when brought into repeated contact with the same state of nature” (Johnston & Pennypacker, 1980, p. 191). Two types of reliability exist: intrarater and interrater reliability. It is these possible variabilities in consistency that allows for the reliability of informal observations to be examined and scrutinized.

Interrater reliability involves the consistency of measurements between multiple persons (Bork, Jarski, & Forister, 2013). Essentially, will a second therapist given the same circumstances conclude similar results as the first? In terms of interrater reliability, differences in subjective interpretations, views, and observational perceptions are a

means for error as there is no guarantee different observers are taking into account and measuring the same concepts (Eakin, 1989). It is possible that two different therapists may gather varying evidence as a result of incorrect or misinterpreted observations. For example, a number of elements play into the reliability of the therapist conducting an informal observational assessment including inflicting their own judgement and/or observe occurrences that aren't truly there, misjudge them, or completely omit important observations altogether (MacKenzie & Westwood, 2013). It is these errors that could potentially have a profound effect on a therapist's clinical judgement and the outcome of therapy for the client (MacKenzie & Westwood, 2013).

Intrarater reliability is defined as “the consistency in which an *individual* takes measurements” (Bork, Jarski, & Forister, 2013, p.114). In essence, will a therapist conclude the same results when given the same situational observation? Taking into account intra-rater reliability, therapists aren't mechanical tools such as a dynamometer that, within reason, can ensure the same results every day. A variety of factors exist that influence a therapist's objectivity. Issues such as fatigue, concentration, mood, level of experience, environmental limitations, and confidence level tend to have an effect on the reliability of observations (Bretnall & Bundy, 2009). According to Clemson and Fitzgerald (1998), therapists who display a lack of confidence in his or her clinical observations limit the credibility and accountability and thus lead to a more subjective observation. It is these issues that limit the reliability of observations and have allowed for scrutiny. Some members of the medical field call for formal assessments to be used as alternatives as they are valued forms of evaluation and support the efficacy of the occupational therapy profession (Unsworth, 2000).

Strengths of Formal Assessments

With their unique ability to objectify and identify a client's needs and areas of improvement, formal assessments are considered an integral and valued component to the therapeutic process (Alotaibi, Reed, & Nadar, 2009). In their research study of the use of standardized formal assessment in the United States, Piernik-Yoder and Beck (2012) found that 90 percent of therapists surveyed used standardized assessments multiple times per year. Furthermore, the use of formal performance-based assessments has been described as being in line with treatment that is client centered, one the main facets of the practice of occupational therapy (Crennan & MacRae, 2010).

For example, Nielsen, Tomra, Waehrens, and Ejlersen (2015) recommended using both self-report assessments in combination with other formal assessments such as the AMPS to gain insight and pertinent information in order to provide the best treatment for patients. The authors of the study developed a cross-sectional design comparing the relationship of the Activities of Daily Living Interview (ADL-I), a standardized self-report evaluation tool, and the AMPS, a standardized assessment evaluating performance in activities of daily living (Fisher, 2006). The authors indicated that when using the ADL-I versus the AMPS when assessing quality of ADL task performance, the results of the assessments had little correlation (Nielsen et al., 2015).

The significance of this research suggests that a self-report assessment compared to a therapist-mediated assessment tool such as the AMPS do not obtain similar information on occupational performance. This supports the need for both instruments in terms of evaluation to be utilized in order to provide a more holistic view of the client. Formal self-report assessments provide information about the client's perspective and

formal evaluative assessments provide objective information about the client's actual ability to perform a task. Therefore, it is indicated to use various forms of assessments in order to obtain the most pertinent and reliable information as possible, facilitating client-centered care. These findings imply that formal assessments can provide a holistic view of the client in an objective manner, are a well-received addition to occupational therapy world, and well respected within the medical model.

Formal assessments are used throughout practice in a multitude of settings in order to assess occupational performance, body functions and structures, strengths and weakness of the client, and collect baseline data along with many other purposes (Alotaibi, Reed, & Nadar, 2009). Likewise, they have many important implications for the profession as a whole. For instance, they better account for the source of subjectivity associated with informal observation assessments (de Clive-Lowe, 1996). Anastasi and Urbina (1997) describe the development of formal assessments as “a rigorous research process that is based on adherence to sound measurement and psychometric principles, such as the evidence of reliability, validity, and responsiveness to change” (as cited by Piernik-Yoder & Beck, 2012, p. 97). These practices to ensure reliability and legitimacy allow for more objective, valid measurements.

To strive for validity in assessment also allows for better communication between healthcare professions. Assessments such as the Canadian Occupational Performance Measure (COPM), Allen Cognitive Level Screen (ACLS), and Scorable Self Care Evaluation (SSCE) have all been shown to be valid forms of measurement in a meta-analysis conducted by Ikiugu (2013). By showing that these assessments are indeed valid helps to support their use when communicating with other professionals and disciplines

within the healthcare system. This is in contrast to informal observations as a form of assessment as they are not generalizable to other healthcare fields (de Clive-Lowe, 1996).

Another empirical use of formal assessments is their ability to accurately account for the effectiveness of interventions as outcome measures (de Clive-Lowe, 1996; Foto, 1998). By assessing a client at baseline and at various assessment periods thereafter, therapists are able to account for changes in the client without the associations of their own judgements they have after investing time and energy into the treatment of the client (de Clive-Lowe, 1996). By having sound and reliable outcome measures, the field of occupational therapy is enhanced and clinically supported through evidence-based practices (Unsworth, 2000).

Limitations of Formal Assessments

Although formal assessments have many benefits to the profession of occupational therapy, barriers do exist. A variety of factors influence the use of formal assessments. Each individual therapist must analyze the benefits and the drawbacks when deciding to use a particular assessment within their practice. Although a formal assessment's information may be telling of a client, the usefulness of that information must be weighed against factors such as ease of administration, the amount of time taken to administer the assessment, the financial cost of the assessment, and the subjectivity of the therapist along with other factors (Alotaibi, Reed, & Nadar, 2009). Likewise, the formal assessment must be evaluated itself by the therapist in terms of reliability and validity in order to be an effective assessment tool (de Clive-Lowe, 1996; Kaplan, 1996).

In a critical review of assessments of activities of daily living, Eakin (1989) states that in the field of occupational therapy, "the use of unreliable assessments seriously

diminishes the credibility of the profession” (p. 11). De Clive-Lowe (1996) compliments this statement with the view that in order to use formal assessments effectively, a therapist must possess the ability to critically analyze a test for its reliability, validity, and limitations. In addition, Unsworth (2000) states that in order to effectively give an assessment, the population under consideration and setting should be taken into account as well. Unfortunately, it has been found that therapists have not been considering such factors when choosing assessments. In a survey conducted to identify the reasons why OT’s choose certain assessments, Alotaibi, Reed, and Nadar (2009) found the most frequent reason for choosing an assessment was due to its availability at the facility as opposed to clinical worth, population and setting consideration, and soundness of reliability and validity.

The issue of time constraints also plays a factor in choosing to utilize an assessment (Crennan & MacRae, 2010). As stated previously, Crennan and MacRae (2010) in their study of performance-based assessments such as the KELS, the AMPS, and the COPM, found the average amount of time to complete these assessments took approximately 45 to 60 minutes and were therefore used only 30% of the time by therapists due to the time restrictions of the acute care setting. Therefore, therapists within these constraints chose to forgo the use of formal assessments and utilize informal observations as an alternative (Crennan & MacRae, 2010).

Additionally, Robinson and Shotwell (2011) state that because of time restrictions often placed on therapists, they are often not able to fully complete assessments. Specifically, Piernik-Yoder & Beck (2012) from their survey study found that of possible modifications to assessments, therapists most often administer only portions of a test as

opposed to administering them to completeness. These findings raise questions of to the validity of the assessment. A lack of performing a test to its entirety causes the interpretation of the results to be questioned, although the information gained might be useful (Robinson & Shotwell, 2011).

Other downfalls to formal assessments exist as well, a main issue being cost-effectiveness (de Clive-Lowe, 1996). Not only are test materials expensive, but training and education on the assessment are also costly (de Clive-Lowe, 1996). Therefore, costs such as the time it takes to complete an assessment must be weighed against their usefulness (de Clive-Lowe, 1996). In a fast-paced and productivity-based culture of the medical world, many therapists feel that the use of assessments in the amount of time they take to review, complete, and score are not worth the costs (Piernik-Yoder & Beck, 2012). Not only does the issue of time have financial implications for the facility, but it affects the therapist examiner and the client as well. Brentnall, Bundy, and Scott-Kay (2008), found that fatigue and boredom caused by lengthy observations in standardized, formal assessments negatively impact the outcome scores and reduced the credibility of the assessment.

Conclusion

Through the literature review, each of the four study variables were outlined in detail. Within acute care settings multiple variables were identified as having an effect on the use of informal observation and formal assessments. In contrast, non-acute care settings were identified as having stark contrasts to acute care, particularly in the use of assessments. This allows for the opportunity to quantitatively measure the use of informal observation and formal assessment measures within each settings and compare the

results. In addition, each of the two types of assessments present with both areas of weaknesses and strengths which also play an integral role in their use. These findings highlight the need to understand therapists' perceptions of assessments and how this affects their implementation in practice.

By understanding the perceptions OTs hold regarding the use of assessments as well as identifying differences between settings and their use, a large gap in occupational therapy literature will be covered as well as implications for education and practice. Such findings will have a profound effect on the way assessments, both formal and informal, are taught in graduate schools. In addition, addressing specific practice areas and their constraints may better prepare students for the understanding of the nature of particular settings and their use of assessments. Lastly, by understanding the effects of the environment on the use of evaluative assessment measures, a need may arise in which to modify or create new assessments that will be geared toward their utilization under the constraints of specific areas of practice.

CHAPTER III

METHODOLOGY

The purpose of this research study is to evaluate the use of formal assessments and skilled informal observation. In addition, it addresses the perceptions of occupational therapists in adult physical disability rehabilitation settings regarding assessment methods as compared to years of experience. Approval was received from the University of North Dakota's Institutional Review Board (Appendix A). An Informed Statement of Consent (Appendix B) was provided to all subjects who participated in this study.

Research Design

A quantitative research design was used to address the various interactions of this study. More specifically, the researchers utilized a nonexperimental survey design. A survey design is defined by collecting descriptive data about populations and is useful to assess the changing needs and trends of a population (Stein, Rice, & Cutler, 2013). In this study specifically, it was used to describe how occupational therapists use assessments within different practice settings. Surveys can also be used as a tool to determine individual's thoughts and feeling. Within this study the researchers are also interested in the perceptions of occupational therapists across adult physical disability settings hold concerning the use of formal and informal assessments based on years of experience.

Sources of Data

Data was collected across a five state region from subjects that completed the electronic survey. The states chosen included Minnesota, North Dakota, South Dakota, Montana, and Wyoming. The results of the survey indicate that 23.4% of participants were from North Dakota, 8.4% from South Dakota, .9% from Montana, 45.8% from Minnesota, and 2.8% of participants were from Wyoming.

Locale of the Study

The location of the study was different for the researchers and the participants. The researchers and their faculty advisor, Professor Cherie Graves, were located at the University of North Dakota Occupational Therapy Department in Grand Forks, ND throughout the research process. The participants were located across the previously mentioned five state region and completed the survey at their convenience. Therefore, specific location was unknown.

