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Level II fieldwork educators' familiarity, knowledge, comprehension, utilization, and value of evidence-based practice

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LEVEL II FIELDWORK EDUCATORS' FAMILIARITY, KNOWLEDGE, COMPREHENSION, UTILIZATION, AND VALUE OF EVIDENCE-BASED PRACTICE

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CERTIFICATE OF APPROVAL

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Abstract

Evidence-based practice has become an increasingly popular topic in healthcare literature over the past decade and has been discussed in occupational therapy literature since 1997. To date, eight studies have examined occupational therapists' value, utilization, and perceived knowledge of evidence-based practice, but no published studies specifically address the practices and beliefs of level II fieldwork educators. This study was conducted to investigate new variables, which include actual knowledge, familiarity, and comprehension of evidence-based practice amongst level II fieldwork educators.

A survey questionnaire was sent to 300 occupational therapy level II fieldwork educators employed in various locations across the United States. Although the majority of participants were exposed to evidence-based practice, they had a relatively low perceived familiarity and knowledge of evidence-based practice. Despite the participants' perceived low levels of knowledge of evidence-based practice, the majority displayed high actual knowledge of the tenets of evidence-based practice. Consistent with previous studies, the participants in the current study also highly valued evidence-based practice.

Participants in the current study reported utilizing evidence-based practice more frequently than in previous studies; however, when asked to give an example of their utilization, a determinant of comprehension, the majority of the participants did not give an example that mentioned utilizing research evidence. In support of previous studies, the participants in the current study also identified utilizing other sources of evidence more frequently than research evidence. Participants also identified lack of time as the primary barrier to evidence-based practice utilization which was consistent with previous

studies. The findings of this study should be used to help increase level II fieldwork educators' familiarity, knowledge, comprehension, and utilization of evidence-based practice.

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Dedication

This thesis is dedicated to my parents, Kevin and Mary Grover, my little brother, Jordan Grover, my grandparents, Peter and Beverly Puglisi, and to my best friend and fiancé, Briañ Ohl. I thank my parents and brother for encouraging me to follow my dreams, always offering supportive advice, and helping me to put stressful situations into perspective. I thank my late Grandfather for making me special desserts when I came home from college, and for always showing how proud he was of me. I thank my Grandmother for her encouragement, infinite love, and interest in my education. Lastly, I thank Brian for all of his loving support, positive affirmations, and for pushing me to pursue and achieve goals I did not think were possible.

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Chapter 1: Introduction

Background

Level II fieldwork education has historically been a prominent feature of the educational standards of American occupational therapists (Opacich, 1995; Quiroga, 1995). Providing students with the opportunity to test first hand the theories and facts learned in academic study, and perform client interventions under the supervision of qualified practitioners (American Occupational Therapy Association [AOTA], 1998a), level II fieldwork education assists occupational therapy students to transform into competent entry-level occupational therapists (AOTA, 1998c). During level II fieldwork education, fieldwork educators are expected to ensure entry-level competence by promoting clinical reasoning and reflective practice (AOTA, 1998c), transmitting the ethical values and beliefs of the profession (AOTA, 1998c), and developing and expanding students' repertoires of occupational therapy assessments and interventions (AOTA, 2000b).

The level II fieldwork educator assesses the level II fieldwork student's competencies according to criteria found in the Fieldwork Performance Evaluation for the Occupational Therapy Student (AOTA, 2002b). Revised in 2002, the Fieldwork Performance Evaluation for the Occupational Therapy Student contains 42 items in the areas of ethics, basic tenets of occupational therapy, evaluation, intervention, management of occupational therapy services, communication, and professional behaviors (AOTA, 2002b). Included in the intervention section of the Fieldwork Performance Evaluation for the Occupational Therapy Student is the requirement of all level II fieldwork students to demonstrate an ability to utilize evidence "from published

and relevant resources to make informed intervention decisions" (AOTA, 2002b, Item 19). The utilization of evidence, also known as evidence-based practice, has become an increasingly popular topic in occupational therapy and allied health literature over the past decade (Ottenbacher, Tickle-Degnen, & Hasselkus, 2002).

In a health care climate that emphasizes cost containment and outcome accountability (Christiansen & Lou, 2001; DipCot, 2002; Foto, 1997; Holm, 2000; Law & Baum, 1998; Lloyd-Smith, 1997; von Zweck, 1999), the increased popularity of evidence-based practice may be due to the belief that it will lead to optimal outcomes with clients, and in doing so lead to decreased health care costs (Lloyd-Smith, 1997; Ottenbacher, Barris, & van Deusen, 1986; Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996; Taylor, 1997; Upton & Lewis, 1998; von Zweck, 1999). However, due to its relative newness, the ability of evidence-based practice to lead to optimal outcomes and decreased costs in occupational therapy has not been confirmed (Rappolt, 2003). Although there are no studies demonstrating the efficacious benefits of evidence-based practice utilization, the profession of occupational therapy has theoretically committed itself to evidence-based practice by including the tenets of evidence-based practice in core occupational therapy documents, such as the Fieldwork Performance Evaluation for the Occupational Therapy Student (AOTA, 2002b), *2000 Occupational Therapy Code of Ethics* (AOTA, 2000c), and the *1998 Standards for an Accredited Educational Program for the Occupational Therapist* (AOTA, 1998b).

Problem statement

The inclusion of the evaluation of the utilization of evidence-based practice in the Fieldwork Performance Evaluation for the Occupational Therapy Student presents a new

responsibility for level II fieldwork educators who are already challenged to ensure the quality standards of the profession (Herzberg, 1994). Current research findings suggest that occupational therapists highly value evidence-based practice (Bennett et al., 2003; Curtin & Jaramazovic, 2001; Dobouloz, Egan, Vallerand, & von Zweck, 1999; Dysart & Tomlin, 2002; Humphris, Littlejohns, Victor, O'Halloran, & Peacock, 2000; Philibert, Snyder, Judd, & Windsor, 2003; Upton, 1999), however, they generally do not feel skilled or knowledgeable enough to effectively and frequently utilize research evidence in practice (Bennett et al., 2003; Curtin & Jaramazovic, 2001; Dubouloz et al., 1999; Dysart & Tomlin, 2002; Humphris et al., 2000; McCluskey, 2003). Therefore, it is not known whether level II fieldwork educators are role modeling evidence-based practice utilization, or if they possess the knowledge to adequately evaluate their students' abilities to utilize evidence-based practice.

Significance

According to the *2000 Occupational Therapy Code of Ethics*, occupational therapy level II fieldwork educators have an ethical obligation to become evidence-based practitioners to both inform clients of the "...nature, risks, and potential outcomes of any interventions" (AOTA, 2000a, Principle 2.B.), and to perform their duties on the "...basis of accurate information" (AOTA, 2000a, Principle 3.D.). It is thought that without using current research evidence occupational therapists cannot meet these ethical obligations with absolute confidence (Holm, 2000). Therefore, it is imperative for occupational therapists to become evidence-based practitioners in order to remain in compliance with the *2000 Occupational Therapy Code of Ethics*, and subsequently continue to assure the "...public of high quality occupational therapy services" (Hansen, 1998, Introduction).

The assurance of high quality services, and consequently more efficacious practices, may lead to decreases in national health care expenditures in the United States. According to the National Center for Health Statistics (NCHS), in 2001 the United States spent approximately $1.4 trillion on health care expenditures which is a 7.4% increase from 2000 (2003). Of the total health care expenditures, hospitals accounted for 32%, while nursing homes and home care accounted for 7% (National Center for Health Statistics [NCHS], 2003). Occupational therapists occupy approximately 82,000 jobs in the United States (USBLS, 2004), a majority of which are in hospitals, followed by school systems, and nursing care facilities (USBLS, 2004). If the majority of occupational therapists were to become evidence-based practitioners, occupational therapists would be in the position to potentially decrease health care expenditures in the United States.

Purpose of the Study

The purpose of this study was to investigate level II fieldwork educators' familiarity, knowledge, comprehension, utilization, and value of evidence-based practice.

Basic Definitions of Terms

The Accreditation Council for Occupational Therapy Education (ACOTE): A governing body of the American Occupational Therapy Association "committed to the establishment, promotion and evaluation of standards of excellence in occupational therapy education" (AOTA, 1997, Vision Statement).

Client: A person, group, program, organization, or community for whom the occupational therapy practitioner is providing services (AOTA, 1995).

Client-centered: "An approach to service which embraces a philosophy of respect for, and partnership with, people receiving services" (Law, Baptiste & Mills, 1995, p. 253).

Clinical reasoning: "The complex thought process therapists use during all therapeutic interactions and is the main process used to integrate client assessment information and formulate an intervention plan" (Leicht & Dickerson, 2001, p 106).

Comprehension: Having knowledge, or the understanding of facts or principles, as a basis for interpreting, explaining, summarizing, generalizing, and giving examples of a material (Gronlund, 1985).

Entry-level competence: As a result of academic and fieldwork education, competent entry-level practitioners are expected to have acquired a broad foundation of knowledge in the liberal arts and sciences (AOTA, 1998c). Additionally, the competent entry-level practitioner applies professional principles, intervention approaches, and expected outcomes related to occupation, supervises and works with occupational therapy assistants, upholds the ethical standards and values related to the profession, is committed to being a lifelong learner, keeps current with best professional practices and the latest research and knowledge bases that undergrid practice, and contributes to the growth and dissemination of research and knowledge (AOTA, 1998c).

Evaluation: The process of obtaining and interpreting data necessary for understanding the client. This includes planning for and documenting the evaluation process, results, and recommendations, including the need for intervention and/or potential change in the intervention plan (Hinojosa & Kramer, 1998).

Evidence-based practice: The "conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence-based [health care] means integrating individual clinical expertise with the best available external clinical evidence from systematic research" (AOTA, 2002b, Glossary).

Evidence-based practice brief: A synopsis of occupational therapy research findings in which statistical terms are defined and explained. Evidence-based practice briefs are available on the AOTA website and accessible only to AOTA members.

Evidence-based practitioner: An occupational therapist with the "skills and knowledge to search for, appraise and use research evidence when making clinical decisions" (McCluskey, 2003, p 3).

Intervention: "Strategies designed to improve the occupational performance of individuals; may involve direct services by occupational therapy practitioners with clients and indirect services as consultation with individuals and groups" (Neistadt & Crepeau, 1998, p. 869).

Familiarity: Having "personal knowledge or information about someone or something" (Worldnet, 1997, ¶ 3).

Fieldwork educator: A practicing occupational therapist who meets state regulations and has a minimum of one year of practice experience prior to receiving the level II fieldwork student (AOTA, 1998c).

Knowledge: The state or fact of knowing specific information about something (Houghton & Mifflin Co., 2000).

Professional socialization: The complex process in which one embraces the "...value, norms, and interests of a profession" (Herzberg, 1994, p. 817).

Level I fieldwork education: A component of occupational therapy education in which students observe a variety of populations in a variety of different settings under the supervision of a professional (AOTA, 1998c).

Level II fieldwork education: A component of all accredited occupational therapy educational programs that allows students the "...opportunity to test first hand the theories and facts learned in academic study and to refine skills through client intervention under the supervision of qualified practitioners" (AOTA, 1998a, p.1).

Occupational Therapist: Any individual initially certified to practice as an occupational therapist or occupational therapy assistant and licensed or regulated by a state, district, commonwealth, or territory of the United States to practice as an occupational therapist (AOTA, 1998b).

Occupational Therapy Code of Ethics: "...moral and philosophical statements that encourage occupational therapy practitioners to attain a high level of professional behavior," and "...bind the profession to the singular purpose of assuring the public of high-quality occupational therapy services" (Hansen, 1998, Introduction).

Utilization: "...to use, especially to find a profitable or practical use for" (Houghton & Mifflin Co., 2000, ¶1).

Value: The "quality (positive or negative) that renders something desirable or valuable" (Worldnet, 1997, ¶ 7).

Chapter 2: Literature Review

Introduction to Fieldwork Education

In the United States, fieldwork education is a crucial part of the professional preparation of both occupational therapy and occupational therapy assistant students (AOTA, 1998c). All accredited occupational therapy programs are mandated to provide students with both level I and level II fieldwork education experiences (AOTA, 1998c). Level I fieldwork education is intended to introduce students to the fieldwork experience and enable them to develop a basic comfort level and understanding of clients' needs (AOTA, 1998c). The focus of level I fieldwork education is not independent performance, but rather to enrich course work through "...directed observations and participation in selected aspects of the occupational therapy process" (AOTA, 1998c, p. 19). In contrast, level II fieldwork education allows students the "...opportunity to apply the knowledge learned in the classroom to practice in the clinical setting" (Costa, Burkhardt, & Royeen 2003, p. 6). Level II fieldwork students apply their skills through "supervised intervention and professional role modeling with clients, their families, significant others, and other health care professionals" (Costa et al., 2003, p. 6). Throughout both level I and level II fieldwork education, students are expected to function at progressively higher levels of performance and responsibility (Costa et al., 2003).

Supervision during level I and level II fieldwork education is provided by fieldwork educators, a term coined in 1991 recognizing that they facilitate fieldwork students' learning (Cohn & Crist, 1995). During level I fieldwork education supervision can be provided by qualified personnel, who include but are not limited to, occupational

therapy practitioners, psychologists, physician assistants, and teachers (AOTA, 1998c). During level II fieldwork education, students must be supervised by an occupational therapist who meets state licensure regulations and has a minimum of one year of practice experience as an occupational therapist prior to receiving the student (AOTA, 1998c).

Although both occupational therapy and occupational therapy assistant students are required to complete level I and level II fieldwork education, their educational and job demands are distinct. The professional level of education prepares one to become an occupational therapist and requires a bachelor's degree in occupational therapy or higher (AOTA, 2002a). All persons graduating from a professional program in occupational therapy will be required to have a master's degree or higher after the year 2007 (AOTA, 2002c). The technical level of education prepares one to become an occupational therapy assistant, and requires an associate's degree in occupational therapy (AOTA, 2002a). In clinical settings, occupational therapy assistants are supervised by occupational therapists. This literature review addresses issues surrounding occupational therapists and occupational therapy students, as opposed to circumstances encountered by occupational therapy assistants and occupational therapy assistant students. Additionally, this literature review addresses the circumstances of level II fieldwork education, as opposed to those of level I fieldwork education.

History of Level II Fieldwork Education

The concept of level II fieldwork education has been linked with occupational therapy since the profession's beginning. In 1918, Level II fieldwork education, although not titled at that time, was part of the first formal occupational therapy educational programs at the Chicago School of Civics and Philanthropy and the Boston School of

Occupational Therapy (Opacich, 1995). The program at the Boston School of Occupational Therapy required 12 weeks of instruction, while the program at the Chicago School of Civics and Philanthropy entailed two six-month terms of practice work at Hull House. Neither the Chicago School of Civics and Philanthropy nor the Boston School of Occupational Therapy followed any formal educational guidelines.

In 1923, educational standards became a primary focus of the American Occupational Therapy Association (AOTA). The members of AOTA were focused on building a pool of high quality professionals rather than inundating the market with mediocre practitioners (Quiroga, 1995). After studying existing occupational therapy training programs, and soliciting letters from hospital administrators and physicians on the qualities they sought in occupational therapy practitioners, the members of AOTA unanimously adopted the first document declaring the standards for occupational therapy education titled the *1923 Minimum Standards for Courses of Training in Occupational Therapy* (1995). This document was established to ensure that educational programs were producing high-quality professionals who possessed sophisticated technical and teaching skills as well as sufficient medical knowledge (1995). In order to receive endorsement from AOTA, occupational therapy educational programs were expected to only accept students who had a high school education and would be at least twenty years old when they graduated from the program (1995). All occupational therapy educational programs were required to establish medical course work, craft training, and clinical experience components (1995). Members of AOTA could not agree on the amount of time to designate to the clinical experience component, so it was left to be determined by individual schools.

Since 1923, occupational therapy educational standards have become more substantial. In 1994, AOTA developed the Accreditation Council for Occupational Therapy Education (ACOTE). ACOTE promotes and evaluates the standards of excellence in occupational therapy education, and "...serves as a model for ethical, accountable and efficient practices" (AOTA, 1997, Vision Statement). Unlike the *1923 Minimum Standards for Courses of Training in Occupational Therapy* which was a mere four pages and not legally enforceable, ACOTE's comparable document the *1998 Standards for an Accredited Educational Program for the Occupational Therapist* is substantially longer, complies with the United States Department of Education criteria for accrediting agencies, and is enforceable by law.

In order to take the National Board for Certification in Occupational Therapy (NBCOT) examination and become a practicing occupational therapist new graduates must have graduated from an ACOTE accredited program (AOTA, 2002c). In contrast to the ambiguous clinical component standards found in the *1923 Minimum Standards for Courses of Training in Occupational Therapy*, the *1998 Standards for an Accredited Educational Program for the Occupational Therapist* contain specific terms for level II fieldwork education. According to ACOTE (AOTA, 1998c), all occupational therapy students are required to complete at least twenty-four full-time weeks of level II fieldwork education.

