OCCUPATIONAL THERAPY AND THE AMERICANS WITH DISABILITIES ACT: EXAMINING PRACTITIONERS' KNOWLEDGE, ATTITUDES, AND IMPLEMENTATION

By

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Purpose: To assess the current level of understanding regarding Americans with Disabilities Act (ADA) provisions among occupational therapy practitioners and re-examine previous research to identify changes in attitude, knowledge, or implementation in a current sample. **Methods:** A stratified random survey design was used with recruitment from members of the American Occupational Therapy Association (AOTA) based on the relevant treatment population. Two existing surveys were combined to assess occupational therapist's attitudes, knowledge, and implementation. Demographics and preferred resources were also collected. Results were compared for items replicated from a previous study to identify changes in key variables over time. **Results:** Therapists (n = 291) who completed the survey had a mean of 25$\pm$11 years of experience. Most participants agreed or strongly agreed that the ADA was important for clients and that therapists' roles included advocacy, empowerment, and client education about the ADA. Compared to the previous sample, there was a significant increase in the proportion of correct responses to knowledge questions ($p < .05$). Additionally, there was significant agreement with attitude statements regarding therapists' role in advocacy and client empowerment. However, implementation frequency did not significantly increase for most education or advocacy activities. **Conclusion:** This study found a significant increase in ADA Title III knowledge but minimal increases in the reported frequency of implementation in clinical practice. Nearly all

therapists agree that ADA education and advocacy are part of occupational therapy's scope. Though increasing knowledge is encouraging, therapists have significant gaps in areas of importance to occupational therapy clients, including employment protections and recent provisions. Therefore, the challenge remains of translating positive attitudes and knowledge into action in clinical practice.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1: INTRODUCTION

The Americans with Disabilities Act (ADA) is a landmark legislation that extended fundamental rights to individuals with disabilities. This sweeping legislation codifies the rights of disabled persons in the United States. It is seen by disability rights advocates and the legal community as the most important civil rights legislation since the Civil Rights Act of 1964 (Jacobs, 1992). The ADA has five sections known as Titles that protect the civil rights of people with disabilities. Specifically, the titles are Employment (Title I), Public Services of State and Local Government (Title II), Public Accommodation (Title III), Telecommunication (Title IV), and Miscellaneous Provisions (Title V). The legislation was strongly supported by occupational therapy practitioners and the American Occupational Therapy Association (AOTA) when it passed in 1990 (Kornblau et al., 2000). The ADA has been in place for over 30 years and has been estimated to have benefitted 56.7 million Americans with disabilities (Crockett, 2017). However, everyone, including individuals without disabilities, must act on the legislation's "clear, strong, consistent and enforceable standards" (Americans with Disabilities Act, 1990; Crockett, 2017) for the promise of the ADA to be fulfilled. As such, occupational therapy practitioners have the potential to play an essential role in fulfilling this promise.

Occupational therapy practitioners have a unique role in healthcare, especially in patient advocacy and discharge planning. Within this role, therapists can empower clients' self-advocacy through education on their rights via the ADA. Occupational therapy practitioners already have an established role in employment accessibility and vocational rehabilitation and have unique knowledge and skill sets that could be applied to architectural design and urban planning to incorporate universal design (Young et al., 2019). A lack of understanding of the ADA can restrict the scope of occupational therapy direct intervention and consultatory roles

(Kornblau et al., 2000; Redick et al., 2000). To adequately address the issue of the ADA in occupational therapy practice, an evaluation of current occupational therapy practitioners' knowledge is required. The results of this study can inform future research and advocacy on enforcing ADA standards and attaining the goal of universal design and accessibility.

CHAPTER 2: LITERATURE REVIEW

History of Disability Rights Legislation

Disability rights legislation in the United States has a relatively short history. The early 20th century saw the introduction of the first laws protecting the rights of individuals with disabilities. However, the push for these rights began as early as the 19th century with the founding of formal education for deaf and deaf-blind individuals (Nielsen, 2012). Despite these advancements, the moral model of disability was still the primary view of disability in the 18th and early 19th centuries. Discriminatory legislation was passed during this period, including the 1907 *Eugenic Sterilization Law*, first codified in Indiana and later in 24 other states, legalizing the sterilization of disabled individuals (Bayles, 1978; Paul, 1967). These laws were contested in the Supreme Court but were upheld in a 1927 ruling substantiating the constitutional validity of such statutes (*Buck v. Bell*, 1927). It was not until 1942 that a new Oklahoma eugenic statute was contested at the Supreme Court, leading to the ruling that such laws violated the equal protection clause of the Fourteenth Amendment (*Skinner v. Oklahoma*, 1942).

The early 1900s saw the introduction of the *Smith-Fess Act of 1920*. This legislation established the Vocational Rehabilitation Division, a vocational assistance program for Americans with physical disabilities (Scotch, 2001). The division was a part of the US Department of Labor that worked to establish federally funded and state-run vocational services, including training for specific vocations, job placement, and counseling (Scotch, 2001). The program was patterned after the *Soldiers Rehabilitation Act of 1918*, which aimed to rehabilitate World War I veterans re-entering the civilian workforce. This program would be amended throughout the next forty years to expand services and include more people (Scotch, 2001). The *Social Security Act* was established in 1935, developing a benefits system for the elderly, blind,

and physically disabled individuals. This was signed into law by Franklin D. Roosevelt, the first person with a disability to be elected President of the United States (Scotch, 2001). In the 1950s, the barrier-free movement spearheaded by disabled veterans and other people with disabilities developed the *National Standards for Barrier-Free Buildings*. These standards were a reference for private entities and local and state governments. While these standards were not legal requirements, they raised awareness of accessibility barriers and led to further legislation (Scotch, 2001).

The Civil Rights movement brought more attention to discrimination against individuals with disabilities than ever before. Despite this, people with disabilities are left out of *The Civil Rights Act of 1964*. In 1968, The *Architectural Barriers Act* was passed, requiring federally funded buildings and buildings leased by the federal government to be accessible. This act addressed the most significant obstacle to employment faced by people with disabilities, namely architectural accessibility (Scotch, 2001). This change in sentiment ultimately led to the *Rehabilitation Act* of 1973, the first federal disability civil rights law. The act prohibits discrimination based on disability by federally funded and assisted programs, federal employers, federal contractors, and programs receiving federal funding. Sections 501 and 503 of these acts would become the basis of the ADA's Title I (employment), applying these hiring and employment standards to all employers (*The History of Disability Rights in the United States*, n.d.; Trainer, 2020). Section 504 required all public facilities to become accessible, allowing disabled individuals to access public services such as libraries, courtrooms, and schools.

In 1975, the *Education for All Handicapped Children Act* (EHA) was passed, guaranteeing free, appropriate public education (FAPE) to every child with a disability nationwide. Both acts increased access to education for children and adults with disabilities. The

Rehabilitation Act provided specific provisions for public primary and secondary schools and public universities, barring discrimination, and requiring architectural accessibility. The EHA established that students have a right to receive related services, including but not limited to speech pathology, audiology, psychological services, physical therapy, occupational therapy, counseling, and medical services (Carmel, 2020; Scotch, 2001).

In 1990, the *Americans with Disabilities Act* was signed into law. It is the most comprehensive disability rights legislation in the United States. It prohibits discrimination based on disability and establishes design requirements for the construction of all facilities (public or private sector) that are accessible to the public—the legislation aimed to promote full, independent participation and economic self-sufficiency for Americans with disabilities. Despite the act's best intentions, the Supreme Court began to systematically exclude protections for people with serious illnesses such as diabetes, cancer, AIDS, epilepsy, and mental illnesses. While Congress defined disability broadly, the Supreme Court began to create a demanding standard to qualify for protection (Thomas & Gostin, 2009). Mitigating measures such as medical therapies, assistive devices, auxiliary aids, and accommodations were used to exclude individuals from the status of "disabled" and, therefore, exclude them from protections under the ADA. Individuals with episodic conditions like epilepsy or conditions with remission periods like cancer were excluded under the Supreme Court's interpretations. The 2008 *ADA Amendments Act* reinstated the broad protections of the ADA. It led to the prominent role of physicians in implementing the law by providing needed expertise to prevent discrimination (Thomas & Gostin, 2009).

Today, the term disability is to be interpreted broadly and favors extending coverage to the greatest extent legally permitted. Disability now encompasses anyone with a physical or

mental impairment that substantially limits a "major life activity," a history of restricting impairments, or is perceived by others to have a limiting impairment (Field et al., 2007; Parry & Allbright, 2008). Disabled individuals continue to fight for inclusion, particularly in the digital age. Inaccessible COVID-19 government websites and vaccine registration forms revealed the gaps in accessibility that still exist today. The number of ADA lawsuits continues to climb, rising from 2,890 cases in 2019 to 3,550 cases in 2020 (Vu et al., 2022). Since the passage of the ADA, several other laws have been passed to protect the rights of people with disabilities, including the *Help American Vote Act*, which required polling places to be accessible for individuals with disabilities (Danielson, 2013). These laws aim to create a more inclusive society by providing equal opportunities for everyone. The United States has dramatically progressed in disability rights protections. However, progress is still needed, and these laws require continued review and updates to maintain accessibility in all arenas of modern life.

The Current State of Accessibility in the United States

Though significant strides in disability rights have been made through important legislation, such as the ADA and the ADA Amendments Act, the goal of ensuring equality for people with disabilities has not been realized (Kanter, 2015). Additionally, healthcare inequities persist due to gaps in data regarding the health outcomes of individuals with disabilities and poor communication from providers to patients with disabilities, among other discriminatory practices (Iezzoni, McKee, et al., 2022). A scoping review of accessibility surveys has revealed significant knowledge gaps about the accessibility to public buildings for individuals with functional limitations (Carlsson et al., 2022). The studies identified in the scoping review have revealed significant accessibility barriers to multiple public building types, including gyms, restaurants, grocery stores, and shopping malls (Ahn et al., 1994; Cardinal & Spaziani, 2003; Crowe et al.,

2004; Dolbow & Figoni, 2015; McClain, 2000, 2000; McClain L et al., 1993; McClain & Todd, 1990; Mojtahedi et al., 2008; Nary et al., 2000; Rimmer et al., 2017). Of these surveys, nearly half were conducted by occupational therapists. Occupational therapists have been researching this issue even before the passage of the ADA to advocate for greater environmental accessibility (Martin, 1987; Zissermann & Tumiel, 1989). Though many of these articles are dated, the relatively recent publications still revealed significant architectural barriers in most buildings surveyed (Dolbow & Figoni, 2015; Mudrick et al., 2012; Rimmer et al., 2017).

Regarding employment rights, individuals with disabilities are still employed at lower rates than their peers (US Department of Labor, Bureau of Labor Statistics, 2023). Furthermore, of the individuals with disabilities who are employed, most occupy lower-level positions, work fewer hours, and earn less than other workers. Additionally, people with disabilities report that their career paths are limited due to structural barriers and stigma (Kanter, 2015). The ADA and ADA Amendments Act have increased access to buildings, programs, and services. However, there is still work to be done to realize equality for individuals with disabilities.

The Americans with Disabilities Act and Healthcare

The passing of the ADA in 1990 impacted all healthcare professions by adding new regulations to apply to clinical practice. The most immediate impact of the ADA on physicians was the public accommodations requirements that deemed many offices inaccessible. Deaf or hard-of-hearing patients sued many physicians for not providing auxiliary aids and services, including sign language interpreters. In a survey of physicians assessing the accessibility of primary care physicians' offices, 17% reported they could not serve a patient with a disability for reasons ranging from discomfort to lack of accessible equipment and architectural barriers (Grabois et al., 1999). These statistics indicate instances where private physicians’ offices are not

complying with the ADA nine years after the act's passage at the time of publication. More recent research suggests that medical clinics still lack accommodation for individuals with disabilities. Only 9.1% of 462 surveyed physicians reported providing basic accommodations for low-vision patients (Iezzoni, Rao, Ressalam, Bolcic-Jankovic, & Campbell, 2022). Basic accommodations were defined as “always or usually describing clinic spaces” and providing large-font educational materials. Even more surprising, only 24% of ophthalmologists reported providing both accommodations.

Individuals with mobility impairments also face barriers to care due to inaccessible medical diagnostic equipment. Only 22.6% of 399 physicians surveyed reported using accessible weight scales, and only 40.3% reported always or usually utilizing accessible exam tables or chairs. Physicians reported primarily relying on patient self-report for weight measurement, which could lead to inaccurate information (Iezzoni et al., 2021). Hard-of-hearing individuals also reportedly receive worse quality care than others. Of 526 physicians surveyed, 49.8% reported never using in-person sign language interpreters hired by the practices, and 63.2% reported never using video remote interpreting (Iezzoni et al., 2023). Accommodations that the physicians frequently reported utilizing were either insufficient or disrespectful to patients, with approximately 30% of physicians reporting always or usually speaking louder and slower to their hard-of-hearing patients (Iezzoni et al., 2023). These statistics indicate widespread violations of the ADA requirement to provide auxiliary aids and services to ensure communication with individuals with hearing loss and to provide accessible educational materials for individuals with low vision. Additionally, a lack of accessible equipment violates the requirements of the ADA to provide equitable care for all, regardless of mobility status (*Guide to Disability Rights Laws*, 2023).

Physicians also play a prominent role in the enforcement of employment accessibility. Before the *ADA Amendments Act* of 2008, physicians had difficulty evaluating patients for employment eligibility (Thomas & Gostin, 2009). The physician had to simultaneously prove that the patient was disabled enough to fall under the ADA protections and that they could safely and effectively perform the job. Physicians who believed an individual could adequately perform the essential functions of a job would downplay the patient's deficit, inadvertently blocking the patient's coverage under the law (Thomas & Gostin, 2009). The 2008 amendment expanded the definition of disability, allowing physicians to use their clinical judgment when supporting their ability to work while avoiding undermining their disability status.