Procedure

The Academic Fieldwork Coordinator (AFWC) at the occupational therapy program at the University of North Dakota, who is also serving as faculty advisor for this research study, sent an initial email to occupational therapy student fieldwork coordinators within a five state region on June 4th, 2015 providing information about the research study and asking for their assistance in distribution when the survey was launched (Appendix C). A second email was sent to the fieldwork coordinators on July 15, 2015. This email included the link to the survey and again asking for help with distribution (Appendix D).

Fieldwork coordinators then disseminated the survey link via email to occupational therapists within each department. Once participants activated the link to the

survey they were shown the Informed Consent Statement (Appendix B) which they were able to print. Following agreement of informed consent, participants were able to continue with completing the survey (Appendix E). A reminder email was then sent to fieldwork coordinators on September 15, 2015 and the survey was closed on September 22, 2015.

Population/Sampling

Purposive sampling was utilized in order to reach participants in physical disability rehabilitation settings. Sites were determined based on a pre-existing relationship between UND and facilities used for student fieldwork rotations. A five state region was ideal in order to collect a broad range of data across all types of physical disabilities rehabilitation settings. Additionally, the five state region provided useful information about general use of OT assessments across practice settings in the upper Midwest region of the United States.

The researchers used their knowledge and resources in order to access practitioners from various settings. The population of interest included Registered Occupational Therapists (OTRs). Certified Occupational Therapy Assistants (COTAs) were not included in this study as administering assessments is not typically within a COTA's scope of practice. Occupational therapists working in settings other than adult physical disability rehabilitation settings were excluded from participation in this study.

A total of 116 persons responded to the survey, however, only 107 met the inclusion criteria of registered occupational therapist. Of those, 88 responded consistently to the questions under consideration and were therefore utilized in analysis. The researchers were not able to determine a response rate due to the nature of the distribution

method that was utilized. It is impossible to know how many practitioners received the email but did not complete the survey. The sampling population consisted of 51.4% of participants practicing in a non-acute care setting and 48.6% of participants practicing in an acute care setting, leading to a fairly equal distribution. Only three of the participants worked less than 20 hours each week. Regarding years of practice, 28% of respondents have been practicing for five years or less, 26.2% have been practicing 6-15 years and 27.1% have been in practice for 16 years or greater, again yielding fairly equal distribution among groups.

Instrumentation and Data Collection

The researchers on the UND campus developed the original survey and the collection of data was completed using Qualtrics online computer software. The use of an online survey was utilized instead of a hard copy in order to reach a five state region and to streamline the data collection process. Surveys were completed and submitted anonymously by participants.

The researchers created a quantitative survey to gather information about therapists' perceptions and use of assessments in acute care and non-acute settings within adult physical disabilities. In developing the survey, the first eight questions were multiple-choice format and were used to gather demographic information describing the participants. Questions nine through thirteen used a constant sums scale to indicate a percentage of time used on both informal observational assessments and formal assessments across various scenarios including: initial evaluation, progress report, and discharge evaluation.

The final set of 18 questions utilized a five-point Likert scale ranging from strongly disagree to strongly agree. Questions addressed information regarding therapists' perceptions of informal observation and formal assessments. Maximum likelihood factor analysis with varimax rotation was used to define six constructs from the 18 questions. Sixteen questions lent themselves to four of the following themes: "Ease of use and confidence in informal observation assessments", "Informal observation assessment is valuable", "Efficiency of formal assessment", and "Ease of use in formal assessment". Two questions, "my observations are not valid" and "formal assessment is valid", were isolated from the four themes and analyzed separately.

Validity

Face validity indicates the ability that an instrument used as a measurement tool is able to measure what it is intended to (Portney & Watkins, 2015). The researchers assumed that each participant was truthful and honest in their responses and therefore the results were an accurate representation of use and perception of assessments.

Additionally, reverse coding was utilized for some questions to elicit the same information in different ways in order to increase reliability and internal validity by reducing response sets or participants who blindly check answers (Portney & Watkins, 2015).

Content validity describes the ability that an instrument, or in this case the research survey tool, is able to adequately cover the content that defines that variable being measured (Portney & Watkins, 2015). This would indicate that the survey developed adequately covers the use of assessments across physical disability practice

questions. The survey does this by addressing actual use of assessments and perceptions of informal observation and formal assessments.

Construct validity addresses the ability of an instrument to measure an abstract construct and the extent to which the instrument is able to represent all the components of the construct (Portney & Watkins, 2015). The survey is able to address all the components of the construct and adequately measures the components with the use of various measurements. Responses are measured in several different ways using Likert scales, constant sum scales, and multiple choice to further increase the validity.

Data Analysis

Qualtrics online computer software was used to organize data and to provide descriptive statistics. Data was then reorganized into an Excel spreadsheet to run data analyses via Statistical Package for the Social Sciences (SPSS) Statistics 23. External validity and reliability were not tested, as the survey created did not have established psychometric properties. Descriptive statistics were run on the first eight questions in order to quantify our population demographics.

Independent t-tests were conducted on the remaining questions. Results show number of participants (N), mean (M), standard error (SE) and p value for each pair of means. Independent t-tests have the ability to make comparisons between different conditions by the same group of subjects, because the subjects serve as the control group (Portney & Watkins, 2015). In this particular survey, the conditions being evaluated were percent of time spent on informal observation assessments and formal assessments across initial evaluation, progress report, discharge evaluation, and the six previously established themes regarding assessments.

Lastly, an analysis of variance (ANOVA) was conducted with the last set of 18 questions that addressed the six main constructs previously mentioned. A one-way ANOVA is conducted to analyze one independent variable against three or more levels (Portney & Watkins, 2015). In the current study, a one-way ANOVA used to analyze the “total years of experience” against the six identified themes. These results indicate how the participants’ perceptions of informal observations and formal assessments are influenced by years of experience. Results can be found in the following chapter.

CHAPTER IV

DATA ANALYSIS

As discussed in chapter three, analysis of the raw data was conducted using SPSS software to compute independent t-tests as well as ANOVAs. Independent t-tests were completed to compare means between two independent research variables. The independent research variables in the study include acute, non-acute, formal assessments, and informal observations. The ANOVAs were utilized to compare means of three or more groups of variables including rating scales of perceptions of assessments, use of assessment types, and years spent in OT practice. Results were analyzed for significance ($p < .05$) as well as common themes throughout. Graphs and charts were developed to enhance the visual representation of result.

Percentage of Assessment Use

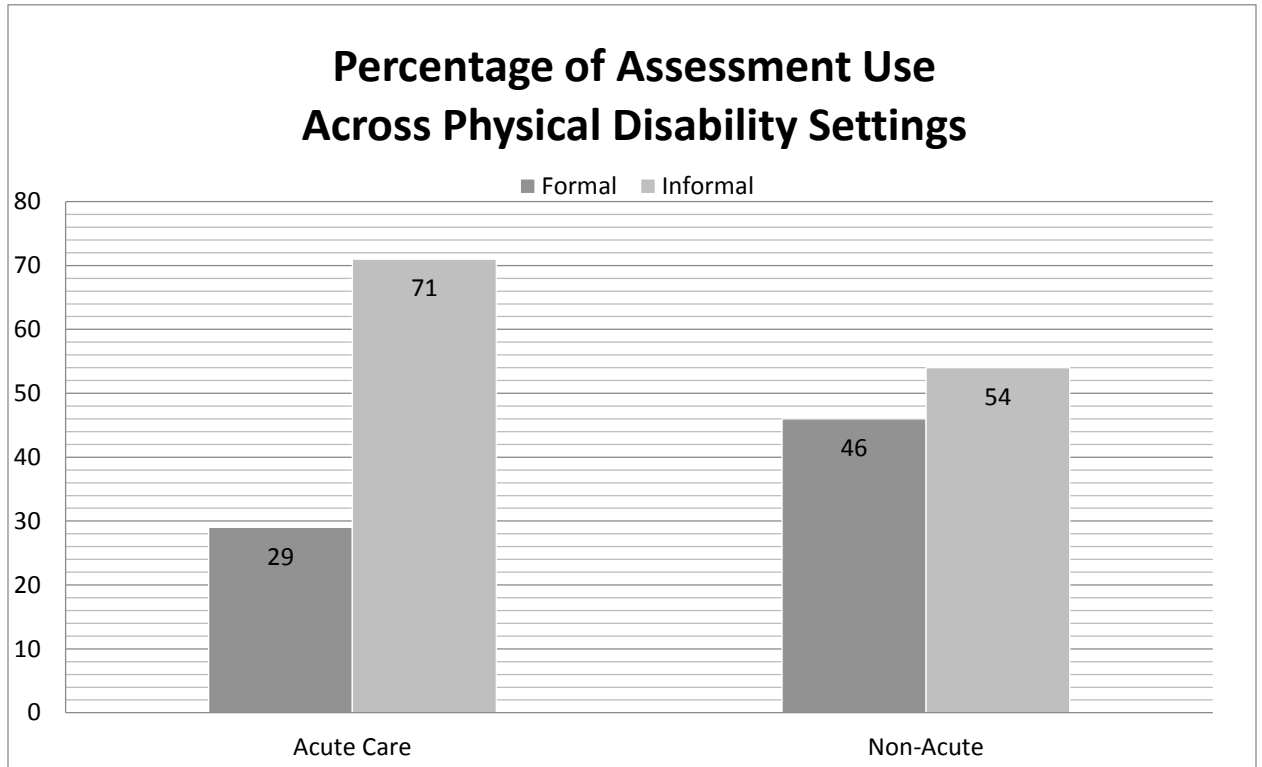


Table 1

Through the data analysis it was found that although both acute and non-acute care settings utilize informal observations more often than formal assessments, the use of informal observation in acute care ($M=70.85$) is significantly higher ($p<.05$) than the use of informal observations in non-acute settings ($M=54.35$). Thus, acute care uses informal observations 17% more often than in non-acute care physical disability settings.