Purpose of Level II Fieldwork Education

The purpose of level II fieldwork education is to "develop competent, entry-level, generalist occupational therapists" (AOTA, 1998c, p. 20). According to the *1998 Standards for an Accredited Educational Program for the Occupational Therapist*, the

contemporary entry-level generalist occupational therapist must possess "basic skills as a direct care provider, consultant, educator, manager of personnel and resources, researcher, and advocate for the profession and the consumer" (AOTA, 1998c, Preamble). Further, the contemporary entry-level occupational therapist must:

> "...be prepared to articulate and apply professional principles, intervention approaches and rationales, and expected outcomes as related to occupation; be prepared to supervise and work in cooperation with the occupational therapy assistant; be prepared to be a lifelong learner and keep current with best professional practice; uphold the ethical standards, values, and attitudes of the occupational therapy profession; be prepared to be an effective consumer of the latest research and knowledge bases that undergrid practice and contribute to the growth and dissemination of research and knowledge" (AOTA, 1998c, Preamble).

To achieve entry-level competence, the fieldwork experience is designed to promote "clinical reasoning and reflective practice; to transmit the values and beliefs that enable ethical practice; and to develop professionalism and competence as career responsibilities" (AOTA, 1998c, p.20).

Clinical reasoning.

Clinical reasoning is "the complex thought process occupational therapists use during all therapeutic interactions, and is the main process used to integrate client assessment information and formulate an intervention plan" (Leicht & Dickerson, 2001, p. 106). Clinical reasoning is based on the occupational therapist's "knowledge of procedures, interactions with patients, and interpretation and analysis of the evolving situation" (Cohn, 1989, p. 241). Parham (1987) argued that clinical reasoning distinguishes occupational therapy as a profession rather than a technical field. Whereas technicians use the same depersonalized techniques with every client and think in terms of protocols, "professional thinking involves being able to clearly and critically analyze the reasons for the decisions and actions we take" (Parham, 1987, p. 555). According to

Parham (1987), in order to establish autonomy as a profession and therefore not rely on other professionals for referrals, accreditation, and a research base, occupational therapy needs to demonstrate to society that it can contribute a sound body of knowledge, carefully evaluated services, and contributions to solving health care problems.

Parham (1987) argued that reliance on technical skills alone would not suffice when faced with the complexities of health care. According to Parham (1987), relying primarily on skills instead of clinical reasoning will lead to short sighted interventions where therapists are "...too quick to reach for a handy technique without considering the implications for the unique individual who is the recipient of therapy" (p. 556). In support of Parham (1987), Royeen (1995) argued that occupational therapy education should be oriented toward the development of clinical reasoning and reflection rather than just techniques and skills. According to Royeen (1995), "an educational foundation in clinical reasoning and critical reflection prepares an occupational therapist for all the years of practice as well as for lifelong learning" (p. 338). Teaching clinical reasoning is therefore vital to the professional preparation of occupational therapy students (Royeen, 1995).

Fieldwork education is essential in the development of clinical reasoning because it is thought that only in fieldwork can the full complexity of the professional demands of occupational therapy be experienced (Cohn, 1989). According to Neistadt (1996), in order for the student to learn clinical reasoning skills during fieldwork education, the fieldwork educator needs to become consciously aware of and explicitly clarify the thought processes that were previously automatic or tacit. In agreement, Cohn (1991) argued that observations alone will not provide insight into fieldwork educators' and

students' clinical reasoning processes, because the thoughts behind their actions are not self-evident (Cohn, 1989). Further, Cohn asserted that clinical reasoning is a mental process, which can only be examined indirectly by asking therapists to describe their reasoning, asking therapists to tell stories about their work with clients, and observing therapists discussing their work with colleagues (Cohn, 1991).

Although clinical reasoning during fieldwork education is thought to be best learned through explicit dialogue (Buchanan, Moore, & van Nierkerk, 1998; Cohn, 1989; Cohn 1991; Neistadt, 1996), Tompson and Ryan (1996b) found in a majority of cases that fieldwork educators were not in the position to take time out to explicitly reflect on and discuss their roles and experiences as therapists. According to Tompson and Ryan (1996b), during interactions between the fieldwork educator and student, the fieldwork educator's underlying thought processes went unaddressed and were left to the student to "...absorb unconsciously and interpret without questioning" (p. 69). This phenomenon may partly be explained by Mattingly's (1991) assertion that it is often difficult for experienced therapists to offer explicit reasons for their actions. Mattingly (1991) argues that "although the ability to verbalize one's practical knowledge is advantageous, such knowledge is often embodied through our hands or our eyes and is difficult to translate into words" (p. 979). Further, the gap between what is said and what is known may grow as one gains professional expertise because much of the fluidity and ease associated with being an experienced professional is a result of knowledge that has become habitual and automatic (1991). In addition to promoting clinical reasoning and reflective practice, fieldwork education is designed to foster professional socialization.

Professional socialization.

Professional socialization is the complex process by which one embraces the "...value, norms, and interests of a profession" (Herzberg, 1994, p. 817). Tompson and Ryan (1996b) described the professional socialization of level II fieldwork students as a process of learning new behaviors and unlearning old ones in order to move from a state of passivity and dependency towards independence and active participation in occupational therapy. In a study of four level II fieldwork students, Tompson and Ryan (1996b) found that during level II fieldwork education professional socialization involved students learning their place within the health care system, learning how to communicate effectively and professionally with clients and other professionals, and learning how to operationalize what it means to be an occupational therapist. Tompson and Ryan (1996b) presented the only published occupational therapy study on professional socialization and fieldwork education. Although small in scope, Tompson and Ryan's (1996b) findings of the professional socialization that occurs during level II fieldwork education are congruent with what is expected to occur according to the *1998 Standards for an Accredited Educational Program for the Occupational Therapist.* During level II fieldwork education, both clinical reasoning and professional socialization depend on the relationship between the fieldwork educator and student.

Fieldwork Educator-Student Relationship

The relationship between the fieldwork educator and student is frequently characterized as a mentor-protégé relationship (Cohn, 1989; Neistadt, 1996; Nolinske, 1995) where the mentor (fieldwork educator) has more skills and experience than the protégé (student). The goal of the mentor-protégé relationship is to have the "...lesser

skilled person grow and develop specific competencies, skills, and attitudes" (Murray, 1991, p. xiv). To develop mutual admiration, trust, and respect, the mentor-protégé relationship requires the time and effort of both parties (Nolinske, 1995).

As a mentor, the level II fieldwork educator serves as a role model for what an occupational therapist is, and represents the type of professional that students would themselves like to become (Tompson & Ryan, 1996a). Level II fieldwork educators are responsible for maintaining the quality standards of the profession (Herzberg, 1994), and are "challenged to ensure that students have relevant entry-level competencies as practitioners" (Cohn & Crist, 1995, p.104). For the student, the level II fieldwork educator is an anchoring point in the strange new clinical setting and a person from whom they can take cues for appropriate behaviors and feelings (Tompson & Ryan, 1996a). In order to contribute to the students' professional socialization, clinical reasoning, and technical skills, level II fieldwork educators must be equipped with the skills to create a fieldwork environment which fosters professional development.

Expectations of Level II Fieldwork Educators

The effective level II fieldwork educator must posses a myriad of skills. In a survey of 127 students and 188 fieldwork educators, Christie, Joyce, and Moeller (1985) found that the critical difference between the ineffective and effective fieldwork educator was the attitude with which they carried out their responsibilities. The ineffective fieldwork educator was characterized as being controlling, dominating, smothering and unsupportive, having poor interpersonal skills, lacking clinical experience and supervisory skills, and stifling creativity and independent problem solving (1985). The effective fieldwork educator was characterized as being an active listener, honest,

competent as a clinician and educator, a good role model, supportive and empathetic, sensitive to the student's needs and concerns, and able to give "...timely, constructive, consistent, and growth-promoting" feedback (1985, p. 677). In addition to the qualities of effective fieldwork educators identified in the study by Christie, Joyce, and Moeller (1985), Cohn and Frum (1988) and Seale, Gallagher and Grisbrooke (1996) identified that fieldwork educators also need to know how to evaluate student performance in order to fulfill their role effectively.

Expectations of Level II Fieldwork Students

The level II fieldwork educator evaluates the level II fieldwork student's performance according to the criteria of the Fieldwork Performance Evaluation for the Occupational Therapy Student. Revised in 2002, the Fieldwork Performance Evaluation for the Occupational Therapy Student was designed to reflect the *1998 Standards for an Accredited Educational Program for the Occupational Therapist*, and "differentiate the competent student from the incompetent student" (AOTA, 2002b, p.1). The Fieldwork Performance Evaluation for the Occupational Therapy Student contains 42 items categorized under the sub-headings: ethics and safety, the basic tenets of occupational therapy, evaluation and screening, intervention, management of services, communication, and professional behavior (AOTA, 2002b).

Every item on the Fieldwork Performance Evaluation for the Occupational Therapy Student must be scored, and for each item the level II fieldwork student receives a rating from one to four using the Rating Scale for Student Performance which is available on every page of the evaluation. According to the Rating Scale for Student Performance a rating of one denotes unsatisfactory performance that is below standards

and requires development for entry-level practice; a rating of two denotes the student needs improvement for entry-level practice; a rating of three denotes the student meets standards and is performing consistently with entry-level practice; a rating of four denotes the student exceeds standards and performance is highly skilled (AOTA, 2002b). To achieve a passing score of 122 points on the Fieldwork Performance Evaluation for the Occupational Therapy Student, and ultimately pass the fieldwork, the student must score at least a three on almost all of the 42 items being evaluated (AOTA, 2002b). If a student scores below three in the safety and ethics section he or she fails fieldwork (AOTA, 2002b).

Included in the Fieldwork Performance Evaluation for the Occupational Therapy Student, and consequently expected of all level II fieldwork students, is the expectation of the utilization of evidence "from published research and relevant resources to make informed intervention decisions" (AOTA, 2002b, Item 19). The utilization of evidence, also known as evidence-based practice, is defined on the Fieldwork Performance Evaluation for the Occupational Therapy Student as the "conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence-based [health care] means integrating individual clinical expertise with the best available external clinical evidence from systematic research" (Sackett et al., 1996, p. 71). The addition of evidence-based practice to the Fieldwork Performance Evaluation for the Occupational Therapy Student is reflective of the importance placed on the use of research to support practice in occupational therapy.

History of Evidence-based Practice and Occupational Therapy

According to Ottenbacher, Tickle-Degnen, and Hasselkus (2002), the impact of evidence-based practice on occupational therapy first appeared in British and Canadian literature in 1997 and 1998 respectively (Taylor, 1997; Law & Baum, 1998; Tickle-Degnen, 1998). Evidence-based practice first appeared in American occupational therapy literature in 1999, when Dubouloz et al. (1999) published an article in the American Journal of Occupational Therapy (AJOT) describing Canadian occupational therapists' perceptions of evidence-based practice (Ottenbacher et al., 2002). Additionally in 1999, editors of AJOT developed the Evidence-Based Practice Forum to address issues surrounding evidence-based practice utilization and theory (Ottenbacher et al., 2002).

The increased interest in evidence-based practice by occupational therapists may be due to the considerable growth in evidence-based practice and evidence-based medicine literature in health care over the past decade. Ottenbacher et al. (2002) reported a 1000% increase in evidence-based practice and evidence-based medicine literature in the PubMed and Ovid databases between 1995 and 1998. Additionally, between 1998 and 2001, the number of citations referring to evidence-based practice and evidence-based medicine increased by 100% (2002).

American, Australian, British, and Canadian occupational therapy literature suggests that evidence-based practice has become increasingly popular due to the current health care climate which emphasizes outcome accountability and cost containment (Christiansen & Lou, 2001; DipCot, 2002; Foto, 1997; Holm, 2000; Law & Baum, 1998; Lloyd-Smith, 1997; von Zweck, 1999). Additionally, Christiansen and Lou (2001) argue that the information age is largely responsible for the current popularity of evidence-

based practice. Christiansen and Lou (2001) stated that "...although a professional's obligation to stay fully informed has existed for centuries, only recently has a practical means for doing so (e.g., the personal computer and World Wide Web) created the environment of expectation and accountability necessary to drive the evidence-based practice movement to its current level of influence" (p. 345).

The influence of evidence-based practice on American occupational therapists is further apparent in Holm's 2000 Eleanor Clarke Slagle lecture in which she declared evidence-based practice to be occupational therapy's mandate for the new millennium. Holm (2000) proposed that occupational therapists not only have a professional obligation to "become competent in, and make a habit of, searching for evidence, appraising its value, and presenting it to those we serve in an understandable manner" (p. 258), but also an obligation to improve research competencies and advance the evidence base of occupational therapy. According to Holm (2000), the profession of occupational therapy has already committed itself to evidence-based practice by including its tenets in the *2000 Occupational Therapy Code of Ethics*.

The *Occupational Therapy Code of Ethics* are "...moral and philosophical statements that encourage occupational therapy practitioners to attain a high level of professional behavior," and "... bind the profession to the singular purpose of assuring the public of high-quality occupational therapy services" (Hansen, 1998, Introduction). Members of AOTA must adhere to the *Occupational Therapy Code of Ethics* and its enforcement procedures (AOTA, 2000c). Even though the *2000 Occupational Therapy Code of Ethics* are only enforceable if one is a member of AOTA, "knowledge and understanding of the AOTA *Code of Ethics*" (AOTA, 1998c, B.9.1.) must be included in

the curriculums of all accredited occupational therapy programs. Additionally, fieldwork educators are expected to follow the *2000 Occupational Therapy Code of Ethics* as professional role models with the responsibility of transmitting values and beliefs that enable ethical practice (AOTA, 1998c).

The tenets of evidence-based practice are embedded in Principles 2.B. and 3.D. of the *2000 Occupational Therapy Code of Ethics* which state respectively, "Occupational therapy personnel shall fully inform the service recipients of the nature, risks, and potential outcomes of any intervention" (AOTA, 2000c, Principle 2.B.), and "occupational therapy personnel shall inform their duties on the basis of accurate and current information" (AOTA, 2000c, Principle 3.D.). According to Holm (2000), in order to fully inform clients and "justify why we do what we do in addition to how we do it" (p. 576) research evidence is vital. Emphasis on research and subsequently evidence-based practice is also apparent in the definition of the contemporary entry-level occupational therapist found in the *1998 Standards for an Accredited Educational Program for the Occupational Therapists* (see page 12).

The addition of the tenets of evidence-based practice to the Fieldwork Performance Evaluation for the Occupational Therapy Student, the *2000 Occupational Therapy Code of Ethics*, and the *1998 Standards for an Accredited Educational Program for the Occupational Therapists* clearly affirms occupational therapy's commitment to evidence-based practice. Although the profession of occupational therapy is theoretically committed to evidence-based practice, a consensus has yet to be reached regarding its purpose, value, and utilization.

Purpose and Value of Evidence-based Practice

Evidence-based practice is intended to ensure the use of the most effective and safest interventions with clients (Lloyd-Smith, 1997; Ottenbacher et al., Sackett, et al., 1996; Taylor, 1997). Further, evidence-based practice is purported to provide greater professional credibility (Christiansen & Lou, 2001; Llorens, 1990; Parham, 1987) and financial accountability where the most effective methods of intervention are utilized to ensure minimal costs (Holm, 2000; Law & Baum, 1998; Lloyd-Smith, 1997; Upton & Lewis, 1998; von Zweck, 1999). Due to the relative newness of evidence-based practice in occupational therapy, it is unclear whether utilizing evidence will provide optimal outcomes at minimal costs.

Although the efficacy of evidence-based practice in occupational therapy has not been established (Rappolt, 2003), current research shows that evidence-based practice is valued by occupational therapists (Bennett et al., 2003; Curtin & Jaramazovic, 2001; Dubouloz et al., 1999; Dysart & Tomlin, 2002; Humphris et al., 2000, McCluskey, 2003; Philibert et al., 2003; Upton, 1999). In a survey of 649 Australian occupational therapy practitioners, Bennett et al. (2003) found the majority (95.7%) of practitioners "agreed" or "strongly agreed" that evidence-based practice is important to occupational therapy. Additionally, the majority (88.2%) of participants "agreed" or "strongly agreed" that evidence-based practice improves client care, that research findings are useful in the day-to-day management of clients (86.0%), and that evidence-based practice is client centered (57.5%). Participants with previous training in evidence-based practice were more likely to agree that current research findings are useful, that evidence-based practice improves client care and is client centered, while disagreeing with the notion that evidence-based

practice "placed too many demands on their workload, and that it was of limited value in occupational therapy due to a lack of research evidence" (2003, p. 16).

