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Serving Clients with Intellectual Disabilities:

Clinical Psychology Training in APA-accredited Doctoral Programs

by

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DISSERTATION

Submitted in partial fulfillment of the requirements for the degree of
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Department of Clinical Psychology

DISSERTATION COMMITTEE PAGE

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SERVING CLIENTS WITH INTELLECTUAL DISABILITIES:
CLINICAL PSYCHOLOGY TRAINING IN APA-ACCREDITED DOCTORAL PROGRAMS

presented on March 31 , 2014

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For Joshua

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First and foremost I wish to thank my husband, Glenn, who tirelessly supported and encouraged me on this long, long journey. I could not ask for a more loyal, loving, and dedicated partner in life. A very special thank you to my son, Caelan, who filled my life with unexpected joy, and encouraged me by asking almost daily, “Are you done with dissertation, yet?” Yes, kiddo, I am finally done with dissertation, and yes, now we get to have a big party, and yes, you are invited. An enormous thanks to my mom and dad, MJ and Rusty, for fostering a love of learning, believing in my potential, and performing a million other tangible acts to directly support me in finishing this project; and to Joshua, for your wholehearted pride and love for me. Thanks also to the many friends who supported and encouraged me, commiserated when the going was rough and enthusiastically cheered me on. You know who you are.

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Abstract

People with intellectual disabilities (ID) experience mental health problems at a higher rate than the general population, yet encounter significant barriers in accessing quality mental health services and have poorer mental health outcomes. Disparities in both psychology research and practice contribute to these barriers, and few mental health practitioners are willing and competent to treat people with ID. Lack of training availability has been suspected as an underlying factor, yet no previous investigation of training has been conducted in the United States. This study utilized a 20-question self-administered internet survey to explore the quantity, quality, and types of training APA-accredited doctoral level clinical and counseling programs provide their students with respect to serving clients with ID. Students' self-perceptions of competence with the population and their likelihood of future service provision for clients with ID were also studied. Current predoctoral psychology interns were recruited by emailing each internship training director listed in the APPIC database and asking them to forward a request for research participation. A total of 265 clinical and counseling psychology interns participated, resulting in an estimated response rate of 8.5%. Results revealed that, while more students reported training than expected, overall training was typically minimal, of low quality, and with little emphasis on service provision. Approximately half of the respondents reported a modicum of competence with this population and moderate likelihood to provide future services. An analysis of mediation revealed that perceived competence fully mediated the relationship between training quality and likelihood of future service provision. Without widespread reforms in APA-accredited programs in training for serving clients with ID, people with ID and mental health needs will likely remain an underserved population.

Keywords: intellectual disability, dual diagnosis, training, health disparities, health care disparities, competence, psychotherapy

Preface

My older brother, and only sibling, has had a profound impact on my life. He is the person who taught me to read, shared his love for listening to and making music, and teased me endlessly yet would threaten bodily harm to anyone who mistreated me. He is funny and clever, complex and moody, kind and endlessly loyal. He carries out the daily business of living, loving, and working, experiencing joy and pain, struggle and accomplishment. He shares the family propensity for melancholy, and is occasionally overwhelmed with grief for loved ones lost. He also happens to have Down syndrome.

My interest in this research project began with a simple question. My brother was struggling with depression and needed a therapist who would help to guide quality treatment, listen with kindness and validate, help him to make sense of his experience, and support him in problem solving. Initially, I assumed he would see an expert in mental health and ID for his treatment. Instead, he saw the only provider who accepted Medicare at the local community mental health center.

As I thought about my own training as a doctoral level clinical psychologist, I realized that I had never once heard mention of people with ID in my coursework apart from IQ assessment. The provider who worked with him graciously agreed to speak with me in a general way about her experiences. She admitted feeling unprepared for her work with him given her lack of training in working with patients with ID. Yet, as the only provider credentialed to see Medicare patients, she was the de facto therapist at her clinic for most of the clients with ID. I wondered if this situation was simply an artifact of living in a rural area, or representative of the overall state of mental health services for people with ID and mental health needs. The result is this dissertation.

While I have confidence that my argument for this study and for improved mental health services for people with intellectual disabilities in general is logically sound and supported by the literature, I believe it is important to be transparent about my own personal investment in this research. I also hope that in reading about my brother as the first representation of a person with ID in this paper, the reader will remember that behind the forthcoming facts and figures are real human beings who want the same compassion, respect, rights, and opportunities as we do.

Chapter 1

Most People with Intellectual Disability Live in the Community

The American Association on Intellectual and Developmental Disabilities (AAIDD, 2012) defines Intellectual Disability (ID) as a disability that develops prior to 18 years of age and is characterized by significant limitations in both intellectual functioning and adaptive behavior. An estimated three percent of Americans (between 7 and 8 million people) have ID, the most common developmental disability (National Dissemination Center for Children with Disabilities, 2011). Further, 10% of American families will be directly affected by a person with ID (Administration for Community Living, 2013). The great majority of people with ID have mild (85%) to moderate (10%) ID, and are living within the community (Davis, Barnhill, & Saeed, 2008; Fletcher, Loschen, Stavrakaki, & First, 2007, Chapter Intellectual Disabilities).

People with Intellectual Disability Have Mental Health Needs

People with ID have rich emotional lives and are capable of experiencing psychological distress and mental health/illness (Butz, Bowling, & Bliss, 2000; Hurley, 1989; Jahoda, Dagnan, Jarvie, & Kerr, 2006; Whitehouse, Tudway, Look, & Kroese, 2006). In fact, people with intellectual disability are more vulnerable than most to the psychosocial risk factors for mental illness (Jahoda et al., 2006; Razza, 2005).

The prevalence of mental illness in people with ID appears to be two to three times greater than in the general population (Chaplin, 2009; Fletcher et al., 2007). In addition, people with intellectual disabilities sometimes exhibit “challenging behaviors,” such as aggressive or self-injurious behaviors, that may or may not be due to mental illness, but require intervention nevertheless (Barnhill, 2008; Grey, Pollard, McClean, MacAuley, & Hastings, 2010).

Mental Health Needs of People with Intellectual Disability are not Adequately Met

With the advent of deinstitutionalization and policies supporting inclusion, people with ID must seek mental health services in community settings (Chaplin, 2009; Davis et al., 2008; Nezu & Nezu, 1994). Yet, people with ID and mental health issues experience significant difficulties in accessing quality mental health services in the community (or elsewhere), with neither developmental disabilities service agencies nor mental health agencies adequately prepared to meet their complex needs (Benson, 2004; Krahn, Hammond, & Turner, 2006; National Association of State Mental Health Program Directors, 2004). Mental health providers are generally ill-prepared to diagnose and treat people with ID, while community support providers generally have no mental health training, leaving people with dual diagnosis adequately served by neither (Fletcher, 1993; National Association of State Mental Health Program Directors, 2004).

In a joint survey of state mental health and developmental disabilities service agencies, respondents reported significant barriers to accessing appropriate mental health care for the dually diagnosed, with 78% reporting lack of qualified providers and 67% reporting inadequate information about clinical best practices (National Association of State Mental Health Program Directors, 2004). Providers lacking direct experience or specialized knowledge in treating individuals with ID are often reluctant to take them as clients, while mental health practitioners or treatment centers may actually exclude people with low IQ from receiving services (Fletcher, 1993; U.S. Public Health Service, 2001). Studies of both mental and general health care providers reveal a disinclination to develop competence or a specialty in the area of ID (Viecili, MacMullin, Weiss, & Lunsky, 2010). When people with ID are able to access mental health care, they are frequently misdiagnosed/under-diagnosed, inappropriately medicated, or simply transferred from agency to agency (Antonacci & Attiah, 2008; Fletcher, 1993; Gentile & Jackson, 2008; Krahn et al., 2006; Mental Health Special Interest Research Group, 2001; National Association of State Mental Health Program Directors, 2004; VanderSchie-Bezyak, 2003).

Inadequate Training is Part of the Problem

A lack of professional training in ID for psychologists impedes access to quality mental health services for this population (Beasley, 2004; VanderSchie-Bezyak, 2003; Weiss, Lunsky, & Morin, 2010). Training is necessary to address the complexity of assessing and diagnosing mental health problems in people with ID, inform providers of appropriate mental health treatments and their modifications, and to address providers' biases and attitudes about ID (Beasley, 2004; Fletcher et al., 2007; Hurley, 1989; Olkin, 1999; Razza, 2005, 2008; Viecili et al., 2010). This presents a bind for psychologists who are ethically bound to practice only within the scope of their competence, but have limited opportunities for its development (American Psychological Association, 2010). In fact, formal training experiences in ID were a significant predictor of psychology students' likelihood of future service provision to such clients (Viecili et al., 2010).

The training of psychologists is particularly important because psychologists conduct assessments to diagnose intellectual disability, assess and treat behavior problems and mental health issues in people with ID, and treat parents or other family members who may be experiencing caregiver stress (Weiss, Lunsky, & Morin, 2010). Psychologists also tend to be in administrative and supervisory positions where they can influence training and service priorities (American Psychological Association, 2010). In addition, psychologists conduct research that develops best practices and shapes the body of literature informing the provision of mental health services (Levant & Hasan, 2008).

In the case of other marginalized groups, the need to improve research and treatment quality has been recognized and advocated for by group members who were also psychologists (Olkin & Pledger, 2003). People with ID, however, generally lack such powerful advocates. In 1989, Anne Desnoyers Hurley recognized the near invisibility of people with ID in the mental health literature to inform her own work with dually diagnosed clients, and conducted a literature review and "call to research" for psychotherapy with people with ID (Hurley, 1989). Although there have been significant gains in the body of literature in the 25 years following Hurley's review, it remains a fledgling field in comparison to mental health services research in general. With regards to psychological treatment, controversy abounds, best practices have yet to be developed, and most of the research consists of small studies or case studies (Antonacci & Attiah, 2008).

Why Assessing Training is a Step in the Right Direction

While the assumption that training is lacking is widespread, precious little research on the subject exists. A literature search revealed only a single Canadian study on the topic, which showed limited training opportunities in that context (Weiss et al., 2010). A small minority of training programs provide specialty training in ID, with even fewer of those focusing on a broad range of interventions beyond Applied Behavioral Analysis (ABA; Razza, 2008). Therefore, the state of training in ID must be defined and described.

Should research substantiate the expected substandard levels of doctoral preparation for serving those with ID, it would make graduate training a potential lever for improving mental health services for people with ID (especially if an enhanced focus on training in ID were mandated by APA). First, a heightened focus on training in ID would create a niche within existing training programs for faculty with interests and expertise in ID. This type of niche may motivate some current faculty to develop expertise, champion training improvements in ID, act as a resource to other faculty, and mentor students with interest in this specialization or area of research. Second, thousands of graduate students begin clinical and counseling psychology programs each year. Not only would improved training better prepare a large population of psychologists for providing services more competently, but such training would also better prepare the next generation of researchers to investigate ID treatment and service delivery methods. Ideally, shifts in training would be accomplished through changes to accreditation standards to have the most rapid and far-reaching effects on training for serving people with ID.

Why Focus on APA?

