

AUTISM SPECTRUM DISORDER IN THE WORKPLACE: HOW DOES THE
TIMING OF DISCLOSURE DECISIONS AFFECT INTERVIEW RATINGS?

by

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ABSTRACT

This study investigated the effect that timing of a job candidates' disclosure of their autism spectrum disorder (ASD) status during an interview effects their interview ratings. A mock interview of an actor portraying symptoms of ASD was provided to 87 participants (50 men, 34 women). Three conditions were randomly assigned to participants regarding disclosure: early disclosure, late disclosure, and no disclosure. Participants then provided an Interview Question Rating for each interview question, as well as a rating regarding their likelihood to hire the candidate being interviewed. This study found that participants in the early disclosure condition gave higher ratings than those in the late disclosure condition regarding likelihood to hire. This study also found that participants gave higher ratings in the no disclosure condition than those in the late disclosure condition regarding likelihood to hire. This study did not find any statistically significant effects for disclosure differences on the interview question ratings.

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CHAPTER I: INTRODUCTION

Individuals with disabilities continue to be one of the largest unemployed groups in the United States (Bureau of Labor Statistics (BLS), 2020). People with disabilities also are persistently stigmatized and the treatment they receive from others can depend upon the salience of their disability and the degree to which others understand (or believe they understand) the disability (Hensel, 2017; Randolph, 2005). With the unemployment rate for disabled individuals steadily increasing (BLS, 2020), their role in the workplace and the roles they could play in the workforce of the future need to be further analyzed. For physical disabilities, research shows that unemployment rates tend to be lower than those with learning or developmental disabilities (Roberts & Macan, 2006; Summer & Brown, 2015). One such group with neurodevelopmental disabilities, individuals with autism spectrum disorder (ASD), continues to be an underemployed population within the United States and the antecedents and consequences of the underemployment of individuals with ASD is not well researched or understood (Ohl et al., 2017).

In the United States, the diagnostic rate for ASD continues to increase, therefore individuals with ASD seeking practical work experiences also will increase (Autism Speaks, 2020; Centers for Disease Control, 2020). As the ‘Spectrum’ in the name implies, the degree of severity amongst individuals with ASD falls along a broad continuum (American Psychiatric Association, 2013). The role that research on “high-functioning” adults with ASD play and could play in the workforce is severely lacking especially when compared to abundance of research on children with ASD (Billini et al., 2007; Hendricks, 2010; van Steensel & Heeman, 2017).

Adults on the ASD spectrum seeking competitive employment are often faced with challenges navigating the job search process, the job application process, and the job interview process (Hendricks, 2010; Hensel, 2017; Patton, 2019). Of particular concern for job applicants with ASD is the notion of disclosing (or not disclosing) their ASD diagnosis during the hiring process (Ohl et al., 2017; Patton, 2019). While laws protect applicants and employees with ASD, the role that possible bias and attitudes towards individuals with ASD and how those might impact those seeking employment, is under researched. Unlike some other learning or developmental disabilities, ASD can manifest in behaviors and mannerisms that are observable to untrained viewers and could be inaccurately interpreted by potential employers (Hensel, 2017; Patton, 2019). An example of this is lack of eye contact (Hensel, 2017; Patton, 2019). The present study will focus on the extent to which disclosure of an ASD diagnosis during the hiring process could impact the employment decisions made by employers.

Purpose

Despite the increase of working adults with an ASD diagnosis in society (Burgess & Cimera, 2014; Hensel, 2017), research has not addressed whether disclosure of one's ASD diagnosis results in differing decision-making outcomes as it relates to hiring and selection in the workplace. This is important to evaluate because the decision to disclose or not to disclose has been revealed as a barrier to seeking employment in many individuals with disabilities, especially ASD (Hensel, 2017; Ohl et al., 2017; Sarret, 2017). With more and more individuals with an ASD diagnosis transitioning into adulthood, the need for this type of research is extremely relevant. This study will analyze ASD diagnosis disclosure and employer decision-making and the impact such

actions might have on an individual diagnosed with autism spectrum disorder in an employment interview. The findings of this study could make a meaningful contribution to the research in ASD and, more importantly, it could provide guidance and inform best practices for those with an ASD diagnosis when they are seeking employment.