Dysart and Tomlin (2002) and Philibert et al. (2003) reported similar findings among American occupational therapists. In a survey of 209 American occupational therapy practitioners, Dysart and Tomlin (2002) found just over half of the participants (54.0%) believed that more therapists should use research in their practice, while 46% valued clinical experience over research and theory. Additionally, Dysart and Tomlin (2002) found that a greater percentage of participants with master's degrees strongly believed more therapists should use research than those with bachelor's degrees. Philibert et al. (2003) presented similar findings in a study examining 328 American occupational therapy practitioners' use and attitudes toward journal research. Philibert et al. (2003) found the majority of participants agreed that research generates knowledge, is generally useful to practitioners, and plays a role in reimbursement for occupational therapy services (2003). Unlike Dysart and Tomlin (2002), Philibert et al. (2003) did not find any relationship between degree level and the participants' perceived value of research.

Humphris et al. (2000), Upton (1999), and Curtin & Jaramazovic (2001) reported similar findings among British occupational therapists. In a study of 66 occupational therapists, Humphris et al. (2000) found the participants generally viewed evidence-based practice in a positive manner. Ninety-five percent of the participants agreed that research is needed to improve practice and clinical practice should be based on research, while 92.0% agreed that research helps to build a scientific knowledge base for practice, 89.0% agreed most health care professionals should use research in their practice, 86.0% agreed

understanding research can help professionally, and 85.0% reported wanting to use research in their practice (Humphris et al., 2000). A minority of participants (3.0%), viewed evidence-based practice as irrelevant to their practice (Humphris et al., 2000). Similarly, Upton (1999) found that an overwhelming majority of occupational therapists viewed evidence-based practice as fundamental to their professional practice, while a minority viewed evidence-based practice to be a fad. In a study of 500 occupational therapists, Curtin and Jaramazovic (2001) reported the majority of participants were generally positive about evidence-based practice and viewed it as their professional duty and responsibility, while a minority viewed evidence-based practice as a threat that would narrow practice and make interventions less creative.

In a qualitative study of eight Canadian occupational therapists, Dubouloz et al. (1999) also found that participants viewed evidence-based practice in both a positive and negative manner. Some participants positively viewed evidence-based practice as an evolutionary process and a means of examining one's own practice in order to strengthen and improve service, while others viewed evidence-based practice as a threat to "...routine ways of analyzing and carrying out therapeutic interventions" (Dubouloz et al., 1999, p. 450). Further, some viewed evidence-based practice as a disturbance to the "...level of comfort acquired during years of practice" (Dubouloz et al., 1999, p. 450) with the potential to disrupt existing interdisciplinary relationships. The potential threat of evidence-based practice is also apparent in other occupational therapy and medical literature.

In the article, "What is evidence-based practice?" Taylor (1997) reported occupational therapists are commonly concerned that evidence-based practice will lead to

"cost cutting and 'cookbook' practices where there is one recognized and cheap intervention for a specific problem" (p. 168). The notion that evidence-based practice will lead to generic interventions is also supported by Eakin (1997), who implied that a move toward evidence-based practice is a move away from custom therapy in her statement, "...the balance needs to shift from custom and practice therapy towards therapy that has been demonstrated as being effective and beneficial to the client or user of our services" (p. 290).

Sackett et al. (1996) reported similar concerns in medicine, and strongly argued against the notion that evidence-based practice leads to generic interventions. According to Sackett et al. (1996), "...external clinical evidence can inform, but can never replace, individual clinical expertise, and it is this expertise that decides whether the external evidence applies to the individual patient at all and, if so, how it should be integrated into a clinical decision" (p. 72). In support of Sackett et al. (1996), Rappolt (2003) argued for the efficacy of evidence-based practice in occupational therapy by stating, "there are no reasonable arguments against the value of systematically infusing research evidence into clinical practice" (p. 589). Similarly, Ottenbacher et al. (1986) argued that therapists who view research as having little relevance to their practice have an "inadequate or superficial understanding of the research process" (p. 116). While research suggests that practicing occupational therapists generally value evidence-based practice, studies have shown they have a reportedly low knowledge of and familiarity with its tenets.

Knowledge and Familiarity of Evidence-based Practice

There are few published studies addressing occupational therapists' knowledge of (Dubouloz et al., 1999; Dysart & Tomlin, 2002; McCluskey, 2003; Upton, 1999), and exposure to evidence-based practice (McCluskey, 2003). Further, literature searches in PubMed, CINAHL, and AJOT have been unsuccessful in locating studies examining occupational therapists' perceived level of familiarity with evidence-based practice. The lack of research in these areas may be due to a professional assumption that because there is an excess of literature pertaining to evidence-based practice (Ottenbacher et al., 2002), occupational therapists are somewhat familiar with and knowledgeable about its tenets. The notion of a large quantity of evidence-based practice literature leading to exposure among occupational therapists, and further exposure leading to knowledge, is currently unfounded in occupational therapy.

Dubouloz et al. (1999) elicited their participants' knowledge of evidence-based practice by asking the question, "When you hear people talking about evidence-based practice, what does it mean to you?" (1999, p. 446). They found the participants strongly perceived evidence-based practice to be a process of "...looking for answers when a choice between possible interventions must be made" (Dubouloz et al., 1999, p. 447). Additionally, the participants identified clinical expertise, standardized assessments, intuition, scientific literature, consultation with peers, and the client to be sources of information contributing to evidence-based practice (1999).

Unlike the Dubouloz et al. (1999) study which asked an open ended question to elicit information about the participants' knowledge of evidence-based practice, Upton (1999) used quantitative methods to examine perceived level of knowledge. Upton

(1999) found the majority of participants perceived themselves as having low levels of knowledge of evidence-based practice. McCluskey (2003) replicated and expanded on Upton's (1999) study; however, McCluskey's (2003) results are not directly comparable to Upton's (1999). McCluskey (2003) combined Upton's (1999) knowledge and skill level categories, resulting in the participants' overall perceived knowledge of evidence-based practice being indistinguishable from their perceived skill level in utilizing evidence-based practice.

McCluskey (2003) also examined the participants' reported frequency of exposure to evidence-based practice in journal articles, books, and continuing education classes over the past year. The majority of participants reported little to no exposure to evidence-based practice (2003). Sixty-four percent of the participants reported reading between one and three journal articles containing evidence based practice within the past year, while 85.1% reported not reading any books containing evidence-based practice, and 85.0% reported not attending any continuing education classes pertaining to evidence-based practice (2003). The dearth of research addressing occupational therapists' knowledge and familiarity of evidence-based practice is comparable to the available research addressing occupational therapists' comprehension of evidence-based practice.

Comprehension of Evidence-based Practice

Comprehension requires the knowledge and understanding of facts or principles as a basis for explaining, generalizing, summarizing, and giving examples of material (Gronlund, 1985). Occupational therapists' comprehension of evidence-based practice was addressed in the study by Dubouloz et al. (1999), which required participants to

describe instances where they engaged in evidence-based practice. Dubouloz et al. (1999) presented the only published study asking a question eliciting information about occupational therapists' comprehension of evidence-based practice; however, they did not report their findings to this inquiry. It can be hypothesized that due to their low reported knowledge, occupational therapists do not have a high level of comprehension of evidence-based practice, as knowledge is a precursor to comprehension (Gronlund, 1985). However, further investigation is required to support such a hypothesis. While comprehension of evidence-based practice is under-researched, multiple aspects of evidence-based practice utilization have been heavily studied.

Utilization of Evidence-based Practice

Numerous models and theories describe how to utilize evidence in practice (Brown & Rodger, 1999; Egan, Dubouloz, von Zweck, & Vallerand, 1998; Holm, 2000; Ilott, 2003; Rosenberg & Donald, 1995; Tickle-Degnen, 2000a). Most models consist of five steps: formulating a clear clinical question, gathering research evidence to answer the question, evaluating the evidence, utilizing the evidence, and assessing the impact of the evidence used (Egan et al., 1998; Holm, 2000; Ilott, 2003; Rosenberg & Donald, 1995; Tickle-Degnen, 2000a). When developing a clinical question, Holm (2000) suggests including, "(a) the client, population, or problem; (b) the intervention, which may include frequency and duration; (c) the outcome of interest; and (d) the comparison intervention" (p. 582). Once a clinical question is formulated, research evidence needs to be gathered (Egan et al., 1998; Holm, 2000; Ilott, 2003; Rosenberg & Donald, 1995; Tickle-Degnen, 2000a).

Gathering research evidence typically involves conducting an electronic or journal search in one of the following databases: MEDLINE, CINAHL, the Cochrane Database of Systematic Reviews, DARE, ERIC, PsyLit, OT SEARCH, or OTSeeker (Bennett et al., 2003; Holm, 2000). Additionally, reference librarians and researchers in other disciplines can be utilized for information (Holm, 2000). To improve access to current research, Tickle-Degnen (2000a) suggested collecting bibliographies from continuing education classes and workshops, joining an internet listserv pertaining to particular populations or conditions, and saving relevant journal articles.

When performing an evidence search, Tickle-Degnen (2000a) suggested first searching for articles about the client population using key words, such as the diagnosed condition, age group, and gender. Once articles are found related to the client population, the search can be narrowed by looking for articles containing evidence about occupation or occupational performance which is also described in other disciplines as functional performance, activities of daily living, work, and play (2000a). Once the body of evidence is narrowed down to the occupational performance issues of a specific population, the next step is to search for the type of evidence needed (2000a). To save time, abstracts can be appraised first in order to help determine the relevance of the articles (Tickle-Degnen, 1998). After current relevant evidence is gathered, the evidence needs to be appraised (Egan et al., 1998; Holm, 2000; Ilott, 2003; Rosenberg & Donald, 1995; Tickle-Degnen, 2000a).

While the definition of evidence-based practice is widely agreed upon (Dubouloz et al., 1999; Egan et al., 1999; Dysart & Tomlin, 2002; Eakin, 1997; Lloyd-Smith, 1997; McCluskey, 2003; Tickle-Degnen, 1998; Rappolt, 2003), there is a professional debate

over what qualifies as acceptable research evidence. Holm (2000) and Lloyd-Smith (1997) advocated using hierarchies to appraise research evidence. In evidence hierarchies, multiple well-designed randomized control trials represent the strongest level of systematic review evidence and should be considered first, followed by one properly designed randomized controlled trial, well-designed non-randomized trials, non-experimental studies from more than one center or research group, opinions of respected authorities, and descriptive studies (Holm, 2000). Holm (2000) argued that occupational therapists' professional confidence in their clinical decisions should be based on the strength of the evidence used. Additionally, Holm (2000) suggested using hierarchies to evaluate evidence because the recent expansion in occupational therapy research presents too much evidence to "sift" through, and a high quantity of evidence does not imply a high quality of evidence (p. 576).

Taylor (1997) and Tickle-Degnen and Bedell (2003) are opposed to using evidence hierarchies. According to Taylor (1997) a problem with using a hierarchy of evidence is that qualitative research is viewed as the lowest form of evidence, while "...the value and effectiveness of occupational therapy is analyzed as much by qualitative as quantitative research methods" (p. 169). Like Taylor (1997), Tickle-Degnen and Bedell (2003) are concerned with the inability of the evidence hierarchy to rank information from qualitative study designs. Tickle-Degnen and Bedell (2003) also argue that evidence level hierarchies are too inflexible by stating, "we as practitioners do not think in an inflexible or exclusionary manner about any source of information, nor should we given the complexity of human responses, the realities of practice resources, and the wide variety and quality of different forms of information available to us" (p. 234).

Tickle-Degnen (2000c) offers another method of evidence appraisal. In order to evaluate the effectiveness of evidence, Tickle-Degnen (2000c) suggests asking a series of questions: Did the study investigate an outcome variable that is relevant to the specific occupational outcome variable in the clinical question? Did the study assess this outcome variable in a reliable and valid manner? Did the study participants match the population identified in the clinical question? Was the study designed to rule out non-intervention explanations of the study's outcomes? Did the reported results show how the outcomes of the participants within a particular group varied among themselves? The most reliable studies are those with the most responses of "yes" to the questions listed above (2000c). Once the best evidence is chosen, the useful research findings are implemented into practice (Egan et al., 1998; Holm, 2000; Ilott, 2003; Rosenberg & Donald, 1995; Tickle-Degnen, 2000a).

According to Taylor (1997), the skill of evidence-based practice is "neither in finding nor in appraising the evidence, but in utilizing the findings as part of the clinical reasoning and problem-solving process" (p. 170). Research evidence can be used to inform the occupational therapy intervention for one person; to inform, change, and develop departmental policy and practices; and to develop clinical guidelines which may, in addition to impacting the department, also have an impact at the regional or national level (Taylor, 1997). When actually utilizing the research evidence, Tickle-Degnen (1998) suggests a client-centered approach of discussing the research findings with the client before utilizing them. In discussing the research evidence the therapist should use clear simple language, use tentative language when speaking about evidence that is weak, and identify any risks related to the intervention (Tickle-Degnen, 1998). After the

research evidence has been utilized in practice, the final step of evidence-based practice utilization is to evaluate the impact of the intervention and evidence used (Egan et al., 1998; Holm, 2000; Ilott, 2003; Tickle-Degnen, 2000a).

To assess the impact of evidence utilization the therapist should examine whether the research was actually used and if so, whether it was used as intended (Holm, 2000). Additionally, the client's outcomes, cost-effectiveness of the intervention, client satisfaction, and therapist satisfaction all must be taken into consideration (Holm, 2000). According to Tickle-Degnen (2000b) the evidence-based practitioner should monitor the client throughout the therapy process in order to make changes as needed. The monitoring process should be "...systematic across clients, yet sensitive to individual clients' unique patterns of performance and experience, responsive to needs for revision in the plan, resistant to inaccurate judgments and interpretations, and characterized by clear, simple, and coherent documentation of the process and outcome of assessment and intervention procedures" (Tickle-Degnen, 2000b, p. 434). While there are numerous suggestions on how to utilize research evidence in practice, research suggests that practicing occupational therapists have generally reported utilizing other sources of information more frequently than research evidence.

Bennett et al. (2003) found a majority of their participants reported using their colleagues (79.9%), clinical experience (96.3%), and information from continuing education courses (81.9%) more frequently than current research literature (56.3%). Similarly, Curtin and Jaramazovic (2001) found their participants reported using their colleagues (95.4%) and continuing education courses (94.4%) slightly more frequently than journal articles (93.8%). Conversely, Dysart and Tomlin (2002) found the majority

of their participants reported using journal articles and texts more frequently than continuing education information, the internet, colleagues, and electronic databases. Dysart and Tomlin's (2002) findings are not directly comparable to Bennett et al. (2003) and Curtin and Jaramazovic's (2001) findings because Dysart and Tomlin (2002) combined journal articles and texts.

In addition to low reported knowledge, current literature suggests that occupational therapists may not be utilizing evidence due to numerous other barriers. Dysart and Tomlin (2002) and Humphris et al. (2000) found just over half of their participants reported using current research to guide clinical practice. According to studies by Bennett et al. (2003), Curtin and Jaramazovic (2001), Dysart and Tomlin (2002), Humphris et al. (2000), and McCluskey (2003), lack of time was the most frequently reported barrier to evidence-based practice utilization. Dysart and Tomlin (2002) found that participants employed in skilled nursing facilities were more likely to report lack of time as a barrier to evidence-based practice utilization than participants in other practice settings. Access to resources was also a commonly reported barrier to evidence-based practice utilization.

The majority of participants in the Curtin and Jaramazovic (2001) study reported lack of appropriate resources as a primary barrier to evidence-based practice utilization (55.2%). Similarly, the participants in the Bennett et al. (2003) study identified lack of access to computing resources (52.5%) and lack of access to research literature (49.7%). Conversely, the participants in the studies by Humphris et al. (2000) and Dysart and Tomlin (2002) did not report lack of access as a barrier. In the study by Humphris et al.

(2000), 95.0% of the participants reported access to a library containing current occupational therapy literature, while 53.0% reported access to the internet. Similarly, Dysart and Tomlin (2002) found a majority of their participants "agreed" or "strongly agreed" that they had convenient access to a library containing occupational therapy literature (56.0%), to continuing education classes (54.0%), and to internet databases (70.0%). Skill level in appraising, finding, and utilizing research is also an identified barrier to evidence-based practice utilization.

McCluskey (2003) found the majority of the participants reported low abilities in generating clinical questions (56.1%), conducting a database search (50.7%), and critically appraising evidence (53.0%). Participants (79.1%) also rated their knowledge about electronic databases and sources of evidence as low (2003). McCluskey (2003) also found that participants demonstrated more confidence, and rated their abilities as medium in the areas of general computer skills (42.4%), evaluating their own clinical practice (68.7%), and their ability to change practice habits in response to new evidence (56.7%). In their study, Bennett et al. (2003) found the majority of participants were most confident in conducting literature searches (60.8%), and determining the clinical significance of a study (49.6%). Bennett et al. (2003) also reported statistically significant correlations between the participants' confidence in their evidence-based practice skills and higher qualifications, and the participants' confidence in their evidence-based practice skills and previous training in evidence-based practice. Statistically significant correlations were also found between the participants' confidence in searching the literature and fewer years of experience, and between the participants' confidence in searching the literature and their location in a metropolitan area (Bennett et

al., 2003). Although the majority of participants were generally confident in their abilities to conduct a literature search and determine the clinical significance of a study, just over half (51.8%) believed further training in these areas would be extremely useful, and 45.4% of the participants identified a lack of understanding of research (Bennett et al., 2003).