Because the ADA includes healthcare facilities under Title III, nursing care must be provided in a way accessible to individuals with disabilities. Any necessary modifications or accommodations must be made to ensure equitable care. Nurses rely on accurate examination and measurement of patients to provide care. Physicians without accessible medical equipment to record anthropometric measurements, such as weight, can negatively impact the ability of nurses to provide care. Inaccuracies could affect weight loss interventions, prenatal care, and medication errors (Iezzoni et al., 2021). Patient advocacy has been considered one of the functions and responsibilities of professional nurses. The role of nurses as patient advocates is still being conceptualized (Kalaitzidis & Jewell, 2020). From a nursing standpoint, patient advocacy encompasses safeguarding, providing information, mediation, and championing social justice in healthcare (Abbasinia et al., 2020). Based on this understanding, nurses can play a role in educating patients about their rights under the ADA and advocating for accommodations. Under the ADA, nurses are the members of the team qualified to evaluate students for health-related barriers to learning and advocate for necessary learning accommodations (Holmes et al.,

2016). Occupational health nurses often play a role in employee advocacy, particularly regarding employment rights under the ADA and the *Family Medical Leave Act* (FMLA) (Raderstorf & Kurtz, 2006). Psychiatric nurses could also play a role in the advocacy for individuals with mental illness but have yet to play an active role in this area due to a lack of knowledge (Wasserbauer, 1996). The ADA impacted nursing by creating a new area of advocacy for professionals to consider, particularly for nurses working in psychiatric, occupational, and school settings.

Occupational therapy practitioners historically advocate for the rights of those with disabilities (Kornblau et al., 2000). The ADA provides legal recourse for the enforcement of these rights. The protections outlined in the ADA directly relate to occupational therapy's domain as outlined in the *Occupational Therapy Practice Framework: Domain and Practice-Fourth Edition* (American Occupational Therapy Association, 2020). The ADA includes legislation that protects disabled individuals' rights to work, education, and transportation, all occupations stated explicitly in the occupational therapy domain (American Occupational Therapy Association, 2020).

The passage of the ADA impacted occupational therapy practitioners by broadening the scope of relevant consultatory services from just clients with disabilities to relevant stakeholders now required to ensure accessibility to goods and services (Cohn & Lew, 2015; Kornblau et al., 2000). These stakeholders include employers, architects, state and local government services, and telecommunications providers. Occupational therapy practitioners can also act as a public resource in ADA-related matters and assist in overall compliance (Kornblau et al., 2000). Occupational therapists could suggest environmental modifications and adaptations, adaptive equipment, auxiliary aids, and policy changes for inaccessible facilities to promote ADA

compliance by businesses providing goods and services to the public. Therapists' training and expertise in job-site analysis combined with knowledge of human performance and function could all help to consult with employers in implementing the ADA. Part of the therapist's role could be the development of reasonable accommodation under Title I and facilitating compliance with Title III. Therapists could also apply the ADA within clinical practice. Because of these parallels between the scope of occupational therapy and ADA protections, therapists can apply the ADA to patient education and interventions, playing a pivotal role in educating the public and individuals with disabilities about their rights and responsibilities outlined in the ADA (Kornblau et al., 2000).

Of the healthcare providers studied in the literature, all have been shown to have little knowledge of clients' rights outlined in the ADA. Previous studies (Iezzoni, Rao, Ressalam, Bolcic-Jankovic, Agaronnik, et al., 2022; Redick et al., 2000; Wasserbauer, 1996) investigated the level of ADA knowledge among psychiatric nurses, physicians, and occupational therapy practitioners. These studies found knowledge of ADA standards lacking for all three professions (Iezzoni, Rao, Ressalam, Bolcic-Jankovic, Agaronnik, et al., 2022; Redick et al., 2000; Wasserbauer, 1996). Psychiatric nurses, particularly nurses in clinical roles, lack reliable information and understanding of the ADA. This prevents them from acting as advocates in this setting (Wasserbauer, 1996).

Regarding physicians' lack of knowledge, one-third of physicians surveyed reported knowing little to nothing about the legislation (Iezzoni, Rao, Ressalam, Bolcic-Jankovic, Agaronnik, et al., 2022). The physicians' role in reasonable accommodations raises concern about who makes accommodations decisions and equity in this area. Though occupational therapy practitioners report valuing their role in patient education and advocacy regarding the

ADA, therapists surveyed needed to gain knowledge to take on this role regarding the ADA in practice (Redick et al., 2000). For example, therapists could assist individuals with significant changes in their ability to understand their rights, equitable consideration, and privacy during the hiring process. Additionally, individuals have the right to reasonable accommodations once hired. Therapists can collaborate to create accommodations and ensure clients receive them in the workplace. The education would help them return to paid employment and self-advocate regarding their rights. Occupational therapy professional programs have no explicit requirement for any education about the ADA (Accreditation Council for Occupational Therapy Education, 2018). Additionally, many therapists who expressed these positive sentiments did not take any action to educate themselves regarding ADA (Redick et al., 2000). All healthcare professionals would benefit from more education on the ADA, improving access to healthcare for individuals with disabilities (Grabois & Nosek, 2001; Wasserbauer, 1996).

Finally, quality implementation of the ADA in healthcare and community settings requires the consideration of disabled individuals in health services and policy research. Researchers have tended to overlook individuals with disabilities to the extent that the absence of research regarding environmental barriers to healthcare is likely due to this bias (Dejong et al., 2002). Additionally, individuals knowledgeable regarding the obstacles and needs of disabled individuals, such as occupational therapists, are less likely to participate in this research (Andresen et al., 2006; Institute of Medicine (US) Committee on Disability in America, 2007). Occupational therapy practitioners' lack of knowledge about the ADA and the importance of this legislation to clients' independence and access to quality healthcare could contribute to the lack of occupational therapy scholarship in this area.

Attitudes of Healthcare Professionals Towards Disability

Attitudes are defined as beliefs or biases that result in certain behaviors. Explicit attitudes are conscious beliefs that result in deliberate and calculated behaviors, generally measured via self-report (Van Puymbrouck et al., 2020). Implicit attitudes are unconscious and result in spontaneous and unplanned behaviors, frequently measured via the Implicit Association Test (Greenwald et al., 1998; Van Puymbrouck et al., 2020). Research indicates that physicians, physical therapy practitioners, occupational therapy practitioners, and unlicensed health personnel all have positive explicit attitudes towards individuals with disabilities. Positive explicit attitudes were consistent across multiple studies (Benham, 1988; Feldner et al., 2022; Van Puymbrouck et al., 2020). However, focus groups with physicians from various specialties have revealed negative explicit attitudes from some physicians (Lagu et al., 2022). Despite reported positive attitudes, performance on the *Disability Attitudes Implicit Association Test* has shown that healthcare professionals' average scores indicate they moderately prefer non-disabled people (Van Puymbrouck et al., 2020). A study of occupational and physical therapy assistants found the same low explicit and high implicit bias trend (Feldner et al., 2022). It is essential to recognize the ramifications of widespread implicit bias within the profession as it could contribute to the limited implementation of ADA education and advocacy in occupational therapy practice. Finally, it may be essential to incorporate interventions meant to reduce implicit prejudices and stereotypes in the education of occupational therapy practitioners.

The Americans with Disabilities Act and Occupational Therapy

Occupational therapy practitioners are trained to understand how environmental and attitudinal barriers affect occupational participation, particularly in community settings (Kornblau et al., 2000). Therapists understand how accessible public spaces should function to

support disabled individuals. Current education standards support this knowledge base (Kornblau et al., 2000). Additionally, occupational therapy practitioners understand the demand that employment plays on persons with disabilities and have historically played a significant role in assisting individuals entering or returning to the workforce (Kornblau et al., 2000). Utilizing this knowledge, therapists can facilitate compliance with the ADA, provided they understand the legislation and rights it conveys to individuals with disabilities. Due to their educational background, therapists are readily positioned to advocate for and empower clients to receive full rights and privileges under the law. Therapists can also assist organizations in developing and implementing resources to accommodate the needs of individuals with disabilities in the workplace and other community settings (Redick et al., 2000; Rybski, 1992).

The Importance to Occupational Therapy Clients

The ADA contains essential provisions for many populations that occupational therapy practitioners serve. The literature (Kalscheur, 1992; Umeda et al., 2017; Witte, 2001) includes research on the importance of the ADA to specific population groups. The benefits of the ADA to pediatric clients and how these benefits interface with occupational therapy were discussed by Kalscheur (1992). The provisions of Title I protect the employment prospects of adolescents seeking employment. These protections also apply to families of disabled children who may require reasonable accommodation due to the needs of their disabled child or sibling. This includes allowing parents a more flexible work schedule to accommodate physician or therapy appointments, a right protected by Title II. Siblings should not be required to transport a sibling with a disability to and from school due to a lack of accessible busses (Kalscheur, 1992). Therapists could be involved in educating parents and siblings regarding their rights in these areas. Title II protects access to public services. For children, this often manifests as special

education programs, recreation programs, and accessible playgrounds, usually administered by the state. Title III does not specifically address children's environments. However, child-centered environments still fall under the protection of public accommodation. Title IV addresses telecommunications, a rising importance to adolescents, as phone use often begins as early as middle school. Lack of access to telecommunication accommodations may impact the functional independence of children and adolescents with speech or hearing impairments (Kalscheur, 1992). The ADA guarantees these civil rights to children, adolescents, and their families. Because children learn competence and autonomy from interacting with the environment (Kalscheur, 1992), disabling environments will impact the development of these traits. Under the ADA, modifying these environments is a right that would support the education and learning of children and adolescents (Kalscheur, 1992).

Individuals with intellectual and developmental disabilities (IDD) greatly benefit from the provisions of the ADA (Umeda et al., 2017). Many of the needs of this population were addressed in the more recent ADA Amendments Act of 2008, which explicitly included people with IDD in ADA regulations. However, this population's needs extend beyond physical environmental features, as many of their needs lie within the social environment. The ADA currently only addresses the physical environment, leading to considerable barriers to independence for this population. In 2017, Umeda and colleagues argued that this should be an area of future advocacy for occupational therapy. New services, programs, and policies could expand ADA's reach to serve this population more effectively. These community outreach programs would address the lack of social participation shown in previous research to be associated with positive health outcomes across the life course (Umeda et al., 2017).

Many occupational therapy clients may need more knowledge to advocate for themselves regarding their rights under the ADA, causing an underutilization of the act (Price et al., 2007; Witte, 2001). A recent survey of college graduates with disabilities found that ½ the group reported being unaware or poorly informed on the law regarding hiring and employment practices for individuals with disabilities (Witte, 2001). Additionally, qualitative research gathered a general theme from informants that there is a lack of ADA knowledge among those with disabilities and the overall community (McClain et al., 2000). A hypothesis for this lack of knowledge includes the paucity of ADA-related content in educational materials for disabled individuals transitioning out of school settings and into independent living and the workforce (Price et al., 2007). McClain et al. (2000) identified an additional theme of apathy regarding ADA knowledge from individuals with disabilities. While the ADA was significant to some informants in qualitative research, others had an apathetic perspective and indicated that they did not desire to learn more about these rights because of other systemic failures that also restrict the participation of individuals with disabilities (McClain et al., 2000).

In contrast, other informants indicated the legislation's importance to their quality of life, crediting their knowledge to independently seeking information from community resources such as the library or the Veterans Association. One informant reported receiving his ADA education from a social worker. This was the only individual who received ADA education without seeking it independently.

Examples of Occupational Therapy Advocacy

Peer-reviewed case studies illustrate how practicing occupational therapy practitioners could incorporate ADA into interventions (Bowman & Marzouk, 1992; Jacobs, 1992). A case study by Jacobs (1992) followed the author's interventions to help a client with a T-12 to L-2

spinal cord injury who is a wheelchair user with limited functional mobility. Interventions primarily included employment rights (Title I) and public accommodations (Title III). The therapist recommended reasonable accommodations to the client's employer, including changes to her workstation and uniform modifications that would enable her to return to employment. The therapist also performed the post-offer medical examination, which is allowed under the law. The assessment indicated that the client could perform the job's essential functions, reassuring the employer that she could perform the job's essential functions. Under public accommodations, individuals with disabilities are entitled to quality public transportation or paratransit services of equal quality. The occupational therapist informed the client of her right to a bus stop within ¼ block of her home and place of employment. The therapist helped the client receive these accommodations, allowing her to achieve independence in transportation to and from work (Jacobs, 1992).

Another study included a therapist's recommendations of educational accommodations and architectural modifications to accommodate a disabled college student to independently participate in education, work, and live on a college campus (Bowman & Marzouk, 1992). The therapist advocated employment, transportation, and living accommodations for the client. Specifically, the therapist advocated for reasonable accommodations within the college dormitory, including modifying the room's door to swing out instead of in and installing a roll-in shower. The therapist also advocated for transportation accommodation as the campus bus system did not have an accessible bus. Access to these resources is a requirement under the ADA. Finally, the therapist advocated for the student to receive a work-study position in the computer lab. Despite resistance from the university, the therapist argued that the student could perform the job's essential function with reasonable accommodation (Bowman & Marzouk,

1992). The therapist's advocacy allowed the student to begin his college degree and receive the federal work-study benefit to which he was entitled. Though both examples are dated, with no recent literature illustrating the point, it is hoped that such examples are numerous and ongoing, with the change in demands of a publishable paper being the reason for no currently published examples. However, there could also be fewer examples of advocacy. In either case, the previous examples illustrate the advocacy therapists could implement to improve the lives of their clients.

Occupational Therapy Practitioners' Role as a Consultant

Occupational therapy practitioners can also take on a consultatory role to promote legislation and act as a resource of accessibility knowledge for community-based programs. Occupational therapy practitioners might consult with private agencies to make accommodations in buses, taxis, trains, and airplanes as part of public accommodation. This could include accessibility of the stations and terminals that service these transportation systems. Public accommodation includes schools, libraries, benefits offices, and other auxiliary aids. These places are often inaccessible to the individuals who may use them most. Therapists can consult with program staff from the government agencies running these services to facilitate ADA compliance (Kornblau et al., 2000; Rybski, 1992). Preliminary research indicates therapists could also play a role in interprofessional design teams to maximize occupational performance in the built environment (Young et al., 2019). More evidence is required to support the value of therapists to these design teams.