Assessment Use Across Stages of Therapy Process (Initial, Progress, Discharge)

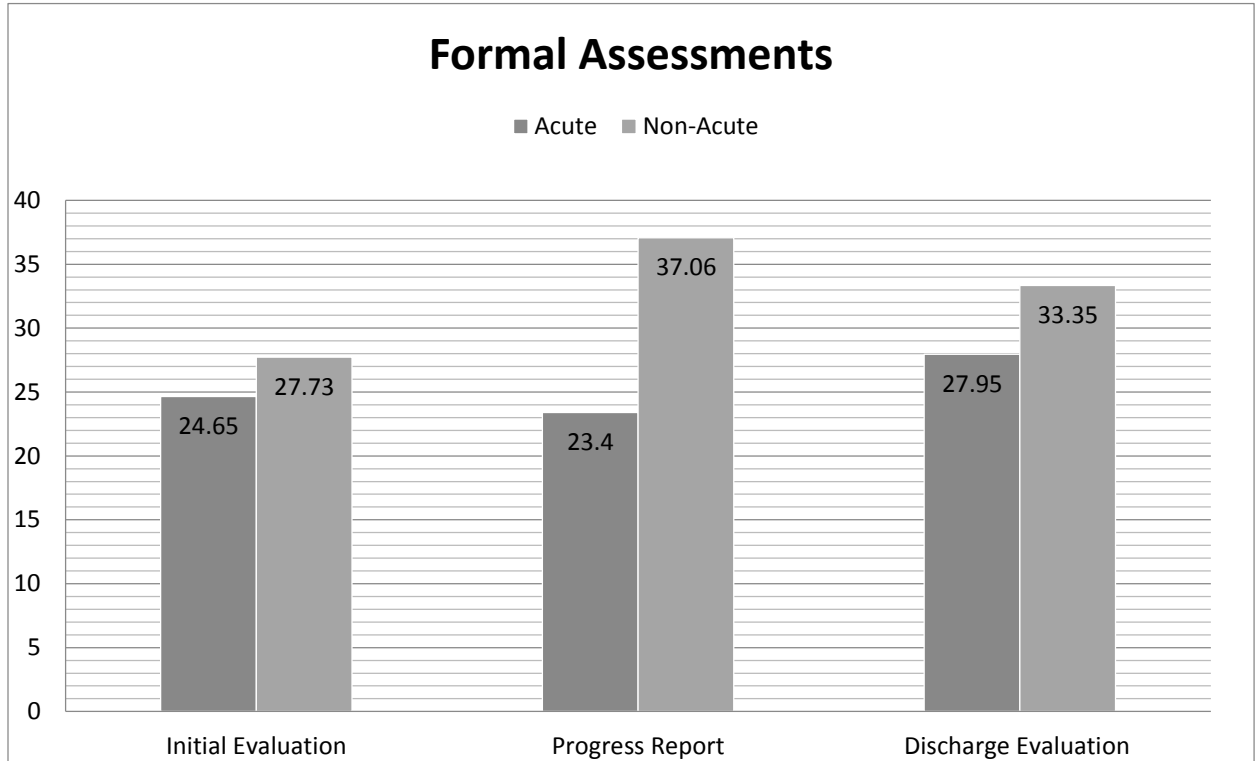


Table 2

Across all stages of the therapy process including initial evaluation, progress reports, and discharge evaluation the results of the survey designated that formal assessments were used more often in non-acute settings. For the initial evaluation stage formal assessment was used 24.65% of the time in acute care settings compared to 27.73% of the time in non-acute settings. For progress reports, formal assessments were used 23.4% of the time in acute care settings compared to 37.06% of the time in non-acute care settings. The results for formal assessments used during progress reports were statistically significant ($p < .05$). Lastly, for discharge evaluations, formal assessments were used 27.95% of the time in acute care settings compared to 33.35% of the time in non-acute care settings.

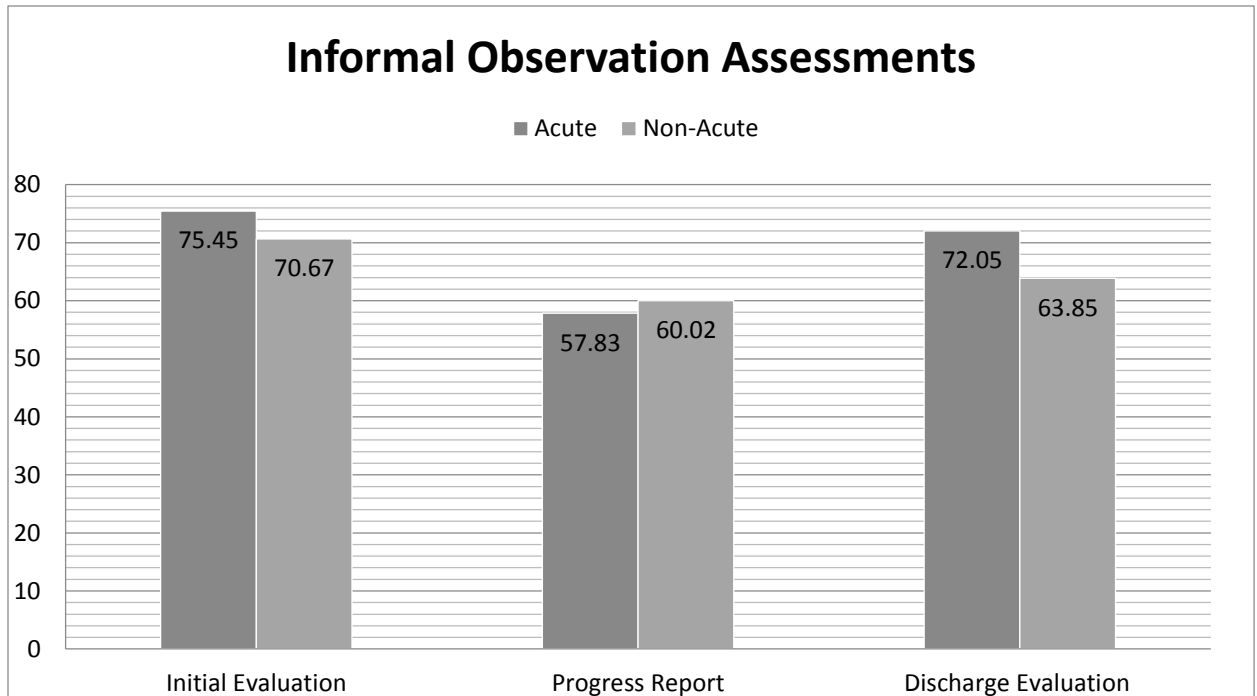


Table 3

The results of the survey show that across two of the three stages of the therapy process, initial evaluation and discharge evaluation, informal observation was used more often in acute care settings. For the initial evaluation stage, informal observation was used 75.45% of the time in acute care settings compared to 70.67% of the time in non-acute settings. For discharge evaluations, informal observations were used 72.05% of the time in acute care compared to 63.85% of the time in non-acute care physical disability settings. However, for the progress report stage of the therapy process, informal observations were used more often in non-acute settings with approximately 60.02% of the time compared to acute settings that used informal observations 57.83% of the time.

Use Within Setting Types

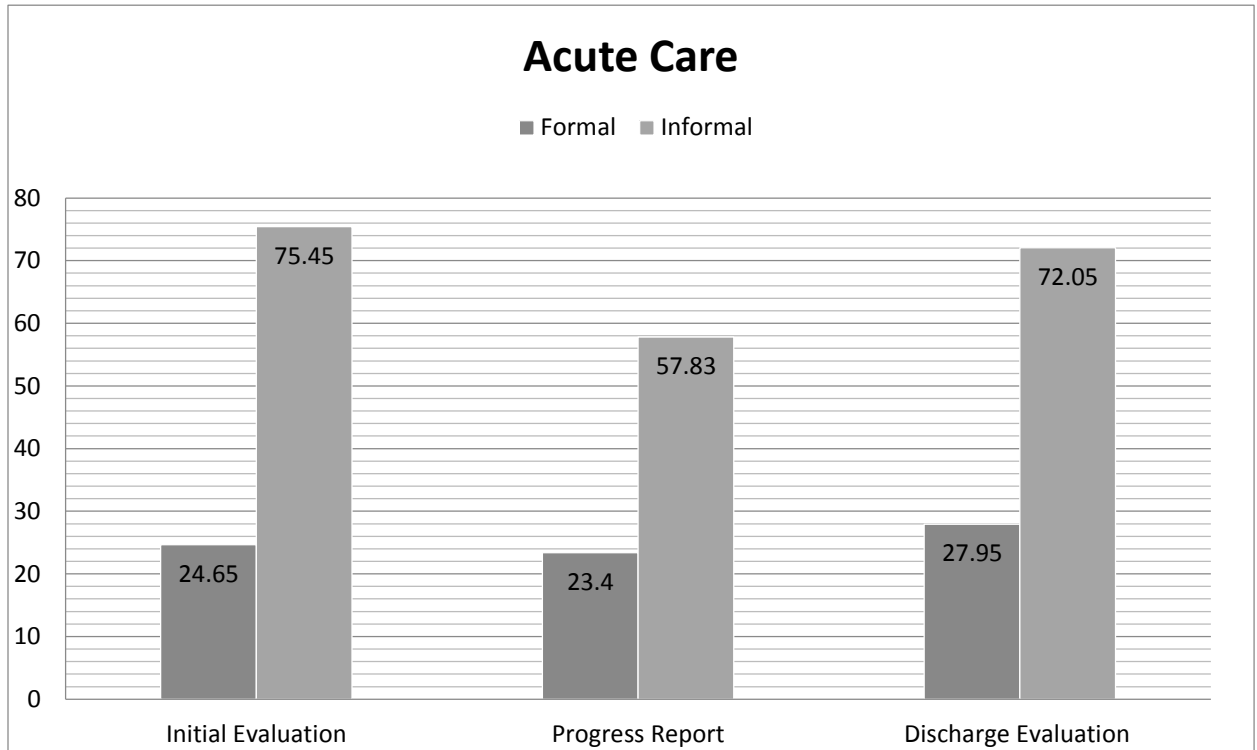


Table 4

Across all stages of the therapy process including the initial evaluation, progress reports, and discharge evaluation, the results of the survey indicates that acute care settings use informal observations more often than formal assessments. For the initial evaluation stage informal observation was used 75.45% of the time compared to 24.65% of time for formal assessments. For progress reports informal observation assessments were used 57.83% of the time compared to 23.4% of time for formal assessments. Lastly,

for discharge evaluations informal observations were used 72.05% of the time in acute care compared to 27.95% of time for formal assessments.

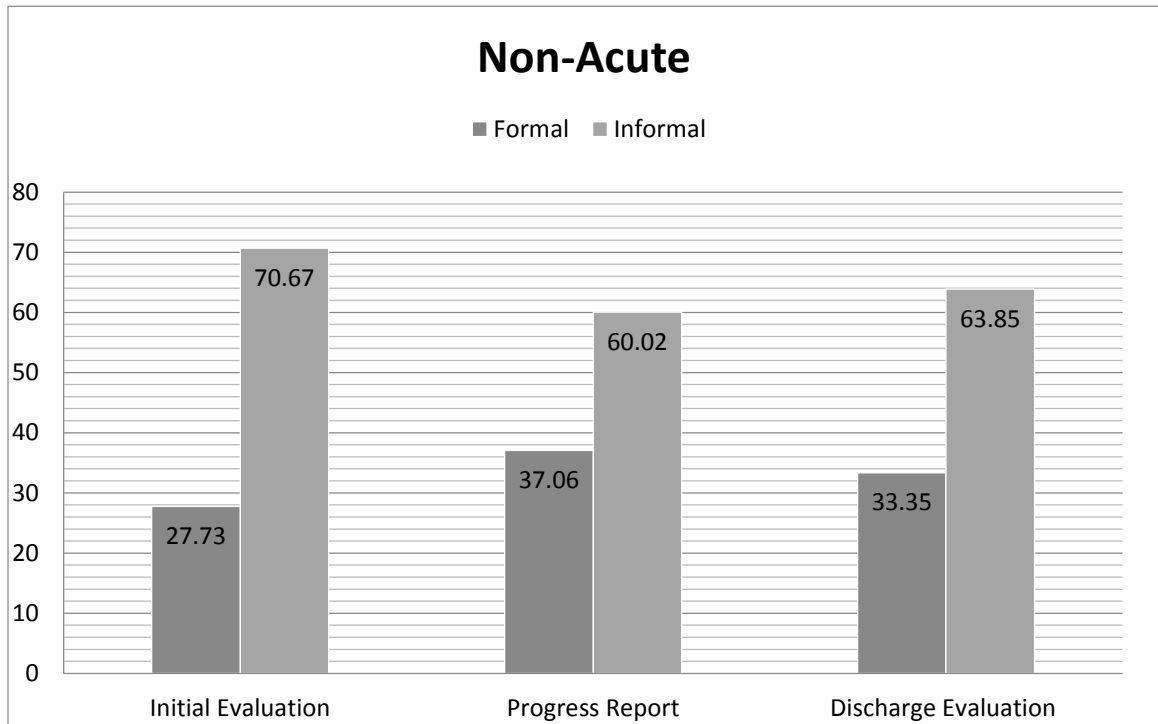


Table 5

Across all stages of the therapy process including the initial evaluation, progress reports, and discharge evaluation the results of the survey suggest informal observations are used more often than formal assessments. For the initial evaluation stage, informal observations were used 70.67% of the time in non-acute care setting compared to 27.73% of the time for formal assessments. For progress reports informal observations were used 60.02% of the time compared to 37.06% of the time for formal assessments. Lastly, for discharge evaluations informal observations were used 63.85% of the time compared to 33.35% of the time for formal assessments.