Dysart and Tomlin (2002) presented split findings on skill confidence. Forty five percent of the participants reported confidence using the internet, while almost an equal percentage of participants (33.0%) reported confidence in appraising the quality of research studies, compared to those (38.0%) who did not (Dysart & Tomlin, 2002). Dysart and Tomlin (2002) found participants with bachelor's degrees to be less confident at using the internet than participants with master's degrees. Additionally, participants with more than five years of clinical experience were less confident at using the internet (Dysart & Tomlin, 2002).

According to Dysart and Tomlin (2002), approximately one third of the participants found research to be unclear and difficult to understand (38.0%), to not translate into useful interventions (37.0%), and to offer conflicting conclusions (33.0%). Participants with greater than 15 years of experience were more likely to believe that research results did not translate into useful interventions than other participants (Dysart & Tomlin, 2002). Although almost one third of participants identified aspects of research as barriers to evidence-based practice utilization, 61.0% of the participants did not find research to be overly scientific or to undermine professional artistry (Dysart & Tomlin, 2002). While many barriers to evidence-based practice utilization were identified,

participants in studies by Curtin and Jaramazovic (2001) and Humphris et al. (2000) also identified facilitators to evidence-based practice utilization.

Curtin and Jaramazovic (2001) found the majority of the participants identified administrative support as the most important facilitator to evidence-based practice utilization (87.7%), followed by having access to resources (58.0%), and being self motivated and having a personal interest in research (39.2%). Humphris et al. (2000) presented additional facilitators to evidence-based practice utilization. According to Humphris et al. (2000), the most identified facilitator to evidence-based practice utilization was, "dedicated time in the working week for research activities," followed by, "frequent education sessions on the utilization of research findings," and "specific staff to enable the implementation of research evidence" (p. 521).

The examination of occupational therapists' perceived barriers and facilitators to evidence-based practice utilization in addition to their familiarity, knowledge, value, and comprehension of evidence-based practice may assist in the development of methods to make evidence-based practice more user-friendly for occupational therapists in the future. Occupational therapy level II fieldwork educators are professionally obligated to role model and promote the values and beliefs of the profession (AOTA, 1998c) which currently include utilizing evidence-based practice. Current research suggests that it may be difficult for level II fieldwork educators to utilize evidence-based practice (Bennett et al., 2003; Curtin & Jaramazovic, 2001; Dubouloz et al., 1999; Dysart & Tomlin, 2002; Humphris et al., 2000; McCluskey, 2003), discuss evidence-based practice utilization with their students (Tompson & Ryan, 1996b), and evaluate their students' competencies in utilizing evidence-based practice (Upton, 1999). Therefore more research is needed to

investigate occupational therapy level II fieldwork educators' understanding and utilization of evidence-based practice.

Chapter 3: Methodology

Currently, there are few studies examining occupational therapists' practices and beliefs toward evidence-based practice (Bennett et al., 2003; Curtin & Jaramazovic, 2001; Dubouloz et al., 1999; Dysart & Tomlin, 2002; Humphris et al., 2000, McCluskey, 2003; Philibert et al., 2003), and there are no published studies which examine level II fieldwork educators as a unique subset of occupational therapists, and evidence-based practice. This study utilized survey research to investigate level II fieldwork educators' familiarity, knowledge, comprehension, value, and utilization of evidence-based practice.

Research Questions

The survey tool was designed to answer the following research questions:

1) How familiar are level II fieldwork educators with evidence-based practice?

2) What is level II fieldwork educators' knowledge of evidence-based practice?

3) How well do level II fieldwork educators comprehend evidence-based practice?

4) Do level II fieldwork educators utilize evidence-based practice in the evaluation, intervention, and discharge of their clients?

5) What value do level II fieldwork educators place on evidence-based practice?

6) What do level II fieldwork educators perceive as barriers and facilitators to evidence-based practice utilization?

Methods

A proposal for this research study was submitted to the Ithaca College Review Board for Human Subjects Research on September 8, 2003. Approval for this study, with a minor change required in the recruitment letter, was received on September 16, 2003. The process of data gathering began in October of 2003 when survey mailing

commenced. Each perspective participant was mailed a package containing a recruitment letter discussing the purpose of the study (see Appendix B), the survey tool (see Appendix D), and a pre-addressed postage paid return envelope.

In order to maintain anonymity, the participants were instructed not to write their names or any other identifying information on the survey or the return envelope. The return envelopes were also coded by a research assistant to ensure anonymity. The research assistant coded the return envelopes by placing a number on each envelope which corresponded with a number assigned to each participant on the list. The researcher in this study was not aware of the code numbers assigned to the participants, and the list of codes was destroyed following completion of the data gathering phase.

Two weeks following the initial mailings, all participants who had not returned the initial survey, were mailed reminder letters (see Appendix C). Two weeks following the reminder letter, all remaining participants were mailed a package containing the recruitment letter, survey, and pre-addressed return envelope. All outgoing mailings ended on November 19, 2003. Surveys were accepted until February 1, 2004.

Participants and Selection Method

The target population for this study was level II occupational therapy fieldwork educators practicing in the United States. To be considered a level II fieldwork educator, the occupational therapist must have supervised at least one level II fieldwork student prior to participating in the study. All respondents who were not practicing occupational therapists in the United States, and who had not supervised a level II fieldwork student prior to receiving the survey were not eligible to participate in this study. Participants were selected from a sample of convenience using Ithaca College's *Fieldwork Search*

database. The *Fieldwork Search* database contained three-hundred level II fieldwork sites located in the United States.

Operationalization of Concepts into Variables

The survey tool contained 40 questions of various formats (see Appendix D). Each question on the survey tool was assigned to one of the following categories: demographic characteristics, familiarity with evidence-based practice, knowledge of evidence-based practice, comprehension of evidence-based practice, utilization of evidence-based practice, value of evidence-based practice, and barriers and facilitators to evidence-based practice utilization.

Demographic characteristics.

The participants' demographic characteristics were gathered from questions 1-7 on the survey tool. Questions 1, 2, 3, and 7 required participants to respond either "yes" or "no" regarding their status as registered occupational therapists, their status as fieldwork educators, whether they had access to research literature, and their membership status in AOTA. If a response of "no" was received for question 1 or 2, the participant did not meet the selection criteria for the study, and their survey data was not included in the data analysis. Questions 4, 5, and 6 required the participants to identify their primary practice setting, years of clinical experience, and degree level.

Familiarity with evidence-based practice.

Familiarity is "personal knowledge or information about someone or something" (Worldnet, 1997, ¶ 3). The participants' familiarity with evidence-based practice was based on their responses to questions 8-10 on the survey tool. Question 8 addressed whether the participants had been exposed to evidence-based practice prior to receiving

the survey. If the participants answered yes to question 8, question 9 required them to select or name their source or sources of exposure to evidence-based practice. Question 10 required the participants to rank their level of familiarity with evidence-based practice using a five point likert scale (1 = not at all, 2 = somewhat, 3 = adequately, 4 = reasonably well, 5 = very well).

Knowledge of evidence-based practice.

Knowledge is the state or fact of knowing specific information about something (Houghton & Mifflin Co., 2000). According to Bloom's Taxonomy, knowledge is measured by asking participants to identify, state, or select common terms, facts, principles, or procedures of a material (Gronlund, 1985). The participants' knowledge of evidence-based practice was based on their responses to questions 11-18 on the survey tool. Question 11 required the participants to identify their perceived knowledge of evidence-based practice using a five point likert scale (1 = not at all, 2 = somewhat, 3 = adequately, 4 = reasonably well, 5 = very well). Questions 12-17 examined the participants' actual knowledge of evidence-based practice by requiring the participants to read statements about the principles of evidence-based practice and indicate if the statements were "true," "false," or if they were "not sure." Question 18 required the participants to rank on a seven point likert scale (1 = most important; 7 = least important), the contribution of journal articles, case studies, the internet, intuition, other professionals, clinical expertise, and standardized assessments to evidence-based practice.

Comprehension of evidence-based practice.

Comprehension is having knowledge, or the understanding of facts or principles, as a basis for interpreting material (Gronlund, 1985). According to Bloom's Taxonomy, comprehension is measured by asking participants to explain, generalize, summarize, or give examples of something (Gronlund, 1985). The participants' comprehension of evidence-based practice was based on their responses to question 29. Question 29 required the participants who answered "yes" to question 27, and subsequently identified that they had utilized evidence-based practice within the last year, to give an example of their evidence-based practice utilization.

Utilization of evidence-based practice.

Utilization is the act of putting something to use, "...especially to find a profitable or practical use for" (Houghton & Mifflin Co., 2000, ¶ 1). The participants' utilization of resources was based on their responses to questions 19-25, 38, and 39 on the survey tool. The participants' reported utilization of evidence-based practice was based on their responses to questions 27 and 28. Questions 19-25 required the participants to rate on a five point likert scale (1 = never, 2 = seldom, 3 = occasionally, 4 = often, 5 = most frequently) how often they utilized other professionals, their intuition, clinical expertise, research articles, textbooks, the internet, and continuing education information to plan interventions. The participants completed questions 27 and 28 after reading the Sackett, et al. (1996) definition of evidence-based practice. Question 27 required the participants to indicate whether they had utilized evidence-based practice within the past year according to definition. If the participants answered "yes" to question 27, they were instructed to continue to question 28. Question 28 required the participants to indicate in

which parts of the therapy process they utilized evidence-based practice: evaluation, treatment, or discharge. Question 38 required the participants to indicate whether they had used an AOTA Evidence-based Practice Brief. If the participants answered "yes" they were instructed to continue to question 39. Question 39 required the participants to identify if the Evidence-based Practice Brief was useful.

Value of evidence-based practice.

Value is the "quality (positive or negative) that renders something desirable or valuable" (Worldnet, 1997, ¶ 7). The participants' value of evidence-based practice was based on their responses to questions 26 and 30-34. Question 26 required the participants to rate the Sackett et al. (1996) definition of evidence-based practice on a five point likert scale (1 = needs improvement, 2 = okay, 3 = fair, 4 = good, 5 = excellent). Questions 30-33 required the participants to rate statements pertaining to the importance of evidence-based practice, using a five point likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree). Question 34 required the participants to identify, "yes" or "no," if they were interested in increasing their understanding of evidence-based practice.

Barriers and facilitators to evidence-based practice utilization.

A barrier is "something that separates or holds apart" (Houghton & Mifflin Co., 2000, ¶ 1). A facilitator is someone or something that makes an action easier (Houghton & Mifflin Co., 2000). The participants' perceived barriers and facilitators to evidence-based practice were measured by questions 35, 36, 37, and 40 on the survey tool. Question 35 required the participants to select or identify facilitators that would increase their understanding of evidence-based practice. Questions 36 and 37 required

participants to select or identify facilitators and barriers to evidence-based practice utilization. Question 40 required the participants to identify areas in occupational therapy they perceived as requiring more research.

Instrumentation

The survey tool (see Appendix D) was designed by the researcher to gather information on the participants' demographic characteristics, perceptions, and practices. The survey tool was field tested by five level II fieldwork educators and five occupational therapy faculty members at Ithaca College. Prior to being mailed, the comments from field testing were taken into account and the survey was re-written as necessary. The reliability and validity of the survey tool were not established, as this was not within the scope of the master's thesis. A rationale for each question on the survey tool is located in Table 1.

Analyzing and Interpreting the Data

Data analysis occurred in February of 2004. The software program, Statistical Package for the Social Sciences, Version 11.0 (SPSS), was used for data analysis. Surveys filled out by participants who did not meet the inclusion criteria and surveys that were not at least 75% complete were not included in data analysis. Frequencies were used to analyze nominal and ordinal data, and resulted in counts and percentages. Descriptive statistics were used to analyze numerical data, and yielded the data's minimum, maximum, mean, and standard deviation. Kendall's tau-b corollary statistics were used to analyze relationships between ordinal and nominal data, and ordinal and numerical data. Pearson product – moment correlation statistics were used to analyze relationships between numerical data. The following scale was used to determine the

strength of corollary relationships: r = .00-.25 little if any; r = .26-.49 low; r = .50-.69 moderate; r = .70-.89 high; r = .90-1.00 very high (Munro, 2001). Independent t tests were used to analyze relationships between nominal and numerical data. Cramér's V tests were used to analyze relationships between nominal data. An alpha level of .05 was used to determine significance.

The parameters for statistical analysis are further described under the following categories: demographic characteristics, familiarity with evidence-based practice, knowledge of evidence-based practice, comprehension of evidence-based practice, utilization of evidence-based practice, value of evidence-based practice, and barriers and facilitators to evidence-based practice utilization. To help eliminate confusion, the survey question number will be provided in parentheses after the survey question being discussed.

Demographic characteristics.

Frequencies were used to analyze the participants' status as registered occupational therapists (1), status as level II fieldwork educators (2), access to a library containing occupational therapy literature (3), primary practice setting (4), degree level (6), and AOTA membership status (7). Descriptive statistics were used to analyze the participants' years of clinical experience (5).

Familiarity with evidence-based practice.

Frequencies were used to analyze whether or not the participants' had previous exposure to evidence-based practice (8), the sources of exposure to evidence-based practice (9), and the participants' rated familiarity with evidence-based practice (10). Descriptive statistics were used to analyze the participants' total number of exposures to

evidence-based practice (9). Pearson product – moment correlations were used to analyze the relationship between perceived familiarity with evidence-based practice (10) and years of clinical experience (5). Kendall's tau-b corollary statistics were used to analyze the relationship between perceived familiarity with evidence-based practice (10) and degree level (6), and exposure to evidence-based practice in college (9) and degree level (6). Independent *t* tests were used to analyze the relationship between perceived familiarity with evidence-based practice (10) and AOTA membership status (7), and perceived familiarity with evidence-based practice (10) and access to a library containing occupational therapy literature (3).

Knowledge of evidence-based practice.

Frequencies were used to analyze the participants' perceived knowledge of evidence-based practice (11), the participants' ranking of contributors to evidence-based practice (18), and the participants' actual knowledge of evidence-based practice (total # correct 12-17). Descriptive statistics were also used to analyze the participants' actual knowledge of evidence-based practice (total # correct 12-17). Kendall's tau-b corollary statistics were used to analyze the relationship between perceived knowledge of evidence-based practice (11) and degree level (6), and actual knowledge of evidence-based practice (total # correct 12-17) and degree level (6). Pearson product – moment correlations were used to analyze the relationship between actual knowledge of evidence-based practice (total # correct 12-17) and perceived knowledge of evidence-based practice (11), perceived knowledge of evidence-based practice (11) and years of clinical experience (5), and actual knowledge of evidence-based practice (total # correct 12-17) and years of clinical experience (5). Pearson product – moment correlations were also

used to examine the relationship between perceived knowledge of evidence-based practice (11) and total number of exposures to evidence-based practice (9), and actual knowledge of evidence-based practice (total # correct 12-17) and total number of exposures to evidence-based practice (9). Independent *t* tests were used to analyze the relationship between perceived knowledge of evidence-based practice (11) and AOTA membership status (7), actual knowledge of evidence-based practice (total # correct 12-17) and AOTA membership status (7), perceived knowledge of evidence-based practice (11) and access to a library containing occupational therapy literature (3), and actual knowledge of evidence-based practice (total # correct 12-17) and access to a library containing occupational therapy literature (3).

Comprehension of evidence-based practice.

The participants' responses to question 29, "Can you give an example of your use of evidence-based practice?" were analyzed by the researcher and two independent examiners. Categories were developed from noted common themes in the participants responses. For each participant's response, the researcher and independent examiners independently placed a check mark into one or more of the following categories: research/journal articles, clinical experience/expertise, assessments/evaluation, text books, protocols/pathways, workshops/continuing education, intervention techniques, colleagues, client information, internet, and other. The participants' responses were categorized based on their mentioned use of the one or more of the above resources. Participants with responses that did not clearly fit into any of the above categories were categorized into "other." After the participants' responses were placed in the appropriate categories, frequencies were used to analyze the data.

Utilization of evidence-based practice.

