Most individuals with disabilities exhibit therapeutic needs in a variety of domains such as communication, education, and motor skills. Although traditionally human services have been provided in isolation, interdisciplinary services to address a variety of therapeutic domains have been gaining traction. Given this recent shift toward interdisciplinary service delivery, it is necessary that pre-service professionals receive effective training in interdisciplinary collaboration. One of the major goals of evidence-based practice is to narrow the research to practice gap, ensuring that practitioners have access to and use the best available research when making clinical decisions. Another goal is to ensure effectiveness of treatments by considering the client’s specific characteristics, values, and preferences to enhance the impact of the treatment. Nearly all human service professions ascribe to evidence-based practice. This requires practitioners to maintain contact with relevant treatment research and adapt and modify treatments using one’s own clinical expertise, professional judgment and the knowledge of the client. An underutilized benefit of evidence-based practice is the fact that the major tenants (best available evidence, clinical expertise, and client values and preferences) are consistent across most human service disciplines. In this paper, we present a brief overview of evidence-based practice from the perspective of a variety of human service disciplines whose practitioners commonly work collaboratively on interdisciplinary teams. Given there is striking overlap between each discipline’s evidence-based practice definition and activities, an evidence-based practice framework has the potential to unite professionals from different disciplines and guide the training of interdisciplinary professionals. The use of a common framework such as evidence-based practice can offer practitioners increased access to shared knowledge that should ultimately improve the effectiveness of interdisciplinary services for individuals with disabilities.
As scientific knowledge in a wide variety of disciplines has advanced, students and professionals have become more aware of the importance of professionals’ disciplinary expertise to better solve practical problems in human service arenas. This recognition has led to a growing interest to develop new knowledge and more effective practices by integrating perspectives from multiple disciplines (Aboelela et al., 2007). Interdisciplinary services require service providers from different disciplines, such as psychology, occupational therapy, general and special education, speech and language pathology, and behavior analysis, to work together to analyze, synthesize, and combine disciplinary expertise into an organized and coherent whole (Choi & Pak, 2006). When service providers work together to optimize care for the consumer and are united in solving a common set of problems, they are referred to as an interdisciplinary team.

In practice, there are several types of health care team models that vary in terms of interaction among team members. Multidisciplinary teams and interdisciplinary teams are two unique models of interaction. For example, multidisciplinary teams allow each discipline to independently contribute its particular expertise to an individual consumer’s care, while staying within the boundaries of their own discipline (Hall & Weaver, 2001). Interdisciplinary team members from different disciplines conduct their work together (Coi & Pak, 2006). Working with one another, rather than simply alongside one another, can significantly enhance the effectiveness of a treatment, as well as minimize frustration caused by miscommunication.

Interdisciplinary teams are teams that work together and communicate frequently to work towards a common goal. In an interdisciplinary team, each professional works within their specialty and is responsible for their aspect of the treatment, but they are also able to work with others and collaborate to allow for both a well-rounded understanding of, and a more holistic solution to the problem (Hall & Weaver, 2001). Interdisciplinary teams allow for the maximization of professionals and resources by integrating differing disciplines so that the treatment leads to the best possible outcomes. Working together increases the benefits of all those involved whether the work is set in medical, clinical, or educational arenas. For example, if a student with autism attends a mainstream, general education classroom, and he or she also receives speech and occupational therapies, the various professionals who help this child succeed can integrate their treatment plans so that the child’s behavior and gains are reinforced in different environments, leading to faster, more sustainable gains. Furthermore, interdisciplinary
professionals who work together effectively experience fewer communication problems and are able to maximize the quality of care for consumers (Hall & Weaver, 2001).

Collaboration is an important piece of any well-functioning team. In addition to proper communication, working collaboratively can result in improved health and learning outcomes for all individuals involved. The World Health Organization (2010) defines interprofessional collaborative practice as “multiple health workers from different professional backgrounds who work together with patients, families, caregivers, and communities to deliver the highest quality of care” (p. 7). Since clients may have health issues related to multiple disciplines (e.g., speech and language as well as occupational therapy), it is important to employ interprofessional collaborative practice to ensure the best team-based care. In addition to improved outcomes for clients, the professionals involved in interprofessional collaborative practice experience improved relationships with their colleagues (Coben, Thomans, Sattler, & Morsink, 1997).