The United States lacks any unified policy in intellectual and developmental disabilities to drive research and practice (Charlot & Beasley, 2013). Given the current contentious state of the U.S. political system and a complex healthcare system with state-by-state differences and multifarious funding streams, it appears unlikely that significant nationalized change will be achieved through legislation. Further, although research and practice specific to autism spectrum disorders has recently received widespread support, the area of ID and mental health remains largely ignored (Charlot & Beasley, 2013).

The field of psychology does have a nationalized body that defines the field and sets standards for practice and training—the American Psychological Association (APA). From the APA website, “The APA Commission on Accreditation (APA-CoA) is recognized by both the secretary of the U.S. Department of Education and the Council for Higher Education Accreditation, as the national accrediting authority for professional education and training in psychology” (American Psychological Association, 2014b). Thus, APA provides the linchpin for positive change for people with ID and mental health issues in their standards for accreditation.

Within APA, *Division 33: Intellectual and Developmental Disabilities* is the division dedicated to advocating for psychological research and practice as it relates to ID (American Psychological Association, 2014a). Division 33 appears to be most energized around the issue of autism spectrum disorders and child populations, perhaps due to the better funding prospects associated with these areas. However, the division has five special interest groups, including dual diagnosis, and as part of its mission, a focus on the development of standards for training. If the division works with the APA CoA to develop standards for training specifically in intellectual and developmental disabilities that all accredited programs must include, it would go far to address the problem of too few psychologists who are competent to work with the population.

Statement of Purpose

A scarcity of psychology training in ID may significantly contribute to the mental health disparities of people with ID. Establishing the current baseline of available training opportunities will illuminate the greatest needs for training enhancements, while establishing an initial benchmark against which to judge efforts to address those needs over time. Therefore, this study will survey students from APA-accredited training programs to answer the following research questions:

1. What is the extent of training in ID in APA-accredited clinical and counseling psychology programs?
2. What types of interventions are being taught?
3. What is the quality of training in ID from the student perspective?
4. How competent do students feel about providing services to people with ID?
5. How likely are students to provide future services to people with ID?
6. Is the relationship between perceptions of training quality and future service provision mediated by perceived competence?

Chapter 2: Literature Review

Worldwide, people with intellectual disabilities (ID) represent one of the most marginalized groups in society (World Health Organization, 2007). Over the last 100 years in the U.S. alone, policies of institutionalization, forced sterilization, experimentation without informed consent, denial of education, denial of healthcare, and labor exploitation have negatively impacted people with ID (Mental Health Special Interest Research Group, 2001, Chapter 4: Historical Background; National Disability Rights Network, 2011; Trent, 1998; U.S. Public Health Service, 2001; Yell, Rogers, & Rogers, 1998). Although in most industrialized nations, society has recognized the need for improved treatment of people with ID, considerable need for additional progress remains. While few would currently agree with policies of open persecution, most people remain ignorant of the daily struggle of people with ID to meet their needs in our communities. Society's continued oversight and neglect of the needs of people with ID has had dire consequences for their health and wellbeing, a problem that is gaining international recognition (Krahn et al., 2006; Scheepers et al., 2005).

People with Intellectual Disabilities Experience Significant Health Disparities

People with intellectual disabilities (ID) experience poorer health than the general population (Bittles & Glasson, 2007; Krahn et al., 2006; Scheepers et al., 2005; U.S. Public Health Service, 2001). Research indicates that people with ID frequently exhibit a greater biological/genetic predisposition toward a number of comorbid health conditions (Krahn et al., 2006; Ouellette-Kuntz, 2005; Scheepers et al., 2005). These predispositions are simply the first domino in what Krahn and colleagues term a "cascade of disparities" regarding the health of people with ID, in which social, economic, environmental, and healthcare disparities further compound biological vulnerabilities (Krahn et al., 2006).

While people with ID generally have greater healthcare needs, they in fact access less and receive lower quality healthcare than the general population (Krahn et al., 2006; Scheepers et al., 2005; U.S. Public Health Service, 2001). The U.S. National Health Interview Survey found that people with ID were nearly twice as likely as their typical counterparts to report an unmet health need (Balogh, Ouellette-Kuntz, Bourne, Lunsky, & Colantonio, 2008). In recognition of these problems, five countries, including the U.S., issued reports on ID and health between 2001 and 2004 (Krahn et al., 2006; U.S. Public Health Service, 2001).

Untreated Mental Health Problems in People with ID Cause Significant Harm

Disparities in health are not limited to physical health, but also include mental health disparities (Krahn et al., 2006). Although researchers have attempted to specify the prevalence of dual diagnosis (the presence of ID and another mental disorder) for a number of years, their estimates vary widely due to the complexity of diagnosing mental disorders in people with ID, differing definitions of mental illness and intellectual disability, differing and sometimes inappropriate classification systems for the diagnosis of mental illness people with ID, and methodological limitations to many studies (Cooper, Smiley, Morrison, Williamson, & Allan, 2007; Fletcher et al., 2007; Kerker, Owens, Zigler, & Horwitz, 2004). A recent literature review found that the prevalence of mental illness in the ID population ranges from equal to as much as three times greater than that of the general population (Kerker et al., 2004). A 2007 population based study in Scotland found a point prevalence of 41%, twice that of the general population, utilizing clinical diagnoses made by psychiatrists who specialized in working with clients with ID (Cooper et al., 2007). Further, caregivers frequently refer people with ID to psychological services for challenging behaviors such as aggression or self-injury that may not be attributable to a mental disorder, but nonetheless require assessment and intervention (Fletcher et al., 2007;

Grey et al., 2010). People with ID experience a higher frequency of risk factors for mental illness than the general population (Razza, 2005). These risk factors include low levels of social support, exposure to hostile and stressful environments, increased frequency of seizure disorders, increased frequency of neurological conditions, increased familial/caretaker stress, lower levels of problem solving abilities, lower levels of adaptive skills and behaviors, lower socioeconomic status, increased frequency of health problems, fewer psychological resources, etc. (Razza, 2005).

People with ID also experience traumatic events at an elevated rate (Wigham, Hatton, & Taylor, 2011), and are particularly vulnerable to being victimized by crime or experiencing abuse and neglect (Harrel & Rand, 2010; Razza, 2005). An estimated 1 in 3 people with ID will experience sexual abuse before the age of 18 (Razza, 2005). One review of sexual violence against women with ID estimated that in the vast majority of cases (97-99%), the perpetrator is well-known to the victim—frequently a service provider (Stevens, 2012). Research has established the link between the experience of traumatic events and mental illness for populations of people both with and without ID (Razza, 2005; Wigham et al., 2011). Inherent to the definition of intellectual disability are deficits in adaptive behavior; thus, people with ID are less likely to have the skills and support that might otherwise help one cope effectively with traumatic events (Gentile & Jackson, 2008; Razza, 2005). People with ID may have difficulty communicating distress or articulating symptoms, which might therefore be expressed through challenging behaviors (Wigham et al., 2011). Thus, if professionals do not investigate underlying causes for challenging behaviors, perpetration by service providers may go unrecognized, leaving people with ID in chronically abusive environments.

Besides the obvious emotional suffering that accompanies mental illness, untreated mental health problems lead to other significant downstream difficulties for people with ID.

Since the Kennedy administration, the U.S. has been progressing toward the desegregation of people with ID, increasing community integration and self-determination (Lohrer, Greene, Browning, & Lesser, 2002)[1]. However, mental health problems can jeopardize community placements of individuals with dual diagnosis (Adams & Boyd, 2010; Singh et al., 2007), result in lost opportunities for work productivity (Adams & Boyd, 2010), and possibly expensive hospitalization (Lohrer et al., 2002; Lunsky, Lake, Balogh, Weiss, & Morris, 2013). Further, inadequately addressed challenging behaviors may result in injuries to individuals with ID, as well as their staff or caregivers (Singh et al., 2007). Dual diagnosis is also associated with greater familial and caretaker stress, which can affect the health and wellbeing of family members (Esbensen, 2011).

Quality Mental Healthcare for People with ID is Lacking

Although people with ID have long since left institutions to integrate into communities, the community at large has been slow to develop the capacity to understand and meet their needs (van Schrojenstein Lantman-de Valk, 2005). In particular, psychology research and practice has historically excluded people with ID, with the exception of intelligence testing and diagnosis of mental retardation (Hurley, 1989). The historical invisibility of people with ID in the community, or perhaps the widespread myth that people with ID do not experience the psychological dimension of life, might have contributed to this research gap (VanderSchie-Bezyak, 2003; Whitehouse et al., 2006). “Therapeutic disdain,” a label for the tendency for clinicians and researchers to dismiss working with people with ID on the grounds that it is uninteresting, unchallenging, or impossible, has also been implicated in the problem of access to quality care

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[1] It should be noted that not only typical parents, politicians, and other advocates influence this movement, but that people with ID are also beginning to self-advocate in greater numbers.

for people with ID (Detterman, 2007; Gentile & Jackson, 2008; Whitehouse et al., 2006). While it is now clear that people with ID can and do experience life psychologically, and are particularly prone to mental illness (Hemmings, Deb, Chaplin, Hardy, & Mukherjee, 2013; VanderSchie-Bezyak, 2003), “evidence continues that people with co-occurring ID and mental illness are the last and least served in the community” (Charlot & Beasely, 2013, p.93). Disparities in both research and practice reflect a health care system largely unprepared to serve those with ID and mental health problems.

Research Disparities Limit the Development of Best Practices

Research into the mental health of people with ID has lagged far behind that of the typical population, and has only been pursued in any meaningful way over the last forty years (Bouras, 2013; Hurley, 1989). For most studies researching mental illness, the presence of intellectual disability has been an exclusionary criterion (Prout & Nowak-Drabik, 2003). In 2008, a Cochrane Review (reviews of literature designed to provide recommendations for policy and evidence-based standard of care) was unable to make any firm conclusions or recommendations for best practices for people with dual diagnosis due to the paucity of well-designed studies (Balogh et al., 2008).

In a recent review, Bouras (2013) found that research has progressed unevenly, primarily driven by the interests of the investigators rather than any cohesive national agenda, resulting in significant information gaps. Research is further hindered by fragmented funding streams, reflecting our siloed health care system (Bouras, 2013). The result is that both the ID and mental health systems claim the other is responsible for funding dual diagnosis research, and thus, according to Bouras, it remains the “territory of no one.”

Assessment and diagnosis. Research on the assessment, diagnosis, and prevalence of mental illness in people with ID has improved over the years (Bouras, 2013). Although controversy continues about the overlap between mental illness and challenging behaviors, a number of studies have clearly established that mental illness occurs in greater proportion in people with ID than the general population (Hemmings et al., 2013). Further, in spite of the ambiguity of challenging behaviors as a non-specific symptom only sometimes indicative of a psychological disorder, they nonetheless represent the most frequent cause of referral to psychological services and require further investigation (Barnhill, 2008; Hemmings et al., 2013).