Summary

Considering the domain of occupational therapy, practitioners should have the foundational knowledge to play an essential role in the ADA education of consumers and service providers, as well as consultatory and advocacy roles within research and regulation. However, a

lack of specific knowledge regarding language and protections limits this ability. Despite this lack of education, occupational therapy practitioners generally report positive attitudes toward this role (Redick et al., 2000). This knowledge is vital to clients who receive occupational therapy services despite the fact that accommodations are underutilized and underenforced (Price et al., 2007; Witte, 2001). Research supports ADA education in occupational therapy clinical practice; however, clinicians cannot educate clients on something they do not know or understand. Since the most recent review of occupational therapists' knowledge and attitudes toward ADA was completed in 1999, this study aims to assess the current understanding of and attitudes toward ADA among occupational therapy practitioners. Because occupational therapy practitioners' role with the ADA and architectural accessibility is notably under-explored, this area of the law will be emphasized. This study was also designed to expand upon previous research to understand how the role of occupational therapy has evolved. This research aims to provide foundational information to determine gaps in occupational therapy education and how therapists can better equip clients for self-advocacy. Specifically, the research questions are:

1. What is the level of knowledge and frequency of implementation among occupational therapists about the ADA?
2. What attitudes do occupational therapists have toward their role in ADA advocacy and education?
3. What is the nature of the relationship between attitude, knowledge, and implementation?
4. Are there demographic or educational factors that relate to differences in knowledge or advocacy by occupational therapists?
5. How have knowledge, attitudes, and implementation changed since the publication of previous research?

CHAPTER 3: METHODS

Study Design

This study is a descriptive survey design. The survey was developed to explore occupational therapists' relationship (i.e., knowledge, attitudes, and implementation) regarding the Americans with Disabilities Act of 1990. The University and Medical Center Institutional Review Board serving East Carolina University and ECU Health approved the research protocol. The study was deemed exempt from a full review due to its minimal risk and adherence to established ethical guidelines.

Participants

The population studied in this research was occupational therapists. While the Bureau of Labor Statistics estimates there are 134,980 occupational therapists in the United States (Bureau of Labor Statistics, 2023), the target population was practitioners who are American Occupational Therapy Association (AOTA) members and included only occupational therapists. There are estimated to be 65,000 AOTA members, including occupational therapists, occupational therapy assistants, and students (American Occupational Therapy Association, 2022). While surveying only AOTA members is a limitation, creating a random sample was the best method to avoid bias. The goal was to get at least 300 occupational therapists from AOTA membership to respond so that information about the population could be inferred with relative certainty since it is assumed that members of the professional association would be more likely to have higher knowledge and potentially be more positive about the ADA. Only occupational therapists were recruited through the AOTA addresses. This was an intentional decision to avoid confounding factors due to the educational differences between the groups. Since response rate is

often an issue for survey research, the survey was sent to 1,000 therapists to ensure a minimally adequate sample.

Stratified, random sampling was used to achieve a geographically representative sample by randomly selecting participants through AOTA membership based on geographic location and reported practice setting. Participants were contacted by mail. The letter stated the purpose of the study, the time commitment on the participant's part, and the benefits of participation (see Attachment A). Additional participants were recruited online from professional forums on the AOTA website, specifically members of the "Home and Community Health" and "Physical Disability and Rehabilitation" special interest sections. Participants were also offered an incentive to participate in the study. A $10 gift card and an educational handout (see Appendix D) were sent to all participants.

Instrument

A combination of two previously used surveys assessed three aspects of occupational therapy practitioners' relationship with the ADA (Hernandez et al., 2003; Redick et al., 2000) (see Appendix C). The first three sections of the survey assessed participants' attitudes, knowledge, and implementation of the ADA. The fourth section collected data about which resources therapists use to obtain ADA information. Demographic information was collected in the fifth section at the end of the survey.

The Americans with Disabilities Act Title III Survey

In the Redick et al. (2000) study, researchers created a survey to assess therapists' knowledge of ADA Title III and their knowledge and attitudes toward the ADA. A multiple-choice measure was used to quantify therapists' knowledge. Attitudes regarding the role of occupational therapy related to ADA were assessed with a five-point Likert scale (1= Strongly

Disagree, 2 = Disagree, 3=Neutral, 4 = Agree, 5 = Strongly agree). Before use in the study, the survey was pilot-tested with five occupational therapy practitioners meeting the study's target sample criteria to support the face validity of the survey. Revisions were made for clarity in this process. The survey also underwent peer review, achieving face validity for assessing knowledge and attitudes toward the ADA. The survey was then administered to 127 therapists.

The Americans with Disabilities Act Knowledge Survey

This true-false assessment created by Hernandez et al. (2003) includes 20 questions from all ADA titles. It was first administered to 210 college students and 34 ADA experts. Before this administration, face validity was established via review by a team of ADA experts. The university students scored significantly lower than the ADA experts in the criterion group validation study. This testing supports the face validity of this survey to assess ADA knowledge.

Survey Modifications

These two surveys have been combined into one knowledge section to assess participants' knowledge of all areas, with more representation of Title III. Due to the age of the Reddick et al. (2000) study, the questions were updated to reflect current construction standards. The Hernandez et al. (2003) items were added to the knowledge assessment of this survey. Only questions related to Titles I and III and the general ADA information were included in this survey because these are the most relevant to the overall scope of occupational therapy, advocacy for occupational justice, and empowering clients to advocate for themselves. This modified version of the study was reviewed by experts and piloted to achieve face validity. Experts included two occupational therapists, one of whom specialized in accessible real estate for disabled individuals, a rehabilitation engineer, and a researcher specialized in accessibility policy and universal design.

Attitude. Attitudes are defined as beliefs or biases that result in certain behaviors. Explicit attitudes are conscious beliefs that result in deliberate and calculated behaviors, generally measured via self-report (Van Puymbrouck et al., 2020). The first section measures attitudes toward occupational therapy's role in ADA education and advocacy. (Redick et al., 2000). Five items in this survey section utilized a five-point Likert scale (1= Strongly Disagree, 2 = Disagree, 3=Neutral, 4 = Agree, 5 = Strongly Agree). A higher score on this section indicated that the participants agree that occupational therapy practitioners have a role in ADA education and advocacy. An attitude score was created by summing the participants' responses to each item based on the above coding. The maximum possible score was 25, and the minimum was 5.

Knowledge. The second section assessed knowledge of ADA Titles that cover areas regarding employment protections (Title I) and public accessibility (Title III). There are eight multiple-choice questions with answer choices including a correct answer, two incorrect answers, and a fourth answer stating, "I don't know." The second half of this section contained 12 true or false questions (Hernandez et al., 2003). A total of 20 items were included in the assessment. A high score on this section indicated an elevated level of ADA knowledge. A knowledge score was created by summing participants' responses to each item. For scoring purposes, responses were assigned binary values: 1 = correct and 0 = incorrect/I do not know. The maximum possible score was 20, and the minimum was 0.

Implementation. The third section assessed the participants' implementation of ADA knowledge in clinical practice through education (Redick et al., 2000). Eight items in this section described various scenarios where therapists could provide ADA education or advocacy, such as serving as a resource to professional or community organizations or conducting accessibility assessments in the community. These questions utilized a five-point Likert scale estimating the

frequency of participation in the described activity (5 = More than once a week, 4 = Once a week, 3 = Once a month, 2 = A few times, or 1 = Never). A high score on this section indicated increased involvement in ADA education with clients. An implementation score was created by summing the participants' responses to each item coding described above. The maximum possible score was 30, and the minimum was 6.

Education Resources. This fourth section of the survey consisted of one item. Participants self-reported which educational resources they used to learn about the ADA. Multiple checkboxes allowed the participant to select the items they utilized. Participants were instructed to check all that apply. Additionally, there was an option to choose "other" and fill in any resources not already listed.

Demographics. At the end of the survey, demographic information was collected from participants. Primary variables of interest included geographic location, work setting, diagnostic populations, clients' age range, highest degree achieved, and length of time practicing occupational therapy.

Qualitative Information. After the education resources section, there was an open-ended question regarding what resources would be most helpful for increasing ADA knowledge. At the end of the survey, participants were also asked to submit comments they would like to share regarding the topic.

Procedure

A paper version and an online version of the survey were created. These versions were as similar as possible. Experts reviewed the instrument for clarity and validity. Based on this critique, the survey was modified, and the final version was approved by the East Carolina University and Medical Center Institutional Review Board and used in the study. Identification

data was coded early in the data collection process and securely stored. The survey was mailed to the selected participants, and they could choose to fill out a paper survey or access a QR code to fill it out online. A letter was enclosed detailing the kinds of information collected, what the information was used for, and the time required. Responses with incomplete sections one and two were discarded. Data analysis followed the collection of the survey data.

Data Analysis

Demographic survey data and responses to survey items were analyzed utilizing descriptive statistics. Descriptive statistics were calculated for each survey item to answer the research question regarding the frequency of implementation and level of knowledge among occupational therapists. Variables of interest included primary work setting, primary diagnostic population, primary client age, highest level degree, number of years as an occupational therapy practitioner, and geographic location. To answer the research question regarding whether demographic or educational factors relate to differences in knowledge or advocacy, relationships between demographic variables (e.g., geographic location, work setting) and section scores were analyzed using a one-way analysis of variance (ANOVA) and Tukey post-hoc tests. Due to a significant skewness in the data, the relationship between attitude and implementation scores and demographic variables was analyzed using the non-parametric Kruskal-Wallis H test and Bonferroni post-hoc tests.

Multiple-answer questions regarding demographic variables (e.g., work setting or treatment population) were coded as binary responses based on the answer choice of interest (e.g., acute care setting or behavioral health treatment population), creating two groups of participants. Group one was all individuals who selected a particular response, regardless of what additional choices the individuals selected. Group two consisted of individuals who had not

selected the item being analyzed. The difference in knowledge, attitude, and implementation scores between the two groups was then compared using an Independent Samples T-test for knowledge scores and a non-parametric Mann-Whitney U-test for attitude and implementation scores. These relationships were explored to understand all demographic or experience-related factors impacting ADA attitudes, knowledge, and implementation. This method was utilized to analyze work experience demographics such as work setting and diagnostic population.

Correlations were utilized to answer the research question regarding the nature of the relationship between attitude, knowledge, and implementation. The relationship between the total scores in each section was compared with a Pearson correlation. The total scores for each section were also compared to the individual items in other sections of the questionnaire using Spearman's Rho correlation to analyze trends in therapists' responses to individual items.

Because this study replicates previous research, performance on replicated items can be compared (Redick et al., 2000). This comparison answers the research question regarding how knowledge, attitudes, and implementation have changed. To determine if there was a significant difference in how the groups responded, a two-sample proportion z-test was utilized to compare the proportion of participants from each sample that responded in a specific way to the repeated items. The responses were recoded as binary variables, with the variable of interest for each section coded as one and all other options coded as zero. For the knowledge items, the proportion of correct responses was compared. This was only possible for a portion of the entire survey used in this study, as the other items were sourced from Hernandez et al., 2003 or created for this study. The proportion of "agree" and "strongly agree" responses were compared for the attitude items. The proportion of "never" responses was compared for the implementation items.

CHAPTER 4: RESULTS

Of the 1,000 letters mailed, 11 letters were returned to the sender with invalid addresses. From the 989 valid addresses, 273 participants responded to the survey, a response rate of 26.6%. An additional 29 participants were recruited through AOTA's forums and interested occupational therapy practitioners at state and national conferences, achieving a minimally adequate sample (n = 302). During data cleansing, 21 incomplete responses were found. Twelve responses with incomplete attitudes and knowledge were removed. Nine incomplete responses were retained as these first two sections were complete, and omissions were primarily demographic factors rather than information related to the primary variables of attitude, knowledge, and implementation (n = 281).

Demographics

Table 1 shows the 27 states and the District of Columbia represented in the sample, illustrating a regional distribution approximately like distributions of occupational therapists across the US. The range of experience was six months to 62 years, with a mean of 22.7 years and a standard deviation (SD) of 11.1. Respondents reported a variety of work settings, diagnostic populations, and client age groups (Table 2), with many therapists reporting multiple primary work settings, client ages, and diagnostic populations. Table 3 shows the respondents' education level and range of experience in occupational therapy, including primary setting, primary diagnostic population, and primary client age.

Attitude

Table 6 shows that, on average, across the five items, 93.4 of respondents agreed or strongly agreed with statements that occupational therapy practitioners should be knowledgeable about ADA provisions and that therapists should have a role in ADA education and advocacy.

The mean attitude score was 22.7 (SD = 3.2), with a range of 20. The minimum score was 5, and the maximum score was 25. The skewness of the attitude subs-cores was -3.3, indicating that the distribution was significantly left-skewed.

Knowledge

Tables 7, 8, and 9 illustrate the frequency of correct, incorrect, or "I don't know" responses to knowledge questions. The mean score for the knowledge assessment was 9.6 (SD = 2.6), with a range of 15. The minimum score was 0, and the maximum score was 15. The highest possible score was 20. The skewness was -0.4, indicating an approximately normal distribution of scores (see Figure 2). Knowledge questions can be divided into general ADA information, Title I, and Title III provisions.

Implementation

Table 10 illustrates the frequency of ADA implementation activities. The mean implementation score was 9.1 (SD = 3.2), with a range of 20. The minimum score was 6, and the maximum score was 26. Approximately 75% of respondents reported never having completed community assessments, provided clients printed information, or served as an ADA resource to a community group.

Relationship Between Attitude, Knowledge, and Implementation

A significant positive correlation was found between the attitude, knowledge, and implementation scores of the current respondents (see Table 11) at the $p < .001$ level for all score pairs, indicating that therapists who felt that occupational therapy had an important role to play in protecting the rights of individuals with disabilities also knew more about the law and were utilizing this information with their clients. Scores were also correlated with individual survey items in the other sections. Implementation score had a significant, positive relationship with

three of the six attitude statements (see Table 12). It is important to note that these items had the most variability in response, which means there is no consistency in how occupational therapists relate to ADA. The attitude score (see Table 13) had a significant, positive correlation with the frequency of all implementation items except a statement concerning printed information. The knowledge score had a significant, positive relationship with all attitude statements (see Table 14) except a statement about equal access. The knowledge score had a significant, positive relationship with the frequency of all implementation items (see Table 15).

Relationship Between Demographic Variables and Scores

Knowledge scores were approximately normally distributed. There was homogeneity of variances for the region (p = .181), years of practice (p = .413), and education (p = .397), as assessed by Levene's test for equality of variances. There was no significant difference in knowledge scores based on region, years of occupational therapy practice, or education level, as found through ANOVA (see Table 16).