For interdisciplinary teams to be effective, a combination of communication, interdisciplinary knowledge, and a respect for the roles and duties of the other professionals is necessary (Wilczynski, 2012). These concepts need to be explicitly taught and practiced so that everyone learns how to work with others who have different specialties and perspectives. All professionals involved should have a desire to work together and seek the benefits of working as a team. Training should focus on building effective collaboration and communication skills (Coben et al., 1997).

The training of individuals within a team has a large influence on the effectiveness of the team. Teams made up of individuals who are not well trained or comfortable collaborating are not as successful as intended. This challenge can be addressed through collaboration training. Collaboration training focuses on teaching individuals to work together towards a common goal (Coben et al., 1997). The lack of collegial relationships can impact accountability and create barriers to successful partnerships (Blue-Banning, Summers, Frankland, Nelson, & Beegle, 2004). This issue can also occur in an educational or early intervention setting, with opposing religious or social views affecting the ability for professionals and parents to work together towards the same goals. Without a mutual understanding between all parties involved, it is difficult for teams to be productive (Blue-Banning et al., 2004).

**Evidence-based Practice**
Many pre-professionals who will eventually work in schools, clinics, and hospitals will learn about evidence-based practice in their courses and/or professional development activities. The definition adopted by most human service disciplines presents evidence-based practice as a clinical decision making process informed by three distinct sources: a) best available evidence, b) clinical expertise and professional judgment, and c) client values, preferences, and context (Sacket et al., 1996; Spencer, Detrich, & Slocum, 2012). Evidence-based practice originated in medicine, but it was quickly embraced by many professions because it offered a cooperative problem solving structure and addressed a serious barrier to achieving optimal outcomes in human service fields—the research to practice gap. When a gap between research and practice is present, consumers do not receive services that are most likely to be effective. Due to this gap, consumers may suffer from poorer outcomes and unnecessary costs related to ineffective treatments (Spencer et al., 2012). Evidence-based practice has the potential to integrate effective research-based methods into practitioners’ daily routine and improve outcomes for consumers.

The main activities of evidence-based professionals center around solving applied, practical problems by integrating the best available evidence, clinical expertise, and client and family values, preferences, and context (Sacket et al., 1996). The professionals’ responsibility is multi-faceted. They should select, modify, implement, and monitor treatments that address socially important outcomes; base the selection, modification, implementation, and monitoring on the most rigorous research possible; and ensure the characteristics, values, and preferences of the client are honored. The professional must use his/her professional judgment and clinical expertise to integrate the available research evidence with what is appropriate for the specific client (Spencer et al., 2012).

Considering that evidence-based practice, or at least the idea of evidence-based practice, is pervasive across human service disciplines, it stands to reason that it forms a common ground upon which interdisciplinary teams can stand. The purpose of this paper is to describe the evidence-based activities among several disciplines and examine how major tenants of the professions and of evidence-based practice overlap across many disciplines. Some of the common professionals involved in interdisciplinary teaming and service provision include psychologists, educators, speech-language pathologists, occupational therapists, and behavior analysts. Most professional organizations have established policies and activities to support evidence-based practice among their members; however, there are differences in their
approaches to evidence-based practice, standards by which evidence is judged, and progress toward resource dissemination to practitioners. Given that all of these human service fields are engaged in the promotion of evidence-based practice, we propose that evidence-based practice serves as a common framework, whereby interdisciplinary professionals can understand and communicate with others. In addition, this framework can be used to train professionals to be effective interdisciplinary practitioners. Finally, undergraduate and graduate students would benefit from interdisciplinary training that follows a consistent model underlying coursework, practical experiences, and research activities.