Frequencies were used to analyze the participants' reported use of evidence-based practice (27), in which parts of the therapy process the participants used evidence-based practice (28), whether the participants had used an Evidence-based Practice Brief (38), if the Evidence-based Practice Brief was useful (39), and how often different types of evidence were utilized in intervention planning (19-25). Kendall tau-b corollary statistics were used to analyze the relationship between reported evidence-based practice utilization (27) and degree level (6). Cramér's *V* statistics were used to analyze the relationship between reported evidence-based practice utilization (27) and the type of practice setting (4), and reported evidence-based practice utilization (27) and AOTA membership status (7). Independent *t* tests were used to analyze the relationship between using research articles to plan interventions (22) and having access to an occupational therapy library (3), and reported evidence-based practice utilization (27) and years of clinical experience (5).

Value of evidence-based practice.

Frequencies were used to analyze the participants' interest in increasing their understanding of evidence-based practice (34), the participants' rating of the Sackett et al. (1996) definition of evidence-based practice (26), and the participants' rating of four statements regarding the importance evidence-based practice (30, 31, 32, 33). Kendall's tau-b corollary statistics were used to analyze the relationship between agreement with the statements regarding the importance of evidence-based practice (30, 31, 32, 33) and degree level (6). Pearson product – moment correlations were used to analyze the relationship between agreement with the statements regarding the importance of

evidence-based practice (30, 31, 32, 33) and years of clinical experience (5). Pearson product – moment correlations were also used to analyze agreement with the statements regarding the importance of evidence-based practice (30, 31, 32, 33) and perceived knowledge of evidence-based practice (11). Independent *t* tests were used to analyze the relationship between agreement with the statements regarding the importance of evidence-based practice (30, 31, 32, 33) and AOTA membership status (7), and agreement with the statements regarding the importance of evidence-based practice (30, 31, 32, 33), and reported evidence-based practice utilization (27).

Barriers and facilitators to evidence-based practice utilization.

Frequencies were used to analyze the participants' identified facilitators and barriers to evidence-based practice utilization and understanding (35, 36, 37, 40). Cramér's *V* statistics were used to analyze the relationship between lack of time as a perceived barrier to evidence-based practice utilization (37) and practice setting (4).

Limitations, Delimitations, Assumptions

There were a number of limitations to this study. The generalizability of this study was compromised by the sample selection method; participants were recruited using a sample of convenience with no randomization. The generalizability was also compromised by the sample's geographic representation; the majority of eligible participants (88.6%) practice in east coast states. The newly developed survey tool was a limiting factor because its reliability and validity have not been established. Additionally, the wording of some survey tool questions may have been confusing to some participants. Due to the nature of a self administered survey responses may not be an accurate representation of actual practice and a social desirability bias is possible.

To maintain feasibility, this study was confined to level II fieldwork educators practicing in the United States who were listed on Ithaca College's *Fieldwork Search* database. The results of this study may not generalize to occupational therapy practitioners who are not level II fieldwork educators and who are not practicing in the United States. Additionally, this study only addressed issues concerning level II fieldwork educators' familiarity, comprehension, utilization, and value of evidence-based practice.

This study was conducted under several assumptions. First, level II fieldwork educators are influential in the education of fieldwork students. Second, the participants in this study have already been exposed to and have some knowledge of evidence-based practice through conversations with peers, the Occupational Therapy Fieldwork Performance Evaluation for the Occupational Therapy Student, journal articles, or the AOTA website. Third, participants in this study gave truthful and accurate responses, thus producing accurate results. Fourth, the survey tool accurately measured the research questions. Fifth, the responses of the level II fieldwork educators will have some generalizability to other level II fieldwork educators.

Chapter 4: Results

Demographic Characteristics

The survey tool for this study was mailed to occupational therapists at 300 level II fieldwork sites. More than half of the level II fieldwork educators returned the survey tool (n = 192, 64.0%). At thirteen of the fieldwork sites the survey was photocopied and more than one was returned. In total, there were 236 returned surveys. Of the 236 participants who returned surveys, 218 participants met the eligibility criteria for the study. The results for this study were based on a usable return rate of 218/300 (72.66%).

The participants represented a wide range of practice settings and four different degree levels. The most frequently reported work setting was hospitals (n = 100, 45.9%), followed by schools (n = 53, 24.3%), outpatient clinics (n = 25, 11.5%), nursing homes (n = 14, 6.4%), other areas (n = 13, 6.0%), private practices (n = 12, 5.5%), and home care (n = 1, .5%). More than half of the participants reported holding a bachelor's degree as their highest degree (n = 151, 69.6%), followed by an entry level master's degree (n = 34, 15.7%), post professional master's degree (n = 31, 14.3%), and doctoral degree (n = 1, .5%).

More than half of the participants were members of the American Occupational Therapy Association (AOTA) (n = 115, 53.0%), and reported having access to a library containing occupational therapy literature (n = 142, 66.7%). The participants' clinical experience ranged from 1 to 30 years (M = 12.78, SD = 7.881).

Familiarity with Evidence-based Practice

The vast majority of participants (n = 201, 92.2%) reported previous exposure to evidence-based practice in the context of occupational therapy. The participants' mean

number of sources of exposure to evidence-based practice was 2.56 (*SD* = 1.24). When identifying the sources of exposure to evidence-based practice more than half of the participants identified journal articles (n = 148, 74.7%), and continuing education (n = 125, 63.1%), while fewer participants identified exposure from AOTA's website (n = 61, 30.8%), exposure from college (n = 67, 33.8%), exposure from the Fieldwork Performance Evaluation for the Occupational Therapy Student (n = 77, 38.9%), and other exposures (n = 29, 14.6%). In rating their level of familiarity with evidence-based practice the majority of the participants indicated they were "somewhat" familiar (n = 99, 45.8%). See Table 2 for details of distribution.

Statistical analysis found no significant relationship between perceived familiarity with evidence-based practice and years of clinical experience (r = .033, p = .628). There was however a statistically significant relationship of weak strength between perceived familiarity with evidence-based practice and degree level (τ_b = .214, p = .001). There was no statistically significant relationship between exposure to evidence-based practice in college and degree level (τ_b = .099, p = .168). There was a statistically significant difference between those who were members of AOTA and those who were not and perceived familiarity with evidence-based practice ($t(213) = 3.829$, p = .000). Participants who were members of AOTA reported higher perceived familiarity with evidence-based practice (M = 2.69, SD = .927) than non members (M = 2.22, SD = .886). There was also a statistically significant difference between those who reported access to a library containing occupational therapy literature and those who did not and perceived familiarity with evidence-based practice ($t(209) = 2.555$, p = .011). Participants with access to a library containing occupational therapy literature reported higher perceived

familiarity with evidence-based practice ($M = 2.59$, $SD = .879$) than participants without access to a library containing occupational therapy literature ($M = 2.24$, $SD = 1.01$).

Knowledge of Evidence-based Practice

Reported knowledge of evidence-based practice varied. The participants most frequently indicated that they were "somewhat" knowledgeable about evidence-based practice (n = 95, 44.2%). See Table 2 for details of distribution. In ranking contributors to evidence-based practice, journal articles (n = 53, 27.3%) and clinical expertise (n = 64, 33.0%) were most frequently ranked as the most important, while the internet (n = 65, 35.9%) and intuition (n = 77, 41.2%) were most frequently ranked as the least important. See Table 3 for details of distribution. Out of six true/false questions regarding the tenets of evidence-based practice, the participants' scores ranged from 0 to 6 accurate answers ($M = 4.66$, $SD = 1.47$). See Table 4 for details of distribution.

Statistical analysis found a statistically significant relationship of weak strength between perceived knowledge of evidence-based practice and degree level ($\tau_b = .179$, $p = .005$); however, there was no statistically significant relationship between actual knowledge of evidence-based practice and degree level ($\tau_b = .120$, $p = .078$). There was a statistically significant relationship of low strength between actual knowledge of evidence-based practice and perceived knowledge of evidence-based practice ($r = .487$, $p = .000$). There was no statistically significant relationship between actual knowledge of evidence-based practice and years of clinical experience ($r = .093$, $p = .173$), or perceived knowledge of evidence-based practice and years of clinical experience ($r = .033$, $p = .628$). There was a statistically significant relationship of weak strength between actual knowledge of evidence-based practice and number of exposures to evidence-based

practice (r = .174, p = .014), and a statistically significant relationship of moderate strength between perceived knowledge of evidence-based practice and number of exposures (r = .503, p = .000).

There was a statistically significant difference between those who were members of AOTA and those who were not and their perceived knowledge ($t(212)$ = 3.712, p = .000) and actual knowledge of evidence-based practice ($t(179.8)$ = 2.931, p = .004). Participants who were members of AOTA reported a statistically significantly higher perceived knowledge of evidence-based practice (M = 2.59, SD = .883) than participants who were non-members (M = 2.14, SD = .906). Participants who were members of AOTA also demonstrated a statistically significantly higher actual knowledge of evidence-based practice (M = 4.94, SD = 1.19) than participants who were non-members (M = 4.36, SD = 1.67).

There was a statistically significant difference between those who reported having access to a library containing occupational therapy literature and those who did not and their perceived ($t(208)$ = 2.865, p = .005) and actual ($t(211)$ = 2.517, p = .013) knowledge of evidence-based practice. Participants with access to a library containing occupational therapy literature (M = 2.52, SD = .893) reported a statistically significantly higher perceived knowledge of evidence-based practice than participants who did not have access to a library containing occupational therapy literature (M = 2.14, SD = .921). Participants with access to a library containing occupational therapy literature (M = 4.81, SD = 1.35) also demonstrated a statistically significantly higher actual knowledge of evidence-based practice than participants who did not have access to a library containing occupational therapy literature (M = 4.28, SD = 1.66).

Comprehension of Evidence-based Practice

In giving examples of their utilization of evidence-based practice the participants' responses contained a myriad of themes. The largest number of the participants' examples involved using journal or research articles (n = 44, 34.4%), followed by intervention techniques (n = 36, 28.1%), and clinical experience/expertise (n = 19, 14.8%). See Table 5 for details of distribution. Although some of the intervention techniques listed by the participants have amassed a research base, such as constraint induced movement therapy, these techniques were not categorized separately from those without a research base because it was not clear if the participants were aware of the research base supporting the techniques they listed.

Utilization of Evidence-based Practice

The vast majority of the participants reported utilizing evidence-based practice in the past year (n =185, 84.9%). The participants most frequently reported utilizing evidence-based practice during treatments (n = 177, 96.2%), followed by evaluation (n = 121, 65.8%), and discharge (n = 62, 33.7%). An overwhelming majority of the participants reported never using an AOTA Evidence-based Practice Brief (n = 184, 89.8%). Of the participants who reported utilizing an AOTA Evidence-based Practice Brief (n = 21, 10.2%), the majority found it to be useful (n = 20, 95.2%). In ranking the use of various types of evidence on a five point likert scale (1 = never, 2 = seldom, 3 = occasionally, 4 = often, 5 = most frequently), the participants most frequently reported using other professionals "occasionally" (n = 113, 51.8%), their intuition "often" (n = 91, 41.9%), their clinical expertise "most frequently" (n = 130, 59.6), research articles "occasionally" (n = 115, 53.0%), text books "occasionally" (n = 101, 46.3%), the

internet "seldom" (n = 98, 45.0%), and continuing education classes "often"(n = 125, 57.3%). See Table 6 for details of distribution.

Statistical analysis found no statistically significant relationship between reported evidence-based practice utilization and degree level (τ_b = .030, p = .659). There was also no statistically significant relationship between reported evidence-based practice utilization and type of practice setting (V = .133, p = .696), or between reported evidence-based practice utilization and AOTA membership status (V = .065, p = .341). There was no statistically significant difference between those who had access to a library containing occupational therapy literature and those who did not and how frequently they used research articles to plan interventions (t (211) = 1.705, p = .09). There was also no statistically significant difference between those who reported utilizing evidence-based practice in the past year and those who did not and their years of clinical experience (t(216) = .541, p = .589).

Value of Evidence-based Practice

The majority of the participants reported interest in increasing their knowledge of evidence-based practice (n = 188, 87.9%). More than half of the participants ranked the Sackett et al. (1996) definition of evidence-based practice as "good" (n = 129, 59.7%), followed by "fair" (n = 49, 22.7%), "excellent" (n = 24, 11.1%), "okay" (n = 8, 3.7%), and "needs improvement" (n = 6, 2.8%). More than half of the participants agreed or strongly agreed with the statement, "evidence-based practice is important in my daily practice" (n = 140, 64.8%). The vast majority of participants agreed or strongly agreed with the statement, "evidence-based practice is important to the profession of occupational therapy" (n = 196, 91.6%). Less than half of the participants agreed or

strongly agreed with the statement, "learning procedures and gaining clinical experience is more valuable to me than understanding research and theory" (n = 93, 43.2%). More than half of the participants agreed or strongly agreed with the statement, "more therapists should use research in their practices" (n = 151, 70.2%). See Table 7 for details of distribution.

There were no statistically significant relationships between the participants' rating of the statement "evidence-based practice is important in my daily practice" and degree level (τ_b = .042, p = .520), or the participants' rating of the statement "evidence-based practice is important to the profession of occupational therapy" and degree level (τ_b = .073, p = .269). There was an inverse statistically significant relationship of weak strength between the participants' rating of the statement "learning procedures and gaining clinical experience is more valuable to me than understanding research and theory" and degree level (τ_b = -.142, p = .024). Participants with lower degree levels more strongly agreed with the statement than those with higher degree levels. There was a statistically significant relationship of weak strength between the participants' rating of the statement "more therapists should use research in their practices" and degree level (τ_b = .146, p = .025).

There were no statistically significant relationships between the participants' rating of the statement "evidence-based practice is important in my daily practice" and years of clinical experience (r = .037, p = .591), the participants' rating of the statement "evidence-based practice is important to the profession of occupational therapy" and years of clinical experience (r = .060, p = .386), and the participants' rating of the statement "more therapists should use research in their practices" and years of clinical

experience (r = .071, p = .300). There was an inverse statistically significant relationship of weak strength between the participants' rating of the statement "learning procedures and gaining clinical experience is more valuable to me than understanding research and theory" and years of clinical experience (r = -.202, p = .003).

There were statistically significant relationships of weak strength between the participants' rating of the statement "evidence-based practice is important in my daily practice" and perceived knowledge of evidence-based practice (r = .216, p = .001), and the participants' rating of the statement "evidence-based practice is important to the profession of occupational therapy" and perceived knowledge of evidence-based practice (r = .234, p = .001). There was an inverse significant relationship of weak strength between the participants' rating of the statement "learning procedures and gaining clinical experience is more valuable to me than understanding research and theory" and perceived knowledge of evidence-based practice (r = -.190, p. 006). There was a statistically significant relationship of weak strength between the participants' rating of the statement "more therapists should use research in their practices" and perceived knowledge of evidence-based practice (r = .197, p = .004).

There was no statistically significant difference between those who were members of AOTA and those who were not and how they rated the statement "evidence-based practice is important in my daily practice" ($t(213)$ =1.271, p = .205). There was a statistically significant difference between those who were members of AOTA and those who were not and how they rated the statement "evidence-based practice is important to the profession of occupational therapy" ($t(211)$ = 3.376, p = .001). Participants who were members of AOTA (M = 4.42, SD = .579) rated the statement "evidence-based practice is

important to the profession of occupational therapy" significantly higher than non-members ($M = 4.14$, $SD = .652$). There was no statistically significant difference between those who were members of AOTA and those who were not and how they rated the statement "learning procedures and gaining clinical experience is more valuable to me than understanding research and theory" ($t(212) = -1.993$, $p = .048$). There was a statistically significant difference between those who were members of AOTA and those who were not and how they rated the statement "more therapists should use research in their practices" ($t(212) = 3.981$, $p = .000$). Participants who were members of AOTA ($M = 3.97$, $SD = .647$) rated the statement "more therapists should use research in their practices" significantly higher than non-members ($M = 3.63$, $SD = .595$).

There was a statistically significant difference between those who reported utilizing evidence-based practice within the past year and those who did not and agreement with the statement "evidence-based practice is important in my daily practices" ($t(214) = 6.277$, $p = .000$). Participants who reported utilizing evidence-based practice within the past year ($M = 3.84$, $SD = .671$) rated the statement "evidence-based practice is important in my daily practices" significantly higher than participants who did not report utilizing evidence-based practice within the past year ($M = 3.03$, $SD = .695$). There was also a statistically significant difference between those who reported utilizing evidence-based practice within the past year and those who did not and agreement with the statement "evidence-based practice is important to the profession of occupational therapy" ($t(212) = 2.557$, $p = .011$). Participants who reported utilizing evidence-based practice within the past year ($M = 4.34$, $SD = .615$) rated the statement "evidence-based practice is important to the profession of occupational therapy" significantly higher than

participants who did not report utilizing evidence-based practice within the past year ($M = 4.03$, $SD = .647$). There was no statistically significant difference between those who reported utilizing evidence-based practice in the past year ($M = 3.19$, $SD = 1.005$) and those who did not ($M = 3.38$, $SD = .871$) and agreement with the statement "learning procedures and gaining clinical experience is more valuable to me than understanding research and theory" ($t(213) = -1.001$, $p = .318$). There was a statistically significant difference between those who reported utilizing evidence-based practice in the past year and those who did not and agreement with the statement "more therapists should use research in their practices" ($t(213) = 2.735$, $p = .007$). Participants who reported utilizing evidence-based practice within the past year ($M = 3.86$, $SD = .644$) rated the statement "more therapists should use research in their practices" significantly higher than participants who did not report utilizing evidence-based practice within the past year ($M = 3.53$, $SD = .567$).