Therapist Perceptions Regarding Assessments



Table 6

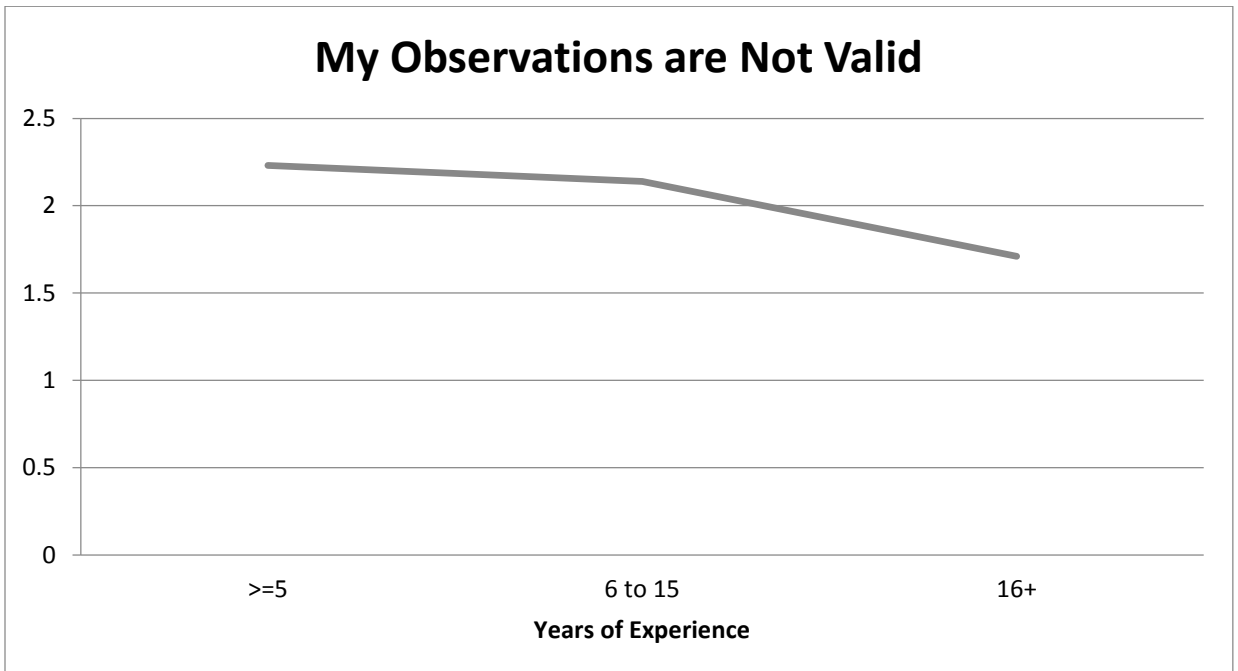


Table 7

Two themes were found to have reached statistical significance regarding the perceptions OTs hold about the use of assessments. With statistical significance ($p < .05$), conclusions were drawn involving the mean ranges of confidence compared to years of experience as an occupational therapy practitioner. Results denote that a positive relationship exists between confidence bring ease of use of informal observations and increasing years of experience. Secondly, and in relation, results also indicated a statistically significant ($p < .05$) negative relationship between practitioners' beliefs that informal observations are not valid and with years of experience.

Years of Experience Regarding Use and Perceptions

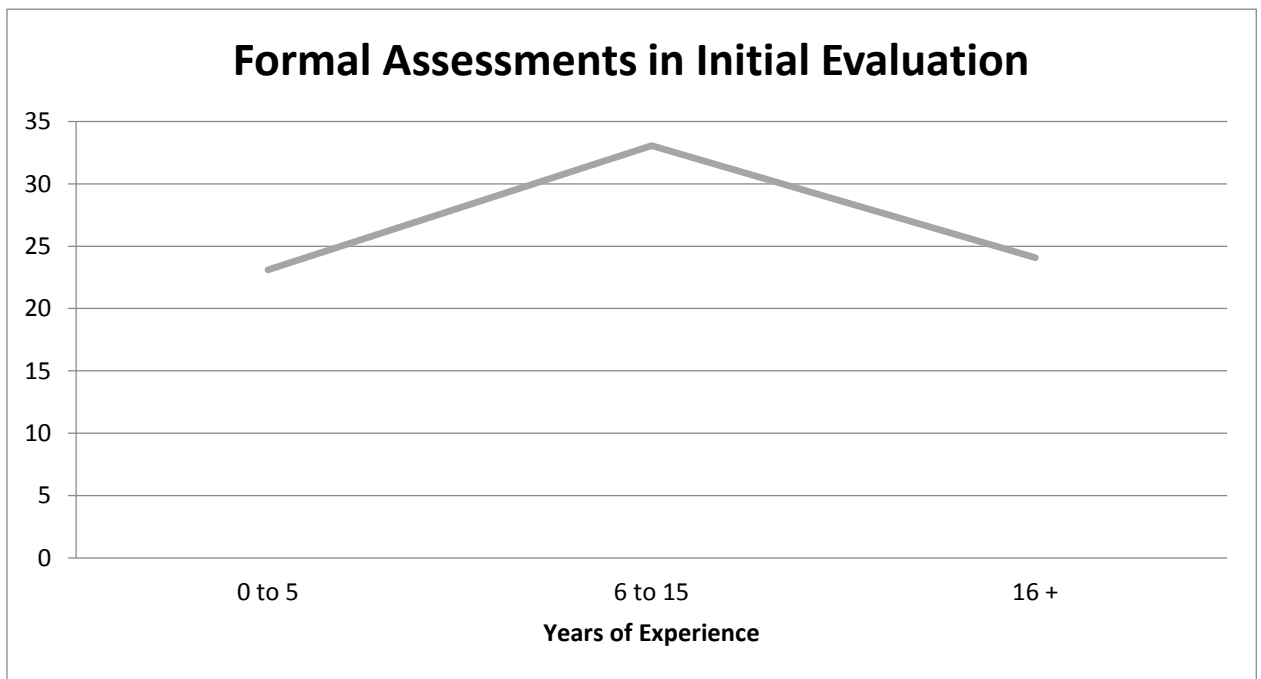


Table 8

When analyzing the use of formal assessments during initial evaluation the data suggests that practitioners with five years or less experience use formal assessments 23.10% and practitioners with 16 or more years of experience use formal assessments at a

similar rate of 24.07% of the time. Conversely, practitioners who have 6-15 years of experience use formal assessment 33.07% of the time. Although this difference is not statically significant, the trend of dissimilar results for practitioners with 6-15 years of experience continues throughout the data set and should be noted for further research.

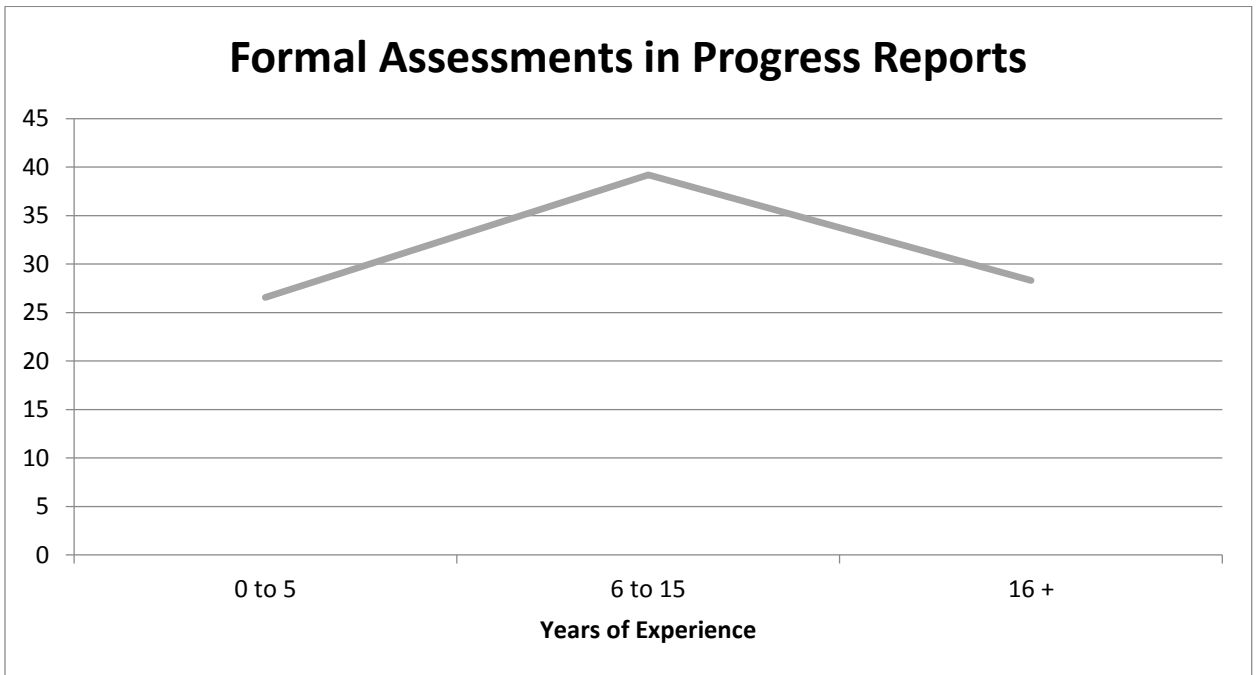


Table 9

When analyzing the use of formal assessments in conjunction with progress reports, the data shows that practitioners with five years or less experience use formal assessments 26.57% and practitioners with 16 or more years of experience use formal assessments at a similar rate of 28.31% of the time. However, practitioners who have 6-15 years of experience use formal assessment 39.18% of the time. This finding follows the trend that practitioners with 6-15 years of experience use formal assessments more often for the purpose of progress reports. Again, these results were not statistically significant but important to note.