In the following section, we present several disciplines’ evidence-based practice definitions and activities. Each section begins with the definition adopted by the discipline-specific organization and background related to the emergence of that definition. This is followed by the evidence-based practice activities that the professional organizations pursue to help support their practitioners. Our aim is to initiate a conversation about the potential for evidence-based practice as a guiding framework for interdisciplinary training and practice.

**Psychology**

**Definition and Background**

The shift towards evidence-based practice in psychology (EBPP) originated from the movement towards evidence-based practice in medicine when the American Medical Association (AMA) aimed to develop a more beneficial way of treating their patients based on acquired knowledge, research, and professional experiences (Spring, 2007). These principles ultimately led the U.S. to make major modifications in the current healthcare regime. The aim of EBPP is to provide consumers with the best possible treatments and practices that are consistent and standardized throughout the nation (Spring, 2007). According to the American Psychological Association (APA, 2005), “EBPP is the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences” (p. 1).

In order to achieve the most effective outcome for their clients, practitioners must be guided by previous experiences or research that indicates success (Biglan & Ogden, 2008). Biglan and Ogden (2008) point out that many requisites must be met in order for an intervention to be effective and have a positive, significant impact on public health. Researchers must measure the extent to which the intervention reaches the public, how reliably it is being implemented, and how well the population has responded to the intervention. Recently,
Evidence-based practice has been gaining recognition, especially within policy, curriculum development, and research relative to psychology (Schlosser & Sigafoos, 2008).

Evidence-based practice in psychology is a model that helps clinicians make the right decision about what treatment to offer their clients. It typically involves answering a specific question for a specific client (Schlosser & Sigafoos, 2008). In psychological practice, evidence-based practice involves answering a practical question; taking into consideration the best available evidence, client context and values, and clinical expertise; and adapting the treatment to fit the needs of the client, eventually answering the established practical question. Throughout the process of selecting, adapting, and implementing treatments, clinicians are required to be flexible so that success and positive outcomes can be achieved for their clients.

Chwalisz (2003) designates psychology as a field that integrates both physical and mental health, but she believes that it should first be recognized as a healthcare profession. The APA Task Force on EBPP (2006) emphasized that “psychologists are trained as scientists as well as practitioners” (p. 275). A great benefit of psychological training is that it promotes and requires a breadth of understanding provided by the experts in the field. This ultimately encourages professionals to integrate and use various viewpoints and research to improve outcomes for clients.

Luebbe et al. (2007) agrees that EBPP is necessary for the future of professional psychologists. In their study of over 1,000 graduate students in clinical psychology PhD programs, they found that many students are lacking training in the integration of EBPP in areas related to interpersonal skills and fully including client preferences and values in the decision making process. To date, much focus has been on the establishment of treatments that have met some standard of evidence as opposed to how professionals consider and integrate all sources of information to help make clinical decisions. However, psychologists have a professional obligation to consider all sources of information to enhance the benefit of psychological treatments for their clients.

Evidence-based Practice Activities in Psychology

A major approach in psychology has been to establish treatments as either empirically supported, or not empirically supported treatments. Empirically supported treatments (EST) are treatments that have “obtained a certain threshold of research evidence” (Schlosser & Sigafoos, 2008, p. 61). EST are research-validated and may be applied to a specific client if selected by
the professional because it is a good match for the client’s context, values, and preferences. Only when the professional integrates the evidence about that particular treatment with clinical expertise and client values, preferences and context to make decisions, does he/she engage in evidence-based practice.

Making use of the available psychological research is pertinent to the successful implementation of evidence-based practice. If research is unavailable or in a format that is not useful to practitioners, then it cannot be included in the decision making process. Systematic reviews are often used to identify EST that can then be disseminated to practicing psychologists. A systematic review involves the analysis of research literature on a specific treatment. Typically, review authors base recommendations and findings on high quality studies and discard the studies that do not employ rigorous methodology. They are valuable to professionals because much of the gathering of information has already been done. It is also presented in a pre-filtered format so practitioners do not need to sift through low quality research. Evidence based practice researchers utilize systematic reviews to help them discern with utmost accuracy what level of evidence is available to support a specific treatment. They are also able to document gaps in the research, which allows previous research to shape future research (Schlosser, Wendt, & Sigafoos, 2007; Spencer et al., 2012).