Barriers and Facilitators to Evidence-based Practice Utilization

More than half of the participants identified "lack of time" as a factor that makes it difficult to utilize evidence-based practice (n = 162, 79.8%); while other barriers were identified, they were done so by less than half of the participants. See Table 8 for details of distribution. Statistical analysis found no statistically significant relationship between lack of time as a perceived barrier to evidence-based practice utilization and practice setting ($V = .188$, $p = .307$). More than half of the participants identified continuing education (n = 154, 81.9%) and literature (n = 126, 67.0%) as potential helpful means to increasing their knowledge of evidence-based practice. More than half of the participants identified "more applicable research" (n = 127, 59.9%), "more understandable research"

(n = 130, 61.0%), "more time" (n = 149, 70.0%), and "more available resources" (n = 115, 54.0%) as factors that would encourage the utilization of evidence-based practice. See Table 8 for details of distribution.

Chapter 5: Discussion

Introduction

To date, American, Australian, British, and Canadian occupational therapy researchers have published eight studies examining various aspects of evidence-based practice and occupational therapy. Among these studies, qualitative methods (Dubouloz et al., 1999), quantitative methods (Bennett et al., 2003; Dysart & Tomlin, 2002; McCluskey, 2003; Philibert et al., 2003; Upton, 1999), and mixed methods (Humphris et al., 2000; Curtin & Jaramazovic, 2001) were utilized to elicit information through survey research, interviews, and group discussions. Many of the previous studies' findings are supported by the current study. The current study also presents new findings on variables which have not been examined in other published studies. The results of the current study will be addressed under the following subheadings: demographic characteristics, familiarity with evidence-based practice, knowledge of evidence-based practice, comprehension of evidence-based practice, utilization of evidence-based practice, value of evidence-based practice, and barriers and facilitators to evidence-based practice utilization.

Demographic Characteristics

The demographic characteristics of the level II fieldwork educators in the current study are similar to the demographic characteristics of occupational therapists practicing in the United States. Like the practice setting distribution of occupational therapists identified by the United States Bureau of Labor Statistics (2004), the participants in the current study also most frequently identified hospitals as their primary practice setting, followed by school systems. While the United States Bureau of Labor Statistics (2004)

identified nursing facilities as the third largest employer of occupational therapists, the current study found outpatient clinics to rank as the third largest employer, followed by nursing facilities.

The current participants' average years of clinical experience is similar to the average identified by the 2000 AOTA Salary Survey. However, the participants in the current study are slightly more experienced (M = 12.78 years of clinical experience) than the occupational therapists (M = 11.9 years of clinical experience) who filled out the 2000 AOTA Salary Survey (AOTA, 2000a). This difference may be attributed to the AOTA level II fieldwork criteria which requires one year of clinical experience in order to become a level II fieldwork educator, while the 2000 AOTA Salary Survey may have had respondents with less than one year of clinical experience.

The degree distribution of the level II fieldwork educators in the current study (69.6% baccalaureate, 30.0% master's, .5% doctorate) is similar to the degree distribution of the American occupational therapists in the Dysart and Tomlin (2002) study (68% baccalaureate, 29% master's, 3% doctorate). The majority of participants in both the current study and the Dysart and Tomlin (2002) study may hold a large number of bachelor's degrees because of occupational therapy practice standards which require a bachelor's degree to practice until 2007, after which master's degrees will be the minimal requirement (AOTA, 2002c). The practice setting, clinical experience, and degree similarities between the level II fieldwork educators in the current study and other American occupational therapists help to increase the overall generalizability of this study's findings.

The participants in the current study also reported a higher frequency of access to libraries containing occupational therapy literature (66.7%) than those in studies by Dysart and Tomlin (2002) and Bennett et al. (2003), and a lower frequency of access than participants in the study by Humphris et al. (2000). The differences in access between the current study and previous studies may be attributed to the wide array of geographic locations represented by the participants: namely the United States, Australia, and Britain. Also, within individual countries the participants' location to a rural area versus an urban area may have affected their access to a library, in addition to their distance from an occupational therapy college. Future studies are needed to examine possible relationships between level II fieldwork educators' access to libraries containing occupational therapy literature and their geographic location.

Approximately half of the participants in the current study are members of AOTA (53.0%) which distinguishes the current study from the other American studies that derived their participant base solely from AOTA members (Dysart & Tomlin, 2002; Philibert et al., 2003). Members of AOTA receive numerous benefits such as a subscription to the American Journal of Occupational Therapy (AJOT), product and textbook discounts, access to Evidence-based Practice Briefs, access to professional news, and access to professional chat rooms (AOTA, 2004). The benefits received by AOTA members, particularly the access to research literature in AJOT, may contribute to some of the differences between AOTA members and non members discussed in subsequent sections of this chapter.

Familiarity with Evidence-based Practice

How familiar are level II fieldwork educators with evidence-based practice? Prior to examining the participants' knowledge, comprehension, value, and utilization of evidence-based practice, the researcher of this study wanted to establish the participants' level of familiarity with evidence-based practice. The researcher was unable to find any literature addressing occupational therapists' self rated familiarity with evidence-based practice. It is not clear whether previous studies addressed familiarity prior to inquiring about selected aspects of evidence-based practice, or whether familiarity was assumed.

The results of the current study show that although the vast majority of participants reported previous exposure to evidence-based practice (92.2%) they most frequently rated themselves as "somewhat" familiar with evidence-based practice (45.8%), with a small minority rating themselves as "very" familiar (1.4%). These findings suggest that exposure alone does not necessarily lead to high perceived familiarity with evidence-based practice. The quantity and quality of the participants' exposure to evidence-based practice were not examined in this study and may be associated with their perceived level of familiarity. The participants who perceived themselves as "very" familiar with evidence-based practice may have had numerous exposures to evidence-based practice or few exposures that were highly effective. The quantity and quality of occupational therapists' exposures to evidence-based practice is a valuable area of future research. Knowing what types of exposures are associated with high levels of familiarity with evidence-based practice may assist AOTA in developing more effective ways to educate occupational therapists.

The current study expanded on McCluskey's (2003) inquiry into sources of exposure to evidence-based practice. The participants in the current study reported more sources of exposure to evidence-based practice than the participants in McCluskey's (2003) study. McCluskey, however, only inquired about exposure to evidence-based practice from journal articles, books, and continuing education classes while the current study presented more options (journal articles, continuing education classes, the AOTA website, college, the Fieldwork Performance Evaluation for the Occupational Therapy Student, and other exposures).

In support of McCluskey's (2003) finding that a majority of participants were exposed to evidence-based practice through reading of journal articles (77.6%), the participants in the current study also most frequently identified journal articles as a source of exposure to evidence-based practice (74.7%). This is a logical finding considering the exponential increase in evidence-based practice literature over the past decade (Ottenbacher et al., 2002). Contrary to McCluskey's (2003) finding that a minority of participants received exposure to evidence-based practice from continuing education classes (15.0%) over half of the participants in the current study reported exposure to evidence-based practice from continuing education classes (63.1%). This difference may be attributed to the types and frequencies of continuing education courses offered in Australia where McCluskey's study took place as compared to the United States where the current study took place.

The current study also found a statistically significant relationship of weak strength between the participants' perceived familiarity with evidence-based practice and degree level. It could be hypothesized that participants with master's degrees may feel

more familiar with evidence-based practice than participants with bachelor's degrees because post baccalaureate education in occupational therapy places a greater emphasis on research (AOTA, 2002c). However, this study did not find a significant relationship between degree level and exposure to evidence-based practice in college.

This study also found that participants who were members of AOTA and participants with access to an occupational therapy library reported significantly higher perceived familiarity with evidence-based practice than non-members and those without access. These findings may be attributed to the availability of AJOT to both AOTA members and those with access to a library containing occupational therapy literature. Further studies are needed to examine whether having access to AJOT is associated with increasing occupational therapists' perceived familiarity with evidence-based practice and, if so, what aspects of AJOT are responsible for the increased familiarity. Information from future studies could be used to increase the effectiveness of evidence-based practice information available in AJOT; however this would only benefit those who have access to AJOT. Other sources of evidence-based practice exposure, such as the AOTA website, also require further examination and development.

Knowledge of Evidence-based Practice

What is level II fieldwork educators' knowledge of evidence-based practice? Due to differences in measuring scales, the perceived knowledge of the participants in the current study is not directly comparable to other studies. However, the current study presents findings similar to those of Upton (1999). While Upton (1999) found the majority of participants perceived themselves as having "low" knowledge of evidence-based practice, the participants in the current study most frequently identified that they

were "somewhat" knowledgeable about evidence-based practice. Although "low" knowledge and "somewhat" knowledgeable are not directly comparable they are similar in that they are both on the bottom of their respective scales. Some knowledge of evidence-based practice is to be expected among the current participants rather than a high level of knowledge, considering their relatively low perceived familiarity with evidence-based practice and the relative newness of evidence-based practice in occupational therapy.

The current study expanded on the findings of Dubouloz et al. (1999) in which participants identified clinical expertise, standardized assessments, intuition, scientific literature, colleagues, and the client to be sources of information contributing to evidence-based practice. The current study required participants to rank these sources of information according to their importance in contributing to evidence-based practice. In the current study the participants most frequently ranked journal articles (27.3%) and clinical expertise (33.0%) as the most important contributors to evidence-based practice, while also most frequently ranking intuition (41.2%) and the internet (35.9%) as the least important contributors to evidence-based practice. The majority of participants generally did not consistently rank any sources of information in any category. The lack of consensus may be due to the participants' low self rated knowledge of evidence-based practice. The survey question also may have been confusing as 24 participants left the question blank.

Even though the participants in the current study most frequently indicated or identified that they were "somewhat" knowledgeable about evidence-based practice, the majority of participants (65.6%) correctly distinguished between 5/6 and 6/6 true and

false statements regarding the tenets of evidence-based practice. The discrepancy between the participants' perceived and actual knowledge of evidence-based practice may be due to low confidence in their ability to understand evidence-based practice and, therefore, an underestimation of their knowledge. The participants' potential low confidence may have also resulted in an underestimation of their familiarity, utilization, comprehension, and value of evidence-based practice. The participants may have also demonstrated high levels of accuracy on the true/false section of the survey because they looked at the definition of evidence-based practice prior to answering the questions; question 12 on the survey tool is based directly on the Sackett et al. (1996) definition of evidence-based practice provided in the survey tool. Also, the six questions developed to examine the participants' actual knowledge of evidence-based practice may not have been valid determinants of actual knowledge because the validity of the survey has not yet been established.

The current study found both the participants' perceived and actual knowledge of evidence-based practice to be associated with their total number of exposures to evidence-based practice. Also, the participants who were members of AOTA and participants who had access to a library containing occupational therapy literature reported higher perceived knowledge of evidence-based practice and demonstrated higher actual knowledge of evidence-based practice than participants who were not members of AOTA and who did not have access to a library containing occupational therapy literature. These findings suggest that increasing the number of exposures to evidence-based practice and access to research literature may assist in increasing occupational therapists' knowledge of evidence-based practice.

Increasing access to a library containing occupational therapy literature may be difficult when there is not one geographically available. Although AOTA membership offers access to research literature similar to what is available in a library many occupational therapists may not choose to join AOTA because of the price ($187.00 annually). For level II fieldwork educators who do not have access to research literature and other sources of evidence-based practice exposure, level II fieldwork students may assist in bridging the research access gap. Since demonstrating evidence-based practice utilization is a requirement on the Fieldwork Performance Evaluation for the Occupational Therapy Student, level II fieldwork students could help to increase level II fieldwork educators' access to research literature by providing them with copies of the research used to fulfill their evidence-based practice requirement. Further, as a project during level II fieldwork education, the student could create a binder containing research literature pertaining to the fieldwork educators' practice area. Professors at educational institutions could also assist in providing level II fieldwork educators' with evidence-based practice information. Professors could share their expertise about evidence-based practice through in-services or newsletters as a service for level II fieldwork educators who supervise their students.

Increasing exposure to evidence-based practice is a necessary step in the logical progression to increase knowledge and comprehension. One cannot have knowledge without exposure, and one cannot comprehend and generalize without knowledge. Whether increasing evidence-based practice exposure will lead to increased knowledge, and whether increased knowledge will lead to increased comprehension is an unknown area that requires further research at this time. In addition to examining the associations

between access, knowledge, and comprehension future research could also focus on what types of evidence-based practice exposure occupational therapists find most useful in increasing their knowledge. Similar to investigating the qualities of the exposure that are associated with increased familiarity, investigating the qualities of exposure that are associated with increased knowledge will allow AOTA to modify evidence-based practice material in order to make it more beneficial for occupational therapists.

Comprehension of Evidence-based Practice

How well do level II fieldwork educators comprehend evidence-based practice? In examining the participants' examples of evidence-based practice utilization it was difficult to identify if they had an adequate comprehension of evidence-based practice. In their examples, only 44 participants mentioned using research articles in practice, which qualifies as utilizing evidence-based practice. However, 45 participants' responses may have implied research use. These responses contained references to using intervention techniques and protocols, such as "constraint induced movement therapy for children with cerebral palsy" (Survey 18), using "NDT in treating neuromuscular dysfunction" (Survey 12), and "using the NEER protocol with RTC repairs" (Survey 55). While certain intervention techniques and protocols have research indicating their effectiveness, it is unclear whether the participants in this study gathered and appraised such evidence.

These inconclusive findings may actually be a determinant of the participants' low comprehension of evidence-based practice, or may be caused by confusion related to the survey question. A more specific question may have elicited more specific information, such as "can you give a specific example of your use of research during the therapy process within the past year?" A structured interview with open-ended questions

and follow up questions may have also elicited more information about the participants' comprehension of evidence-based practice. However, because interviewing can be time consuming and difficult to undertake on a large scale it may not be the most suitable method of acquiring information from level II fieldwork educators who most frequently indicated lack of time as a barrier to evidence-based practice utilization.

Further investigation of level II fieldwork educators' comprehension of evidence-based practice is important because comprehension involves being able to explain, give examples, and generalize information (Gronlund, 1985) which are essential skills for level II fieldwork educators to possess, as they are responsible for transmitting their knowledge and clinical reasoning processes to students. Since the participants in the current study most frequently identified only being "somewhat" familiar with and knowledgeable about evidence-based practice and knowledge is a precursor to comprehension, it could be hypothesized that the participants in the current study would demonstrate low comprehension of evidence-based practice. It could also be hypothesized that future studies will show an increase in evidence-based practice comprehension as occupational therapists become more knowledgeable about evidence-based practice.

Utilization of Evidence-based Practice

Do level II fieldwork educators utilize evidence-based practice in the evaluation, treatment, and discharge of their clients? A larger majority of participants in the current study reported utilizing evidence-based practice (84.9%) than participants in previous studies (Dysart & Tomlin, 2002; Humphris et al., 2000). This increase may be due to a change in practices and attitudes with time, or may be attributed to the uniqueness of the

sample selection. It could be hypothesized that level II fieldwork educators may utilize evidence-based practice more than other occupational therapists; however, current findings suggest that level II fieldwork educators and other occupational therapists have similar practices and attitudes related to evidence-based practice. It could also be hypothesized that with the increased emphasis on evidence-based practice over the past decade, the participants in the current study are more familiar with and knowledgeable about evidence-based practice than the participants in previous studies and, therefore, more frequently utilize evidence-based practice. However, it is unclear whether there has been an increase in occupational therapists' familiarity with and knowledge of evidence-based practice since previous studies did not addressed these variables.

Unlike previous studies, the current study examined the parts of the therapeutic process in which the utilization of evidence occurred. The current study found the majority of participants utilized research evidence during treatment, followed by evaluation, and discharge. These findings are to be expected as an initial emphasis of evidence-based practice in occupational therapy literature was on the effectiveness of intervention strategies, though it has now broadened to include all parts of the intervention process.

The current study also examined the participants' utilization of AOTA's Evidence-based Practice Briefs which have not been examined in previous studies. Evidence-based Practice Briefs are available to AOTA members on the AOTA website, and are designed to help occupational therapists better understand research findings by ranking studies on a hierarchy and explaining statistical findings in lay terms. The current study found that a large majority of participants had never used an Evidence-

based Practice Brief (89.8%), but of those who did (10.2%) the majority (95.2%) found them to be useful. The majority of participants in the current study may not have been exposed to Evidence-based Practice Briefs because they are only available to AOTA members and are a relatively new addition to the AOTA website. By explaining research findings Evidence-based Practice Briefs help eliminate confusion and save occupational therapists time; two identified barriers to evidence-based practice utilization. Because they help mitigate barriers to evidence-based practice utilization further research is needed to examine whether having access to evidence-based practice briefs is associated with evidence-based practice utilization. If Evidence-based Practice Briefs are found to be associated with evidence-based practice utilization, efforts are needed to make them more accessible to occupational therapists.