In reviewing recent U.S. ID research literature, Charlot and Beasley (2013) described advances in the assessment and diagnosis of psychological disorders in people with ID, including the development of new screening and assessment instruments, as well as validation of some existing instruments with certain populations of people with ID. Of particular note, the National Association of Dual Diagnosis (NADD), a leader in addressing research and practice gaps for people with ID and mental illness in the U.S., recently published the DM-ID (Diagnostic Manual-Intellectual Disability), a companion guide to the DSM-IV-TR that provides modified criteria for varying levels of disability (Charlot & Beasley, 2013; Fletcher et al., 2007). In 2003, U.K. researchers developed the DC-LD, which also greatly improved the identification of psychological disorder in people with ID (Charlot & Beasley, 2013; Cooper, 2003). Still, it remains more difficult for practitioners (particularly those who are untrained in ID) to diagnose psychological disorder in people with ID than in typical people due to a reliance on self-report for communication of complex inner states as symptoms, a skill with which many people with ID struggle (Fletcher et al., 2007).

Treatment. Internationally, treatment remains one of the most neglected areas of ID research (Bouras, 2013). Although the most robust area of the treatment literature is in psychopharmacological treatment, this literature has been critically reviewed as providing little to no conclusive evidence either supporting or undermining the use of psychopharmacological interventions with people with ID (Charlot & Beasley, 2013; Hemmings et al., 2013). Nonetheless, research indicates that psychotropic medicines are frequently prescribed to people with intellectual disabilities, with numbers ranging from 20-50% of people with ID with an active prescription for a psychoactive agent (Hemmings et al., 2013). Studies have shown that physicians frequently prescribe medications in the absence of a documented mental health diagnosis, often in conjunction with other psychotropic medications, and in high doses (Hemmings et al., 2013; Mental Health Special Interest Research Group, 2001)[2]. Various studies indicate questionable use of medication in people with ID for the purposes of controlling behavior (Ahmed, 2000; Robertson et al., 2000; Torr, 2013). However, Charlot and colleagues (2011) found that challenging behaviors and psychiatric decompensation leading to hospitalization were frequently associated with overlooked medication side effects or other unrecognized health problems. Another study found widespread overmedication in a sample of Australian patients with ID, leading many in the field to complain about the practice of chemical restraint (Torr, 2013). Despite these concerns, the practice of using medication for managing behavior has become so commonplace that the U.K. has developed guidelines in order to assist physicians to make better clinical decisions in its usage (Hemmings et al., 2013). Hemmings asserted that the goals of pharmaceutical intervention for people with ID should include improved quality of life, rather than symptom reduction alone (Hemmings et al., 2013).

Psychotherapy research has also lagged far behind for people with ID, and the very small number of randomized controlled trials (RCTs) for psychosocial interventions have been fraught with methodological problems (Bouras, 2013). The psychotherapy research for people with ID is

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[2] Referred to as “off-label” prescribing

generally comprised of case studies, some single-case experimental designs, and a mixture of systematic and general reviews (Hemmings et al., 2013). Large-scale RCTs (the gold standard for intervention research) are fraught due to difficulty of recruiting large numbers of people with dual diagnosis and ethical concerns over the potentially compromised ability of people with ID to give informed consent (Bhaumik, Gangadharan, Hiremath, & Russell, 2011; Chaplin, 2004). Nonetheless, research indicates that practitioners are utilizing a wide array of psychotherapeutic interventions (with modifications) for people with ID (Antonacci & Attiah, 2008; Benson, 2004; Bhaumik et al., 2011; Dagnan & Jahoda, 2006; Fletcher, 2011; Gentile & Jackson, 2008; Hollins, 2000; Hurley, 1989; Kroese & Thomas, 2006; Lynch, 2004; Mona, Romesser-Scehnet, Cameron, & Cardenas, 2006; Prout & Nowak-Drabik, 2003; Razza, 2005; Singh et al., 2007; Whitehouse et al., 2006). In the U.S., Applied Behavioral Analysis (ABA) dominates the psychotherapy research on people with intellectual disabilities (Charlot & Beasley, 2013). Researchers around the country are also developing other behaviorally based models that attempt to more comprehensively address the multimodal influences on the behavior of people with ID than ABA (Charlot & Beasley, 2013).

A controversy exists among researchers about the use of purely behavioral interventions versus other types of psychotherapeutic techniques for people with ID (Charlot & Beasley, 2013). Some behaviorists, such as Sturmey, assert that only behavioral interventions have demonstrated efficacy for the treatment of people with ID (Sturmey, 2006). Many others dispute this claim, and advocate for a wide variety of other therapy models, such as Cognitive Behavior Therapy, Dialectical Behavior Therapy, mindfulness, and psychodynamic theories to name a few (Beail, Warden, Morsley, & Newman, 2005; Dagnan & Jahoda, 2006; Fletcher, 2011; Singh et al., 2007; Whitehouse et al., 2006). This camp counters that overreliance on behavioral techniques represents a tendency to regard the needs of agencies and caregivers as paramount to the psychological and emotional needs of clients with intellectual disability (Arthur, 2003; Whitehouse et al., 2006).

Regardless of the model, practitioners who conduct therapy with people with ID generally do so with modifications and most often with people with mild to moderate disability. Despite the limited evidence, they use psychotherapy for people with ID on humanistic grounds, reasoning that people with ID have emotional lives and interpersonal relationships as do their typical counterparts, and would equally benefit from a therapeutic relationship (Arthur, 2003; King, 2005). Thus, their counter-argument to Sturmey's strict behaviorist stance is "proceeding with compassion while awaiting the evidence" (King, 2005, p. 448).

Training. Research on the training and competence of professionals and caregivers who serve those with ID is sorely lacking (Bouras, 2013). In contrast to other countries like the U.K., the U.S. lacks any systematic planning in the provision of cross-disciplinary training for health care professionals serving clients with ID (Charlot & Beasley, 2013). Further, while countries that have included a national training agenda have conducted at least some preliminary research in this area, I found not a single U.S. study investigating psychology training for working with clients with ID.

Early investigation into training of psychology and psychiatry trainees in Australia found trainees were concerned that lack of available resources contributed to over-prescription of psychotropic meds, linking deficient training to inappropriate medication management (Torr, 2013). The study also pointed to the need for improved and more widespread training across healthcare disciplines to improve care for people with ID (Torr, 2013). With regards to addressing the problem of therapeutic disdain, recent research in Canada found that formal educational training and informal community experiences of exposure to people with ID were predictive of students' intentions to provide services to people with ID (Lunsky et al., 2013). They also found that, in general, students wished for more and better quality training in ID, particularly for providing services to adults with dual diagnosis (Weiss et al., 2010).

Until Training is Prioritized, People with ID will remain Underserved

The majority of clinicians in the U.S. have presumably had little or no training in serving clients with ID (Razza, 2008; U.S. Public Health Service, 2001; VanderSchie-Bezyak, 2003). Because clinicians are ethically bound to develop competence when serving specialized populations, they feel unprepared and therefore unwilling to see clients with ID (Adams & Boyd, 2010). In order to do so ethically and efficaciously, they need access to training and resources in order to develop competence (Adams & Boyd, 2010). In addition, training and informal exposure to people with ID in their academics may positively impact psychologists' willingness to work with people with ID (Viecili et al., 2010). The foundation for training and exposure for psychologists begins in graduate training programs (Adams & Boyd, 2010). Yet, no research exists on the state of graduate training to serve people with ID in the U.S., and the international research suggests that there may be little to no coverage of ID in professional psychology training programs. Until psychology researchers assess the state of training in ID, the extent of the problem and means for its efficient remediation will remain elusive, perpetuating continued health care disparities for people with ID.

Chapter 3: Method

Study Design

This study utilized a survey methodology to assess the perceptions of U.S. clinical and counseling psychology students' training in serving clients with intellectual disabilities. Specifically, I assessed their perceptions of the amount and quality of training they received, their perceived competence in providing services, and likelihood of providing future services. I also explored the relationship between training, perceived competence, and likelihood of future service provision. I hypothesized that the relationship between training and likelihood of future service provision is mediated by self-perceptions of competence.

Participants

I recruited participants by sending an email to each training director listed for the 2012-2013 APPIC predoctoral psychology internship match, requesting that they forward the invitation for research participation and survey link to their current interns. In order to estimate and improve participation rates, I asked directors to respond by email as to whether or not they would forward the request. I sent reminder emails to non-responding directors at three days and seven days following the initial email. In another effort to improve participation rates, I offered a small incentive described in the recruitment email. Participants who completed the survey could elect to enter a drawing to win a $50 gift card from Amazon.com. To preserve confidentiality, I provided a link to a second, separate entry form at the end of the survey. Participants who wished to enter the drawing could then provide their contact information which was not associated with their responses in any way.

A total of 265 clinical and counseling psychology interns participated. I estimated the overall population of interns from APA-accredited programs on internship at the time of the survey to be approximately 3,126 APPIC, 2013).[3] Thus, the response rate was approximately 8.5% of total interns. All participants were current predoctoral psychology interns who attended APA-accredited doctoral programs. The sample was 78% female, 22% male, and less than 1% transgender. The racial/ethnic makeup of the sample was predominantly Caucasian (79%), with African American/Black, Asian/Pacific Islander, Hispanic/Latino(a), and Bi/multiracial each representing 4% of the sample respectively. American Indian/Alaska native and Other responses were each selected by approximately 2% of respondents. The primary client populations most interns planned to serve in their professional career were adults (79%), followed by adolescents (52%), children (35%), families (33%), elders (26%), couples (20%), organizations (9%), and infants (4%).

A meta-analysis of web-based survey response rates from a variety of disciplines indicated a mean response rate of 39.6% when using an internet survey method (Cook, Heath, & Thompson, 2000). If no follow-up contact was made, one could expect a 25% to 30% response rate, but with a single follow-up reminder, that response rate was generally doubled (Cook et al., 2000). The method for this study differed from those reviewed in the Cook et al. article, in that it required two levels of participation. The request was sent to an intermediary (internship directors of training), who may or may not have relayed the research request to the desired participants (interns). A similar study with comparable methodology (asking an intermediary to relay a research request to psychology graduate students) obtained a response rate of 19% (Weiss et al., 2010). Therefore, a conservative estimate of the number participants was 485 interns. However, the Weiss et al. study did not report the use of a follow-up contact. By including a reminder

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[3] This figure was determined by multiplying the number of interns placed in the 2013 match by the estimated percentage (94%) of interns coming from an APA-accredited program. The estimated percentage of interns from accredited programs was drawn from responses to the 2011 APPIC match participant survey (Association of Psychology Postdoctoral and Internship Centers, 2012).

email to non-responding intermediaries, I hoped to improve the response rate from that reported by Weiss and colleagues. Instead, the response rate was much lower, for reasons that will be outlined in the discussion section.

Measure

The measure was an online survey based on a survey[4] of Canadian psychology students conducted by Weiss, et al. (2010). While constructing the measure, I sought feedback from a number of sources including experts in the field of dual diagnosis, licensed psychologists, and clinical psychology faculty members and students. The new measure consisted of 20 questions from six categories: three questions regarding demographics and basic programmatic information; twelve questions regarding student perceptions of quantity and quality of classroom training in ID for various interventions and treatment modalities; three questions regarding quantity and quality of practicum experiences with clients with ID; one question regarding self-perception of competence for providing services to clients with ID; and, one question estimating future likelihood of providing services to people with ID (See Appendix A for survey items).