In an effort to transfer research findings to practice, Embry and Biglan (2008) introduced the concept of evidence-based kernels, which are essentially the smallest units of intervention that have sufficient evidence to support their inclusion in the treatment of psychological problems. Kernels have many implications for evidence-based practice by allowing practitioners to create effective interventions and treatments that are tailored for specific clients. For example, token economy systems and verbal praise are kernels (Embry and Biglan, 2008) that have been successfully utilized in behavior plans designed to increase a desired behavior (Goldstein et al., 2002; Tarbox, Ghezzi, & Wilson, 2006; Harchik et al., 1990). These individual procedures alone have sufficient evidence to support their use independently and may be established as research-based kernels through a systematic review. As kernels, however, they can be combined with other kernels or procedures to create customized treatment packages. When a specific psychologist combines kernels to treat a specific client, the treatment package has not been validated through research studies, but the individual components have.
There are many evidence-based practice efforts in psychology working to establish EST through systematic reviews, and psychologists recognize the relevance and necessity of clinical expertise and client values and preferences to clinical decisions (Spring, 2007). Psychology has been actively engaged in understanding and training evidence-based practice longer than most professions (except medicine). Psychologists have well-developed databases for gathering and disseminating ESTs and have employed evidence-based practice as a framework for training scientist-practitioners (Chwalisz, 2003).

**Occupational Therapy**

**Definition and Background**

Evidence-based practice of occupational therapy has its roots in the evidence-based medicine movement. The American Occupational Therapy Association (AOTA; 2010) has adopted the standard definition of evidence-based practice that incorporates three sources of influence including the best available evidence, clinical expertise, and client values and context (Sacket el al., 1996). However, occupational therapy has been considerably less influenced by science than medicine. Occupational therapy, as a profession, has relied primarily on the clinical expertise of the practitioner while the impact of research has been negligible.

A study performed in 2002 examined how occupational therapists in the United States accessed and used research results that were clinically relevant to their practice. Researchers reported that 209 participants responded to a survey involving opinions and self-reported behavior. Over half of the participants reported implementing between one and five new and research-based treatment plans over the course of one year, while 43% of professionals with 15 or more years of experience reported that they did not believe that research conclusions translated into successful treatment. Almost half of the participants reported that they did not have sufficient time to access and apply the information from research articles. Tasks such as direct service, paper work, and planning filled their days, leaving no time to read research articles (Dysart & Tomlin, 2002). Finally, the methods used in occupational therapy research are not always rigorous.

Based on the major findings of this study, the authors concluded that AOTA’s efforts should be focused on reducing barriers to evidence-based practice of occupational therapy. The demand for maximizing quality care and the need for efficient use of resources increased the pressure on healthcare providers to make sure that occupational therapy clinical practice is based
on sound evidence. This demand gave occupational therapists and certified occupational therapy assistants the push needed to provide high quality, client-centered services that are supported by evidence (AOTA, 2010).

Evidence-based Practice Activities in Occupational Therapy

A primary driver of the evidence-based practice movement is to protect the consumers from poor, fad, and ineffective treatments. One heavily discussed area related to evidence-based practice of occupational therapy is the treatment of children with autism spectrum disorders (ASD). In a review of three types of occupational therapies for children with ASD, the authors found that although occupational therapy is a typical intervention component for children with ASD, it was minimally effective. In fact, there were so few occupational therapy studies with sufficient scientific rigor that the reviewers were unable to draw conclusions about their effectiveness with children with ASD (Dawson & Watling, 2000). The reviewers recommended that in order to improve the quality of therapy studies, more detail and specificity in the procedures are needed. More information regarding the prevalence, nature, and course of each client’s diagnosis and behavioral assessments and treatment plans are needed. Most importantly, researchers need to use high quality research designs to limit threats to internal validity and ensure conclusions are based on sound methods.