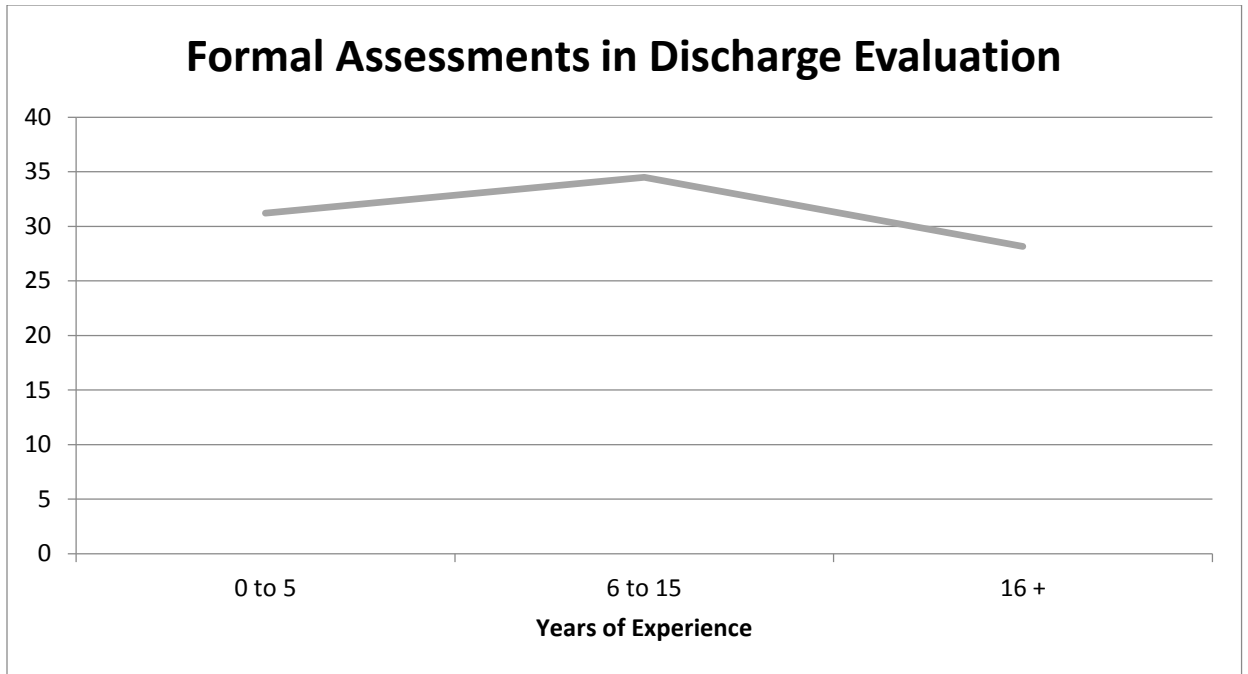


Table 10

When analyzing the use of formal assessments during discharge evaluations the data specifies that practitioners with five years or less experience use formal assessments 31.20% and practitioners with 16 or more years of experience use formal assessments at a similar rate of 28.17% of the time. However, practitioners who have 6-15 years of experience use formal assessment 34.50% of the time. This also follows the previously mentioned trend that although not statistically significant, practitioners with 6-15 years of experience use formal assessments more often for discharge evaluations compared to the other groups of practitioners.

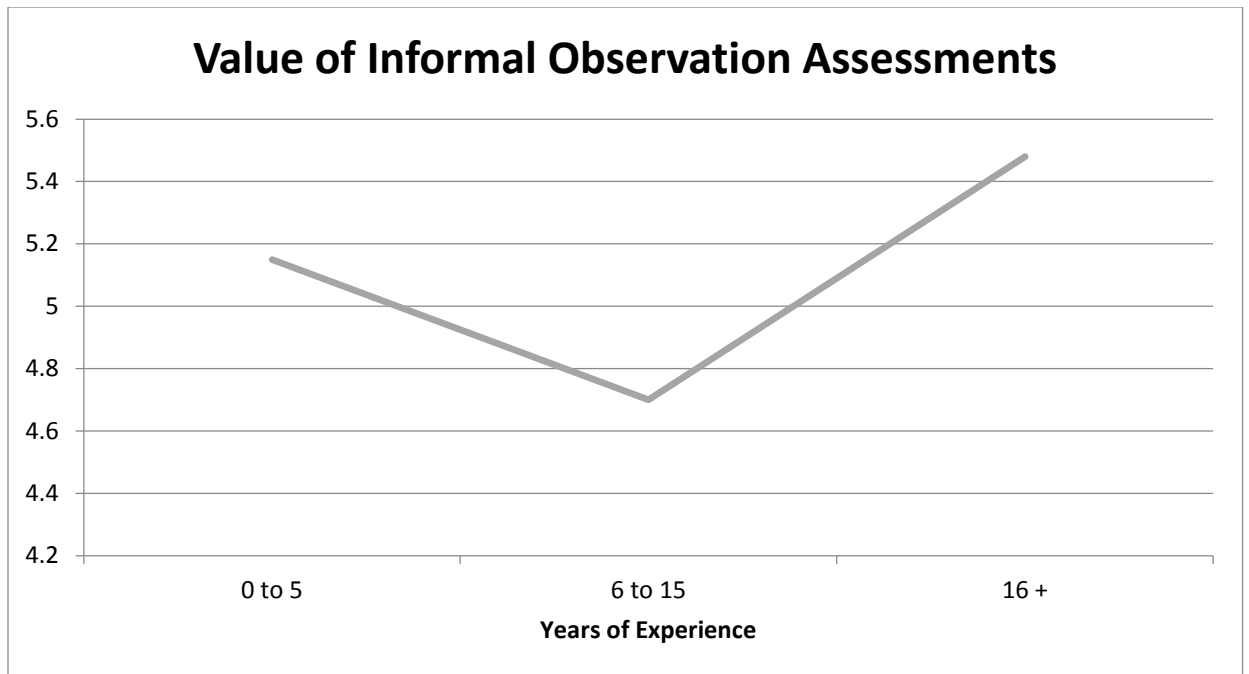


Table 11

When analyzing the value of informal observation among practitioners the data shows those practitioners with five years or less experience value informal observation (M=5.15) similarly to practitioners with 16 or more years of experience (M=5.48). Conversely, practitioners who have 6-15 years of experience value informal observation at a lower rate (M=4.70). Practitioners with 6-15 years of experience value informal observation less than practitioners in both the categories of five or less years of experience and practitioners with 16 or more years of experience. These results are consistent with the previous data stating that practitioners with 6-15 years of experience value informal assessments less and use formal observation more than their peers that are at different stages of their careers.

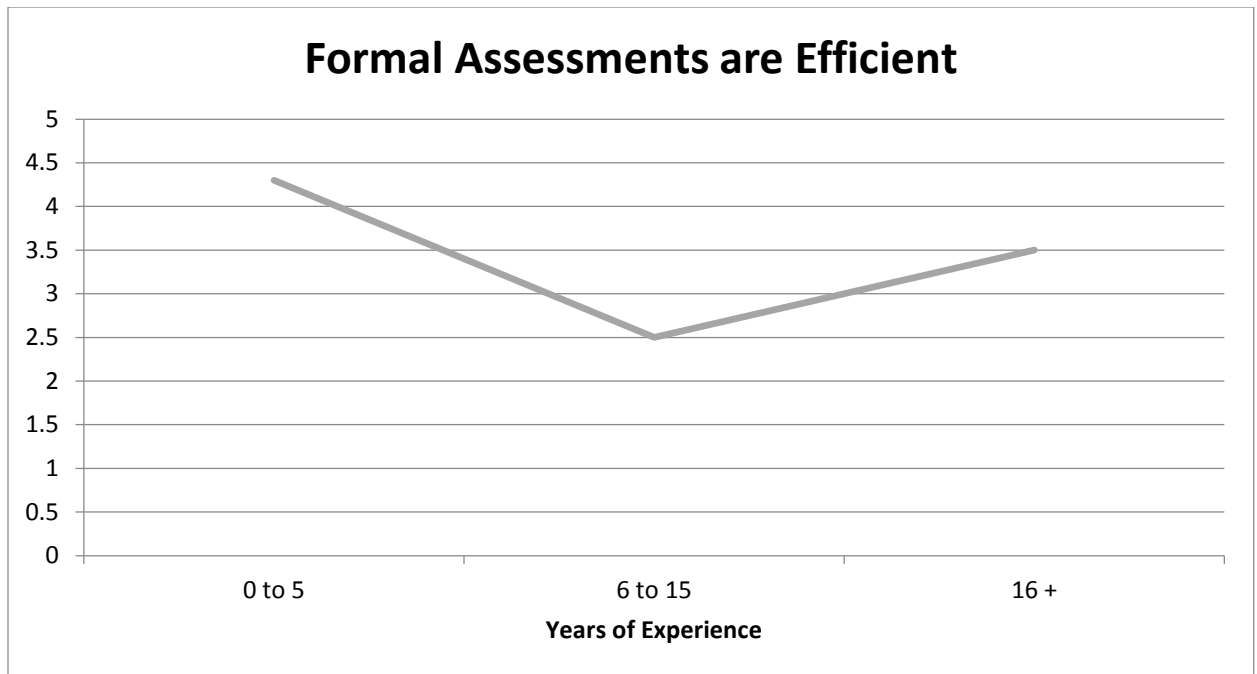


Table 12

When analyzing if practitioners find formal assessments to be efficient the data indicates that practitioners with five year or less experience ($M=3.63$) responded similarly to practitioners with 16 or more years of experience ($M=3.52$). In contrast, practitioners who have 6-15 years of experience responded slightly lower ($M=3.49$) when asked the question of whether they view formal assessments as being efficient. Although the means are similar, the results of this question are consistent with the trend that practitioners in the group of 6-15 years of experience views have consistently dissimilar to their peers. It is also interesting to point out that although practitioners in the group of 6-15 years of experience have the lowest rating for efficiency of formal assessments among their peers; formal assessment are predominantly used more often in practice by this same group of practitioners.

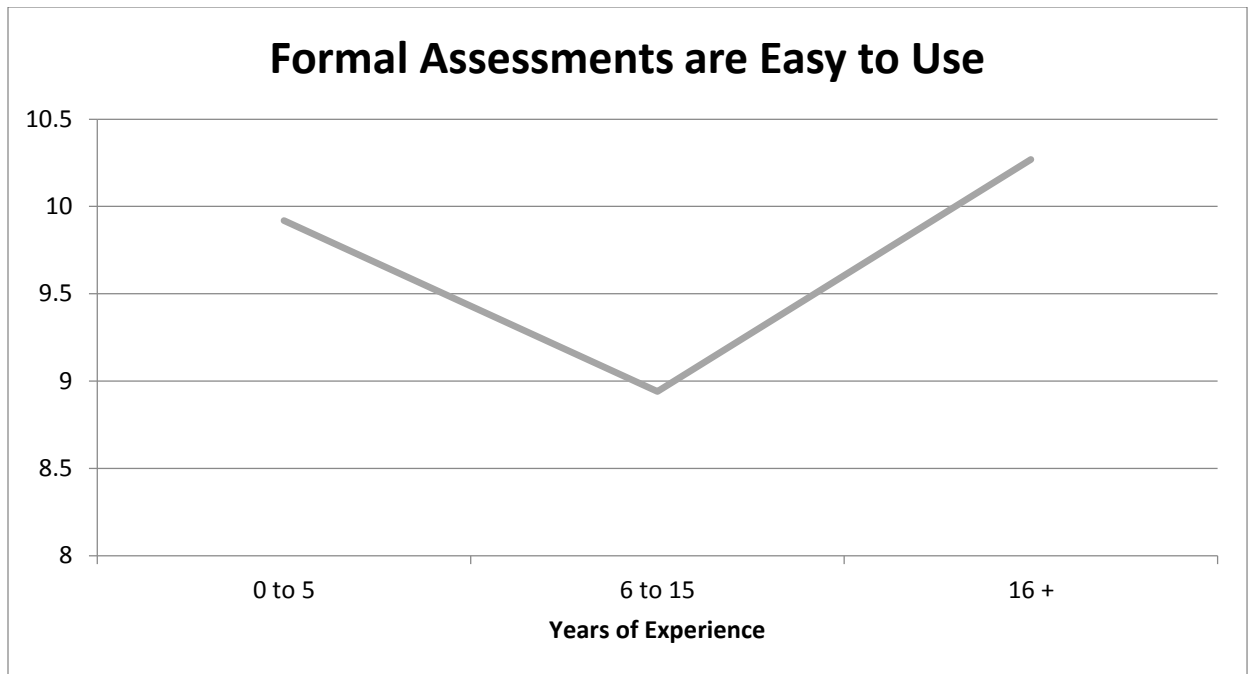


Table 13

When analyzing the ease of use for formal assessments among practitioners, the data denotes that practitioners with five years or less experience consider the ease of use for formal assessments (M=9.92) similarly to practitioners with 16 or more years of experience (M=10.27). However, practitioners who have 6-15 years of experience responded with a lower score (M=8.94) when asked to consider the ease of use for formal assessments. According to the data, the practitioners in the middle range of years of experience state that compared to their peers formal assessments are not easy to use but they still use them more compared to their peers with greater and fewer years of experience.