Due to the significant negative skew, attitude scores for demographic variables were compared utilizing a non-parametric Kruskal-Wallis H test. Distributions of attitude scores were similar for all groups across all variables, as assessed by visual inspection of a boxplot. The test was run to determine if there were differences in attitude scores between the five regions. Differences in median attitude scores were not statistically significantly different between regions, $\chi^2(4) = 5.215$, $p = .266$. The same procedure was utilized for comparison based on years of practice. Median attitude scores were not statistically significantly different between groups, $\chi2(3) = 2.126$, $p = .547$. Finally, medians were compared based on education level. Median attitude scores did not vary significantly between groups, $\chi2(4) = 3.894$, $p = .421$.

Due to the significant positive skew, implementation scores for demographic variables were compared utilizing a non-parametric Kruskal-Wallis H test. Distributions of attitude scores were similar for all groups, as assessed by visual inspection of a boxplot. The test was run to determine if there were differences in implementation scores between the five regions. Median implementation scores were not statistically significantly different between regions, $\chi^2(4) = 2.887$, $p = .577$. The same procedure was utilized for comparison based on years of practice. All groups' distributions of implementation scores were similar based on years of practice. Median implementation scores were not statistically significantly different between groups, $\chi2(4) = 7.55$, $p = .056$. The difference in median implementation score was compared based on the highest occupational therapy degree, a bachelor's (n = 96), a master's (n = 132), a clinical doctorate or OTD (n = 42), and a research doctorate (n = 8). Median implementation scores were statistically significantly different between groups, $\chi2(4) = 13.234$, $p = .01$. Pairwise comparisons were performed using Dunn's (1964) procedure with a Bonferroni correction for multiple comparisons. Adjusted p-values are presented. This post hoc analysis revealed statistically significant differences in median implementation scores between therapists with an OTD (9.5) and therapists with a Master's (8.0) ($p = .003$), and OTD and therapists with a Bachelor's (8.0) ($p = .002$) education level groups, but not between the research doctorate (8.5) or any other group combination.

An independent samples t-test was used to determine if there was a difference in mean knowledge score based on the primary work setting and primary diagnostic population (see Table 17). There was no significance in the mean knowledge score for the primary work setting, except for academia ($p = .020$). There were no significant differences in mean knowledge scores based on the primary diagnostic population.

Due to the significant negative skew, a Mann-Whitney U test was used to compare median attitude scores based on the primary work setting and diagnostic population (see Table 18). Most work settings had no significant differences in the median attitude score. Exceptions were acute care, which had a significantly lower attitude score ($p = .022$), and academia, which had a significantly higher attitude score ($p = .008$). There were no significant differences in the median attitude score based on the primary diagnostic population.

Because of the significant positive skew of implementation scores, a Mann-Whitney U test was used to compare median scores based on the primary work setting and diagnostic population (see Table 19). Most work settings had no significant differences in the median implementation score. The exceptions were. There were no significant differences in the median attitude score based on the primary diagnostic population.

Changes in Attitude, Knowledge, and Implementation

Tables 20, 21, and 22 show the frequency of each response being compared, the percentage of surveyed individuals that selected that response, the difference in the rate of correct responses, the z-score, and the p-value indicating the significance of the difference in proportion for each item. There was a significant increase for all replicated knowledge items (see Table 20). However, there was more variance in the significance of changes in attitude (see Table 21) and implementation items (see Table 22).

CHAPTER 5: DISCUSSION

This study aimed to examine occupational therapy practitioners' current level of knowledge, perception of occupational therapy's role in ADA advocacy and client education, and frequency of their advocacy and education in practice. An additional aim was to re-examine and expand upon previous research to identify changes in attitude, knowledge, or implementation with a current sample in 2023. In 2000, Redick and colleagues published a study that found low levels of ADA knowledge and implementation of ADA education and advocacy despite positive attitudes. As more than 20 years have passed since this previous data collection, it is important to reassess the status of occupational therapists' current attitude, understanding, and advocacy levels to reveal how these factors may have changed within the ever-changing healthcare environment. This data can provide a foundation for future advocacy implementation research and the creation of educational resources for both clients and occupational therapy practitioners.

Redick and colleagues hypothesized that a better understanding of the ADA may lead to increased frequency of client education and advocacy regarding the ADA in clinical practice. Our study found a significant increase in ADA Title III knowledge. Additionally, nearly all therapists in our study continue to agree that ADA education and advocacy are part of occupational therapy's scope, with significantly more positive attitudes toward client advocacy and empowerment as the role of occupational therapy practitioners. However, there was limited change in implementing ADA education and advocacy activities in clinical practice. Our findings do not support Redick and colleagues' hypothesis. Rather, education is likely one of many factors that should be considered to increase knowledge translation to clinical practice.

Although increased knowledge is encouraging, therapists still have significant gaps in areas of importance to occupational therapy clients, including ADA Title I knowledge and

recently added Title III provisions regarding web accessibility. Approximately half of the respondents reported never participating in education and advocacy activities in their occupational therapy practice. Work is needed to address relevant knowledge gaps. A lack of knowledge regarding ADA can limit the scope of occupational therapy in direct intervention and consultative roles (Kornblau et al., 2000; Redick et al., 2000). Thus, continuing education on the latest accessibility recommendations and requirements could continue this trend of increased advocacy in clinical practice, enabling therapists to confidently incorporate advocacy and take on roles in emerging practice areas such as universal design (Young et al., 2019). Future research directions may examine barriers to participating roles. It may also be important to understand how occupational therapists provide this education in an interprofessional healthcare team, as this may relate to what kind of ADA knowledge should be included in entry-level education versus what advanced knowledge should be made more accessible to therapists working in relevant settings or participating in relevant advocacy.

Knowledge

Our study found that a significant portion of therapists were knowledgeable regarding the ADA, particularly regarding Title II provisions. Additionally, it is encouraging that there has been a significant increase in ADA knowledge since the previous study. Despite this, ADA knowledge scores could have been higher to reflect the knowledge required to fulfill the role of an informed clinician able to educate clients and advocate within interprofessional teams. Knowledge score distribution indicates an average level of expertise as scores are normally distributed rather than clustered at the higher end of possible results. This finding highlights a gap in the practical understanding of the ADA. This result is not surprising due to the lack of ACOTE educational requirements in this area (Accreditation Council for Occupational Therapy

Education, 2018). The most consistent area of therapist knowledge was regarding environmental accessibility protected by Title III. Over 66% of therapists correctly answered six of the eight questions in this area.

The higher level of knowledge could be related to a variety of factors. The most obvious assumption would be due to the increased inclusion of ADA information in formal professional education or continuing education. Redick et al.'s (2000) study was published only ten years after the ADA was signed into law. Although there were likely some forms of education about the law, it was likely not enough and could explain the lower degree of understanding. In contrast, the data collected in our study was collected 33 years after the act's passage, allowing many more therapists to "live" with the law and having many more opportunities for informal and formal education. In contrast, therapists surveyed in the Redick et al., 2000 study likely gained their knowledge about the ADA only through self-studying its provisions or continuing education. Interestingly, 74% of therapists surveyed in our study graduated after the ADA was passed, and 45% graduated at least a decade after the law was passed. Thus, more recent graduates (10 or fewer years) have likely learned at least something about the ADA through their formal education or fieldwork experiences. Accordingly, an increase in knowledge is likely due to more frequent interaction with the ADA. The ADA laws have become increasingly known due to incremental increases in implementing their provisions, which are noticeable in both professional and personal life. Encouragingly, only 11% of therapists reported using no resources to learn more about the ADA. This is a 22% decrease since the previous study (Redick et al., 2000), indicating that more therapists may have received ADA education overall, regardless of the source.

Despite the encouraging increases in knowledge regarding physical accessibility, there were still substantial gaps in familiarity with web accessibility. Nearly all therapists incorrectly answered or did not know the answer to the three items on the survey related to web accessibility. This lack of knowledge is likely due to the relative newness of the information, as web standards have only been recently incorporated into the ADA and are quickly evolving based on new technology. The standards for web accessibility are just being put in place and are likely to have yet to be incorporated into education curricula. Knowledge regarding Title I employment protections and the general information about the ADA was mixed. It seems that most therapists understand ADA language, such as "readily achievable," and that both mental and physical disabilities are protected under the legislation. The most significant gaps in general knowledge were seen regarding where to report discrimination complaints and the complaint investigation process. Therapists were more consistent in their knowledge regarding ADA protections during the hiring process but did not know that reassigning current employees was not an employer obligation. This, coupled with the lack of knowledge about where to report Title I complaints, points to a gap in knowledge about provisions that protect individuals who are currently employed.

Attitude

The results in the attitude section support that occupational therapists have positive attitudes towards ADA advocacy and education, indicating that most therapists value empowering and educating clients on their civil rights protected by the ADA. There has been a significant increase in the proportion of therapists who agree that occupational therapy has a role in client empowerment and advocacy since Redick et al., 2000. Because education on the ADA and implementation of client empowerment and advocacy was significantly higher in this

sample, it would follow that therapists would also be more likely to support this role as a part of occupational therapy practice.

The significant, positive correlation between attitude and implementation scores suggests that those with more positive attitudes are more active in implementing ADA education and advocacy in clinical practice. However, two attitude items did not relate to the implementation score. The lack of correlation with the first statement, "I believe that persons with disabilities should have equal access to the same opportunities enjoyed by people without disabilities," is not surprising as therapists, in general, have positive attitudes toward individuals with disabilities and believe that these individuals deserve equality (Benham, 1988; Feldner et al., 2022). The second, "It is my role to advocate for my clients regarding the ADA," expresses that occupational therapists should play an active role in helping individuals with disabilities achieve equality. Previous studies have found that occupational therapy practitioners have positive attitudes toward individuals with disabilities and believe that advocacy organizations such as AOTA should take public policy positions regarding the rights of these individuals (Benham, 1988; Feldner et al., 2022). Because the values stated in these attitude statements are basic tenets of the profession, it is not surprising that there was no relationship between the two variables. Most therapists would likely agree with the statements regardless of the frequency of implementation in practice.

Similarly, the correlation between attitude and knowledge scores implies that individuals with more positive attitudes know more about the ADA. The knowledge score was not correlated with the statement, "I believe that persons with disabilities should have equal access to the same opportunities enjoyed by people without disabilities." This is likely for the same reasons

explained previously. This statement reflects a primary tenant of the profession with which nearly all therapists would agree (Benham, 1988; Feldner et al., 2022).

Interestingly, the attitude statement, “It is my role to advocate for my clients regarding the ADA,” had a significant, positive correlation with knowledge scores despite no relationship with implementation scores. This relationship could be due to a variety of factors. It could indicate that an increased knowledge of the ADA leads to a greater understanding of the importance of client advocacy, even if the therapist did not have the opportunity to participate in advocacy roles in clinical practice. Alternatively, this could indicate a gap between the translation of positive attitudes into implementation in clinical practice.

Implementation

Despite the increase in knowledge, respondents' frequency of implementation of client education, empowerment, and advocacy was lacking. There were significant increases in only two of the included implementation activities. Approximately half of the sample reports never participating in implementation activities or only participating in one or two activities “a few times.” Additionally, there was a significant decrease in the frequency of referrals to a community group, one of the most frequently reported activities in the previous sample. This could be, per qualitative reports from participants, due to social workers often taking on this role in the hospital setting. While one could argue that occupational therapists should take the lead in ADA advocacy, as acute care therapists, there are likely far greater demands that need attention, for instance, keeping the client stabilized medically and addressing acute issues to improve functional outcomes (Roberts & Evenson, 2019).

Implementation scores had a significant, positive correlation to both attitudes and knowledge. The relationship between implementation and knowledge indicates that individuals

with more knowledge of the ADA are also more active in implementation. All implementation items had a significant, positive correlation with the knowledge score. This indicates that increasing knowledge may be the best way to increase implementation overall. The relationship between implementation and attitude indicates that individuals with more positive attitudes more frequently participate in ADA education and advocacy. Only one implementation item did not have a significant positive correlation with the attitude score. This item was, "How often have you provided clients with printed information about the ADA?" Providing printed materials was among the least reported implementation activities in both studies, second to completing community assessments. This lack of relationship could be due to a variety of factors. This could be due to therapists' preferences regarding the method of education. Alternatively, a lack of access to printable materials could have led to most therapists reporting "never" providing printed information. Either factor could have led to the reduced frequency of this activity regardless of attitude.

Relationship of Experience to Attitudes, Knowledge, and Advocacy

Though most demographic variables were not associated with differences in attitude, knowledge, or implementation scores, a few key groupings were associated with statistically significant differences in scores. Respondents with a clinical doctorate (OTD) reported a significantly higher frequency of implementation activities compared to therapists with a bachelor's or master's as their highest degree. There are potential explanations for this difference. First, with the additional course work, an advanced practice degree may be able to focus on leadership, advocacy, or scholarship in greater depth than at a master's level. In addition, the objective of the capstone experience, which is an individually designed project, may offer opportunities to gain a deeper understanding of issues such as ADA advocacy and the

necessary skills and confidence to navigate the complexities of ADA regulations and advocacy. Finally, pursuing an OTD may indicate a personal commitment to advancing the profession and promoting social change. Occupational therapists with an OTD may be more proactive in seeking opportunities to engage in advocacy work and emerging practice areas. This interest may have been a motivating factor in pursuing an advanced practice degree.

Other significant differences were related to the reported primary practice setting. Acute care therapists had a significantly lower median attitude score than other practice areas. This may be due to the frequent qualitative reports from participants in this sample that social workers often take on this role in this setting. Another interesting difference was that therapists working in academia had a significantly higher median attitude score. This may be due to the overall emphasis on advocacy found in occupational therapy education. Finally, individuals working in community-based settings had significantly higher median implementation scores. This may be due to the increased demand for many of the activities listed on the survey as part of regular work activities, such as home and community assessments.

Participant Comments

The primary topics brought up in the general comments were a newfound awareness of the ADA as a result of taking the survey, setting-specific utilization or barriers to ADA implementation as an occupational therapy practitioner requests for continuing education, and examples of the relevance of the ADA in practice. Participants in this study commonly commented that they felt the topic was essential and that they were grateful for the opportunity to be tested on their knowledge of the ADA. Others stated that they intend to learn more about the ADA. One such comment was, "*I didn't realize how little I knew about the specifics of the ADA. I see it as very important- but I have a lot to brush up on! This was eye-opening!*" Others

reported realizing the importance of the ADA through personal experiences with requesting accommodations. One such comment was, "*As an OT, I was not able to navigate the confusing HR process and felt like I got nowhere except to notify them that I had a condition*."