Summary of original measure and modifications. The Weiss et al. (2010) survey consisted of 42 questions regarding respondent demographics, previous experience with people with ID, classroom training experiences, practicum training experiences, future practice, and ways to improve training. Questions consisted of a combination of yes/no, Likert-type, and fill in the blank response choices. For their study, Weiss and colleagues did not focus exclusively on ID, but rather the broader category of ID and/or developmental disability (DD; e.g. autism spectrum disorder).

I modified the format of the survey by using a Likert-type scale or multiple-choice format throughout in contrast to the yes/no format Weiss and colleagues (2010) frequently used in their

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[4] Generously provided by Jonathan A. Weiss, Ph.D.

measure. By focusing on only those items relevant to answering the current research questions, I shortened the survey to 20 questions with an additional question for informed consent. I narrowed the subject focus to only experiences regarding ID as opposed to ID/DD. I also removed the sections on training improvements[5] and previous experience[6] with ID because they were not directly relevant to the research questions for this study. The Weiss et al. survey included a number of very specific questions about training in specific areas of ID (e.g. behavioral phenotypes)—an unnecessary level of detail for the purposes of the current study. I eliminated those questions, but added some broader questions about education in ID, including whether students had ever had coverage of ID in their diversity or general curricula courses, and how many ID-relevant readings were assigned in their coursework.

Other items from the Weiss et al. (2010) survey I retained or only slightly modified. The modifications served three purposes: improving readability, altering the focus to ID instead of ID/DD, and combining items in order to shorten the survey. For example, the Weiss et al. survey included separate inquiries about participation in mandatory and elective courses in ID, while the survey for this study simply asks whether the participant has ever had a class on ID. The final major addition was a question regarding participants' self-perceptions of competence in working with clients with ID, an area not addressed in the Weiss et al. survey.

Procedure

I emailed a request for research participants to training directors of pre-doctoral internship programs taking part in the APPIC match. Interns whose training directors forwarded the invitation were provided a brief study description and link to the electronic measure, hosted by surveymonkey.com. Those choosing to participate clicked the link and were directed to an

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[5] e.g. How could training in developmental disabilities be improved for you?

[6] e.g. Do you have a close family member with a developmental disability?

informed consent page describing the research and the benefits and risks to participation. Participants who met selection criteria and consented to participate were then directed to the survey. The survey consisted of 20 questions and took an estimated five to seven minutes to complete. All survey responses were confidential and anonymous. I collected data for two weeks and then closed the survey to responses. I then conducted all analyses using the IBM SPSS Statistics software package, version 21.

Chapter 4: Results

The purpose of this study was to learn more about the training received by clinical and counseling psychology graduate students in providing mental health services for people with intellectual disabilities. In addition, I hoped to learn whether the relationship between the quality of training in ID and the likelihood of providing future services was mediated by self-perceptions of competence.

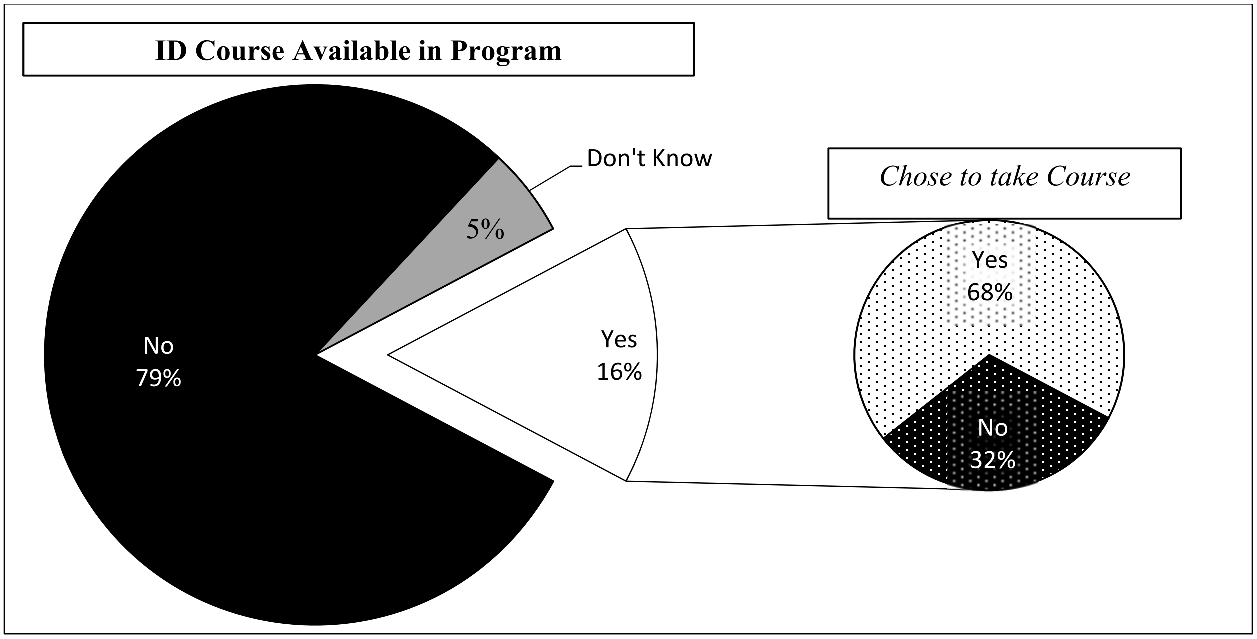
The Extent of Training in ID

To describe the extent of training, I ran an analysis of frequency for questions 5-9, which asked participants questions about the amount of training they received in their coursework for working with ID. The amount of training was approximated by access to and participation in a specialty ID course, degree to which ID issues were included in general coursework, number of assigned readings specific to ID, and variety of age groups of people with ID students had been trained to serve.

Availability of specialty courses in ID. Most participants (79%) did not have a course on ID available as part of their degree program; 15% had a course available as part of their program, and 5% were unsure if a course was offered. Of those who had access to a course in ID, over twice as many respondents chose to take the course (68%) as those who did not (32%). In all, only 11% of responding participants (n = 28) took a course in ID (see Figure 1).

Figure 1

Respondent Report of ID Course Availability and Number of Participants who have taken a Course

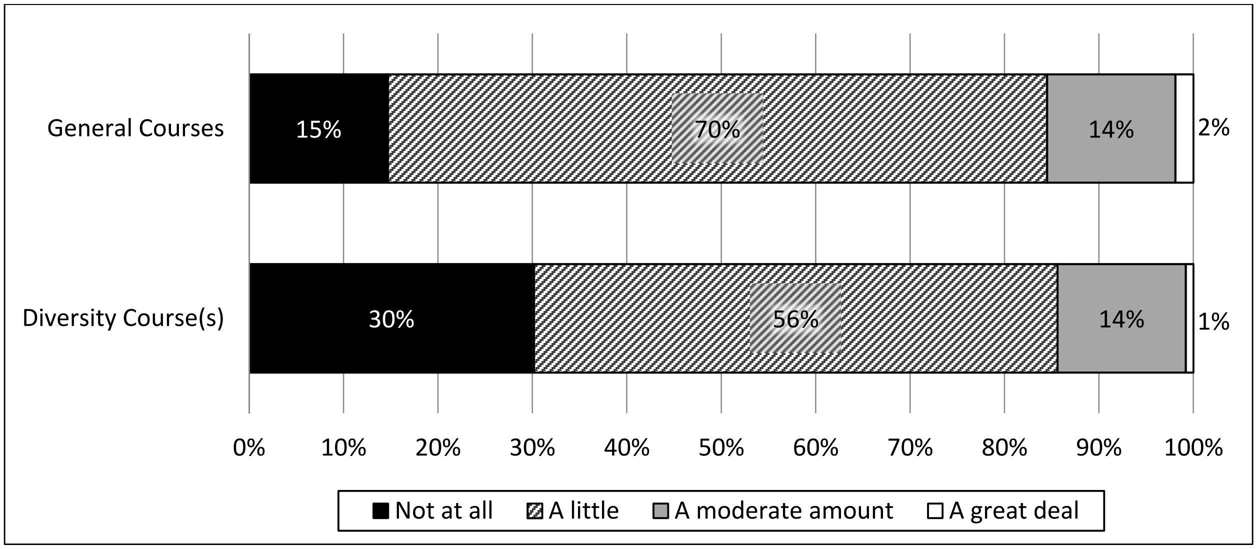


Integration of ID in coursework. Most participants (70%) reported at least a little integration of ID issues in their *diversity course(s)*. Over half of the respondents (55%) reported “a little” integration, 14% reported a “moderate amount” of integration, and less than 1% reported “a great deal” of integration. Nearly a third of respondents (30%) reported a complete absence of ID integrated in their diversity course(s).

In addition, most (70%) of participants reported “a little” integration of ID issues in their *general coursework*, 13% reported a “moderate amount” of integration, and 2% reported a “great deal” of integration. A minority of participants (15%) reported having had no integration of ID issues in their general coursework (see Figure 2).

Figure 2

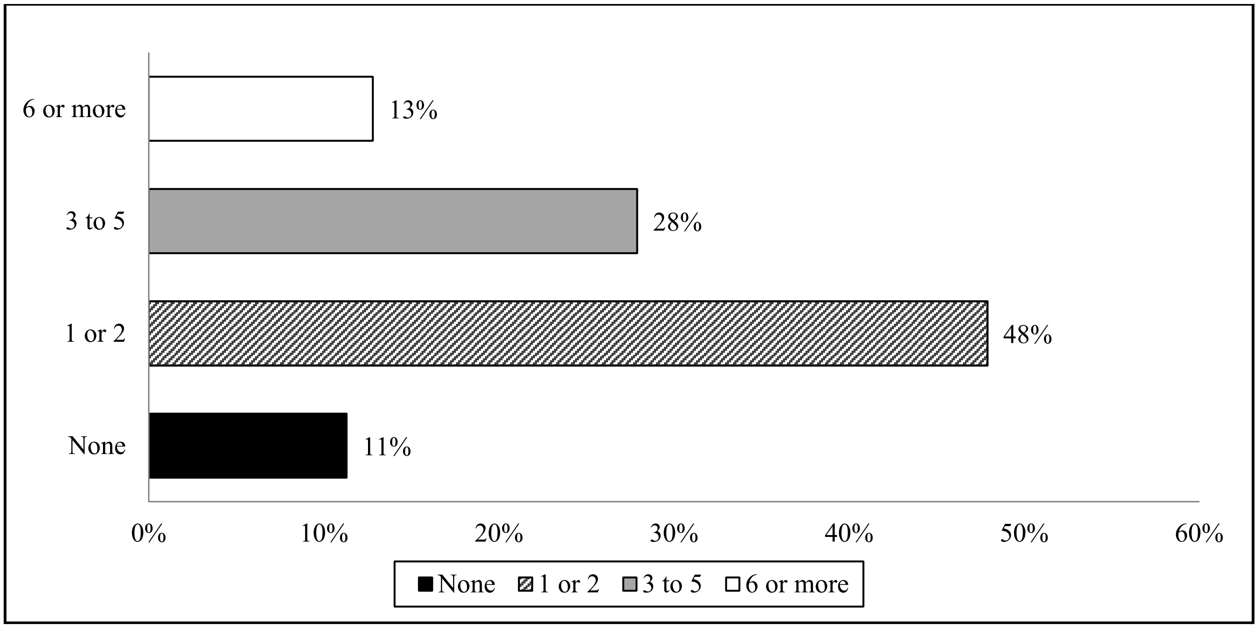
Respondent Report of ID Integration in Coursework



ID specific readings assigned. Most participants reported having been assigned at least one reading in ID as part of their coursework. A reading was defined as one article, book chapter, or book. Nearly half (48%) of respondents had been assigned one or two readings, 28% had been assigned three to five readings, and 13% had been assigned six or more readings in ID. Eleven percent of respondents reported they had never been assigned a reading specific to ID (see Figure 3).