CHAPTER V

SUMMARY & CONCLUSIONS

Data Interpretation

Results of the current study report that as a general understanding, acute care settings utilize informal observations as a significant assessment method during occupational therapy practice. This is congruent with the findings of Crennan and MacRae (2010), yet the current literature lacked the comparison of the use of informal observations across practice settings. Data gathered during the current study additionally allowed the researchers to identify that informal observations are used more prevalently compared to formal evaluations in *all* practice settings included in this study. However, it was also identified that informal observations are used more within the acute care setting as opposed to other adult physical disability occupational therapy practice settings. From these findings, implications can be drawn that setting has an effect on the type of assessments used within occupational therapy practice. This is also consistent with the literature that acute care, with its multiple and various environmental restrictions, facilitates the use of informal observations (Alotaibi, Reed, & Nadar, 2009; Crennan & MacRae, 2010; de Clive-Lowe, 1996; Robinson & Shotwell, 2011).

Furthermore, it was found that years of experience in OT practice also play a significant role on the perceptions therapists hold on the use of assessments. It was found that increasing years of practice experience translate to an increase in confidence and therefore ease of use of informal observations. Additionally, findings also suggest that

practitioner's perceptions of informal observations become more valid with an increase in years of experience. These findings are consistent with literature reviewed on the concepts of the development of clinical reasoning (Wainwright & McGinnis, 2009).

In their phenomenological study, Wainwright and McGinnis (2009) describe two types of knowledge practitioners possess that may influence clinical decision making of a rehabilitation therapist, and therefore may impact the use of assessments. The first includes formal education and research whilst the second consists of intuitive thinking processes gained through observation, reasoning, and professional experiences (Wainwright & McGinnis, 2009). It is clear that the findings of the current study hold true that with increasing years of professional experience, seasoned reasoning, and practice in observations that OTs develop the clinical intuition that informal observations not only become more valid, but are easier to utilize in practice as well.

Lastly, trends were identified in the number of years spent in OT practice. Interestingly, the grouping of therapists that have practiced between 6 and 15 years were consistent outliers in the data as opposed to those who have practiced more than 15 and less than 6 years. It was identified that for each point in the therapy process (initial evaluation, progress report, and discharge evaluation), therapists in the 6-15 years of practice range utilized formal evaluations much more than the other two practice ranges (<6 & >15). Furthermore, it was found that the practitioners in the 6-15 year group also identified formal assessments as not only less efficient, but less easy to conduct as well. This leads the researchers to identify that although formal assessment are more time consuming and difficult to complete, they continue to be utilized at a much higher rate and therefore must have value in perspectives of therapists within the practice range of 6-

15 years. Each of the aforementioned findings have significant implications for occupational therapy practice in all settings, education, assessment development, an impact on the occupational therapy profession as a whole, and suggestions for future study.

Discussion

Implications in education.

It is important to recognize, address, and further develop occupational therapists' use of assessments in practice. However, the question remains as to *how* therapists develop such intuitive skills as they relate to the use of informal observational versus formal assessments. Wainwright and McGinnis (2002) identified that the influence of formal education has been found to play a significant role in later clinical practice. For example, a major reason practitioners choose the assessments they do is based on prior use in school and on fieldwork (Alotaibi, Reed, & Nadar, 2009). This emphasizes the need for educators to continually monitor and assess their assessment curriculum as to best relate to current therapy practices (Alotaibi, Reed, & Nadar, 2009).

Additionally, Griffin and McConnell (2001) state “educators may need to explore the extent to which their graduates have realistic expectations of practice in acute care” (p. 196). As shown through the prior literature review and results of this study, multiple environmental influences impact occupational therapy practice in the acute care setting in contrast to non-acute settings (Alotaibi, Reed, & Nadar, 2009; Crennan & MacRae, 2010; de Clive-Lowe, 1996; Robinson & Shotwell, 2011). As such, pressures such as being fast-paced and productivity-driven play a major role in the use of skilled, informal

observations. Therefore, this skill should be emphasized in the occupational therapy classroom.

In relation, it is important when occupational therapists conduct assessments; the results can be clearly interpreted and analyzed for validity and reliability. In a study conducted by Clemson and Fitzgerald (1998), OTs' perspectives of validity and reliability within the use of assessments were explored. The authors indicated that therapists did not have a great understanding of these two concepts. Reliability was viewed as important, however, validity was not given as much attention. Without having a full understanding of the validity of an assessment, this can have a negative impact on the results whether it be a formal assessment or informal observation (Eakin, 1989).

This finding within the literature that practitioners have a diminished understanding of the concepts of reliability and validity is relevant within the findings of the current study. The researchers identified that less experienced practitioners did not find their observations as valid as more veteran OTs. This finding begs the question if perceptions of validity of informal observations increase with years of experience or if more experienced practitioners have a reduced understanding of the concepts of validity. In either case, an indication appears for a need for educators to reinforce their efforts to teach students the concepts of reliability and validity as it will impact their use of assessment measures in the future whether it be to teach ways of enhancing validity within informal observations or simply the concepts themselves.

Additionally, Clemson and Fitzgerald (1998) suggested that using standardized formal assessments can accelerate the learning process for new practitioners and helps to develop their clinical reasoning by providing a guide for practice. However, as the

researchers of this study have shown, informal observations are a much more prominent evaluative measure used in practice than formal assessments. Educators have a responsibility to educate students about both types of assessments, informal observations and formal assessments, and show the availability, usefulness, and how they should be conducted to ensure consistency which then promotes validity and reliability (Clemson & Fitzgerald, 1998).

It is also important that occupational therapy students are given opportunities during their program to develop critical thinking skills as they relate to assessment, evaluation, and practice. In their study, Griffin and McConnell (2001) found that critical thinking was one of the most important skills to have in the acute care setting. The ability to think critically is essential for practitioners in order to develop an effective treatment plan including the use of informal observations versus formal assessments and therefore should be addressed within the first year and continuing throughout a professional program (Vogel, Geelhoed, Grice, & Murphy, 2009). These concepts should be addressed by describing the clinical thinking skills process, decision-making, and discussing evidence-based practice. In turn, this helps with the student's ability to analyze and build observational, evaluative, and the other necessary skills to conduct assessments that are objective and measurable whether they are formal or informal.

Implications in practice.

Currently, a lack of literature exists pertaining to occupational therapy in acute care. Specifically, the type of assessments used, the knowledge needed, and the constraints induced on the practitioners and the profession in this setting. In a study conducted by Craig, Robertson, and Milligan (2004) on the understanding of the nature

of occupational therapy in the acute care setting, the authors found a strong majority of OTs described a general lack of knowledge within the vastness of the scope of practice in acute care as a major grievance. This research provided by the current researchers further the insight of the nature of this setting and the role occupational therapists can serve on the treatment team. According to Griffin and McConnell (2001) a large focus for OT in acute care is to provide evaluation through assessment and recommendations for discharge with limited attention on treatment in a timely and efficient manner. By providing a greater understanding of these elements, OTs will have a better understanding of the needs and constraints in order to work in such a dynamic setting.

Secondly, a need exists in the occupational therapy field to develop and use tools that promote rigor, reliability and validity (Clemson & Fitzgerald, 1998). Tools that are validated and standardized need to be used in uniform manner without modifications whenever possible in order to increase validity. The results of this research study indicate that informal observation has been the preferred form of assessment in not only acute care settings, but non-acute care settings as well. Practitioners should consider using assessments that are standardized and performance-based as well in order to ensure a better transition to a preferred discharge placement (Crennan & MacRae, 2010). Additionally, the field of occupational therapy needs to encourage practitioners, educators, and researchers to develop and use assessments that have been tested to be valid forms of measurement as well as effectively used within the constraints of specific settings, thus increasing the credibility of the OT profession.

Limitations

Limitations are identified for this study with potential unintentional effects on the outcomes. A number of limitations identified are associated with the survey itself. First, that a response rate could not be identified. It was unknown how many surveys were distributed by the intermediary fieldwork contact persons to their coworkers and employees. Second, the design of the survey utilized three different forms of measurements (i.e. constant sum scales, Likert scales, and multiple choice). This could be identified as potentially confusing to participants. Third, survey length with 32 questions may have had a fatiguing effect. Fourth, although definitions of key elements were outlined, subjectivity in interpretations by the participants may have been a factor. Lastly, unintentional researcher bias in the formation of survey questions as questions were not tested for reliability or validity is also viewed as a limitation. Additional limiting factors not related to the survey could potentially involve the lack of generalizability due to the five-state region utilized as well as lack of control over settings and circumstances in which participants completed the survey. Sampling error may have been a factor because the distribution between non-acute settings (inpatient rehabilitation, home health, long-term care, etc.) in returned surveys is unknown.

Future Study

The researchers of this study, through the analysis and interpretation of data collected from OTs in acute and non-acute care settings, have found a multitude of additional applications for research. First, due to the limitations identified in the current study, additional, more rigorous examinations are called for to further enhance the literature and understanding of occupational therapy in acute care adult physical disability practice settings. Secondly, research is called to investigate the effectiveness of educational

programs as they relate to real-life OT practice. For example, as informal observations were found to be the most used form of assessment across practice settings, are concepts related to observations such as validity, usefulness, and critical reasoning being taught exhaustively within OT programs? Furthermore, in conjunction with the literature, the researchers found that formal assessments are not being utilized to their full potential within the acute care setting due to environmental restrictions and also non-acute care settings as well. Therefore, this finding points toward a need for research to be conducted for the development of assessments that are geared toward specific settings in order to facilitate their use and provide objective measures to enhance the OT profession. Lastly, as the current study has shown remarkable outliers of OT professionals with 6-15 years of experience with their use of formal assessments, future studies are inferred to understand the reasoning behind this pattern of practice.

Conclusions

The researchers of the current study have identified stark contrasts between occupational therapy practice in acute care versus non-acute care adult physical disability practice settings. Specifically, it was found that although OTs in both practice settings utilize informal observations more often than formal assessments, acute care utilizes them a substantially greater amount than non-acute care. Additionally, it was also found that increased years of experience in the OT field have an impact on the use of informal observations in terms of increased confidence in validity and ease of use. Lastly, it has been identified that therapists with between 6 and 15 years of experience exhibited more use of formal assessments than any other group of practitioners, even though they also identified them as inefficient and difficult to complete.