Autism Spectrum Disorder

Autism spectrum disorder (ASD) is categorized as a developmental disability affecting social, cognitive, and sometimes physical responses (CDC, 2020). Individuals with this disability also face challenges in communication and restrictive patterns of behavioral functioning (CDC, 2020). The *Diagnostic and Statistical Manual of Mental Disorders-5 (DSM-5)* defines ASD as a neurodevelopmental disorder involving deficits in social communication, social interaction in numerous contexts, and restricted repetitive behaviors, interests, and activities (American Psychiatric Association, 2013). However, ASD presents differently in each individual who faces the disability (Hendricks, 2010). Those who study ASD agree that not only is the etiology of autism complex, but it produces a varied spectrum of behaviors and outcomes (Flood et al., 2013; Hendricks, 2010); A common saying in the autism community is that “If you have met one person with autism, then you have met one person with autism” (Shore et al., 2006).

Currently, in the United States, on average, one in 54 children are identified as having ASD (CDC, 2020). The cause for the disorder is not known and no cure is available (Sarret, 2017). The neurodiversity movement suggests that learning and developmental disorders, like ASD and ADHD, are naturally occurring alterations in the functioning of one’s brain, therefore, individuals should not be forced or expected to change to neurotypical functions or treated with medicine (Summer & Brown, 2015).

Neurotypical individuals are seen as those who do not exhibit typical autistic traits or neurologically atypical thoughts and behaviors. In contrast to these views, individuals who identify with the medical movement have sought research that explores how to prevent and cure autism (Kapp et al., 2013).

As noted earlier, individuals diagnosed with neurodevelopmental disorders related to autism spectrum disorder manifest different characteristics of the disorder through a broad spectrum, hence the formal name being autism spectrum disorder. In severe manifestations of the disorder, individuals lack verbal functioning, have severe intellectual impairments, may suffer from physical impairments, and may require extensive and constant support and care throughout their entire life (Patton, 2019). Individuals considered high functioning may have limited restrictions on their everyday activities (Patton, 2019). However, one must keep in mind that each case of ASD is unique, and it is rare that one will encounter two individuals diagnosed with ASD who have exactly the same restrictions or impairments (Patton, 2019). The focus of this research will be individuals identified as or considered “high-functioning” on the spectrum.

According to the *DSM-5*, high functioning individuals diagnosed with ASD are listed as level 1 for social communication and level 1 at restricted repetitive behavior meaning they require support, as opposed to requiring substantial support or requiring very substantial support (APA, 2013). As it relates to difficulties in verbal and nonverbal communication, individuals diagnosed with high functioning ASD may struggle with understanding sarcasm, humor, expressing wants and/or needs, pitch and rhythm of their

speech, and abilities to engage in eye contact and appropriate facial expressions (Patton, 2019).

When it comes to social interactions, high functioning individuals may have difficulty initiating conversation, responding when called by their name, taking others' feelings and preferences into consideration, responding "appropriately" to praise, comforting or consoling others, or accept and engage in physical contact (e.g., handshakes and hugs) with others (Patton, 2019). Many individuals diagnosed on the ASD spectrum also follow tight patterns of repetitive behaviors and speech. These may include adhering to constricted routines, resisting change or unplanned events, uncompromising thinking, asking repetitive questions, and speaking on the same topic (Patton, 2019). While some of these characteristics may impose challenges in the workplace, reasonable accommodations can be made and often requires little – if any – capital expenditure or equipment (Hendricks, 2010; Ohl et al., 2017).

As earlier noted, most ASD research has focused on young children (Billini et al., 2007; Hendricks, 2010; van Steensel & Heeman, 2017), their treatment (Billini et al., 2007), and developmental programs (Hendricks, 2010), but a small percentage of research has looked into what happens when these children become adolescents and enter the workforce (Griffiths et al., 2016; Hendricks, 2010). Research on ASD in children is extensive and vast, yet there is a dearth of research studying adults diagnosed with ASD, especially in terms of employment (Hendricks, 2010)

ASD and Employment

ASD has been identified as a permanent developmental disability, therefore creating challenges in both childhood and adulthood (Hendricks, 2010). Individual

diagnoses of ASD have increased dramatically in the United States (Fombonne, 2003; Hendricks, 2010). As a result, the percentage of unemployed individuals with ASD also has increased (Hendricks, 2010). The growing number of diagnoses means that individuals with an ASD diagnosis who are graduating from high school and college and seeking employment will also be increasing (Autism Speaks, 2020; Burgess & Cimeria, 2014; Hensel, 2017). According to Autism Speaks, within the next decade between 700,000 and 1,116,000 teens diagnosed with ASD will become working age adolescents (Autism Speaks, 2020). In the U.S., the current unemployment and underemployment rates for individuals with ASD is estimated to be about 85% (Autism Speaks, 2020). The Bureau of Labor Statistics currently reports that 19.3% of people with a disability are employed, which comprises all types of disabilities (BLS, 2020). Disclosure of an ASD diagnosis analyzed in conjunction with one's educational level was found to contribute to these individual's decreasing unemployment status (Ohl et al., 2017). The severity of autism spectrum disorder, comorbidity of other disorders with ASD, gender, social impairments, and prior institutionalization also drive the unemployment rate for these individuals to be so high (Ohl et al., 2017).