Figure 3

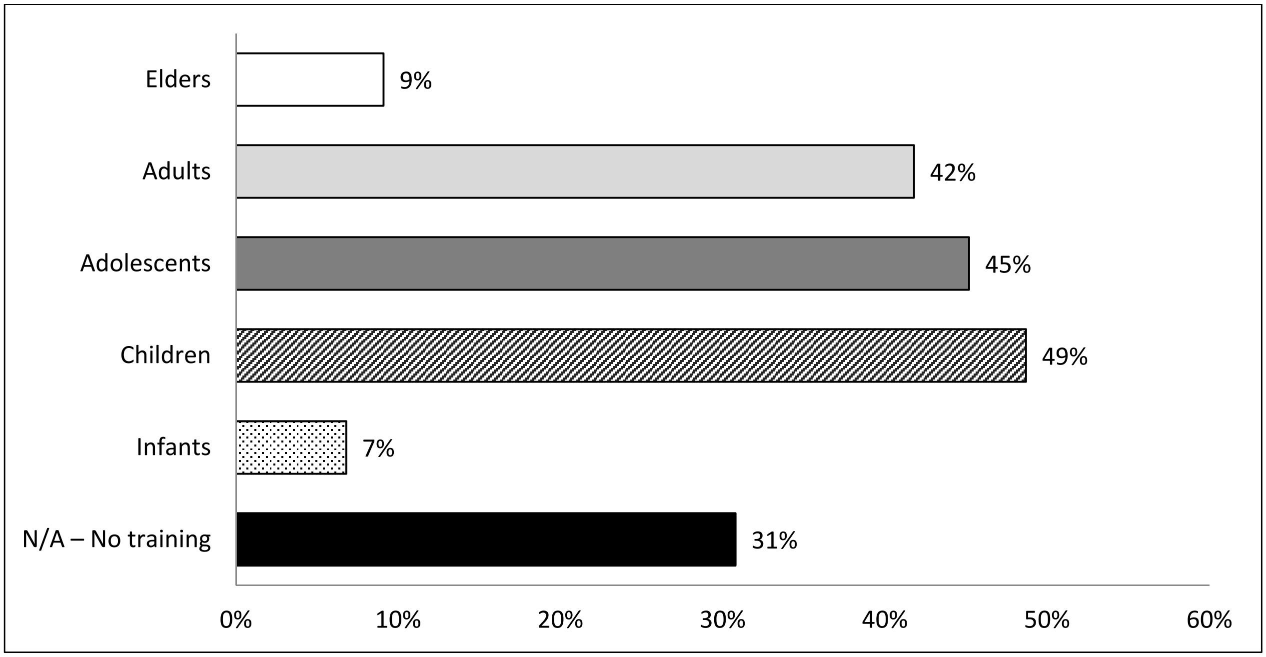
Number of ID Specific Readings Assigned to Respondents



ID training for specific client populations. When asked to endorse which ID client populations they had been trained to serve, nearly one third of respondents (31%) answered "N/A - no training." However, it appears that those who received training in ID were prepared to serve clients of a variety of ages: 49% reported training to provide services to children, 45% for adolescents, and 42% for adults. Only 9% reported training to provide elder services and 7% for infants (see Figure 4).

Figure 4

Respondent Report of Training for Specific ID Populations



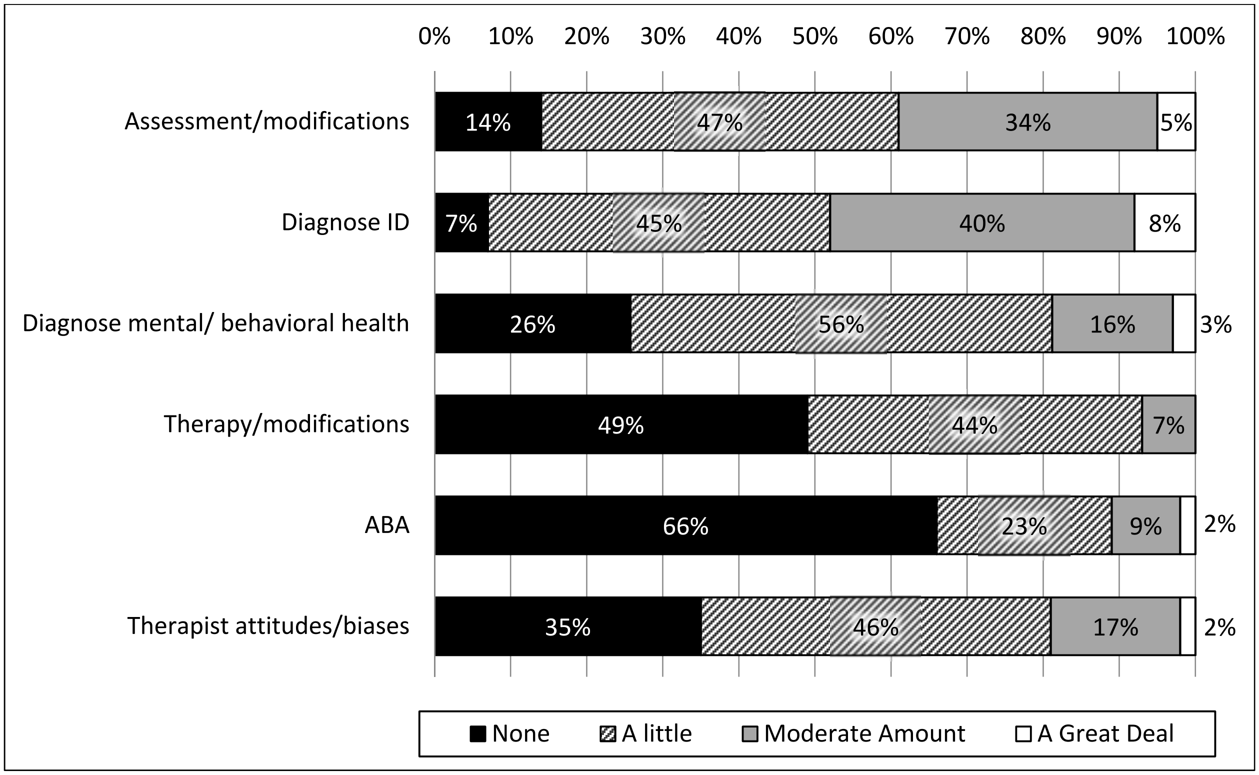
Types of Interventions Taught in Training Programs

I conducted frequency analyses for questions 10-15, 17 and 18 to describe the types of interventions students were typically taught for providing to people with ID. Those questions referred to classroom and practica intervention training experiences, including assessment, diagnosis, and treatment options for people with ID. In order to determine the percentage of respondents who had never seen a client with ID in their training for assessment or therapy, I also included the frequency of one answer to question 19 ("N/A – have never seen a client with ID) pertaining to supervision experiences for clients with ID.

Classroom experiences. Participants reported having been exposed to a number of interventions for clients with ID (see Figure 5). The vast majority of participants reported at least a little training in modifying assessment methods (86%) and diagnosing intellectual disability (93%). Further, 74% of participants reported having at least a little training in diagnosing mental or behavioral health issues in people with ID. Other interventions were covered less well, with 51% reporting some training in providing psychotherapy to people with ID and 34% reporting at least a little training in ABA. A majority of participants (65%) also reported having addressed, at least a little, therapist responses, attitudes, and biases toward people with ID. While students are receiving at least some exposure to ID-related service delivery in their programs, apart from the assessment and diagnosis of ID, that exposure is minimal.

Figure 5

Student Reports of Training for Clinical Interventions for Clients with ID

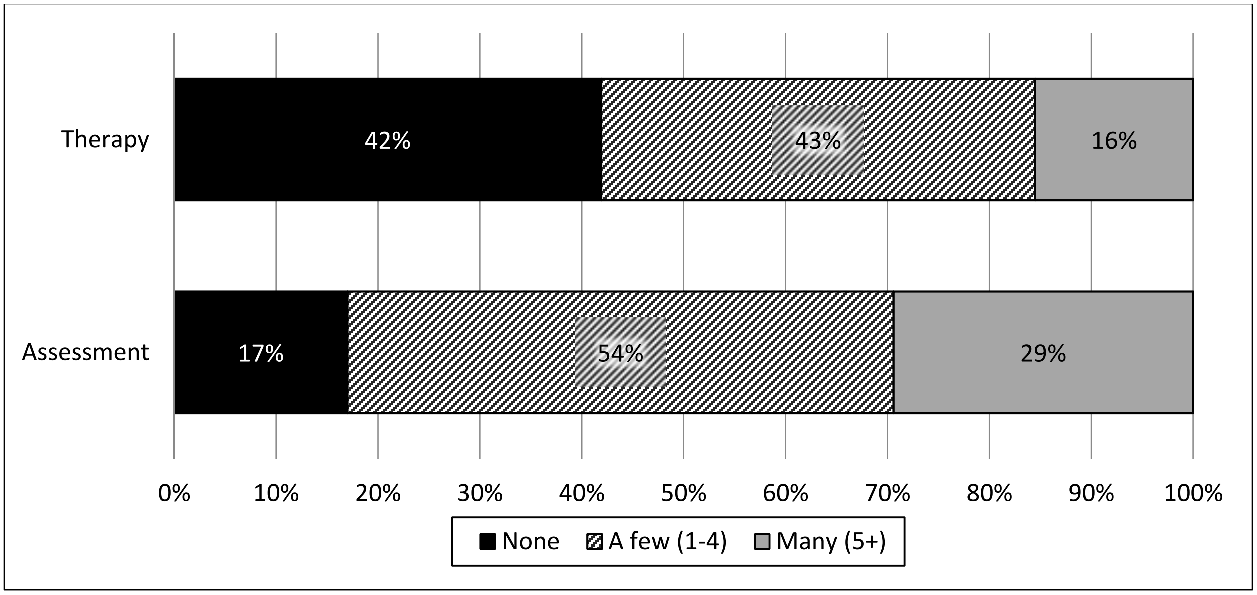


Practicum experience with ID. Most respondents reported having seen an assessment client with ID in a practicum: 54% saw between 1 and 4 clients, and 29% saw over five clients. Only 17% of respondents saw no clients with ID for assessment in their practica. Most respondents also saw a client with ID for therapy: 43% saw between 1 and 4 clients, and 16% saw over five. However, a large minority (42%) saw no clients with ID for therapy in practica.

Finally, 16% of respondents saw no clients with ID at all, for either therapy or assessment (see Figure 6).