The most common setting-related comment was regarding acute care. Therapists report that social workers and case managers often provide this education to clients in this setting. Additionally, a few felt that there was no time for this kind of education in this setting, stating, "*I feel that a lot of barriers to providing education on ADA to patients comes from not having enough time during treatment sessions while also trying to treat their physical or cognitive impairments per their plan of care. I think this education is best provided in collaboration with social work*." This likely relates to the significant difference in attitudes expressed by therapists working in this setting.

Respondents in academia reported incorporating ADA information into their courses or commented that there was a specific course or lab at their institution to educate students on this topic. Beyond academia, therapists reported utilizing ADA knowledge to complete home assessments, make assistive technology recommendations, and advocate for accessible changes within residential facilities. A few therapists reported a lack of accessibility to medical care for patients, with one stating, "*I often hear clients report they can't get into a doctor's office because of no ramp and have to reschedule with another doctor or they can't get on to tables for MRI* [Magnetic Resonance Imaging]*, GYN* [Gynecology] *because they are too high!*" These reports are supported by recent research findings that most physicians frequently do not have accessible exam tables or other equipment available for individuals with mobility impairments.

Application To Clinical Practice and Advocacy

The results of this study can be utilized to inform the areas in which education about ADA needs to improve. It is particularly important to create resources for therapists in the knowledge areas they can use daily to share with their clients. Over a quarter of therapists (26%) reported never providing ADA information to clients, potentially due to a lack of resources tailored to client education. Respondents frequently mentioned brochures and patient handouts as desirable education resources. Another common suggestion for helpful resources was an easy-to-navigate website with the most relevant information about the ADA to occupational therapy and educational workshops. Many respondents indicated they would like these resources to be available through AOTA. However, this may have been a common sentiment simply because this was a sample of AOTA members. A few therapists indicated that there should be a greater inclusion of ADA information in professional programs. Many of the academic respondents indicated that their programs were actively working to incorporate ADA information into the curricula. However, based on the results of our study, more accessible continuing education resources should be created to incorporate more information about employment protections and enforcement as well as technology-related regulations to expand practitioners' understanding of the ADA, equipping practitioners to take on roles in emerging practice and advocacy.

Overall, the findings support that there has been an encouraging increase in ADA knowledge over the past 23 years. However, the ever-growing scope of the ADA requires continued updates to continuing education to ensure occupational therapy practitioners have the knowledge to educate clients and advocate for increased accessibility, particularly within the ever-changing healthcare system. Multiple studies indicate that individuals with disabilities are still denied or receive inadequate healthcare due to inaccessibility, violating the ADA (Iezzoni et

al., 2021, 2023; Iezzoni, McKee, et al., 2022; Iezzoni, Rao, Ressalam, Bolcic-Jankovic, & Campbell, 2022). Physicians still report a lack of education regarding ADA provisions and negative attitudes toward providing care for individuals with disability despite their essential role in reasonable accommodations (Iezzoni, Rao, Ressalam, Bolcic-Jankovic, Agaronnik, et al., 2022; Lagu et al., 2022). This lack of access was even experienced by an occupational therapist who participated in this research. This therapist experienced challenges in receiving reasonable accommodations in her workplace due to a change in ability. She realized how difficult self-advocacy is for her clients, who frequently report inaccessible healthcare environments during their treatment. As a part of interprofessional teams, occupational therapy practitioners with requisite education could actively advocate to ensure individuals with disabilities are considered and receive reasonable accommodation (Andresen et al., 2006; Institute of Medicine (US) Committee on Disability in America, 2007).

The results of this study can also inform advocacy on enforcing ADA standards and attaining the goal of universal design and accessibility. There are still significant architectural accessibility issues nationwide. Fitness facilities have frequently been found to be inaccessible, which can often prevent individuals from maintaining physical fitness and, in the case of many with disabilities, completing home exercise and fitness routines that may be necessary to maintain independence (Dolbow & Figoni, 2015; Nary et al., 2000; Rimmer et al., 2017). Architectural barriers and inaccessible transportation often prevent access to healthy foods, exacerbating disability (McClain & Todd, 1990; Mojtahedi et al., 2008). A community with inaccessible public buildings, particularly entrances, and lacks robust public transit is often at the root of these and other issues (Crowe et al., 2004). This widespread inaccessibility can directly impact the health and independence of occupational therapy clients. Research in accessibility and

health delivery lacks the perspectives of individuals, like occupational therapists, who understand the rehabilitation process and the barriers that individuals with disabilities face (Institute of Medicine (US) Committee on Disability in America, 2007). Knowledge of the law can help therapists advocate at legislative levels for greater enforcement and additional provisions that promote universal design. Though these systematic issues exist beyond the hospital or clinic setting in which most therapists are employed, therapists in relevant settings can support these efforts at the client level. A basic understanding of ADA protections that can apply to each client would allow the therapist to help ensure education is available, whether by the therapist, the social worker, or another advocacy group. This study sought to understand current levels of client-level advocacy and the critical role occupational therapy practitioners can take in client education and empowerment at the client level.

It is hoped that education regarding ADA provisions will continue, and with it, the expansion of occupational therapy practitioner advocacy into professional and systems-level advocacy regarding accessibility, such as education of other health professionals and consulting with designers or urban planners to maximize accessibility. However, the gap between knowledge and action must be addressed for any education initiative to drive change effectively. This challenge is not new; rather, it is commonly seen regarding the occupational therapists' implementation of evidence-based interventions, programs, and approaches to practice (Juckett et al., 2021). The results of this study indicate that knowledge translation is also a problem for the implementation of education and advocacy regarding legal protections.

Limitations

Generalizability is also often an issue for survey research. Because of self-selection bias, individuals who participate in a survey may have a bias that negatively affects generalization. To

rectify the limitations of generalizability, stratified random sampling was used. This was done to understand better what occupational therapists across the country think and know about the ADA. In addition, because the sample was selected from AOTA membership, the survey results may not accurately represent the attitudes of therapists who are not members of AOTA. Additionally, self-selection bias may have caused individuals more interested in the topic to respond. Therefore, the knowledge, attitudes, and implementation scores likely vary from the general population. Because of the cost of AOTA membership, members will likely be more involved in occupational therapy advocacy, potentially inflating scores artificially. Though this limits generalizability to the population of therapists in the United States, it is not a limitation to the score comparisons. The Redick et al. 2000 sample was also recruited through AOTA membership and would face the same limitations.

There was also a limitation of only occupational therapists completing the survey, with few occupational therapy assistants. It is unknown whether assistants would be more or less informed about the ADA and its application to clients; however, based on the differences between the OTD and master's levels, it is likely that occupational therapy assistants would be equal or less informed than master's degree therapists, not more.

While efforts were made to ensure the survey's reliability and validity, further validation studies would be required to establish their psychometric properties. Many items included in the survey were sourced from previously published research. Overall reliability and face validity were established through previous studies. Although this is the first time the content has been combined, experts reviewed the final survey and determined that it had achieved face validity. Attitude and implementation scores relied on self-report measures. While self-report measures are common practice, they are subject to social desirability and recall biases. These cognitive

biases may have influenced participants' responses. Finally, there could have been other factors impacting the implementation of ADA education and advocacy among therapists in clinical practice, such as organizational policies, resources, and external barriers, that still need to be fully explored. These concepts were touched upon in qualitative responses from participants, but a formal study was outside the scope of this research.

Because the attitude and implementation scores were not normally distributed, less sensitive non-parametric tests were used to evaluate the data. It is unclear whether the population scores were non-normal due to the sample size or if these variables are not normally distributed in the population.

Future Research Directions

Future studies should investigate factors influencing increased advocacy and client education by occupational therapy practitioners to address limitations. Additionally, future samples could target non-members of AOTA to determine if there are systematic differences between members' and non-members' ADA knowledge, attitudes, and implementation. Future research could also explore barriers to ADA advocacy and implementation clinicians encounter in clinical practice, such as time, resources, or organizational policies.

Because this is an understudied area of inquiry, there are many gaps in the literature. Research generation could facilitate knowledge translation regarding this topic. The first step in knowledge translation is the synthesis and generation of evidence to support a particular practice. This is followed by the dissemination and development of clinical policy (Haines et al., 2004; Juckett et al., 2021). To this end, future research could also examine the impact of policy changes related to the ADA on occupational therapy clients. This could include studies that explore whether more informed clients experience higher levels of community mobility and

access to goods and services in their communities. Research could be conducted to support occupational therapy interventions that promote ADA knowledge and self-advocacy among clients to determine if knowledge could improve outcomes for individuals with disabilities. This kind of research regarding methods and effectiveness of client education is the first step in the knowledge translation process. Ultimately, without evidence, knowledge dissemination efforts may likely continue to be ineffective and implementation infrequent (Haines et al., 2004).

Ultimately, any findings regarding implementing education in practice must be disseminated to current and future practitioners through professional education or continuing education. An active dissemination strategy is required to ensure that knowledge is useful in clinical practice (Haines et al., 2004). Because ADA knowledge is not required in occupational therapy education (Accreditation Council for Occupational Therapy Education, 2018), what is currently being taught in occupational therapy curricula regarding therapists' role with the ADA is unknown. Additionally, this study identified a potential demand for continuing education in this area. Future research could focus on the most effective strategies to prepare therapists for a role in ADA education and advocacy at the client, professional, and systematic levels.

CHAPTER 6: CONCLUSION

In conclusion, this research attempted to reveal the current landscape of ADA education among occupational therapy practitioners. While findings indicate a positive trend of increased knowledge of ADA provisions, significant gaps persist, and implementation levels remain low. The increased knowledge and positive attitudes toward ADA education suggest a growing awareness and recognition of the importance of promoting self-advocacy for occupational therapy clients. However, the persistence of significant knowledge gaps underscores the need for continued education and training initiatives.

Though improved from the previous study in a few categories, implementation levels of ADA education and advocacy remain low. This highlights the challenge of translating knowledge and attitudes into clinical practice. Knowledge translation could be an important part of facilitating advocacy. Development of research evidence, training, and support for occupational therapy practitioners could aid in increasing client education and advocacy among therapists. Collaborative efforts between professional organizations and clinicians will be essential to ensure that occupational therapy practitioners have the knowledge, skills, and resources necessary to effectively educate clients and promote accessibility for all individuals with disabilities. Only through collective efforts can we work towards achieving the full potential of the Americans with Disabilities Act in enhancing the lives of individuals with disabilities and fostering a more inclusive society.

Figure 1

Distribution of Participants by Region

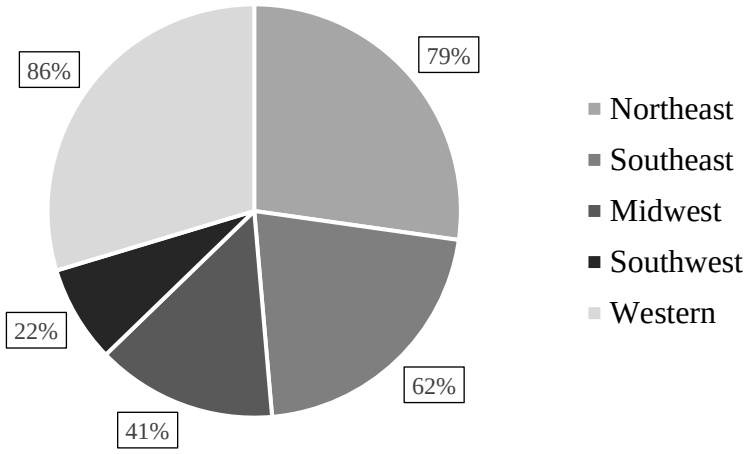

Figure 2

Total Score Distribution by Survey Topic

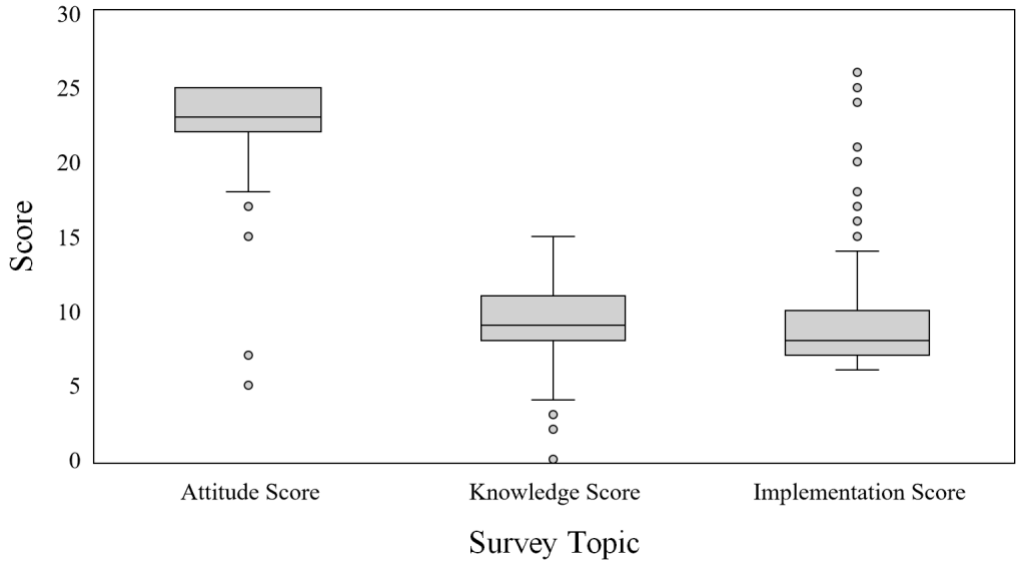

Table 1

Respondent State of Residence

	n	%
Northeast	79	27.1
Connecticut	1	0.3
District of Columbia	1	0.3
Maryland	2	0.7
Massachusetts	2	0.7
New York	30	10.3
Pennsylvania	43	14.8
Southeast	62	21.3
Arkansas	1	0.3
Florida	27	9.3
Georgia	7	2.4
Mississippi	1	0.3
North Carolina	7	2.4
Tennessee	2	0.7
Virginia	17	5.9
Midwest	41	14.1
Illinois	20	6.9
Indiana	1	0.3
Michigan	1	0.3
Missouri	8	2.8
Nebraska	2	0.7
Ohio	2	0.7
Wisconsin	7	2.4
Southwest	22	7.6
Arizona	2	0.7
Oklahoma	1	0.3
Texas	19	6.6
West	86	29.6
California	36	12.4
Colorado	18	6.2
Montana	1	0.3
Oregon	6	2.1
Washington	25	8.6

Table 2

Respondent Work Experience

Work Type	n
Primary Work Setting	
Acute Care	55
Inpatient Rehab/SNF	75
Outpatient Therapy	74
Home Health	56
School	24
Industry/ergonomics	8
Community	30
Academia	37
Other	46
Primary Diagnostic Population	
Orthopedic Conditions	117
Neurological Conditions	162
Mental Health and Behavioral Conditions	37
Intellectual/Developmental Disability	49
Cognitive Impairments and Dementia	81
Community Living Older Adults	96
Early Intervention	17
Primary Client Age	
0-5	25
6-21	46
22-65	130
65+	183

Note. Respondents could select multiple responses.