These findings have allowed the researchers to make recommendations in which to enhance the OT profession. For example, within the educational system a need exists for programs to research and analyze their curriculum on assessments in terms of validity, relevance, and a specific emphasis on the teaching of concepts of informal observations. Additionally, development of formal assessments geared specifically towards practice settings in order to enable their use is of dire need. And lastly, implications for future study related to this topic are called for to enhance the development of the OT profession including the further investigation of the influence years of experience on the use of assessments and more advanced research to facilitate a comprehensive appreciation of occupational therapy in acute care.

APPENDICES

Appendix A
Institutional Review Board Approval



UND.edu

Institutional Review Board
Twamley Hall, Room 106
264 Centennial Dr Stop 7134
Grand Forks, ND 58202-7134
Phone: 701.777.4279
Fax: 701.777.6708

July 8, 2015

Principal Investigators:	Caitlin Brown and Jana Carroll
Project Title:	Use of Assessments in Physical Disabilities Rehabilitation Settings
IRB Project Number:	IRB-201507-006
Project Review Level:	Exempt 2
Date of IRB Approval:	07/08/2015
Expiration Date of This Approval:	07/07/2018

The application form and all included documentation for the above-referenced project have been reviewed and approved via the procedures of the University of North Dakota Institutional Review Board.

Attached is your original informed consent statement that has been stamped with the UND IRB approval and expiration dates. Please maintain this original on file.

If you need to make changes to your research, you must submit a Protocol Change Request Form to the IRB for approval. No changes to approved research may take place without prior IRB approval.

This project has been approved for 3 years, as permitted by UND IRB policies for exempt research. You have approval for this project through the above-listed expiration date. When this research is completed, please submit a Termination Form to the IRB.

The forms to assist you in filing your project termination, adverse event/unanticipated problem, protocol change, etc. may be accessed on the IRB website: <http://und.edu/research/resources/human-subjects/>

Sincerely,

Michelle L. Bowles, M.P.A., CIP
IRB Coordinator

MLB/jle

Enclosures

Cc: Cherie Graves, MOT, OTR/L

Appendix B Informed Statement of Consent

**UNIVERSITY OF NORTH DAKOTA
Institutional Review Board
Informed Consent Statement**

Title of Project: Occupational Therapy Assessments in Physical Disability setting

Principal Investigator: Caitlin Brown, MOTS & Jana Carroll, MOTS
406-546-1473, 701-213-0325
caitlin.brown.1@my.und.edu, jana.carroll.2@my.und.edu

Advisor: Cherie Graves, 701-777-6086, cherie.graves@med.und.edu

Purpose of the Study:

This study will be investigating the types and use of formal and informal assessments used by occupational therapists in the acute care and inpatient rehabilitation settings.

Procedures to be followed:

You are being asked to complete an online survey which should take about 10 minutes to complete.

Risks:

There are no risks in participating in this research beyond those experienced in everyday life.

Benefits:

The results of this study will better inform the field of occupational therapy. The results may influence how assessments are developed for specific settings and also how students are prepared and educated for the acute care and inpatient rehabilitation within graduate programs.

Duration:

It will take approximately 10 minutes to complete the survey.

Statement of Confidentiality:

No identifying features will be used (such as name, race, gender, etc.) for this survey. All data will be stored and analyzed in a private setting as well as properly disposed of at the completion of the study. You should take the survey in private location to ensure your privacy while completing the survey. If this research is published, no information that would identify you will be included since your name is in no way linked to your responses.

All survey responses that we receive will be treated confidentially and stored on a secure server. However, given that the surveys can be completed from any computer (e.g., personal, work, school), we are unable to guarantee the security of the computer on which you choose to enter your responses. As a participant in our study, we want you to be aware that certain "key logging" software programs exist that can be used to track or capture data that you enter and/or websites that you visit.

Right to Ask Questions:

Approval Date: <u> JUL - 8 2015 </u>
Expiration Date: <u> JUL - 7 2018 </u>
University of North Dakota IRB

The researchers conducting this study are Caitlin Brown, Jana Carroll, & Cherie Graves (advisor). You may ask any questions you have now. If you later have questions, concerns, or complaints about the research please contact Cherie Graves at 701-777-6086 during the day.

If you have questions regarding your rights as a research subject, you may contact The University of North Dakota Institutional Review Board at (701) 777-4279. You may also call this number with problems, complaints, or concerns about the research. Please call this number if you cannot reach research staff, or you wish to talk with someone who is an informed individual who is independent of the research team.

General information about being a research subject can be found on the Institutional Review Board website "Information for Research Participants"

<http://und.edu/research/resources/human-subjects/research-participants.cfm>

Compensation:

You will not receive compensation for your participation.

Voluntary Participation:

You do not have to participate in this research. You can stop your participation at any time. You may refuse to participate or choose to discontinue participation at any time without losing any benefits to which you are otherwise entitled.

You do not have to answer any questions you do not want to answer.

You must be 18 years of age older to participate in this research study.

Completion of the survey implies that you have read the information in this form and consent to participate in the research.

Please keep this form for your records or future reference.

Approval Date: <u> JUL - 8 2015 </u>
Expiration Date: <u> JUL - 7 2018 </u>
University of North Dakota IRB

Appendix C
Fieldwork Coordinator Letter

Dear Fieldwork Coordinators,

We, Caitlin Brown and Jana Carroll, graduate occupational therapy (OT) students at the University of North Dakota, are currently in the process of conducting our graduate level Master's study. We are writing to inform you of a research opportunity in which to ask for your aid in its completion. The purpose of this study is to compare and contrast the use of observational and standardized assessments in the physical disabilities acute care and inpatient rehabilitation settings. Implications of this study will involve gaining a better understanding of the use of assessments in the field, influence how they are developed for specific areas of practice, and how to better prepare students to develop observational skills as well as administer assessments relevant to the rehabilitation and acute care fields of occupational therapy.

We are currently seeking licensed and registered occupational therapists who currently work in acute care or inpatient rehab adult physical disabilities settings with at least one year of experience who would be willing to sign a consent form and take a one-time online ten minute survey. With your connections to our selected group of participants, we are asking if you would be willing to act as a gatekeeper and distribute via email the attached description of the study, a consent form, and link to the online questionnaire to potential participants at your earliest convenience.

It is important to note that this study would not come at any additional cost or compensation to you or potential participants. All information will remain confidential. Participation in this study is voluntary and can be rescinded at any time.

Through your help in the distributing of the survey, our hope is to make a critical impact in understanding the use of assessments in OT. We would like to thank you for your time and would greatly appreciate your assistance in the completion of this study.

Sincerely,

Caitlin Brown, OTS

caitlin.brown.1@my.und.edu

Jana Carroll, OTS

jana.carroll.2@my.und.edu

Cherie Graves, MOT, OTR/L (Advisor)

cherie.graves@med.und.edu

Appendix D
Letter to Participants

Dear potential participants,

We, Caitlin Brown and Jana Carroll, graduate occupational therapy (OT) students at the University of North Dakota, are currently in the process of conducting our graduate level Master's study. We are writing to inform you of a research opportunity and would like to ask for your aid in its completion. The purpose of this study is to explore the use of assessments in adult physical disability rehab settings. Implications of this study will involve gaining a better understanding of the use of assessments in the field, influence how they are developed for specific areas of practice, and how to better prepare students to develop observational skills as well as administer assessments relevant to the rehabilitation and acute care fields of occupational therapy.

We are currently seeking licensed and registered occupational therapists who currently work in adult physical disability settings. Participation in this study would involve reviewing the informed consent statement which you can print for your own records and taking a one-time ten minute survey via the link provided to you at the end of this email.

It is important to note that this study would not come at any additional cost or compensation to you. All information will remain confidential. Participation in this study is voluntary and can be rescinded at any time.

We would greatly appreciate your participation in our study. Through your help in the completion of the survey, our hope is to make a critical impact in understanding the use of assessments in occupational therapy physical disability settings. We would like to thank you for your time and look forward to beginning our research.

Sincerely,

Caitlin Brown, OTS

caitlin.brown.1@my.und.edu

Jana Carroll, OTS

jana.carroll.2@my.und.edu

Cherie Graves, MOT, OTR/L (Advisor)

cherie.graves@med.und.edu

Link to online consent form and survey:

APPENDIX E
Survey

Use of Assessments in OT Physical Disabilities

Explanation and invitation to participate in student research project.

Dear potential participants,

We, Caitlin Brown and Jana Carroll, graduate occupational therapy (OT) students at the University of North Dakota (UND), are currently in the process of conducting our graduate level Master's study. We are writing to inform you of a research opportunity and would like to ask for your aid in its completion. The purpose of this study is to compare and contrast the use of informal observational and formal assessments in the physical disabilities settings. Implications of this study will involve gaining a better understanding of the use of assessments in the field, influence how they are developed for specific areas of practice, and how to better prepare students to develop observational skills as well as administer assessments relevant to the rehabilitation and acute care fields of occupational therapy.

We are currently seeking licensed and registered occupational therapists who currently work in adult physical disabilities settings with at least one year of experience. Participation in this study would involve reviewing the consent form (see below), which you can print for your own records, and taking a one-time ten minute survey. It is important to note that this study would not come at any additional cost or compensation to you. All information will remain confidential. Participation in this study is voluntary and can be rescinded at any time. We would greatly appreciate your participation in our study. Through your help in the completion of the survey, our hope is to make a critical impact in understanding the use of assessments in occupational therapy acute care and inpatient rehabilitation settings. We would like to thank you for your time and look forward to beginning our research.

Sincerely,

Caitlin Brown, OTS

Jana Carroll, OTS

Cherie Graves, MOT, OTR/L (Advisor)

caitlin.brown.1@my.und.edu

jana.carroll.2@my.und.edu

cherie.graves@med.und.edu

Online consent form is provided. You may print for your own records if desired.

Demographic Information

Q1 Are you a registered occupational therapist (OTR)?

- Yes
- No

Q2 Which state do you primarily practice in?

- North Dakota
- South Dakota
- Montana
- Minnesota
- Wyoming

Q3 Total years of experience in occupational therapy

- Less than 1 year
- 1-5 years
- 6-10 years
- 11-15 years
- 15+ years

Q4 Identify your current PRIMARY physical disability practice setting.

- Acute care hospital
- Inpatient Rehabilitation Facility (IRF) - intensive rehabilitation therapy program generally consists of at least 3 hours of therapy per day at least 5 days per week
- Other (e.g., TCU, SNF, LTC, HH, ALF, OP)

Q5 Total years of experience in your PRIMARY area identified in question above.

- Less than 1 year
- 1-5 years
- 6-10 years
- 11-15 years
- 15+ years

Q6 Hours per week you currently work:

- 0-20 hours
- 21-40 hours

Q7 How many other OTR's are on your immediate team?

- 1
- 2 - 5
- 6 - 10
- 11 - 15
- 15 +

Q8 How many COTA's are on your immediate team?

- 1
- 2 - 5
- 6 - 10
- 11 - 15
- 15 +

Assessment Administration

For the following areas of your profession, what percent of time do you spend on informal observation assessments versus formal assessment? The two percentages must add up to 100 for *each* category, please use the slider to indicate percentage.

For the purpose of this study, **informal observational assessment** is defined as purely using your own observational skills to assess a client without utilizing a formal assessment. This can occur both during the evaluation and intervention stage of the treatment process.

For the purpose of this study, **formal assessment** refers to any written/published standardized or non-standardized assessment tool created for the evaluation of a client (ex. ADL Index, SLUMS, Mini Mental, MOCA, AMPS, FIM, CPT, Berg Balance Scale, etc.

Q9 Initial Evaluation: please use the slider to indicate percentage.