Figure 6

Number of Clients with ID Seen by Respondents in Practicum for Assessment or Therapy



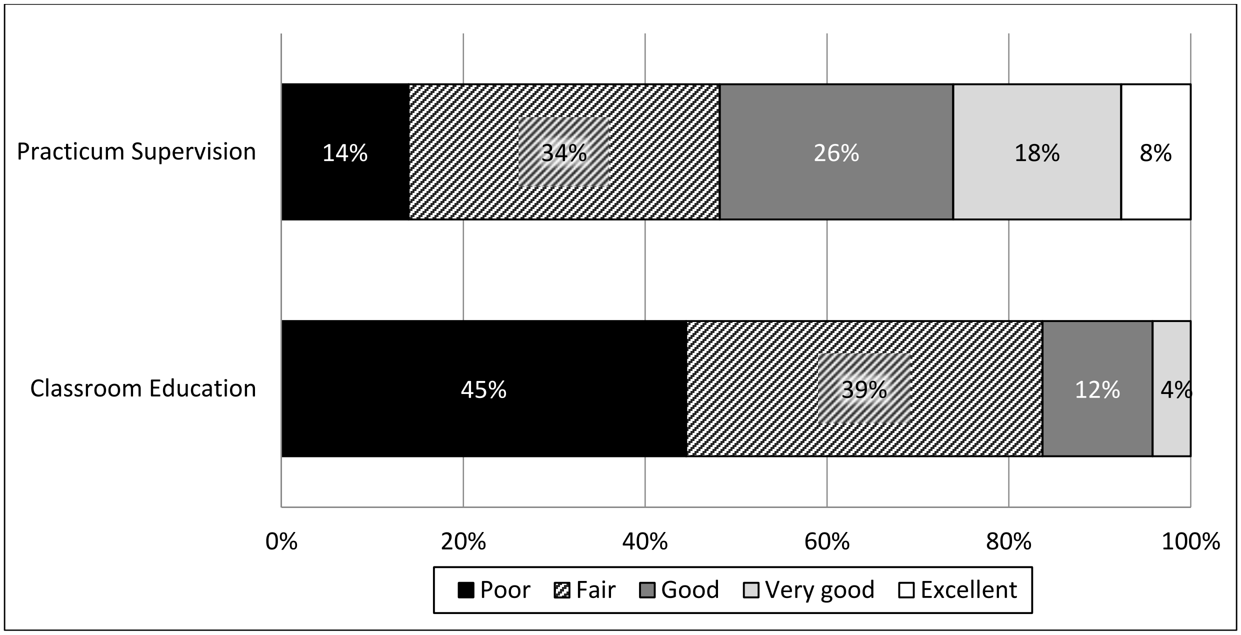
Perceptions of Overall Quality of Training in ID

To estimate student perspectives of the quality of their clinical and classroom training for working with clients with ID, I conducted frequency analyses for questions 16 and 19. Those questions inquired about students' perceptions of overall quality of classroom training and practica supervision for working with clients with ID. With respect to their overall classroom education in ID, the vast majority of respondents rated the quality of their experiences as poor (44%) to fair (39%). Only 12% rated their overall education as good and 4% rated their training as very good. No respondent characterized their overall classroom training in ID as excellent.

Practicum supervision quality ratings were more variable. A minority (16%) answered "N/A (have never seen a client with ID). Of those who had seen a client with ID, 14% rated their supervision as poor and 34% fair. Fifty-two percent of the total sample rated their supervision experiences positively, with 26% reporting good supervision, 18% reporting very good supervision, and 8% rating their supervision as excellent (see Figure 7).

Figure 7

Perceptions of Training Quality in ID for Education and Practicum Supervision

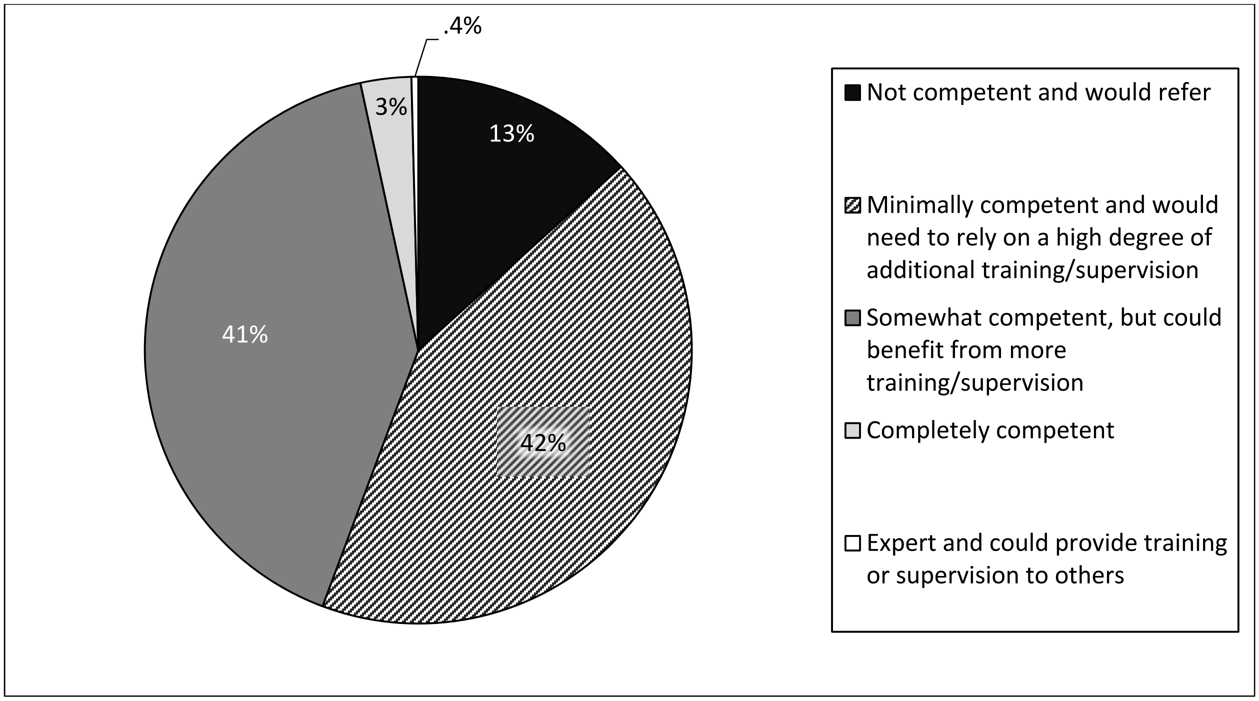


Student Perceptions of Competence with Clients with ID

I conducted frequency analysis for question 20 to discuss participants' feelings of competence for working with clients with ID. That question asked students to rate their perceptions of competence for providing services to clients with ID. The majority of participants reported very low levels of competence for providing mental health services to clients with ID; 13% reported that they felt "not competent and would refer" and 42% reported that they were "minimally competent and would need to rely on a high degree of additional training/supervision." An additional 41% rated themselves as "somewhat competent but could benefit from more training/supervision." Only 3% of participants reported feeling completely competent and one person (0.4%) reported "expert" status (see Figure 8).

Figure 8

Respondent Perceptions of Competence with Clients with ID

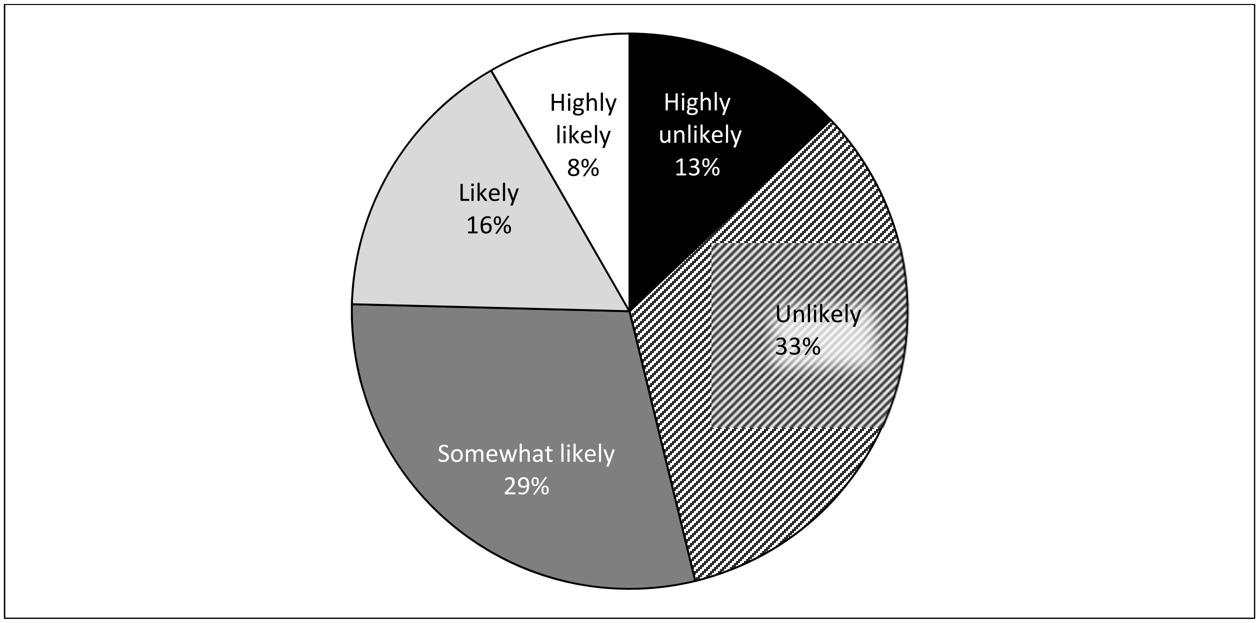


Likelihood of Providing Future Services to Clients with ID

To determine the likelihood of future service provision to clients with ID, I conducted an analysis of frequency for question 21. This question asked participants to estimate their likelihood of working with clients with ID in the future. Nearly half (46%) of the participants rated themselves unlikely to provide future services to clients with ID, with 13% reporting they were "highly unlikely" and 33% reporting they were "unlikely" to provide services. Conversely, 54% of participants reported being likely to provide services to people with ID in the future, with 30% rating themselves as "somewhat likely," 16% "likely," and 8% "highly likely" (see Figure 9).

Figure 9

Respondent Report of their Likelihood to Provide Services to Clients with ID in the Future



Relationship between Training Quality, Competence, and Future Service Provision

To determine the relationship between training quality, future service provision, and competence, I conducted an analysis of mediation following the method described by (Zhao, Lynch Jr., & Chen, 2010). Their method of analysis takes into account influential work by Baron and Kenny (1986), while also including more modern methods and critiques of the method written since that publication. One major change addressed a statistical weakness by replacing the Sobel z-test originally recommended by Baron and Kenny with a more statistically powerful bootstrap test recommended in later works (Hayes, 2009; Preacher & Hayes, 2008; Rucker, Preacher, Tormala, & Petty, 2011; Zhao et al., 2010). In a second departure from the Baron and Kenny method, Zhao and colleagues (2010) created a decision table with multiple types of mediation (complementary, competitive, or indirect-only) and non-mediation (direct-only or no-effect) possible, in contrast to Baron and Kenny's three-tier model of mediation, partial mediation, and no mediation. Zhao et al. (2010) argued that the logic behind Baron and Kenny's use of three tests to establish proof of mediation was flawed due to the possibility of having multiple mediating variables, a mediating variable in addition to a direct effect, or significant negative indirect effects in spite of positive correlations between variables. Thus, if one followed Baron and Kenny's three tests for mediation and used their three-tier model of description, significant mediating factors that might inform theory building could be overlooked or misinterpreted (see Zhao et al., 2010 for examples and further discussion). Zhao and colleagues posited that the only evidence necessary to prove mediation is a significant indirect effect. They went on to argue that the strength of mediation should be measured by the magnitude of the indirect effect as opposed to the lack of a direct effect (Zhao et al., 2010).