In addition to producing higher quality research so that reliable evidence is available to clinicians, the organization’s recent focus has been on producing resource materials that summarize the best available evidence. The AOTA has invested significant resources to the development of detailed guidelines and evidence briefs based on the best evidence that is available. In 2012, AOTA won a prestigious award for their evidence-based practice guidelines. The American Society of Association Executives awarded AOTA with the Power of a Silver Award, which recognizes companies’ engagement in activities and programs that have a global impact. With this award, AOTA was praised for making contributions to the community and society that are scientific and evidence-based. AOTA was also commended for having an easily maneuverable and structured website that promotes evidence-based practice. These awards suggest that AOTA has gone to great lengths to facilitate evidence-based practice among occupational therapists, despite the pressing need for more rigorous empirical studies (AOTA, 2012).

Speech-Language Pathology
Definition and Background

The field of speech-language pathology followed medicine into the evidence-based practice movement and quickly adopted their definition that involves the judicious integration of the best available evidence into decision-making (Sackett et al., 1996). However, similar to occupational therapy, there is a pressing need for the field to encourage and reward higher quality research that examines the efficacy of interventions so that there is evidence available to inform practice (ASHA, 2004). In the absence of a substantive research base, speech-language pathologists have emphasized the role of clinical expertise and client values and preferences, as well as the steps a practitioner would follow to make evidence-based decisions, even with limited research support (Johnson, 2006). In general, ASHA and its members have a commitment to the use of research to improve outcomes for those they serve, and several evidence-based activities reinforce that commitment.

The application of evidence-based practice presents a number of challenges to the field because there is not a substantial research base addressing intervention effectiveness, leaving practitioners with little guidance about what interventions to use, with whom, and in what situations. In a systematic review of school-age language intervention studies spanning more than twenty years, only 21 studies that included experimental designs were located. The reviewers concluded that there is very little evidence supporting speech-language pathology interventions in schools, and most of what does support language interventions is of poor quality (Cirrin & Gillam, 2008). Although twenty years of peer-reviewed articles has yielded a plethora of studies in ASHA journals, they are largely descriptive, etiological, and theoretical in nature. Few use rigorous research methods to test the efficacy of interventions (Ratner, 2006).

Evidence-based Practice Activities in Speech-Language Pathology

Speech-language pathologists often serve on interdisciplinary teams in hospital, clinic, and school settings. They are pragmatic clinicians that traditionally have not consulted research literature to inform their practice. In fact, in surveys of practicing speech-language pathologists, the practitioners reported they are more likely to rely on their own experiences, opinions of colleagues, and general Internet material than research articles (Zipoli & Kennedy, 2005; Mullen, 2005). Although speech-language pathology is relatively new to the research-informed service arena, the American Speech-Language Hearing Association (ASHA), and many of its
members, have embraced evidence-based practice as a way to improve the effectiveness of their services and to provide legitimacy to the practice of speech-language pathology.

In 2005, ASHA placed evidence-based practice front and center when they established a mandate for all certified clinicians to demonstrate knowledge of research principles and research design, and to access sources of research information related to intervention. In the same year, ASHA established the National Center for Evidence-Based Practice (N-CEP) in Communication Disorders and developed a compendium of practice guidelines and systematic reviews. ASHA hosts a website that warehouses lists of systematic reviews and practice guides, all organized according to various treatments and diagnoses. Importantly, considering the shallow research base found in speech-language pathology, the compendium gathers systematic reviews from all disciplines relevant to the treatment of communication disorders (e.g., psychology, medicine, education). This allows for easy access to valuable research evidence that may or may not be published in ASHA journals. In addition to collecting guidelines for practice and research syntheses from all related disciplines, the ASHA N-CEP conducts their own Evidence-Based Systematic Reviews, and practitioners are allow to submit a topic they wish to have reviewed.