The current study also examined the participants' frequencies in utilizing various sources of information during treatment planning. Due to different scales, the results of the current study are not directly comparable to other studies which also examined frequency of information use (Bennett et al., 2003; Curtin & Jaramazovic, 2001; Dysart & Tomlin, 2002). However, the results of the current study are similar to previous studies in that the participants reportedly utilized other professionals, their intuition, their clinical expertise, textbooks, and information from continuing education classes more frequently than research articles. The participants' low reported utilization of research articles may be associated with numerous barriers, some of which include lack of access to research articles, difficulty understanding research articles, lack of time available to read and appraise research articles, or the view that research articles do not apply to practice. Because research articles are an essential component of evidence-based

practice, understanding occupational therapists' views toward research articles is an area that requires further research.

In the current study, the internet was the only source of evidence reportedly used less than research articles. The internet may be an underutilized resource because worksites may not offer internet access or the time to use the internet. The participants may not find internet information reliable and may not have access to reputable databases. Also, the participants may not feel comfortable using the internet due to lack of skill. The inability to use the internet also prevents participants who are members of AOTA from accessing Evidence-based Practice Briefs. Because the internet provides access to numerous research databases, access to Evidence-based Practice Briefs, and access to other professionals internet use is an area that requires further research in occupational therapy.

Barriers and Facilitators to Evidence-based Practice Utilization

What do level II fieldwork educators perceive as barriers and facilitators to evidence-based practice utilization? In support of the findings of Bennett et al. (2003), Curtin and Jaramazovic (2001), Dysart and Tomlin (2002), Humphris et al. (2000), and McCluskey (2003), the majority of the participants in the current study also identified lack of time as the primary barrier to evidence-based practice utilization (79.8%). Contrary to the findings of Dysart and Tomlin (2002), the current study found no relationship between occupational therapy practice settings and lack of time as a perceived barrier. Also in disagreement with the findings of previous studies in which the participants frequently identified numerous barriers to evidence-based practice, the

majority of participants in the current study did not consistently identify any barriers other than lack of time.

The most frequently identified facilitators to evidence-based practice in the current study both support and add to those already identified in studies by Curtin and Jaramazovic (2001) and Humphris et al. (2000). While a large majority of participants in the study by Curtin and Jaramazovic (2001) identified administrative support as a facilitator to evidence-based practice utilization, only one third of participants in the current study identified administrative support as a facilitator to practice. Likewise, lack of administrative support was not widely chosen as a barrier to evidence-based practice utilization among the current participants.

Over half of the participants in the current study identified "more applicable research," "more available resources," and "more understandable research" as facilitators to evidence-based practice utilization. As previously discussed, these findings further suggest that Evidence-based Practice Briefs may assist in increasing evidence-based practice utilization because they help to mitigate time spent searching for and appraising research evidence, as well as the difficulties one would have understanding research findings. Although Evidence-based Practice Briefs have the potential to make the evidence-based practice utilization process easier, they have limits to their usefulness. Currently, Evidence-based Practice Briefs have only been developed for five diagnoses and are only accessible to AOTA members by a computer with internet access. Increasing the use of Evidence-based Practice Briefs may be achieved in the future by advertising their benefits in AJOT, offering free access or a limited time free access to

non members on the AOTA website, publishing a sample Evidence-based Practice Brief in AJOT or the free magazine, ADVANCE.

Value of Evidence-based Practice

What value do level II fieldwork educators place on evidence-based practice? Similar to previous studies (Bennett et al., 2003; Curtin & Jaramazovic, 2001; Dubouloz et al., 1999; Dysart & Tomlin, 2002; Humphris et al., 2000; McCluskey, 2003; Philibert et al., 2003; Upton, 1999), the participants in the current study also indicated that they highly value evidence-based practice. In the current study, the majority (87.9%) of the participants indicated interest in increasing their understanding of evidence-based practice, and more than half of the participants agreed or strongly agreed with 3/3 positive value statements regarding the importance of evidence-based practice.

In support of the findings by Upton (1999) and Bennett et al. (2003), the majority of participants in the current study were also in agreement with the statement "evidence-based practice is important in my daily practice." In support of the findings of Bennett et al. (2003), the majority of participants in the current study were also in agreement with the statement "evidence-based practice is important to the profession of occupational therapy." In both the current study and the study by Bennett et al. (2003), the participants more frequently agreed and strongly agreed with the statement "evidence-based practice is important to the profession" than the statement "evidence-based practice is important in my daily practice." The participants in the current study may have placed a larger value on evidence-based practice as it relates to the profession than as it relates to their daily practice because they generally do not feel familiar with or knowledgeable about it's tenets. In the current study, participants with a higher perceived knowledge of

evidence-based practice were in higher agreement regarding the importance of evidence-based practice to daily practice and the profession than participants with a lower perceived knowledge.

Consistent with the findings of Dysart and Tomlin (2002), the participants in the current study were most frequently in agreement with the statement "learning procedures and gathering clinical experience is more valuable to me than understanding research and theory." In support of the findings of Dysart and Tomlin (2002) and Humphris et al. (2000), the current study also found the majority of participants were in agreement that more therapists should use research in their practices. These findings suggest that although the participants reportedly valued clinical experience more than research and theory, they still perceive utilizing and understanding research to be important skills of therapists.

Chapter 6: Conclusion

The goal of this study was to describe the status of evidence-based practice among occupational therapy level II fieldwork educators practicing in the United States. Among the sampled population, the majority reported previous exposure to evidence-based practice, reportedly valued evidence-based practice, and reported utilizing evidence-based practice within the past year. The combination of the participants' low perceived knowledge of evidence-based practice with the inconclusive findings in the area of comprehension suggests that the current participants may not be at the point where they understand evidence-based practice enough to give examples of their use. This inability to describe evidence-based practice utilization may lead to confusion and difficulties between level II fieldwork educators and students.

To help mitigate potential confusion and assist level II fieldwork educators in fulfilling their professional and ethical obligation to become evidence-based practitioners, current research suggests that steps need to be taken to increase level II fieldwork educators' familiarity, knowledge, and comprehension of evidence-based practice in the near future. As discussed in chapter five, this goal may be achieved by adding more evidence-based practice content in AJOT and continuing education classes, as well as by increasing the availability and use of Evidence-based Practice Briefs.

While the current study provided a wealth of information regarding evidence-based practice amongst level II fieldwork educators, the findings are limited. Larger more in-depth studies are needed to further examine both level II fieldwork educators' and students' comprehension and actual knowledge of evidence-based practice. Additional research is needed to examine occupational therapy professors' perceptions

and practices toward evidence-based practice. There is also a need to examine whether utilizing evidence-based practice in occupational therapy actually cuts costs. Continued efforts in understanding occupational therapists' relationship to evidence-based practice will be valuable to the profession.

Table 1

Rationale for Survey Tool

Question	*Demographic Characteristics*
1	The participants must be practicing occupational therapists in order to meet the inclusion criteria for this study. Additionally, one must be a registered occupational therapist in order to supervise a level II fieldwork student (AOTA, 1998c).
2	The participants must have supervised at least one level II fieldwork student prior to receiving the survey in order to meet the inclusion criteria for this study.
3	Lack of access is an identified barrier to evidence-based practice utilization (Bennett et al., 2003, Dysart & Tomlin, 2002; Humphris et al., 2000).
4	Research suggests there is a relationship between practice setting and barriers to evidence-based practice utilization (Dysart & Tomlin, 2002).
5	Research suggests an inverse relationship between years of clinical experience and evidence utilization (Dysart & Tomlin, 2002).
6	Research suggests clinicians with more advanced degrees value and utilize research evidence more than clinicians with a bachelor's degree (Dysart & Tomlin, 2002; Bennett et al., 2003).
7	Members of AOTA have numerous benefits, such as a free subscription to AJOT, access to occupational therapy chat rooms, and access to more information on the AOTA web site. These benefits may affect AOTA members' familiarity, knowledge, comprehension, value, and utilization of evidence-based practice.

	Familiarity
8	This question establishes exposure to evidence-based practice; a logical precursor to questions related to knowledge, comprehension, value, and utilization of evidence-based practice.
9	This question establishes the context in which the participants have been exposed to evidence-based practice. Sources of exposure have not been addressed in previous studies.
10	There are no published studies which address perceived familiarity with evidence-based practice.
	Knowledge
11	Research suggests that occupational therapists have a low level of knowledge of evidence-based practice (Upton, 1999); however, no studies have examined perceived level of knowledge.
12	This statement is true. The notion that evidence-based practice involves the combination of clinical expertise with the best available evidence from research, is found in the definition of evidence-based practice by Sackett et al. (1996), which is located on the Fieldwork Performance Evaluation for the Occupational Therapy Student. The Sackett et al. (1996) definition is also cited in articles by Lloyd-Smith (1997), Taylor, (1997), and Holm (2000).
13	This statement is true. The notion that evidence-based practice ensures the optimal intervention of clients is demonstrated in articles by Ottenbacher et al. (1986), Lloyd-Smith (1997), Sackett et al.(1996), and Taylor (1997).
14	This statement is false. Sackett et al. (1996) strongly argue that evidence-based

	practice can never replace individual clinical expertise because it is the expertise that "decides whether the external evidence applies to the individual patient at all and, if so, how it should be integrated into a clinical decision" (p. 72).
15	This statement is false. Taylor (1997) and Eakin (1997) cited the concern that utilizing evidence-based practice will lead to generic and "cookbook" practices in their respective articles. Sackett et al. (1996) argue that evidence-based practice is not a "cookbook" method because it requires a "bottom up approach that integrates the best available evidence with individual clinical expertise" (p. 72).
16	This statement is true. The notion that literature from other disciplines is widely discussed in articles by Eakin (1997) and Tickle-Degnen (2000a).
17	This statement is false. Tickle-Degnen (1998) advocates a client-centered approach when discussing research findings with clients.
18	Participants in the study by Dubouloz et al. (1999) identified journal articles, other professionals, the internet, case studies, intuition, clinical expertise, and standardized assessments as sources of evidence. This question, which requires the participants to rank these sources of evidence according to their contribution to evidence-based practice, requires some knowledge of evidence-based practice.
	Utilization
19-26	Research suggests that occupational therapists use other sources of evidence more frequently than research evidence (Bennett et al., 2003; Curtin & Jaramazovic, 2001; Dysart & Tomlin, 2002). These questions were developed using the sources of evidence identified by participants in the study by Dubouloz et al. (1999).

27-28	Research suggests that moderate amounts of occupational therapists are utilizing evidence-based practice (Dysart & Tomlin, 2002; Humphris et al., 2000). Current research has not examined when evidence-based practice utilization has occurred (evaluation, treatment, discharge) during the therapy process.
29	Comprehension can be elicited through asking one to give an example of something (Gronlund, 1985). To date, there have been no published studies examining occupational therapists' comprehension of evidence-based practice.
38-39	AOTA Evidence-based Practice Briefs are available on the AOTA web site and are designed to help therapists better understand research findings. Previous studies have not addressed occupational therapists' use of and opinions about Evidence-based Practice Briefs.
	Value
26	The Sackett et al. (1996) definition of evidence-based practice is mentioned in numerous articles (Lloyd-Smith, 1997; Taylor, 1997; Holm, 2000), and is available on the Fieldwork Performance Evaluation for the Occupational Therapy Student. Since AOTA has seemingly chosen the Sackett et al. (1996) definition, while there are other definitions available, this study seeks to understand occupational therapists opinion of this definition.
30-34	Research suggests that occupational therapists value evidence-based practice (Bennett et al., 2003; Curtin & Jaramazovic, 2001; Dubouloz et al., 1999; Dysart & Tomlin, 2002; Humphris et al., 2000; McCluskey, 2003; Philibert et al., 2003; Upton, 1999). These question were patterned after previous studies to further examine occupational therapists' value of evidence-based practice. The scale

	(strongly disagree - strongly agree) is a duplicate of the scale used by Bennett et al. (2003). The importance of evidence-based practice to daily practice was previously examined by Bennett et al. (2003) and Upton (1999). The importance of evidence-based practice to the profession of occupational therapy was previously examined by Bennett et al. (2003). The importance of clinical expertise over research and theory was examined by Dysart and Tomlin (2002). The notion that more therapists should use research was examined by Dysart and Tomlin (2002) and Humphris et al. (2000).
	Barriers and Facilitators to Evidence-based practice Utilization
35-36	Research suggests there are numerous facilitators to evidence-based practice utilization (Curtin & Jaramazovic, 2001; Humphris et al., 2000). This question further examines the facilitators identified in previous studies. Research suggests that there are numerous barriers to evidence-based practice utilization (Bennett et al., 2003; Curtin & Jaramazovic, 2001; Dubouloz et al., 1999; Dysart & Tomlin, 2002; Humphris et al., 2000; McCluskey, 2003; Philibert et al., 2003; Upton, 1999). This question further examines the barriers identified in previous studies.
37	Research suggests that there are numerous barriers to evidence-based practice utilization (Bennett et al., 2003; Curtin & Jaramazovic, 2001; Dubouloz et al., 1999; Dysart & Tomlin, 2002; Humphris et al., 2000; McCluskey, 2003; Philibert et al., 2003; Upton, 1999). This question further examines the barriers identified in previous studies.

Table 2

Participants' Perceived Familiarity with and Knowledge of Evidence-based Practice

	Not at all	Somewhat	Adequately	Reasonably well	Very well
Perceived Familiarity (N = 216)					
n	27	99	56	31	3
%	12.5	45.8	25.9	14.4	1.4
Perceived Knowledge (N = 215)					
n	34	95	59	25	2
%	15.8	44.2	27.4	11.6	.9

Table 3

Participants' Ranking of Contributors to Evidence-based Practice

	1 Most Important	2	3	4	5	6	7 Least Important
Journal articles (N=194)							
n	53	34	35	30	24	13	5
%	27.3	17.5	18.0	15.5	12.4	6.7	2.6
Case Studies (N=193)							
n	32	55	46	34	17	4	5
%	16.6	28.5	23.8	17.6	8.8	2.1	2.6
Internet (N=181)							
n	2	3	5	17	25	64	65
%	1.1	1.7	2.8	9.4	13.8	35.4	35.9
Intuition (N=187)							
n	2	15	9	16	23	45	77
%	1.1	8.0	4.8	8.6	12.3	24.1	41.2

Professionals (N=193)							
n	1	16	24	31	68	37	16
%	.5	8.3	12.4	16.1	35.2	19.2	8.3
Clinical expertise (N=194)							
n	64	38	34	39	12	6	1
%	33.0	19.6	17.5	20.1	6.2	3.1	.5
Standardized Assessments (N=191)							
n	40	39	43	23	20	15	11
%	20.9	20.4	22.5	12.0	10.5	7.9	5.8

Table 4

Participants' Actual Knowledge of Evidence-based Practice

	True	False	Not sure
EBP involves combining clinical expertise with the best available evidence from research. (N=217)			
n	197	6	14
%	90.8	2.8	6.4
EBP is intended to ensure the most effective, accurate, and safest treatments are used with clients. (N=217)			
n	192	11	14
%	88.5	5.1	6.5
According to EBP, external clinical evidence can replace individual clinical expertise. (N=216)			
n	16	151	49
%	7.4	69.9	22.7

EBP focuses on cost-cutting "cookbook" methods of treatment, where there is one effective and cost efficient intervention for a problem. (N=217)			
n	8	163	46
%	3.7	75.1	21.2
Literature from other disciplines is included in EBP. (N=217)			
n	134	22	61
%	61.5	10.1	28.1
EBP replaces client-centered care. (N=216)			
n	4	197	33
%	1.9	82.9	15.1

Table 5

Participants' Comprehension of Evidence-based Practice

(N = 128)

	n	%
Research/Journal articles	44	34.4
Clinical experience/Expertise	19	14.8
Assessments/Evaluations	10	7.8
Protocols/Pathways	9	7.0
Workshops/Continuing education	9	7.0
Intervention techniques	36	28.1
Text books	5	3.9
Colleagues	2	1.6
Client information	5	3.9
Internet	4	3.1
Other	18	14.0

Table 6

Participants' Self Reported Utilization of Different Types of Evidence

	1 Never	2 Seldom	3 Occasionally	4 Often	5 Most frequently
Professionals (N=218)					
n	0	8	113	93	4
%	0	3.7	51.8	42.7	1.8
Intuition (N=217)					
n	3	23	88	91	12
%	1.4	10.6	40.6	41.9	5.5
Clinical expertise (N=218)					
n	0	0	0	88	130
%	0	0	0	40.4	59.6
Research articles (N=217)					
n	4	54	115	42	2
%	1.8	24.9	53.0	19.4	.9

Text books (N=218)					
n	6	61	101	48	2
%	2.8	28.0	46.3	22.0	.9
Internet (N=218)					
n	36	98	71	10	3
%	16.5	45.0	32.6	4.6	1.4
Continuing education (N=218)					
n	0	2	67	125	24
%	0	.9	30.7	57.3	11.0

Table 7

Participants' Perceived Value of Evidence-based Practice

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
EBP is important in my daily practice. (N=216)					
n	0	10	66	114	26
%	0	4.6	30.6	52.8	12.0
EBP is important to the profession of occupational therapy. (N=214)					
n	0	1	17	115	81
%	0	.5	7.9	53.7	37.9
Learning procedures and gaining clinical experience is more valuable to me than understanding research and theory. (N=215)					
n	7	49	66	77	16
%	3.3	22.8	30.7	35.8	7.4

More therapists should use research in their practices. (N=215)					
n	0	2	62	125	26
%	0	.9	28.8	58.1	12.1

Table 8

Participants' Perceived Barriers and Facilitators to Evidence-based Practice Utilization

	n	%
Facilitators (N=213)		
More applicable research	127	59.9
More understandable research	130	61.0
Administrative support	65	30.5
Reimbursement	87	40.8
More time available	149	70.0
More available resources	115	54.0
Other	12	5.6
Barriers (N=203)		
Lack of administrative support	35	17.2
Cost	52	25.6
Physical inaccessibility	31	15.3
Research doesn't apply to me	29	13.3
Lack of time	162	79.8
Self employed	7	3.4
Difficulty understanding research findings	79	38.9
Other	19	9.4

Appendix A: Human Subjects Proposal

ALL-COLLEGE REVIEW BOARD
FOR
HUMAN SUBJECTS RESEARCH

Investigators: Alisha M. Picarsic

Department: Occupational Therapy

Telephone: 277-1524 (Campus) (607) 656-9678 (Home)

Project Title: The level II fieldwork educator's comprehension, utilization, value, and perception of evidence-based practice.