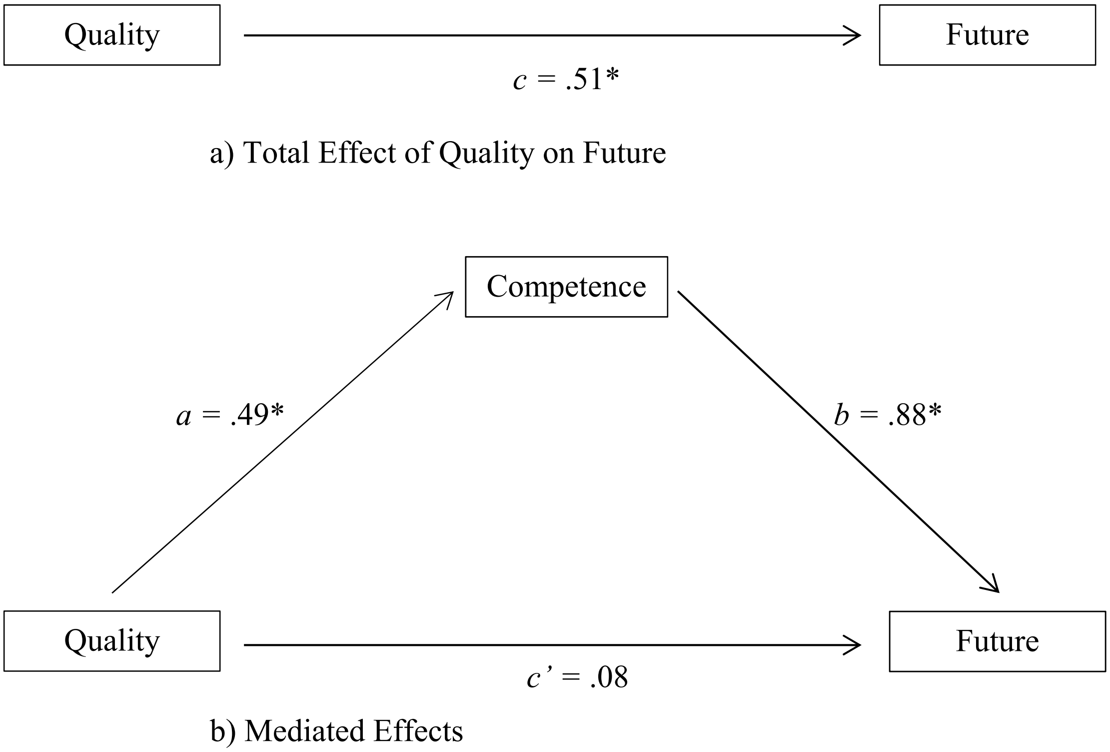
For this study, I hypothesized that the relationship between quality of training (*quality*) and future service provision to clients with ID (*future*) was mediated by self-perceptions of competence (*competence*) with the population. Utilizing the method described by Zhao et al. (2010), I performed an analysis of mediation using bootstrapping in IBM SPSS Statistics software (SPSS). I obtained the SPSS custom dialog for the bootstrapping procedure (under the *Indirect* heading) from Andrew Hayes' website, where he generously provides Macros and SPSS code for a number of mediation and moderation tests (Hayes, n.d.). After installing the custom dialog, I ran the procedure, defining the dependent variable as *future*, the independent variable as *quality*, and the mediating variable as *competence*. Variables were drawn from survey questions 16 (overall quality of education), 20 (perception of competence with ID), and 21 (likelihood of future service provision for ID). The sample size was 264 and I generated 5000 samples to test whether the influence of quality on future was mediated through competence, using biascorrected bootstrap 95% confidence intervals.

The mean indirect effect of *quality* on *future* through *competence* from the bootstrap analysis was positive and significant (*a x b* path = .43), with a 95% confidence interval excluding zero (.33 to .54). Thus, *competence* can be confidently identified as a mediating factor. In the indirect path, a unit increase in *quality* increases *competence* (path *a*) by .49 units ($p < .001$); and if *quality* is held constant, a unit increase in *competence* increases *future* (path *b*) by .88 units ($p < .001$).

The total effect (path *c*) of *quality* on *future* is .51 ($p < .001$). However, the direct effect (*c'* path) of *quality* on *future* when one removes the influence of *competence* is not significant ($c' = .08$, $p = .30$). Utilizing the decision tree outlined by Zhao and colleagues (2010), since the indirect (*a* x *b*) path is significant, and the direct (*c'*) path is no longer significant when taking into account the indirect path, the relationship is an indirect-only mediation. Consequently, there is no significant direct relationship between education quality and future services; rather the relationship is mediated by perceptions of competence, supporting the hypothesis (see Figure 10).

Figure 10

Relationship between Quality of Education and Future Services Mediated by Competence



*$p < .01$

Chapter 5: Discussion

In this section, the results of this study are discussed and interpreted, including quantifying the scope and quality of the current state of ID training in APA-accredited clinical and counseling psychology programs, and the links between training, competence, and likelihood of future service provision to people with ID. Limitations of the study directions for future research are also addressed.

Findings

ID education and training—though minimal—was more common than expected. Although more students received at least a little ID training than expected based on the literature (Beasley, 2004), a fair percentage of students still reported no ID training to speak of in their programs. Very few respondents (16%) had a course on ID available in their program of which they were aware, making it very difficult for students who might want to develop competence in this area. Moreover, nearly a third of respondents reported no integration of ID in their diversity course(s), approximately one sixth reported no integration in general courses, a tenth had never been assigned a reading specific to ID, and a third reported no training addressing therapists' own attitudes and biases toward ID.

When asked about training from a different perspective ("Please indicate each age group you have been trained in for providing services to people with ID"), nearly a third (31%) of respondents answered "N/A – no training." This finding was initially puzzling when compared to the large percentage of respondents (85%) that reported at least a little integration of ID material in their general courses. On the other hand, it may indicate the limited nature of whatever coverage of ID was provided. In other words, students may be exposed to some ID-relevant content (e.g., an article or chapter), without actually being trained to serve people with ID as prospective clients. An example would be coverage of the early history of intelligence testing and its use for abusive or exclusionary purposes[7], versus specific training about what to do when a client presents with depression and Down syndrome.

The assumption that a program may include ID-relevant content, but not necessarily clinical training, is supported by the data related to service provision: one quarter of respondents reported no training in diagnosing a co-occurring mental or behavioral health problem and half reported no training for providing psychotherapy services for people with ID. Moreover, those who received training for interventions for people with ID such as assessment, diagnosis of mental health issues, or therapy, were most likely to report a minimal amount of training. Perhaps the most illuminating evidence of the limitations to training in ID was respondent ratings of quality: the vast majority of participants rated their overall education in ID as poor (44%) to fair (39%). Thus, most students are receiving minimal exposure, but inadequate training, to serve clients with ID.

This state of affairs is unfortunate, particularly in light of the finding that most respondents saw one or more clients with ID in their practica for assessment (83%) or therapy (59%). In other words, students are ill prepared to serve the ID clients they are seeing on practicum. And while the quality of practica training experiences was better than their academic training in this regard, it was still rated as only poor to fair by 48% of respondents.

Perceived competence for serving ID clients is variable. Student perceptions of competence are one indicator of the effectiveness of graduate training for providing psychological services to clients with ID. A little over half (55%) of respondents reported very low levels of competence, with most of those endorsing “minimally competent and would have

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[7] Examples include: Disability, Eugenics and the Current Ideology of Segregation: a Modern Moral Tale, by Kliewer & Drake, 1998; Psychology in the Service of Eugenics, by McDougall, 1914; The Eugenic Legacy in Psychology and Psychiatry, by Pilgrim, 2008, or The State Boys Rebellion, by D’Antonio, 2005, to name a few.

to rely on a high degree of additional training/supervision" as a response. Alternatively, a little less than half (45%) of the respondents reported at least some competence, with most of those rating themselves "somewhat competent and could benefit from more training/supervision." If this data is representative of the state of graduate psychology training, it appears that after finishing their coursework, most early career psychologists feel ill-prepared to ethically and efficaciously serve clients with intellectual disabilities. Thus these psychologists are left with three choices when a client with ID presents for services: refer the client, provide lackluster services to the client, or access significant additional training and supervision resources in order to serve the client. However, given the aforementioned lack of expertise currently in the community, it appears that neither resources for additional training and supervision nor adequate referral streams are easily accessible (National Association of State Mental Health Program Directors, 2004; Razza, 2008; U.S. Public Health Service, 2001). Thus, the shallow pool of ID competence in the mental health community serves both people with ID—and psychologists who wish to serve them—poorly.

Only half of respondents see themselves as likely to provide future services for ID. This study found that a little over half (54%) the respondents rated themselves likely to provide future services, with the bulk of those endorsing "somewhat likely." With only half of graduate psychology students likely to provide future mental health services to people with ID, and with most of those expressing a lukewarm desire ("somewhat likely") at that, the prospects for a client with ID to locate a qualified and willing psychologist for their mental health appear dim.

These findings are very similar to those of a study of Canadian graduate training in ID where researchers found that 57% of their participants intended to include people with ID in their future practices (Viecili et al., 2010). Canada, like the U.S. lacks mandated training for psychological providers in ID, and is also struggling with a shortage of qualified providers willing to see the population (Viecili et al., 2010; Weiss et al., 2010). In contrast, the U.K. has a mandatory six month rotation in a DD setting for every doctoral student in clinical psychology (Weiss, 2012). The healthcare systems in the U.K. and U.S. are categorically different, with a nationalized healthcare system in the U.K. as opposed to the nationally and privately funded, state-by-state driven system in the U.S. Therefore, substantive national change to improve access to high quality services for people with ID in the U.S. would be exceedingly difficult to achieve through legislation. Thus, APA is probably the only national body in the field of psychology with the ability to create widespread change through shifts in its accreditation standards.

Perceived competence mediates the pathway from training to future services. The results of the analysis of mediation indicate, as expected, that training acts on likelihood of future service provision through perceived competence. In other words, when quality of ID training increased, perceptions of competence with ID clients also increased; and when competence increased, participants rated themselves as more likely to provide services to people with ID in their future practices.