ASHA has responded to the need for increased rigor in their research by making substantial policy improvements, including those guiding the acceptance and publication of articles in ASHA journals. They developed a new website that offers improved access to articles and reference to newly accepted and most read articles. Video clips, hyperlinks, and web-based tools help to maximize the accessibility of research to practitioners. In addition, ASHA has published special issues and hosted many tutorials on evidence-based practice to help foster the commitment and principles of evidence-based practice among practitioners. Finally, they contribute a significant amount of financial support to communication science research projects through grants and researcher training programs.

Education
Definition and Background

The programs and practices teachers use are some of the most important factors in student achievement (Coalition for Evidence-Based Policy, 2003). Federal Laws such as the No Child Left Behind Act (NCLB, 2006) and the Individuals With Disabilities Education Act (IDEA, 2008), require teachers to identify and use research based interventions in their classrooms. The outcomes of these types of decisions are critical. Therefore, it is important that
administrators and teachers work collaboratively using their professional judgment and objective indicators of quality to determine which interventions are supported by research, and match the characteristics of their students to promote learning and achievement.

Similar to other disciplines, evidence-based practice in education is used to describe the decision making process that integrates best available evidence, relevant experience-based knowledge, and student values and context for improving student learning and achievement (Spencer et al., 2012; Turnbull et al., 2010). However, another use of evidence-based practice is also very common in education. Many education scholars refer to “evidence-based practices” as interventions that have been shown through research to be effective (Cook, Tankersley, & Landrum, 2009). In psychology, the distinction between EST (interventions that have been shown to work) and evidence-based practice (decision making process that involves the best available evidence, clinical expertise, and client values and preferences) has been clearly made. In education, however, this distinction is not clear. This confusion and imprecise definitions of evidence-based practice in education could lead to communication challenges among educators and within interdisciplinary teams. The overwhelming volume of educational curricula and interventions that claim to be “evidence-based” complicates the decision making process for educators. As a result, educators are faced with two challenges: (1) how to access best available evidence; and (2) how to evaluate curricula and programs for students.

Evidence-based Practice Activities in Education

When No Child Left Behind (2006) was passed, it was the first time the federal government acknowledged the use of scientific research when making educational decisions. Like other professional fields, there is a priority in education to narrow the research to practice gap (Greenwood & Abbot, 2001). While the mandate has been present for over a decade, the field of education has been slow to establish strong, understandable evidence-based practice guidelines for educators.

For years, researchers have concluded that educators are not sufficiently trained in research methods; therefore, they are unable to apply science-based concepts in educational settings (Stanovich & Stanovich, 2008). Educators sometimes suggest that research is not applicable in real life situations and is published in journals that are designed for researchers, not educators (Spencer et al., 2012). While there are disagreements between researchers and educators, Stanovich and Stanovich (2003) argue that educators are actually similar to scientists
because educators believe that their classrooms are predicted and controlled by manipulations of variables in their professional practice. Given this similarity, researchers and educators can work together to make education research more valued and to narrow the research to practice gap. Therefore, researchers have a responsibility to synthesize the research so that teachers can use the information, and teachers have the responsibility to be conscientious consumers of the research. Thus, given more accessible information or research-related resources, teachers could make more informed decisions for their students.

The Council for Exceptional Children (CEC) commissioned a set of guidelines to assist educators in the appraisal of research articles so that educators can become more critical consumers of research. The guidelines, also known as quality indicators, allow for the user to distinguish between high and low quality studies (Gersten et al., 2005; Horner et al., 2005). Research articles featuring a specific intervention can be evaluated against the quality indicators, such as: the independent variable is systematically manipulated, treatment fidelity was measured, the intervention was described in detail, and the data analyses were appropriate (Horner et al., 2005). This conventional approach increases the likelihood that high quality and rigorous studies are considered when evaluating curricula, interventions, and teaching practices.

Another resource for educators is the What Works Clearinghouse (WWC), funded by the U.S. Department of Education’s Institute for Educational Sciences. The WWC is one of the largest educational research databases, and new resources are posted continually. This website specifically targets the needs of teachers, administrators, researchers, and policy makers with respect to curriculum and programs for general education students, students with learning disabilities, struggling learners, and English language learners. More specifically, the database includes many types of user-friendly reports on programs, curricula, and interventions to provide educators with the information they need to make evidence-based decisions. The topic areas covered on the WWC website include adolescent literacy, beginning reading, character education, dropout prevention, and many more. The WWC is free, easy to navigate, and gives many report options and methods for refining searches and accessing relevant information.