Table 3

Respondent Education and Experience

	n	%
Highest Degree in Occupational Therapy		
OTA	2	0.7
BSOT	96	33.4
MSOT or MOT	139	48.4
OTD	42	14.6
Research Doctorate	8	2.8
Highest Educational Degree		
Associates	20	7.0
Bachelor's	80	28.0
Master's	146	51.0
OTD	39	13.6
Research Doctorate	1	0.3
Years Practicing Occupational Therapy		
< 5 years	12	4.0
6-10	25	8.7
11-20	93	32.5
21-38	127	44.4
39+	29	10.1

Table 4

Information Provided to Clients Regarding the ADA (n = 291)

	n	%
Community resources	164	58
Compliance measurements	80	28
Compliance requirements	51	18
Areas covered by the ADA	49	17
Methods of legal recourse	15	5
Other	9	3
None	76	27

Note. Respondents could select multiple responses.

Table 5

Resources Used to Obtain Information Regarding the ADA (n = 291)

	n	%
Journal Articles	100	35
Pamphlets	45	16
Work	40	14
Magazines/Newspapers	18	6
School	40	14
Workshop or seminar	40	14
Library	14	5
Internet	222	78
None	33	12

Note. Respondents could select multiple responses.

Table 6

Clinician's Attitudes Toward ADA Education and Advocacy (n = 291)

	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	n	%	n	%	n	%	n	%	n	%
As an occupational therapy practitioner…										
I believe that persons with disabilities should have equal access to the same opportunities enjoyed by people without disabilities.	11	3.8	1	0.3	4	1.4	31	10.7	**244**	**83.8**
It is my role to advocate for my clients regarding the ADA.	7	2.4	1	0.3	4	1.4	74	25.4	**205**	**70.4**
It is my role to empower clients to become self-advocates regarding the ADA and to understand their rights under the ADA.	6	2.1	0	0.0	8	2.7	72	24.7	**205**	**70.4**
It is my role to provide information to my clients regarding the ADA.	5	1.7	1	0.3	27	9.3	126	43.3	**132**	**45.4**
It is my responsibility to pursue my own professional growth and development in environmental accessibility.	5	1.7	0	0.0	16	5.5	116	39.9	**154**	**52.9**

Note. Bolded values indicate the most frequently selected response.

Table 7

General Knowledge of the ADA (n = 291)

	Correct		Incorrect		"I don't know"	
	n	%	n	%	n	%
The term "readily achievable" is defined by the ADA as easily accomplished and able to be carried out without much difficulty or expense.	**231**	**79.4**	12	4.1	48	16.5
The presence of a physical disability in itself is sufficient evidence of a disability to provide protection under the ADA.	106	36.4	**145**	**49.8**	40	13.7
There is an equity of obligation between mental and physical reasons for a disability in terms of protection under the ADA.	**177**	**60.8**	42	14.4	72	24.7
According to the ADA, persons with disabilities have the right to file disability discrimination complaints with the Department of Justice, Equal Employment Opportunity Commission, or the Department of Transportation and it is guaranteed that the complaint will be investigated.	37	12.7	**191**	**65.6**	63	21.6

Note. Bolded values indicate the most frequently selected response.

Table 8

Knowledge of the ADA Title I (n = 291)

	Correct		Incorrect		"I don't know"	
	n	%	n	%	n	%
Complaints regarding ADA Title I Compliance should be brought to which government agency?	92	31.6	61	21.0	**138**	**47.4**
According to the ADA, coworker disapproval or customer disapproval is a legitimate reason for not hiring a person with a disability.	**263**	**90.4**	10	3.4	18	6.2
When it is obvious that a job applicant has a disability, the ADA encourages inquiries by state employers about the nature of the disability.	**210**	**72.2**	22	7.6	59	20.3
Current employees with a disability become unable to perform their current jobs despite reasonable changes to their worksites and responsibilities. True or False: According to the ADA, the employer must now consider these employees for reassignment to other available positions.	32	11.0	**199**	**68.4**	60	20.6

Note. Bolded values indicate the most frequently selected response.

Table 9

Knowledge of the ADA Title III (n = 291)

	Correct		Incorrect		"I don't know"	
	n	%	n	%	n	%
What is the minimum width of doorways to public buildings and other places of public accommodations?	**215**	**73.9**	47	16.2	29	10.0
What is the minimum height of toilets in public restrooms?	**200**	**68.7**	49	16.8	42	14.4
What percentage of entrances to public buildings must be wheelchair accessible?	93	32.0	69	23.7	**129**	**44.3**
How should standard accessible parking spaces be marked (check all that apply)?	48	16.5	**227**	**78.0**	16	5.5
Complaints regarding ADA Title III Compliance should be brought to which government agency? *	84	28.9	90	30.9	**117**	**40.2**
Which types of websites are required to be accessible under the ADA (Check all the apply)? *	49	16.8	**237**	**81.2**	6	2.1
Which types of websites are strongly encouraged to be accessible under the ADA (Check all the apply)? *	55	18.9	**231**	**79.4**	5	1.7
Which of the following are not critical for website accessibility? *	2	0.7	**290**	**99.3**	0	0
Let's say that the cost of installing a ramp from the sidewalk to an existing store imposes an undue burden on a business owner. Then under the ADA, that is sufficient reason for not making this modification.	**133**	**45.7**	98	33.7	60	20.6
The ADA requires that all newly constructed businesses be accessible.	**265**	**91.1**	9	3.1	17	5.8
According to the ADA, when a facility is renovated, alterations must fully comply with the ADA accessibility guidelines.	**245**	**84.2**	21	7.2	25	8.6
The ADA supports that tax benefits be given to businesses to help defray the cost of removing physical barriers, such as entrances without ramps and narrow doorways.	**189**	**64.9**	12	4.1	90	30.9

Note. Bolded values indicate the most frequently selected response. *. Indicates items not addressing architectural accessibility

Table 10

Frequency of ADA Implementation (n = 282)

	More than once a week		Once a week		Once a month		A few times		Never	
	n	%	n	%	n	%	n	%	n	%
In the past 12 months….										
How often have you done community assessments addressing ADA compliance?	2	0.7	1	0.3	12	4.1	51	17.6	**224**	**77.2**
How often have you educated clients regarding their civil rights under the ADA?	5	1.7	3	1.0	26	9.0	118	40.7	**138**	**47.6**
How often have you encouraged clients to self-advocate regarding their civil rights under the ADA?	5	1.8	6	2.1	27	9.5	**143**	**50.2**	104	36.5
How many often have you referred clients to resource or advocacy groups?	8	2.8	2	0.7	28	9.8	110	38.3	**139**	**48.4**
How often have you provided clients with printed information about the ADA?	2	0.7	2	0.7	7	2.4	60	20.9	**216**	**75.3**
How often have you served as an ADA resource to a professional or community group?	5	1.7	4	1.4	5	1.7	42	14.6	**232**	**80.6**

Note. Bolded values indicate the most frequently selected response.

Table 11

Descriptive Statistics and Correlations for Scores

Variable	n	M	Median	SD	1	2	3
1. Knowledge Score	291	9.4	9.0	2.6	-		
2. Implementation Score	282	9.1	8	3.2	.361**	-	
3. Attitude Score	291	22.7	23	3.2	.229**	.212**	-

Note. **p < .001

Table 12

Correlation of Implementation Score with Attitude Items

	n	1	2	3	4	5	6
1. Equal opportunity for individuals with disabilities	291	--					
2. Role as client advocate	291	.382**	--				
3. Role to empower clients	291	.284**	.634**	--			
4. Responsibility for growth in knowledge of the ADA	291	.218**	.592**	.553**	--		
5. Role as ADA educator	291	.214**	.501**	.417**	.593**	--	
6. Implementation Score	282	.019	.064	.186**	.235**	.234**	--

Note. ** p < .001.

Table 13

Correlation of Attitude Score with Implementation Items

	n	1	2	3	4	5	6	7
1. Community Assessments	290	--						
2. ADA education	290	.364**	--					
3. Encouraged client self-advocacy	285	.233**	.652**	--				
4. Referral to advocacy group	287	.192**	.365**	.404**	--			
5. Provided printed information	287	.310**	.372**	.343**	.356**	--		
6. Served as ADA resource	288	.404**	.282**	.228**	.237**	.297**	--	
7. Attitude Score	290	.121*	.229**	.169**	.126*	.080	.231**	--

Note. ** p < .001. *p ≤ .05.

Table 14

Correlation of Knowledge Score with Attitude Items

	n	1	2	3	4	5	6
1. Equal opportunity for individuals with disabilities	291	--					
2. Role as client advocate	291	.382**	--				
3. Role to empower clients	291	.284**	.634**	--			
4. Responsibility for growth in knowledge of the ADA	291	.218**	.592**	.553**	--		
5. Role as ADA educator	291	.214**	.501**	.417**	.593**	--	
6. Knowledge Score	291	.086	.187**	.165**	.257**	.186**	--

Note. ** p < .001. *p ≤ .05.

Table 15

Correlation of Knowledge Score with Implementation Items

	n	1	2	3	4	5	6	7
1. Community Assessments	290	--						
2. ADA education	290	.364**	--					
3. Encouraged client self-advocacy	285	.233**	.652**	--				
4. Referral to advocacy group	287	.192**	.365**	.404**	--			
5. Provided printed information	287	.310**	.372**	.343**	.356**	--		
6. Served as ADA resource	288	.404**	.282**	.228**	.237**	.297**	--	
7. Knowledge Score	290	.251**	.323**	.261**	.203**	.223**	.221**	--

Note. ** p < .001. *p ≤ .05.

Table 16

Means, Standard Deviations, and One-Way Analyses of Variance in Knowledge Score and Demographic Variables

	M	SD	F	P-value
Region			2.16	.074
Northeast	10.1	2.2		
Southeast	9.1	2.9		
Midwest	9.3	2.2		
Southwest	9.6	2.8		
West	9.0	2.8		
Years of Practice			910	.627
<= 13	9.24	2.4		
13.1-22.0	9.69	2.6		
22.1-31.0	9.16	2.9		
>=31.1	9.42	2.5		
Education Level			.390	.816
Bachelor's	9.57	2.8		
Master's	9.23	2.6		
Clinical Doctorate (e.g., OTD)	9.57	2.4		
Research Doctorate (e.g., Ph.D.)	8.8	2.2		

Table 17

Means, Standard Deviations, and Independent Samples T-test Comparing Experience and Knowledge Score

	Experience Area		Non-experience Area		t	P-value	Cohen's d
	M	SD	M	SD			
Primary Work Setting							
Acute Care	9.2	2.7	9.4	2.6	.530	.597	.079
Inpatient Rehab/SNF	9.6	2.5	9.3	2.6	.999	.318	.134
Outpatient Therapy	9.4	2.5	9.4	2.6	.196	.845	.026
Home Health	9.3	2.9	9.4	2.5	-.262	.794	-.039
School	8.9	2.4	9.4	2.6	-.885	.377	-.189
Industry/ergonomics	10.7	2.5	9.3	2.6	1.52	.128	.547
Community	9.2	2.7	9.4	2.6	-.372	.710	-.072
Academia	10.3	2.3	9.2	2.6	2.34	.020*	.412
Primary Diagnostic Population							
Orthopedic Conditions	9.5	2.7	9.3	2.6	.687	.493	.082
Neurological Conditions	9.3	2.7	9.4	2.5	-.388	.699	-.046
Mental Health and Behavioral Conditions	9.6	2.6	9.3	2.6	.634	.527	.112
Intellectual/Developmental Disability	9.3	2.7	9.4	2.6	-.241	.810	-.038
Cognitive Impairments and Dementia	9.5	2.6	9.3	2.6	.663	.508	.087
Community Living Older Adults	9.3	2.8	9.4	2.5	-.253	.800	-.032
Early Intervention	8.5	2.9	9.4	2.6	-1.27	.204	-.318

Table 18

Median, Standard Deviations, and Mann-Whitney U-test for Attitude Score and Experience

	Experience Area	Non-experience Area	U	P-value	z
	Median	Median			
Primary Work Setting					
Acute Care	23	24	5232	.022*	-2.3
Inpatient Rehab/SNF	24	23	8286	.762	.302
Outpatient Therapy	23	23	8078	.936	.080
Home Health	23	23	6607	.962	.048
School	24	23	3238	.930	.088
Industry/ergonomics	23	23	1229	.672	.423
Community	24	23	4277	.397	.847
Academia	24	23	5931	.008*	2.63
Primary Diagnostic Population					
Orthopedic Conditions	23	24	9271	.187	-1.32
Neurological Conditions	23	23	10748	.668	.429
Mental Health and Behavioral Conditions	24	23	5059	.441	.771
Intellectual/Developmental Disability	24	23	6310	.468	.726
Cognitive Impairments and Dementia	24	23	9117	.331	.972
Community Living Older Adults	24	23	9938	.381	.875
Early Intervention	23	23	2282	.885	-.144

Table 19

Median, Standard Deviations, and Mann-Whitney U-test for Implementation Score and Experience

	Experience Area	Non-experience Area	U	P-value	z
	Median	Median			
Primary Work Setting					
Acute Care	8	8	5992	.885	-.145
Inpatient Rehab/SNF	8	8	7448	.677	-.417
Outpatient Therapy	8	8	7858	.615	.504
Home Health	8	8	5639	.332	-.970
School	8	8	2875	.559	-.585
Industry/ergonomics	9	8	1204	.633	.478
Community	10	8	5051	.002*	3.04
Academia	9.5	8	5186	.094	1.68
Primary Diagnostic Population					
Orthopedic Conditions	8	8	8910	.336	-.962
Neurological Conditions	8	8	10721	.169	1.38
Mental Health and Behavioral Conditions	8	8	4670	.437	.777
Intellectual/Developmental Disability	8	8	5429	.713	-.368
Cognitive Impairments and Dementia	8.5	8	7786	.779	-.281
Community Living Older Adults	9	8	9350	.298	1.04
Early Intervention	7	8	1665	.068	-1.82

Table 20

Comparison of ADA Title III Knowledge

	Redick et al., 2000			Current Study			Difference in %	Z	p-value
	Total n	Correct n	Correct %	Total n	Correct n	Correct %			
Where to take complaints of ADA noncompliance (Title III)	149	28	18	291	84	28.9	10.9	4.8	<.001*
Width of doorways in public buildings	149	68	46	291	215	73.9	27.9	9.5	<.001*
Height of toilet seats in public restrooms	150	18	12	291	200	68.7	56.7	29.8	.049*
Percentage of accessible entrances to a public building	152	35	23	291	93	32.0	9	3.6	<.001*
How accessible parking spaces are marked	149	8	6	291	48	16.5	10.5	7.5	.022*

Note. * Indicates statistical significance.