A previous study investigating pathways to service provision found that formal training in assessment and coursework in ID were strongly linked to the intention to provide future services (Viecili et al., 2010). Therefore, there is growing evidence that student exposure to training in ID, with emphasis on developing a heightened sense of competence, is necessary to ensure early career psychologists will serve the population in their future practices. Clearly, to improve this state of affairs, we need to focus on more widespread and higher quality graduate training in service provision for clients with ID.

Limitations of the Current Study

The generalizability of this study is limited by the low response rate (approximately 8%) of self-selected participants; these findings may not be representative of most students in APA-accredited training programs. Several possible issues likely influenced the response rate. First, the list of internships may not have been entirely accurate, as it was fixed several months before the actual 2012-13 APPIC Match and changes undoubtedly occurred in the ensuing period. Second, relying on internship directors to forward the study probably decreased the response rate and limited the impact of reminders. Third, internship directors reported that they and their students are saturated with requests for research participation, and as a result, may be less likely to respond.

In addition to the low response rate, it is possible that selection bias impacted the findings, in that training directors who forwarded the survey and/or interns who responded may have had a particular interest (or conversely disinterest or devaluation) in ID (Robson, 2002, Chapter 8: Surveys and Questionnaires). People, including mental health professionals, frequently experience strong reactions toward people with disabilities (Graham, Herbert, Price, & Williams, 2004; Olkin, 1999; Scior, 2011). Those with particularly strong interests in ID may have been more likely to respond to the survey, and also to have enrolled in programs with more training in ID, thereby skewing the results.

It is also possible that a social desirability response bias skewed the answers people gave to questions about their training program and attitudes (Robson, 2002, Chapter 8: Surveys and Questionnaires). For example, some respondents may have been reluctant to admit that their training programs ignored issues of ID, or that they were unlikely/unwilling to provide future services to people with ID, for fear that it might reflect prejudice on their part.

A final limitation to this study is that it is purely descriptive and correlational. Consequently, the data from this study should not be mistakenly interpreted as defining cause and effect relationships.

Directions for Future Research

Programs should conduct self-studies to measure their ID-related training effectiveness. Self-studies could be fairly basic to more complex. Program administration could simply administer the questionnaire used in this study (or a modified version) to measure students' sense of ID education quality, levels of competence with the population, and intention to provide future services to people with ID. Further, programs could utilize focus groups or add an additional qualitative component to query students and faculty about what resources and improvements could be most helpful to augment their programs' training in ID. Publishing the results of self-studies could help faculty and administration from other programs to learn which curricular elements are most and least effective in growing students' competence and enhancing the likelihood of providing future services for people with ID.

Another much needed area of research is on psychotherapies for people with ID. Although randomized clinical trials (RCT's) are the gold standard for psychotherapy research, it has been frequently discussed in the literature that RCT's are particularly difficult to conduct in the area of ID (Bouras, 2013; Chaplin, 2009; Whitehouse et al., 2006). However, smaller studies could be conducted to demonstrate psychotherapy efficacy with the population. For example, a university or community mental health clinic could partner with a local community support agency to access a client pool, providing psychotherapy services and collecting outcome data. I recommend that outcomes be measured not only by symptom reduction, but quality of life (QOL) improvements, and increases in client self-determination (Centers for Disease Control and Prevention/National Center on Birth Defects and Developmental Disabilities Health Surveillance Work Group, 2009; Hemmings et al., 2013). These outcomes can be rated both by people with ID and caregivers. One method to maximize the learning from studies with relatively small N would be to use a multiple-baseline design to measure the effectiveness of a psychotherapeutic intervention for people with ID (as described by Singh et al., 2007). Several articles are available that provide excellent discussions of the ethics of treatment and research with clients with ID, including Adams and Boyd (2010); American Psychological Association (2012), and Hurley (1989), who focus on practice issues, and, McDonald (2012) and Freedman (2009) who focus on research.

Psychology Training in ID Must be Improved to Address ID Disparities

In this initial study of American clinical psychology training in ID, I investigated the current state of training for doctoral level psychology students in APA-accredited programs for serving clients with ID. I found that the quality of education in ID was linked to likelihood of future service provision through competence as a mediating factor. I also found that the state of training in ID appears to be more hopeful than previously thought, with many students reporting some education in ID. However, this education appears to be minimal, and in many cases, inadequate to improve students’ perceptions of competence with the population, and thus, their likelihood of providing future services. Further, there are still a large number of students who are receiving no education in ID at all.

In the United States, where the healthcare system is fragmented and complex, APA is one of the few nationalized forces affecting psychological training and, to a lesser extent, health care delivery. Further, within APA Division 33: Intellectual and Developmental Disabilities affirms as part of its mission “To pursue the creation of standards for training, practice, and research for psychologists in developmental disabilities" (Division 33 Intellectual and Developmental Disabilities of the American Psychological Association, 2009). Thus, APA has the unique authority and infrastructure to make a substantial direct impact on the current state of predoctoral psychology training in ID by prioritizing education in ID on a national, accreditation level. Shifts in accreditation have the possibility of vastly increasing the number of psychologists with competence in serving clients with ID, which could then conceivably begin to address the psychological services gap for people with ID. It is my hope that given the growing body of research and continued calls for improvement of psychological service provision in the for people with ID, in the U.S., APA and other psychological accreditation bodies may begin to take positive action in the near future.

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Appendix A

Survey

Study Information and Informed Consent

Dear Psychology Intern,
I am a doctoral candidate in Clinical Psychology from Antioch University New England. The following survey is part of my dissertation research to examine the training experiences offered to clinical and counseling psychology graduate students for providing mental health services to people with Intellectual Disability (ID). I am asking psychology interns from across the country, who are part of APA-accredited doctoral degree programs to complete this online survey about their program's Intellectual Disability content. This survey is not associated with the APA in any way. Your responses and information will be stored anonymously. You may discontinue this survey at any time. This project has been evaluated and approved by the Antioch University Institutional Review Board (IRB).

Time:
The survey is expected to take approximately 5-7 minutes.

Issues with Participation:
There are no known risks in being part of this project.

Benefits:
Although this project does not help you or your training program right now, it is hoped that it will improve the training experiences for future psychology doctoral students with regard to understanding and treating clients with Intellectual Disability.

As a thank you for your time, you may choose to enter a drawing for a $50 Amazon.com gift card upon completing the survey.

Confidentiality:
Any information collected is private. You will not be asked to provide your name or any other identifying information. Any publications that arise from this survey will use only aggregated information.

Informed Consent:
I consent to participate in this study. I understand that the survey that follows will ask me questions about the training experiences in my degree program for providing services to clients with Intellectual Disability. I understand that I may choose to withdraw or stop being in the project at any time, with no penalty.

By choosing “yes” on this consent form, I agree that I meet selection criteria for this study:

1. I am a current doctoral psychology intern. (Accredited and non-accredited internships acceptable)

2. My doctoral level clinical or counseling psychology degree program was APA-accredited. (Probationary accreditation is acceptable).

If you have any questions or concerns, please contact:
Emily Graesser, M.S., Doctoral Candidate in Clinical Psychology
Antioch University New England (802)299-8577, email: egraesser@antioch.edu

If you would like to speak to someone about your rights as a study participant, please contact:
Katherine Clarke kclarke@antioch.edu, IRB Review Chair, Antioch University New England

1. Do you agree to participate?
    Yes
    No

Demographic and Program Information

2. Please select the response that best describes your gender:
    Female
    Male
    Transgender
    Other

3. Please select the response that best describes your racial/ethnic identity:
    African American/Black
    American Indian/Alaska Native
    Asian/Pacific Islander
    Hispanic/Latino(a)
    White/Caucasian
    Biracial/multiracial
    Other

4. What are the primary client populations you plan to serve in your professional career? (please check all that apply)
    Infant
    Child
    Adolescent
    Adult
    Elder
    Couple
    Family
    Organizations

Definition of Intellectual Disability (ID)
For the purposes of this survey, Intellectual Disability (ID) refers to significant intellectual impairment (IQ of 70-75 or lower), combined with significant impairment(s) in adaptive functioning (i.e., qualifying for a diagnosis of Mental Retardation).

Educational Experiences
Please answer the following questions about your educational or classroom experiences in your doctoral degree program regarding intellectual disability:

5. Was there a course on ID available as part of your degree program?
    - No
    - Yes, but I have NOT taken it
    - Yes, and I have taken it
    - I don't know

6. How much were issues specifically relating to ID integrated into your diversity course(s)?
    - Not at all
    - A little
    - A moderate amount
    - A great deal

7. How much were issues specifically relating to ID integrated into your general coursework?
    - Not at all
    - A little
    - A moderate amount
    - A great deal

8. Please estimate the number of readings (a single reading = one article, book chapter, or book) pertaining specifically to ID you have been assigned to read as part of your coursework:
    - 0
    - 1-2
    - 3-5
    - 6+

9. Please check each age group you have been trained in for providing services to people with ID: (check all that apply)
    - N/A – No training
    - Infants
    - Children
    - Adolescents
    - Elders

10. In your coursework, how much training was provided in appropriate assessment methods and/or modifications for people with ID?

None
A little
A moderate amount
A great deal

11. In your coursework, how much training was provided in the diagnosis of intellectual disability?

None
A little
A moderate amount
A great deal

12. In your coursework, how much training was provided in the diagnosis of psychological or behavioral disorder in people with ID?

None
A little
A moderate amount
A great deal

13. In your coursework, how much training was provided in psychotherapy (and appropriate modifications) as an intervention for people with ID?

None
A little
A moderate amount
A great deal

14. In your coursework, how much training was provided in Applied Behavior Analysis (ABA) as an intervention for people with ID?

None
A little
A moderate amount
A great deal

15. In your coursework, how much training was provided to address your attitudes, responses, and biases specifically about intellectual disability?

None
A little
A moderate amount
A great deal

16. Overall, how would you rate the quality of your education for providing services to clients with ID?
    Poor
    Fair
    Good
    Very good
    Excellent

Clinical Training (Practicum Only)
Please answer the following questions about your practicum experiences regarding intellectual disability:

17. How many assessments have you conducted with clients with ID?
    None
    A few (1-4)
    Many (5+)

18. How many clients with ID have you seen for psychotherapy?
    None
    A few (1-4)
    Many (5+)

19. Please rate your overall supervision experiences with regard to clients with ID:
    N/A (have never seen a client with ID)
    Poor
    Fair
    Good
    Very good
    Excellent

Future Clinical Practice
Please answer the following questions about your future clinical practice with regards to clients with intellectual disability:

20. Assuming overall general competence in providing mental health services, please estimate your competence for providing mental health services specifically to a client with ID:
    Not competent and would refer
    Minimally competent and would need to rely on a high degree of additional training/supervision
    Somewhat competent, but could benefit from more training/supervision
    Completely competent
    Expert and could provide training or supervision to others

21. How likely are you to provide services to people with ID in your future clinical career?
    - Highly unlikely
    - Unlikely
    - Somewhat likely
    - Likely
    - Highly likely

Thank you for participating. The information you provided, along with that of other participants, will be used to improve the literature on clinical psychology training for serving clients with ID.

I know your time is valuable. As a thank you for your time, you are invited to participate in a drawing for a $50 gift card to Amazon.com. To enter the drawing, you will be taken to a separate form. Any personal information you provide to enter the drawing will not be associated with your survey responses in any way.