Abstract:

Evidence-based practice has become the topic of numerous occupational therapy journal articles worldwide. The tenets of evidence-based practice are apparent in core American Occupational Therapy documents such as the *2000 Code of Ethics*, the *Occupational Therapy Practice Framework*, the 2002 Fieldwork Performance Evaluation for the Occupational Therapy Student, and the *1998 Accreditation Council of Occupational Therapy Education Standards*. Although there has been a large emphasis on the theoretical nature of evidence-based practice, few studies have examined the practicing therapist's views on the clinical relevance of evidence-based practice. This study focuses on the views of practicing clinician's who are also level II fieldwork educators. Level II fieldwork educators are responsible for the clinical component of a student's education, serving as role models and reflecting the current health care context (Tompson & Ryan,1996).

The purpose of this study is to examine how level II fieldwork educators comprehend, utilize, value, and perceive evidence-based practice. In addition, the study will examine whether or not there are correlations between the occupational therapists' demographic characteristics and their use and perceptions of evidence-based practice.

Surveys will be sent to practicing occupational therapists across the United States who are currently level II fieldwork educators. The names of occupational therapists have been obtained from Ithaca College's *Fieldwork Search* database. The surveys will be sent in November of 2003. The information gathered from this study will be analyzed using descriptive statistics and its results may help increase awareness of the state of evidence-based practice in occupational therapy.

Proposed Date of Implementation: November, 2003

Alisha M. Picarsic Barbara Hansen MS, OTR Sue Leicht MS OTR/L BCN
Print or Type Name of Principal Investigator and Faculty Advisor

Signature (use blue ink) Principal Investigator and Faculty Advisor

ALISHA PICARSIC
Individual Thesis Research I (673-67100)
The level II fieldwork educator's comprehension, utilization, value, and perception of evidence-based practice

1. General Information about this study:
   a) Funding: Funding for this project will come from the Occupational Therapy Department at Ithaca College.
   b) Location: The survey will be distributed at the perspective participants' place of employment. The participants can fill out the survey at their convenience in their place of employment or wherever they choose to do so. Data analysis will occur at the Ithaca College Occupational Therapy Department.
   c) Timeline: This study will commence in September of 2003 and end in March of 2004.
   d) Expected Outcomes: The results of this study will be used as part of the completion of the requirements for a Masters' thesis. The results may also be presented at a professional conference and eventually published.

2. Related Experience of the Researcher:
The research experience of the primary researcher is limited to the occupational therapy curriculum at Ithaca College. Related courses include Biostatistics (670-39000), Research Seminar (672-49500), Research Methods (672-67000), and Clinical Fieldwork II Adult/Geriatric (673-69000).

The faculty advisors for this study are Sue Leicht and Barbara Hansen. Sue Leicht is an assistant professor in the occupational therapy department at Ithaca College. She has been an occupational therapist for over 22 years with experience and specialty certification in Neurological Rehabilitation. She has successfully completed several graduate and undergraduate courses in statistics and research design, and currently teaches Research Methods in OT and Group Research in the Occupational Therapy Department. Sue has successfully completed several research projects including: "Clinical Reasoning in Practicing Occupational Therapists," "Relationship of strength, dexterity and fine motor skills in children," Relationship of motor return and function after CVA," and "A Pilot Study of visual retraining using the Dynavision 200 for improving occupational performance in post-CVA clients" (on going). Sue has also supervised several successful graduate student individual theses. Sue is currently completing her doctoral research with the initial phase of a literature meta-analysis underway and further research on the utilization of evidence-based practice by therapists in the area of upper return after stroke planned in the next year.

Barbara Hansen is a clinical assistant professor and academic fieldwork coordinator in the occupational therapy department at Ithaca College. She has been an occupational therapist for over 30 years with experience in a diverse array of practice areas and settings including pediatrics, adult, and geriatrics, in schools, hospitals, private clinics, and home care. Currently, Barbara is a practicing occupational therapist in the area of early intervention in addition to her academic work at Ithaca College. She has been a fieldwork coordinator for 7 years. She has been a committee member for the following research projects within the graduate program of the occupational therapy department. "Assessment of Fathers' Needs in Early Intervention Care," "Occupational Therapists' Perceptions of Family-Centered Care in the Neonatal Intensive Care Unit," and "Benefits of a Dance Program for Women Survivors of Breast Cancer."

3. Benefits of the study:
This study provides information about how practicing therapists currently comprehend, perceive, and utilize evidence-based practice. This study may benefit the profession of occupational therapy by aiding in the development of new models and/or strategies to implement evidence into practice. This study may also act as a catalyst for articles that address practicing clinicians concerns with evidence-based practice. No direct benefits to the participants are expected.

4. Description of Participants:
The target population of this study is practicing occupational therapists who are currently level II fieldwork educators, or who have had at least one previous level II fieldwork student. The subjects must also have at least one year of clinical experience at their current place of employment and be at least eighteen years of age. Participants who do not have one or more years of experience at their current place of employment, who have not supervised a fieldwork student prior to receiving the survey, or who are not at least eighteen years old are not eligible to participate in this study. Demographically the target population of this study is distributed across the United States and is made up of clinicians of various ages, education levels, and practice settings.

5. Description of the subject participation:
The subjects will voluntarily complete and return the pre-addressed stamped survey at their own convenience. The survey will take approximately 20-30 minutes to complete. The survey will ask for the participants' demographic information, information about their practices, and information about the value they place on evidence-based practice (see Appendix D). The survey will be sent to the participants with an introductory page explaining the purpose of the study (see Appendix B). To increase the return rate, all participants who did not return the original survey will receive a reminder letter and follow up survey two weeks after the first mailing. Please note, the survey tool is attached in Appendix D, but will be piloted by 5-10 occupational therapists at Ithaca College for expert review. There will most likely be minor changes to the survey. The revised survey will be submitted to the All-College Review Board for Human subjects Research.

6. Ethical Issues:
   a) Risks of participation: Participating in this study presents minimal risk for the participants. The participants may feel uncomfortable expressing their feelings about evidence-based practice or discussing their practices. The participants will be informed to skip any questions they feel uncomfortable with and may choose not to return this survey.
   b) Informed consent: (see Appendix B)

7. Recruitment of Participants:
Clinicians who are listed as fieldwork supervisors in the Ithaca College Occupational Therapy *Fieldwork Search* database will be mailed the recruitment letter and survey. There are approximately 318 fieldwork supervisors in the database. See attached cover sheet (Appendix B) for recruitment/informed consent.

8. Confidentiality/Anonymity of Responses:
Subjects will be instructed to refrain from putting their name or any other identifying information on the survey. Subjects will be provided with return pre-addressed envelopes to send back surveys. All retrieved surveys will be stored privately and utilized for the purposes of this study only. An administrative assistant in the occupational therapy department will be receiving the returned surveys and will use a coding system to determine who has responded and who need a follow-up survey. This information will be destroyed at the end of this study.

9. Debriefing:
Regardless of participation, all occupational therapists receiving the survey will have the opportunity to receive the study results by mail. No other debriefing is necessary.

10. Compensatory Follow up:
Not applicable for this study.

Appendix B: Recruitment Letter

September, 2003

Dear Fieldwork Educator,

I am a graduate student in the Ithaca College Department of Occupational Therapy. As part of my Master's thesis, I am conducting research about fieldwork educators' perceptions of evidence-based practice. Evidence-based practice has become the topic of numerous occupational therapy journal articles world wide, and has been included in many of the American Occupational Therapy Association's core documents, such as the *2002 Occupational Therapy Practice Framework*, the *2000 Code of Ethics*, and the *1998 Accreditation Council for Occupational Therapy Education standards document.* While there has been considerable discussion about evidence-based practice, there have been few studies about the practicing clinician's feelings towards evidence-based practice.

This survey focuses on practicing clinicians who have been or are currently fieldwork educators. As a fieldwork educator, you play an integral part in the professional preparation and education of the occupational therapy students you mentor. Because you are a role model, reflecting the current health care context and practices, your opinion is of the utmost importance.

At your convenience, please take a few moments to complete the attached survey. The survey will take approximately 15 minutes to complete. If at any time you feel uncomfortable with the subject matter of the survey you can skip questions or choose not to participate in this study.

After completing the survey, please return it in the pre-addressed stamped envelope provided. To ensure your anonymity, please do not write your name on the survey. If you have any questions or concerns about this study, or if you would like a copy of the research findings, please feel free to contact me at apicars1@ithaca.edu or (607) 277-1524, or contact my thesis advisors Sue Leicht at (607) 274-1764 or Barbara Hansen at (607) 274-1798.

Thank you for considering participation in this study.

Sincerely,

Alisha M. Picarsic OTS

Appendix C: Reminder Letter

November, 2003

Dear Fieldwork Educator,

Recently you received a package containing a survey about evidence-based practice and occupational therapy. Your opinions about evidence-based practice are not only important for my Master's thesis, but also for the profession of occupational therapy. At your convenience, please fill out the survey and return it in the pre-addressed stamped envelope that was provided in the package.

If you cannot find your survey or have any questions or concerns about this study, feel free to contact me at apicars1@ithaca.edu or (607) 277-1524, or contact my thesis advisor Sue Leicht at (607) 274-1764.

Thank you for your time.

Sincerely,

Alisha M. Picarsic OTS

Appendix D: Survey

31. EBP is important to the profession of occupational therapy.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

32. Learning procedures and gaining clinical experience is more valuable to me than understanding research and theory.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

33. More therapists should use research in their practices.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

34. Are you interested in increasing your understanding of EBP? Yes No
If no, please continue to question # 36

35. If yes, what type of opportunities would you consider helpful? (Please circle all that apply)
a) Continuing education classes
b) Literature
c) Other:_____.

36. Please select or identify the factors that would encourage you to use EBP? (Please circle all that apply).
a) More applicable research
b) More understandable research
c) Administrative support
d) Reimbursement
e) More time available
f) More Available resources
g) Other:_____.

37. Please select or identify what factors make it difficult to use EBP? (Please circle all that apply).
a) Lack of administrative support
b) Cost
c) Physical inaccessibility
d) Research doesn't apply to me
e) Lack of time
f) Self employed
g) Difficulty understanding research findings
h) Other:_____.

38. Have you ever used an AOTA "evidence-based practice brief"? Yes No
If no, please continue to question #40

39. If yes, did you find the "evidence-based practice brief" useful? Yes No

40. What areas in occupational therapy would you like to see more research in? _____
_____
_____

Thank you for taking the time to complete this survey. If you have any additional comments or questions concerning EBP or this survey, please include them below:

_____
_____
_____
_____
_____
_____
_____
_____.

Sackett, D.L., Rosenberg, W.M., Haynes, R.B., & Richardson, W.S. (1997). *Evidence-based medicine: How to practice and teach EBM.* New York: Churchill Livingstone.

Evidence-based Practice Survey

Please circle the appropriate choice or fill in the blank as indicated.

1. Are you a registered occupational therapist who is currently practicing occupational therapy? Yes No
If No, please do not continue.

2. Have you ever supervised a level II fieldwork student? Yes No
If No, please do not continue.

3. Do you have access to an occupational therapy library containing research literature?
Yes No

4. What is your primary practice setting?
a) Hospital b) Nursing home
c) School d) Outpatient
e) Home care f) Private Practice
g) Other:_____

5. How many years of clinical experience do you currently have?_____

6. What is your current degree level?
a) Associates
b) Bachelors
c) Entry level Masters
d) Post Professional Masters
e) Doctorate

7. Are you a member of the American Occupational Therapy Association?
Yes No

Please open the brochure and continue to page 2. Please complete each page before reading the next one.

8. In relation to occupational therapy, have you seen or heard the term "evidence-based practice" (EBP)? Yes No **(Please continue to #10)**

9. If yes, where? (Please circle all that apply)
a) Journal articles b) Continuing education
c) AOTA's website d) College/University
e) Fieldwork Performance Evaluation
f) Other:_____

10. How familiar are you with EBP?

1	2	3	4	5
Not at all	Somewhat	Adequately	Reasonably well	Very well

11. How well do you feel you understand EBP?

1	2	3	4	5
Not at all	Somewhat	Adequately	Reasonably well	Very well

Please read the statements below and distinguish between which are true and which are false.

12. EBP involves combining clinical expertise with the best available evidence from research.
a) True b) False c) Not sure

13. EBP is intended to ensure the most effective, accurate, and safest treatments are used with clients.
a) True b) False c) Not sure

14. According to EBP, external clinical evidence can replace individual clinical expertise.
a) True b) False c) Not sure

15. EBP focuses on cost-cutting "cookbook" methods of treatment, where there is one effective and cost efficient intervention for a problem.
a) True b) False c) Not sure

16. Literature from other disciplines is included in EBP. a) True b) False c) Not sure

17. EBP replaces client-centered care.
a) True b) False c) Not sure

18. Please rank the following sources of evidence in order according to their contribution to EBP.
(1 = most important, 7 = least important, etc.....).
___Journal articles ___Case studies ___Internet
___Intuition ___Other professionals
___Clinical expertise ___Standardized assessments
___Other:_____.

Please circle one answer for 19-25.

19. I use other professionals to help me make treatment decisions.

1	2	3	4	5
Never	Seldom	Occasionally	Often	Most frequently

20. I use my intuition to make treatment decisions.

1	2	3	4	5
Never	Seldom	Occasionally	Often	Most frequently

21. I use my clinical expertise to make treatment decisions.

1	2	3	4	5
Never	Seldom	Occasionally	Often	Most frequently

22. I use research articles to help me plan treatments.

1	2	3	4	5
Never	Seldom	Occasionally	Often	Most frequently

23. I use text books to help me plan treatments.

1	2	3	4	5
Never	Seldom	Occasionally	Often	Most frequently

24. I use the Internet to help me plan treatments.

1	2	3	4	5
Never	Seldom	Occasionally	Often	Most frequently

25. I use information from continuing education courses to help me plan my treatments.

1	2	3	4	5
Never	Seldom	Occasionally	Often	Most frequently

Please do not go back and alter your answers to any previous questions.

AOTA uses the following definition of evidence-based practice: "the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence-based [health care] means integrating individual clinical expertise with the best available external clinical evidence from systematic research" (Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996).

26. How would you rate this definition on a scale of 1 to 5?

1	2	3	4	5
Needs Improvement	Okay	Fair	Good	Excellent

27. According to the provided definition, have you used EBP in the past year? Yes No
If no, please continue to question #30.

28. If yes, in which part(s) of the therapy process have you used EBP? (Circle all that apply)
a) Evaluation b) Treatment c) Discharge

29. Can you give an example of your use of EBP?_____

Please rate your level of agreement with the following value statements. (# 30-33).

30. EBP is important in my daily practice.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

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