Table 21

Comparison of ADA Attitudes

	Redick et al., 2000			Current Study			Difference in %	Z	P-value
	Total n	Agree n	Agree %	Total n	Agree n	Agree %			
Equal opportunity for individuals with disabilities	152	143	94	291	275	95	1	.36	.37
Role as client advocate	152	138	91	291	279	96	5	2.9	.03*
Role to empower clients	152	137	90	291	277	94	4	3.0	.04*
Role to educate clients	152	132	87	291	258	89	2	.84	.58
Responsibility for growth in knowledge of the ADA	152	140	92	291	270	93	1	.49	.80

Note. “Strongly Agree” and “Agree” responses were combined for this comparison. * Indicates statistical significance.

Table 22

Comparison of Reported Implementation

	Redick et al., 2000			Current Study			Difference in %	Z	P-value
	Total n	Never n	Never %	Total n	Never n	Never %			
Frequency of community assessments	152	128	84	290	224	77.2	-6.8	-3.2	.084
Frequency of client education regarding the ADA	151	85	56	290	138	47.6	-8.4	-2.9	.083
Frequency of encouraging client self-advocacy	150	111	74	285	104	36.5	-37.5	-14.9	<.001*
Frequency of client referral to resources or advocacy group	151	58	38	287	139	48.4	10.4	3.4	.045*
Providing printed information about the ADA	152	111	73	287	216	75.3	2.3	.47	.609
Serving as an ADA resource to a community group	152	142	93	288	232	80.6	-12.4	-8.9	<.001*

Note. * Indicates statistical significance.

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APPENDIX A: IRB APPROVAL LETTER

EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board
4N-64 Brody Medical Sciences Building • Mail Stop 682
600 Moye Boulevard • Greenville, NC 27834
Office **252-744-2914** • Fax **252-744-2284** •
rede.ecu.edu/umcirb/

Notification of Exempt Certification

From: Social/Behavioral IRB
To: Ellen Cahoon
CC: Anne Dickerson
Date: 7/26/2023
Re: UMCIRB 23-001125
Occupational Therapy and the Americans with Disabilities Act

I am pleased to inform you that your research submission has been certified as exempt on 7/25/2023. This study is eligible for Exempt Certification under category # 2B.

It is your responsibility to ensure that this research is conducted in the manner reported in your application and/or protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.

This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.

Document	Description
ADA Survey.docx(0.01)	Surveys and Questionnaires
Consent Letter for Expedited Survey Research .docx(0.02)	Consent Forms
Online Post 1.png(0.01)	Recruitment Documents/Scripts
Online Post 2.png(0.01)	Recruitment Documents/Scripts
Online Post Text(0.01)	Recruitment Documents/Scripts
Paper Flyer(0.01)	Recruitment Documents/Scripts
Recruitment Letter(0.02)	Recruitment Documents/Scripts
Thesis Proposal v2(0.02)	Study Protocol or Grant Application

For research studies where a waiver or alteration of HIPAA Authorization has been approved, the IRB states that each of the waiver criteria in 45 CFR 164.512(i)(1)(i)(A) and (2)(i) through (v) have been met. Additionally, the elements of PHI to be collected as described in items 1 and 2 of the Application for Waiver of Authorization have been determined to be the minimal necessary for the specified research.

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

APPENDIX B: PARTICIPANT LETTER

Dear Occupational Therapy Practitioner,

You are getting this request to contribute to a research study because you were specifically selected as a licensed occupational therapist or occupational therapy assistant and work in rehabilitation settings.
I am currently an occupational therapy master's student at East Carolina University. For my master's thesis, I am conducting a survey to assess occupational therapists' knowledge and attitudes about the Americans with Disabilities Act (ADA). Outcomes from this study will significantly broaden our understanding of occupational therapists' familiarity with the ADA, including identifying gaps in knowledge, exploring challenges, and informing the development of targeted educational and training programs.
The survey will cover various topics related to the ADA and is estimated to take about 15 minutes to complete**.** For completing the study, you will get a $10 Amazon gift card **and** an educational resource for your use with clients.
Participation in this survey is entirely voluntary. Data collected is anonymous and will only be available to the research team and used for research purposes. The research is not associated with any employer or employment status, your information for the incentive will not be associated with your data, and all data will be destroyed at the end of the study.
There are three ways to complete the survey:

- Use the enclosed paper copy and return the survey with the postage-paid envelope. Include your email or mailing address on the line below to receive your gift card.
- Use the QR code on the bottom right to go right to the survey. You will be prompted at the end of the survey to anonymously enter your email address to receive your gift card.
- For a direct link by email, please contact me at my email (cahoone17@students.ecu.edu), and I will send you a direct anonymous link.

Once you complete the survey online, you will be asked to go to another link to put in your email for the gift card. Please complete the survey within two weeks of this request. Thank you in advance for participating and championing the rights of individuals with disabilities. Please email any questions to cahoone17@students.ecu.edu or reach out by phone at (252) 531-4104.

Yours sincerely,

Ellen Cahoon
Occupational Therapy Student
East Carolina University Clinical Scholar and thesis student.

Scan to access the online survey.

APPENDIX C: INSTRUMENT

Role of Occupational Therapy Practitioners' and the ADA

Q1.2 As an occupational therapy practitioner, I believe that persons with disabilities should have equal access to the same opportunities enjoyed by people without disabilities.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neutral
- ○ Agree
- ○ Strongly Agree

Q1.3 As an occupational therapy practitioner, it is my role to advocate for my clients regarding the ADA.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neutral
- ○ Agree
- ○ Strongly Agree

Q1.4 As an occupational therapy practitioner, it is my role to empower clients to become self-advocates regarding the ADA and to understand their rights under the ADA (re: non-discrimination in access to healthcare, housing, education, transportation).

- ○ Strongly Disagree
- ○ Disagree
- ○ Neutral
- ○ Agree
- ○ Strongly Agree

Q1.5 As an occupational therapy practitioner, it is my role to provide information to clients regarding the ADA.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neutral
- ○ Agree
- ○ Strongly Agree

Q1.6 It is my responsibility as an occupational therapy practitioner to pursue my own professional growth and development in environmental accessibility.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neutral
- ○ Agree
- ○ Strongly Agree

Knowledge of the ADA

Q2.2 What is the minimum width of doorways to public buildings and other places of public accommodations?

- ○ 25 inches
- ○ 32 inches
- ○ 40 inches
- ○ I don't know.

Q2.3 What is the minimum height of toilets in public restrooms?

- ○ 20-22 inches
- ○ 12-14 inches
- ○ 17-19 inches
- ○ I don't know.

Q2.4 What percentage of entrances to public buildings must be wheelchair accessible?

- ○ 60%
- ○ 30%
- ○ 10%
- ○ I don't know.

Q2.5 How should standard accessible parking spaces be marked? (Select all that apply)

- [ ] Each space should have a sign indicating the space is handicap accessible.
- [ ] The lines of each space should be blue.
- [ ] Each space should have the handicap-accessible symbol painted in the space.
- [ ] Each space must have an access aisle on both sides.
- [ ] I don't know.

Q2.6 Complaints regarding ADA Title III Compliance should be brought to which government agency?

- ○ Equal Employment Opportunity Commission (EEOC)
- ○ Department of Justice
- ○ Department of the Interior
- ○ I don't know.

Q2.7 Complaints regarding ADA Title I Compliance should be brought to which government agency?

- ○ Equal Employment Opportunity Commission (EEOC)
- ○ Department of Justice
- ○ Department of the Interior
- ○ I don't know.

Q2.8 Which types of websites are required to be accessible under the ADA (Check all the apply)?

- [ ] Government websites
- [ ] Websites for business
- [ ] Social media websites
- [ ] Informational websites such as Wikipedia
- [ ] Other _____

Q2.9 Which types of websites are strongly encouraged to be accessible under the ADA (Check all the apply)?

- [ ] Government websites
- [ ] Websites for business
- [ ] Social media websites
- [ ] Informational websites such as Wikipedia
- [ ] Other _____

Q2.10 Which of the following are not critical for website accessibility?

- [ ] Site navigation is keyboard accessible (i.e., no use of mouse/touchpad)
- [ ] Written at a 7th grade level.
- [ ] All images have alternative attributes (text descriptions of the images)
- [ ] All multimedia is tagged with captioning and audio.
- [ ] Text has sufficient color contrast.
- [ ] All of these above are critical for website accessibility.

Q2.11 The term “readily achievable” is defined by the ADA as easily accomplished and able to be carried out without much difficulty or expense.

- ○ True
- ○ False
- ○ I don't know.

Q2.12 The presence of a physical disability in itself is sufficient evidence of a disability to provide protection under the ADA.

- ○ True
- ○ False
- ○ I don't know.

Q2.13 There is equity of obligation between mental and physical reasons for a disability in terms of protection under the ADA.

- ○ True
- ○ False
- ○ I don't know.

Q2.14 Let’s say that the cost of installing a ramp from the sidewalk to an existing store imposes an undue burden on a business owner. Then, under the ADA, that is a sufficient reason for not making this modification.

- ○ True
- ○ False
- ○ I don't know.

Q2.15 According to the ADA, coworker disapproval or customer disapproval is a legitimate reason for not hiring a person with a disability.

- ○ True
- ○ False
- ○ I don't know.

Q2.16 The ADA requires that all newly constructed businesses be accessible.

- ○ True
- ○ False
- ○ I don't know.

Q2.17 According to the ADA, when a facility is renovated, alterations must fully comply with the ADA accessibility guidelines.

- ○ True
- ○ False
- ○ I don't know.

Q2.18 When it is obvious that a job applicant has a disability (e.g., uses a hearing aid or a walking cane), the ADA encourages inquiries by state employers about the nature of the disability.

- ○ True
- ○ False
- ○ I don't know

Q2.19 According to the ADA, persons with disabilities have the right to file disability discrimination complaints with the Department of Justice, Equal Employment Opportunity

Commission, or the Department of Transportation, and it is guaranteed that the complaint will be investigated.

- ○ True
- ○ False
- ○ I don't know.

Q2.20 The ADA supports that tax benefits be given to businesses to help defray the cost of removing physical barriers, such as entrances without ramps and narrow doorways.

- ○ True
- ○ False
- ○ I don't know.

Q2.21 Consider this situation: Current employees with a disability cannot perform their current jobs despite reasonable changes to their worksites and responsibilities. True or False: According to the ADA, the employer must consider these employees for reassignment to other available positions.

- ○ True
- ○ False
- ○ I don't know.

Implementation of the ADA

Q3.2 In the past 12 months, how often have you done community assessments addressing ADA compliance?

- ○ More than once a week
- ○ Once a week
- ○ Once a month
- ○ A few times
- ○ Never

Q3.3 In the past 12 months, how often have you educated clients regarding their civil rights under the ADA?

- ○ More than once a week
- ○ Once a week
- ○ Once a month
- ○ A few times
- ○ Never

Q3.4 In the past 12 months, how often have you encouraged clients to self-advocate regarding their civil rights under the ADA?

- ○ More than once a week
- ○ Once a week
- ○ Once a month
- ○ A few times
- ○ Never

Q3.5 In the past 12 months, how often have you referred clients to resource or advocacy groups?

- ○ More than once a week
- ○ Once a week
- ○ Once a month
- ○ A few times
- ○ Never

Q3.6 In the past 12 months, how often have you provided clients with printed information about the ADA?

- ○ More than once a week
- ○ Once a week
- ○ Once a month
- ○ A few times
- ○ Never

Q3.7 In the past 12 months, how often have you served as an ADA resource to a professional or community group?

- ○ More than once a week
- ○ Once a week
- ○ Once a month
- ○ A few times
- ○ Never

Q3.9 Select the resources or information you have provided clients in the past 12 months. (Select all that apply)

- ☐ Community resources
- ☐ Compliance measurements
- ☐ Methods of legal recourse
- ☐ Other _____
- ☐ None
- ☐ Compliance requirements
- ☐ Areas covered by the ADA

Education Resources

Q4.2 Select the types of resources you have used to obtain information about ADA. (Select all that apply)

- ☐ Journal articles.
- ☐ Pamphlets/Magazines/Newspapers
- ☐ School
- ☐ Workshop or seminar
- ☐ Library
- ☐ Internet
- ☐ Other _____
- ☐ None

Q4.3 Based on your answer above, what resources would best help occupational therapy practitioners obtain information about the ADA?

_____

Demographic Information

Q5.2 Primary work setting (Limit to two primary settings)

- ☐ Acute Care
- ☐ Inpatient Rehab/SNF
- ☐ Outpatient Therapy
- ☐ Home Health
- ☐ School
- ☐ Other _____
- ☐ Industry/ergonomics
- ☐ Community
- ☐ Academia

Q5.3 Primary diagnosis population

- ☐ Orthopedic Conditions
- ☐ Neurological Condition
- ☐ Mental Health and Behavioral Conditions
- ☐ Intellectual/Developmental Disability
- ☐ Cognitive Impairments and Dementia
- ☐ Community living older adults
- ☐ Early Intervention

Q5.4 Primary client age

- ☐ 0-5
- ☐ 6-21
- ☐ 22-65
- ☐ 65+

Q5.5 Highest level of educational degree in occupational therapy.