The major evidence-based activities in education are focused on the selection of interventions and programs with sufficient research support. In this sense, educators have received very little guidance about how to integrate their own clinical expertise and their students’ characteristics, values, and preferences to make effective decisions. Too often,
educators make decisions based on their own comfort or beliefs about an intervention rather than on the sources of information that evidence-based practice dictates (Kretlow & Blatz, 2011). Although there is progress to be made in the evidence-based practice in education arena, the CEC guidelines and WWC database are good resources for educators. Using these resources, educators can identify programs and interventions with the best available evidence, and then use their clinical expertise and knowledge of their students to make effective decisions regarding the selection, modification, and implementation of effective interventions.

**Applied Behavior Analysis**

**Definition and Background**

Cooper, Heron, and Heward (2006) define applied behavior analysis (ABA) as “the science in which tactics derived from the principles of behavior are applied systematically to improve socially significant behavior and experimentation is used to identify the variables responsible for behavior change” (p. 20). There are three major branches in the development of behavior analysis: behaviorism, the experimental analysis of behavior (EAB), and applied behavior analysis (ABA; Cooper et al., 2006). Behaviorism includes “theoretical and conceptual issues.” EAB incorporates basic research of the science and ABA has a focus on socially important functional relations (Cooper et al., 2006, p. 20). Each of these branches has contributed to the overall practice of behavior analysis. In 1968, Baer, Wolf, and Risley outlined seven specific criterions for Applied Behavior Analysis. They proposed that an ABA study, intervention, or program must be applied, behavioral, analytic, technological, conceptually systematic, effective, and general to be considered ABA. Although there is no formal statement of evidence-based practice in ABA, the implication of the ABA characteristics is that evidence is a chief product of the science that guides all behavior analytic practice.

As evidence-based practice models have emerged in other fields, behavior analysts were slow to follow suit, suggesting their practice is 100% evidence-based given its origin and grounding in science. Addressing behavior analysts, Smith (2012) presented a much narrower definition of what is typically considered evidence-based practice. He proposed that more randomized controlled trials (RCTs) must exist in order for interventions and treatments derived from ABA to be considered evidence-based. Behavior analysts are often limited in the ability to perform RCTs based on the populations with which they work and their traditional use of single-subject research designs. In contrast to Smith, some behavior analysts believe that enough
noteworthy and strong findings are produced through single-subject experimental designs to classify many ABA interventions as empirically supported (Smith, 2012).

In a rejoinder to Smith, another set of behavior analysts proposed a broader definition to help integrate ABA and EBP (Slocum et al., 2014). These behavior analysts recommend using the same definition as used in other human service fields that refers to EBP as a decision making process taking into account various sources of information, including research and client values. Slocum et al. (2014) described EBP as a framework for ABA intervention options. In other words, this EBP structure provides a basis for behavior analysts to systematically use research and professional expertise in decision-making. Additionally, an EBP framework allows for better communication and collaboration with professionals from other disciplines (Slocum et al., 2014). This more comprehensive idea of EBP allows for the use of all types of study designs to help inform clinical decisions and provides consistency across collaborating disciplines. Similar to the field of education, ABA would benefit from adopting the broader definition of EBP. Ultimately, adopting the broader definition of EBP could potentially increase the influence of ABA in other human service areas.

**Evidence-based Practice Activities in Applied Behavior Analysis**

A behavior analytic organization, The National Autism Center (NAC), produced the National Standards Project (2008), which recognizes the research support available for interventions for individuals with Autism Spectrum Disorders (ASD). The evaluation of research allowed for the identification of promising and empirically supported interventions for children with ASD. The project provided the most visible evidence-based practice activities in ABA through an intensive systematic review process. The NAC utilized the Scientific Merit Rating Scale to ensure the quality of each study and the effectiveness of each treatment (2008). Based on four factors of EBP, including research findings, professional judgment, values and preferences, and capacity in addition to evidence of effectiveness, the NAC found eleven effective treatments for ASD (2008).