_____ Informal Observation Assessment
_____ Formal Assessment

Q10 General Practice: please use the slider to indicate percentage.

_____ Informal Observation Assessment
_____ Formal Assessment

Q11 Progress Report: please use the slider to indicate percentage.

_____ Informal Observation Assessment
_____ Formal Assessment

Q12 Discharge Evaluation: please use the slider to indicate percentage.

_____ Informal Observation Assessment
_____ Formal Assessment

Q13 Clinical Reasoning Decisions: please use the slider to indicate percentage.

_____ Informal Observation Assessment
_____ Formal Assessment

Informal Observation Assessment

For the purpose of this study, informal observational assessment is defined as purely using your own observational skills to assess a client without utilizing a formal

assessment. This can occur both during the evaluation and intervention stage of the treatment process.

Q14 Please rate the following statements on the 5-point Likert scale below

	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
More information is gathered from informal observation assessment than formal observation assessments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Informal observation assessments take less time to complete than formal assessments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find informal observation assessments useful in my work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident in my observation skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q15 Please rate the following statements on the 5-point Likert scale below

	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
Informal observations assessments are valid forms of measurement to determine client's occupational performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Informal observation assessments can be easily verified by other occupational therapists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My observations are not valid and reliable forms of measurement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can easily interpret my informal observations assessments into clinical reasoning for treatment and interventions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can communicate my observations to other health professionals with confidence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q16 Have you done formal assessments previously?

- Yes
- No

Formal Assessment

For the purpose of this study, formal assessment refers to any written/published standardized or non-standardized assessment tool created for the evaluation of a client

(ex. ADL Index, SLUMS, Mini Mental, MOCA, AMPS, FIM, CPT, Berg Balance Scale, etc.

Q17 Please rate the following statements on the 5-point Likert scale below

	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
I find formal assessments more useful than informal observation assessment in practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is easy to learn and conduct formal assessments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel comfortable making modifications to formal assessments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sufficient formal assessments are available at my workplace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can easily interpret formal assessment results for interventions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q18 Please rate the following statements on the 5-point Likert scale below

	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
Formal assessments are a timely and efficient use of my time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Formal assessments are most cost-effective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can easily read and understand formal assessment manuals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Formal assessments are a valid and reliable form of measurement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

REFERENCES

- Alotaibi, N.M., Reed, K., & Nadar, M.S. (2009). Assessment used in occupational therapy practice: An exploratory study. *Occupational Therapy in Health Care*, 23(4), 302-318.
- American Occupational Therapy Association. (2014). Occupational therapy practice framework: Domain and process (3rd ed.) *American Journal of Occupational Therapy*, 68(Suppl. 1), S1-S48. Retrieved from <http://dx.doi.org/10.5014/ajot.2014.682006>
- Blaga, L., & Robertson, L. (2008). The nature of occupational therapy practice in acute physical care settings. *New Zealand Journal of Occupational Therapy*, 55(2), 11-18.
- Bork, C.E., Jarski, R.W., & Forister, J.G. (2013). Methodology. In J.D. Blessing & J.G. Forister (Eds.), *Introduction to Research and Medical Literature for Health Professionals* (pp. 114). Burlington, MA: Jones and Bartlett Learning.
- Brentnall, J., & Bundy, A. C. (2009). The concept of reliability in the context of observational assessments. *OTJR: Occupation, Participation & Health*, 29(2), 63-71.
- Brentnall, J., Bundy, A.C., & Scott-Kay, F.C. (2008). The effect of the length of observation on test of playfulness scores. *Occupation, Participation and Health*, 28(3), 133-140.

- Britton, L., Rosenwax, L., & McNamara, B. (2015). Occupational therapy practice in acute physical hospital settings: Evidence from a scoping review. *Australian Occupational Therapy Journal*, 62, 370-377.
- Center for Disease Control and Prevention. (2010). National hospital discharge survey. *Public Use Data File Documentation*. Retrieved from ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/NHDS/NHDS_2010_Documentation.pdf
- Center for Medicare and Medicaid Services. (2011). Medicare home health agency utilization by State Calendar Year 2011. Retrieved from <https://www.cms.gov/Research-StatisticsData-and-Systems/Statistics-Trends-and-Reports/MedicareFeeforSvcPartsAB/Downloads/HHAst11.pdf>
- Center for Medicare and Medicaid Services. (2013). 2013 CMS Statistics 8014623597. Retrieved from https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/CMS-Statistics-Reference-Booklet/Downloads/CMS_Stats_2013_final.pdf
- Clemson, L., & Fitzgerald, M. H. (1998). Understanding assessment concepts within the occupational therapy context. *Occupational Therapy International*, 5(1), 18-34.
- Cone, J.D. (1997). Issues in functional analysis in behavioral assessment. *Behavior Research and Therapy*, 35(3), 259-275.
- Courtney, M., Tong, S., & Walsh, A. (2000) Acute care nurses' attitudes towards older patients: A literature review. *International Journal of Nursing Practice*, 6, 62-69.

- Craig, G., Robertson, L., & Milligan, S. (2004). Occupational therapy practice in acute physical health care settings: A pilot study. *New Zealand Journal of Occupational Therapy, 51*(1), 5-13.
- Crennan, M., & MacRae, A. (2010). Occupational therapy discharge assessment of elderly patients from acute care hospitals. *Physical & Occupational Therapy in Geriatrics, 28*(1), 33-43. doi:10.3109/02703180903381060
- de Clive- Lowe, S. (1996). Outcome measurement, cost-effectiveness and clinical audit: The importance of standardized assessment to occupational therapists in meeting these new demands. *British Journal of Occupational Therapy, 59*(8), 357-362.
- Eakin, P. (1989). Problems with assessments of activities of daily living. *British Journal of Occupational Therapy, 52*(2), 50-54.
- Eyres, L. & Unsworth, C.A. (2005). Occupational therapy in acute hospitals: The effectiveness of a pilot program to maintain occupational performance in older clients. *Australian Occupational Therapy Journal, 52*(3), 218-224.
- Fisher, A. G. (2006). *Assessment of Motor and Process Skills: Vol. 1. Development, standardization, and administration manual* (6th ed.). Fort Collins, CO: Three Star Press.
- Foto, M. (1998). Change, commitment, and ethics: Where do we stand? *American Journal of Occupational Therapy, 52*, 87-98.
- Gorman, S. L., Hakim, E. W., Johnson, W., Bose, S., Harris, K. S., Crist, M. H., Holtgreffe, K., Ryan, J.M., Simpson, M.S., Coe, J.B. (2016). Nationwide acute care physical therapist practice analysis identifies knowledge, skills, and

- behaviors that reflect acute care practice. *Physical Therapy*, 90(10), 1453-1467.
doi:10.2522/ptj.20090385
- Griffin, S.D. (1993). Short bed stays: Their effect on occupational therapy services in teaching hospitals. *Archives of Physical Medicine and Rehabilitation*, 74(10), 1087-1090.
- Griffin, S.D., & McConnell, D. (2001). Australian occupational therapy practice in acute care settings. *Occupational Therapy International*, 8(3), 184-197.
- Holdar, U., Wallin, L., & Heiwe, S. (2013). Why do we do as we do? Factors influencing clinical reasoning and decision-making among physiotherapists in an acute setting. *Physiotherapy Research International*, 18(4), 220-229.
doi:10.1002/pri.1551
- Ikiugu, M.N. (2013). The validity of occupational performance assessments: A validity generalization meta-analysis. *Occupational Therapy in Health Care*, 27(4), 372-391. doi:10.3109/07380577.2013.847298
- Johnston, J.M., & Pennypacker, H.S. (1980). Strategies and tactics of human behavior research. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Kaplan, S. (1996). Critical evaluation of standardized tests. *Occupational Therapy in Health Care*, 10(3), 3-14.
- Law, M., Cooper, B., Strong, S., Stewart, D., Rigby, P., & Letts, L. (1996). The person environment-occupation model: A transactive approach to occupational performance. *Canadian Journal of Occupational Therapy*, 63(1), 9-23.
- Liu, C., Stump, T.E., Ambuehl, R., & Clark, D.O. (2014). Utilization of occupational and physical therapy services in postacute care: Findings from the 2006 health and

- retirement study and linked medicare claims data. *Physical and Occupational Therapy in Geriatrics*, 32(1), 85-96.
- MacKenzie, D.E., & Westwood, D.A. (2013). Occupational therapists and observation: What are you looking at? *OTJR: Occupation, Participation & Health*, 33(1), 4-11. doi:10.3928/15394492-20120928-01
- Maclean, F., Carin-Levy, G., Hunter, H., Malcolmson, L., & Locke, E. (2012). The usefulness of the person-environment-occupation model in an acute physical health care setting. *British Journal of Occupational Therapy*, 75(12), 555-562 doi:10.4276/030802212X13548955545530
- Nielsen, K.T & Wæhrens, E.E. (2015). Occupational therapy evaluation: Use of self report and/or observation? *Scandinavian Journal of Occupational Therapy*, 22(1), 13-23. doi:10.3109/11038128.2014.961547
- Piernik-Yoder, B., & Beck, A. (2012). The use of standardized assessments in occupational therapy in the United States. *Occupational Therapy in Health Care*, 26(2), 97-108. doi:10.3109/07380577.2012.695103
- Portney, L. G., & Watkins, M. P. (2015). *Foundations of clinical research: Applications to practice* (3rd ed.). Philadelphia, PA: F. A. Davis Company.
- Roberts, P.S., & Evenson, M.E., (2014). Continuum of care. In B.A.B. Schell, G. Gillen, & M.E. Scaffa (Eds.) *Willard and Spackman's occupational therapy* (12th ed., pp. 896-910). Philadelphia: Lippincott Williams & Wilkins.
- Robertson, L., & Blaga, L. (2013). Occupational therapy assessments used in acute physical care settings. *Scandinavian Journal of Occupational Therapy*, 20(2), 127-135. doi:10.3109/11038128.2012.737369

- Robinson, K.T., & Shotwell, M. (2011). Evaluation of the acute care patient. In H. Smith Gabai (Ed.), *Occupational Therapy in Acute Care* (pp. 1-7). Bethesda, MD: The American Occupational Therapy Association, Inc.
- Rogers, J.C., Green-Gwinn, S.M., & Holm, M.B. (2001). Comparing activities of daily living assessment instruments. *Physical and Occupational Therapy in Geriatrics*, 18(3), 1-25.
- Stein, F., Rice, M. S., & Cutler, S. K. (2013). *Clinical research in occupational therapy* (5th ed.). Clifton Park, NY: Delmar, Cengage Learning.
- Timmer, A. J., Unsworth, C. A., & Taylor, N. F. (2015). Occupational therapy inpatient rehabilitation interventions with deconditioned older adults following an acute hospital admission: A delphi study. *Australian Occupational Therapy Journal*, 62(1), 41-49. doi:10.1111/1440-1630.12169
- Unsworth, C. (2000). Measuring the outcome of occupational therapy: Tools and resources. *American Journal of Occupational Therapy*, 47, 147-158.
- Vogel, K., Geelhoed, K.A., Grice, M., & Murphy, D. (2009) Do occupational therapy and physical therapy curricula teach critical thinking skills? *Journal of Allied Health*, 38(3), 152-157
- Wainwright, S. F., & McGinnis, P. Q. (2009). Factors that influence the clinical decision making of rehabilitation professionals in long-term care settings. *Journal of Allied Health*, 38(3), 143-151.