- ○ OTA
- ○ BSOT
- ○ MSOT or MOT
- ○ OTD
- ○ Research degree: Ph.D., Sc.D., etc.

Q5.6 Highest level of degree in any field.

- ○ Bachelor's
- ○ Master's
- ○ OTD
- ○ Ph.D., Ed.D., Sc.D., etc.

Q5.7 Number of years as an occupational therapy practitioner

_____

Q5.8 In which state do you currently reside?

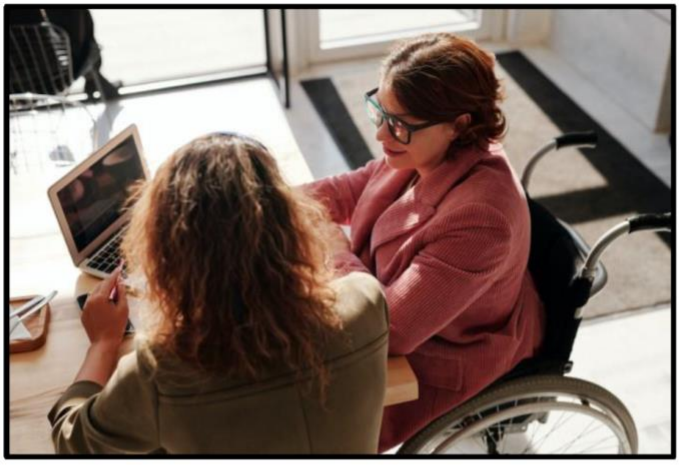
_____

Q5.9 Do you have anything you would like to add?

_____

Title I

Employment Rights



A typical job interview.

What is Title I?

Title I of the Americans with Disabilities Act (ADA) prohibits disability-based discrimination in employment. It ensures that individuals with disabilities have equal opportunities in the job application process and workplace.

Private employers, employment agencies, and labor unions are all prohibited from discriminating against qualified individuals with disabilities.

It covers employers with **15 or more** employees and applies all employment-related activities.

Understanding Accommodations

Employers are required to make certain accommodations for disabled employees.

- **Reasonable accommodation** refers to adjustments made by employers to enable individuals with disabilities to perform essential job functions.
- These accommodations do not place **undue hardship** on the employer. This refers to significant difficulty or expense for the employer.
- The ADA requires employers and employees to engage in an **interactive process** to determine appropriate accommodations.

Applying for a Job

The Job Posting

Job postings must contain the essential functions of a job. When you apply for a job, you are indicating you can meet these functions with reasonable accommodations. The application cannot ask about the existence, nature, or severity of a disability, even if it is related to the job.
Employers should avoid discriminatory language or requirements. Here are some examples of what cannot be included in a job posting:

- **Discriminatory language:** Job postings should not contain language that directly or indirectly excludes individuals with disabilities or indicates a preference for certain abilities.
- **Unnecessary physical requirements:** Physical requirements should be directly related to the job duties and based on objective criteria.

These Provisions are enforced by the **Equal Opportunity Commission (EEOC).**

Resources:
Askjan.com

The Interview

During the interview process, employers must adhere to ADA guidelines. The following are some examples of what cannot be included in an interview:

- **Questions about an applicant's disability or medical history:** Employers ***cannot*** ask questions about an applicant's disability before making a job offer. They may, however, ask questions related to the applicant's ability to perform specific job functions.
- **Inquiries about medications or treatment:** Employers cannot ask about an applicant's medications, medical treatments, or therapy.
- **Questions about workers' compensation claims:** Employers cannot ask about an applicant's history of workers' compensation claim.

Examples of disability-related questions:

- Do you take prescription medications?
- Have you been treated for drug addiction?
- Do you have a disability that will prevent you from doing this job?

Title II

State & Local Government Programs

Title II regulates all North Carolina State programs.

What is Title II?

Title II of the Americans with Disabilities Act (ADA) prohibits discrimination against individuals with disabilities in public services and programs provided by state and local governments.

- Title II applies to all state and local government entities, including public transportation, public schools, parks, courts, and government buildings.
- Governments cannot make individuals with disabilities participate in different programs than those available to others.

Benefits of Title II

- **Accessible Public Services:** Title II ensures that individuals with disabilities can access public services, programs, and facilities on an equal basis, fostering inclusion and participation in community life.
- **Equal Educational Opportunities:** Students with disabilities are entitled to receive equal educational opportunities and accommodations in public schools and educational programs.
- **Barrier-Free Transportation:** Title II promotes accessible public transportation, allowing individuals with disabilities to travel independently.

Protected Rights

- **Accessibility of Facilities:** State and local governments must ensure their facilities are accessible to individuals with disabilities. This includes physical accessibility and communication.
- **Public Transportation:** Title II requires public transportation systems to be accessible to individuals with disabilities, including accessible buses, trains, and paratransit services.
- **Public Schools and Educational Programs:** Schools and educational institutions must provide free appropriate public education (FAPE) for students with disabilities and ensure that accommodations facilitate their participation.
- **Communication Access:** State and local governments must ensure effective communication with individuals who are deaf, hard of hearing, blind, or have speech disabilities. This may involve providing sign language interpreters, captioning, or accessible electronic documents.
- **Program Modifications:** Governments must make reasonable modifications to ensure equal access unless it would fundamentally alter the nature of the service or program.
- **Emergency Preparedness:** Title II mandates emergency plans in place to provide accessible emergency notifications and evacuation.

These provisions are enforced by the **Department of Justice (DOJ).**

Resources:
www.adata.org/factsheets_en
https://www.ecac-parentcenter.org/

More about Public Education:

- **Appropriate Accommodations:** Accommodations may include assistive technology, specialized instruction, modified assignments, accessible materials, **related services**, or **individualized education plans (IEPs)** as mandated by the Individuals with Disabilities Education Act (IDEA).
- **Least Restrictive Environment (LRE):** Title II promotes integrating and including students with disabilities in regular education settings alongside their peers without disabilities. This may require accommodations to facilitate their participation in mainstream educational programs and activities.
- **Accessibility of Facilities:** Educational facilities, including classrooms and libraries, must be physically accessible.

For Parents: How to Get an IEP

A parent can request an evaluation for special education or related services at any time. **Related services** are treatment from providers like speech-language pathologists, physical therapists, and occupational therapists. Each school system has **90 days** to act upon the referral.

The IEP Process is as follows:

1. The child is referred for a special education evaluation.
2. A team, including the child's parent or guardian, conducts the evaluation.
3. To receive special education services, the child must be diagnosed with a disability that has an adverse effect on participation at school and requires individualized instruction. The most common are:
    - Autism Spectrum Disorder
    - Developmental Delay
    - Vision/Hearing Impairment
    - Intellectual Disability
    - Specific Learning Disability
    - Speech Language Disability
4. If the child is eligible, the team will develop the IEP and meet yearly to review goals, specify related services, and determine accommodations.
5. The child will be re-evaluated every 3 years.

These provisions are enforced by the **State Board of Education.**
Resources:
https://www.ecac-parentcenter.org/
https://www.dpi.nc.gov/

Accommodations for College Students

All colleges and universities must ensure their programs, courses, and activities are accessible. This includes providing reasonable accommodations, ensuring physical accessibility of buildings and facilities, and offering accessible instructional materials.
To receive accommodations:

1. You must connect with the office responsible for disability and accessibility services. They will explain the requirements of their accommodation process.
2. The process may involve submitting documentation of your disability, such as medical records or an evaluation from a qualified professional. Documentation requirements may vary between institutions, so it's essential to review the specific guidelines provided by the college's disability services office.
3. You will then engage in an interactive process with the disability services office to determine appropriate accommodations based on your specific needs and the requirements of your academic program.

Colleges are required to maintain confidentiality regarding disability-related information. Your information is typically shared on a need-to-know basis and is protected under privacy laws like the **Family Educational Rights and Privacy Act (FERPA).**

Transportation Rights

ADA Title II protects an individual's rights to public transportation.
You have a right to:

- Wheelchair-accessible entrances and seating on buses and trains.
- Accessible bus stops and train stations.
- Electronic message boards that are accessible to hard-of-hearing or deaf individuals.
- Any other **reasonable accomodations** or changes to the service that do not create an undue burden on the service provider.

Requesting Accommodations

Service Provider Responsibilities:

- Provide information to the public in accessible formats.
- Clearly state the requirements to be eligible for accommodations, the request process timeline, and how to file complaints.
- Provide several accessible ways to make a request.
- Inform the rider of the decision to grant or deny the request.

Rider Responsibilities:

- Provide a clear description of the requested modification.
- Make modification requests as soon as possible.

Examples:

- Relocating a bus stop if the current location is inaccessible.
- Allowing a person with diabetes to eat on the bus to manage glucose.

Requesting Paratransit Services

Most public transportation service providers with a fixed-route system required to have a paratransit service. This service provides origin-to-destination service. You may be eligible for this service if you cannot **independently board, ride, or disembark** from vehicles that are considered readily accessible to disabled individuals. These services operate within a three-quarter mile on either side of a fixed route.

How to File a Complaint

1. **Follow the complaint process of your local transportation agency first**. Contact the agency's customer service department for information about their specific process.
2. If the agency is unable to resolve the complaint, file a complaint with the **Federal Transit Administration Office of Civil Rights**. Complaints should be filed within 180 days from the date of the incident. Complete the form at the third link below. Include:
   - Description of the event, including date and time.
   - Any supporting documentation.

Resources:
https://www.access-board.gov/ada/vehicles/

https://adata.org/factsheet/ADA-accessible-transportation

https://www.transit.dot.gov/regulations-and-guidance/civil-rights-ada/fta-civil-rights-complaint-form

Title III & IV

Public Accommodation and Telecommunication

Construction documents must be reviewed for ADA compliance before they are approved.

What is Title III?

Title III applies to privately owned businesses considered **public accommodations**, providing services to the public. This includes restaurants, hotels, theaters, stores, malls, banks, and other similar establishments. It also covers commercial facilities such as office buildings or factories. Businesses must remove architectural barriers to the extent that it is **readily achievable**. This means making easily accomplishable changes that do not impose an excessive financial or administrative burden.

Businesses open to the public must ensure spaces are physically accessible and provide auxiliary aids and services such as sign language interpreters or alternative print formats (ex., braille).

What is Title IV?

Title IV of the Americans with Disabilities Act (ADA) ensures equal access to telecommunications services for individuals with hearing and speech disabilities. It requires telecommunications companies to provide relay services, facilitating communication between individuals with disabilities and individuals without disabilities.

Accessible Design Requirements

Title III mandates that public accommodations and commercial facilities be designed, constructed, and operated to ensure accessibility for individuals with disabilities. Businesses must also remove architectural barriers that impede access for individuals with disabilities to the extent that it is **readily achievable**.

Requirements to Know:

- Accessible parking must be nearest to an accessible entrance with an unobstructed route to the door of the buildings. The path must not encounter curbs or stairs and be at least 36 inches wide.
- Ramps with a rise greater than six inches or a horizontal projection greater than 72 inches must have handrails. The handrail should extend 12 inches beyond the top and bottom of the ramp and must have at least 1 ½ inches of clear space between the handrail and the wall. The handrail should be placed 34-38 inches above the finished floor surface.

- The building should have at least one compliant door at entrances and exits from the buildings. A compliant door must be at least 32 inches wide and open 90 degrees.
- The doorknob must be 34-48 inches above the floor or ground.
- Maximum threshold height is ½-¾ inches.
- 30" x 48" of clear floor space is required in restrooms.
- Toilet seats should be at most 19 inches above the floor.
- Accessible stalls must have a 5-foot turning radius and grab bars installed on each side of the toilet. At least one stall must be accessible in each restroom.

Online Accessibility The websites of service providers and businesses that serve the public must be accessible.

Critical Accessibility Features Include:

- Site navigation is keyboard accessible (i.e., no use of mouse/touchpad).
- All images have alternative attributes (text descriptions of the images) & all labels are readable by a screen reader.
- All multimedia is tagged with captioning and audio.
- All text has sufficient color contrast.

These provisions are enforced by the **Department of Justice (DOJ).**

Resources:

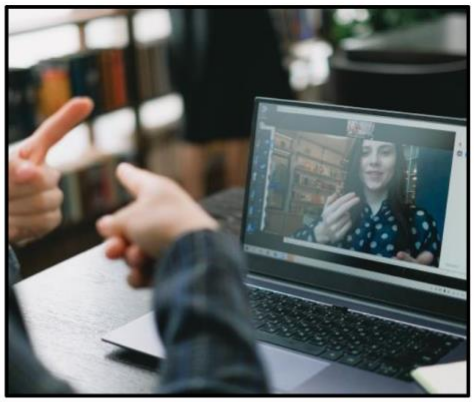
www.ada.gov/law-and-regs/
www.ada.gov/topics/title-iii/

Telecommunication Required Services

- **Relay Services:** They enable individuals with hearing and speech disabilities to communicate with others over the telephone. They utilize specially trained operators who facilitate the conversation between the parties involved. These operators convert spoken language to text and vice versa.
- **Equipment:** Telecommunications equipment manufacturers are encouraged to design and produce products compatible with assistive technologies, such as text telephone devices and captioning services.
- **Public Telephones:** Title IV requires that public telephones, including those provided by telecommunications companies, be equipped with TTY capabilities or other accessible means of communication.
- **Captioning Requirements:** Television companies must ensure that their programming, including live broadcasts and pre-recorded shows, is captioned accurately and comprehensively.
- **Video Description:** Video description, also known as audio description or described video, provides additional narrated information about the visual elements of a program for individuals who are blind or have visual impairments.

Types of Relay Services

- **Text Telephone (TTY):** TTY relay allows individuals with hearing or speech disabilities to use TTY devices to communicate via text. The relay operator reads the typed messages to the hearing party and types their spoken responses back to the individual with a disability.
- **Speech-to-Speech:** The trained relay operator assists by repeating or clarifying the speech to ensure effective communication.
- **Video Relay Service (VRS):** VRS enables individuals who use sign language to communicate via video. The relay operator interprets the sign language into spoken language and vice versa.



These provisions are enforced by the **Federal Communications Commission (FCC).**

Resources:
https://adata.org/topic/telecommunication-ada-title-iv