Despite the lack of an official statement by the Association for Behavior Analysis International, there is a movement to adopt a framework of evidence-based practice of applied behavior analysis. The Behavior Analyst Certification Board guidelines (2010) explicitly mention the implementation of scientifically supported treatments numerous times within the document. With the support of BACB guidelines, many behavior analysts suggest that evidence
has always had a secure place in ABA, despite evidence-based practice terminology emerging more recently. It is evident that evidence-based practice of ABA is an evolving point of discussion among researchers and practitioners.

**Evidence-Based Practice Unites Us (Conclusion)**

Evidence-based practice is best understood as a philosophy of practice that engenders explicit attention to balancing different sources of information such as research, clinical expertise, and client specific factors when selecting, adapting, and implementing treatments (Spencer et al., 2012). Through evidence-based practice, professionals can produce a treatment plan tailored to the specific needs of an individual client and have firm reference to the available research and data supporting each decision. There are numerous professions that endorse evidence-based practice as a fundamental concept underpinning clinical decision-making. As a framework for guiding practice, there is substantial overlap between the disciplines discussed above, but there are differences in the extent and type of resources that are available to practitioners and in the degree of reverence for research.

Psychology, for example, is one field that focuses on high-quality research that allows for the identification of empirically supported treatments (EST) through systematic reviews. Psychology is a research-rich field with decades of rigorous studies to support psychological treatments. Considering psychology has more research evidence available than most disciplines, it is not surprising that there are more well-developed systems and resources for training psychologists as scientist-practitioners (Chwalisz, 2003). Although ABA has a long history of close contact with relevant research outcomes, this field is slow to adopt and integrate a definition of evidence-based practice. Like most health professions, AOTA and ASHA have adopted the definition of evidence-based practice recommended by Sackett and colleagues (1996). Both organizations acknowledge the demand to produce high quality research and have established several noteworthy initiatives to provide guidance given the evidence that is available, regardless of its strength and quality. Unlike the other disciplines, education has struggled to consistently define and use the phrase “evidence-based practice.” Sometimes, it is a decision making process; other times it refers to an intervention or program with substantial research support. Despite the confusion, there are strong initiatives to assist educators in selecting interventions and programs with the best available research.
Although positive outcomes for individuals with disabilities are often obstructed by disciplinary differences in jargon and philosophy, the similarities among the disciplines can be leveraged toward undeniable advantages. Stronger collaboration and more efficient communication are possible when professionals from different disciplines have equal commitment to evidence-based practice (Smith, 2007; Slocum et al., 2014). University faculty could use an evidence-based practice model to train undergraduate and graduate students who will become interdisciplinary professionals, thereby making evidence-based practice the general theme running through courses and practicum experiences. Evidence-based practice encourages interdisciplinary professionals to become familiar with research and treatments outside their profession, which can lead to improved understanding of others and enhance their therapeutic skills. Within the framework, interdisciplinary team members could together explicitly recognize the quality and quantity of research supporting various treatment options, regardless of the discipline of origin. Finally, from the consumer protection perspective, evidence-based practice means that individuals with disabilities receive treatments and interventions with the greatest chance of being effective.

Evidence-based practice fosters unity among diverse professionals. The role of evidence-based professionals is to collaboratively solve applied, practical problems by integrating the best available evidence, clinical expertise, and client and family values, preferences, and context (Sacket et al., 1996). When professionals utilize the evidence-based practice framework to solve practical problems, they render flexibility in their treatment options—attempting to provide their clients with the best possible treatments, treatments that will lead to the most positive short- and long-term outcomes. Furthermore, if evidence-based practice is pervasive across human service disciplines, it forms a common ground upon which interdisciplinary collaboration can be built. With well-rounded interdisciplinary teams, we can expect substantial improvements in outcomes for the individuals served.
References


Literature review project.