Many of the challenges faced in the employment of individuals with an ASD diagnosis start in the initial job search and extend into the interview process (Hendricks, 2010). Individuals on the ASD spectrum have experienced problems with answering behavioral questions without prior preparation, monitoring and reading facial expressions, and the multitude of required social interactions as it pertains to interviewing (Hendricks, 2010; Hensel, 2017). Some research has identified ways to combat these challenges during the interview process included offering alternative interview

procedures that include allowing candidates to spend time in the office, and allowing managers to see candidate's skill sets in action rather than have them speak to them (Agovino, 2019). This approach could also take away some of the social pressures identified as problematic for individuals with ASD, which are manifest in traditional interviewing processes (Agovino, 2019). Unfortunately, despite some of these efforts, most individuals diagnosed with ASD seeking employment often find themselves in part-time and low wage occupations (Adams, 2018; Muller et al., 2003). Research has revealed many benefits that come with recruiting and hiring qualified job candidates with ASD. Some of these include proficiency in visual skills, sciences, mathematics, high attention to detail, intense concentration in their personal fields of interest, high reliability, willingness to do repetitive work, and decreased absenteeism (Hendricks, 2010; Hensel, 2017; Patton, 2019). However, these benefits may also come with drawbacks. Research reveals that difficulties in social interactions are frequently identified as a hindrance in their performance. These difficulties in social interactions may also lead to misinterpretation of social cues, task ambiguity, and a failure to attend to nuances in verbal communication (Hendricks, 2010; Hensel, 2017). Individuals on the ASD spectrum commonly stick to routines and are very sensitive to environmental stimuli, therefore, deviation from routines or noisy and distracting environments can easily produce stress and anxiety in the workplace that may be difficult to overcome or cope with for coworkers (Hendricks, 2010; Hensel, 2017).

Disability Laws & Accommodations

There are current policies and regulatory requirements in place in the U.S. to protect individuals with disabilities in the workplace. The United States Equal

Employment Opportunity Commission (EEOC) defines a disability as a physical or mental condition substantially limiting a major life activity, having a history of a disability, or having an impairment that is not transitory (United States Equal Employment Opportunity Commission, [EEOC], 2020). Currently under Title 1 of the Americans with Disabilities Act of 1990, it is illegal to discriminate against a qualified candidate in government sectors due to a disability (U.S. EEOC, 2020). A qualified candidate is identified as one who has the capability to execute essential functions of job defined by the position in question (Hensel, 2017; U.S. EEOC, 2020). This law also addresses reasonable accommodations for both physical and mental limitations a candidate or employee may have (U.S. EEOC, 2020). Other EEOC regulations include Sections 501 of the Rehabilitation Act of 1973 (U.S. EEOC, 2020). Under this act, it is illegal to discriminate against a qualified candidate with a disability in the federal government and also protects against retaliation (U.S. EEOC, 2020).

However, in regard to autism spectrum disorder specifically, many individuals may struggle with finding protection and accommodations that may be needed. In the case of *Jakubowski v Christ Hospital*, 627 F. 2d 195 (6th Cir.2010), Martin Jakubowski was diagnosed with Asperger's syndrome (a specific condition on the autism spectrum) after starting his position as a resident physician at Christ Hospital (*Jakubowski v. Christ Hospital Inc.*, 2010; Morris & Calem, 2011). Asperger's syndrome, according to the *DSM-IV*, is on the autism spectrum identified by oddities in speech, language, social and emotional behavior, and unsuccessful peer interactions (APA, 1994; Morris & Calem, 2011). Jakubowski had experienced difficulties in his performance during his time with Christ Hospital and was subsequently let go despite his 90th percentile placement on the

knowledge exam (Morris & Calem, 2011). In contrast, on the emotional intelligence exam, Jakubowski scored extremely low and his previous and current supervisors emphasized his communication challenges and the problems they created as a physician (Jakubowski v. Christ Hospital Inc., 2010; Morris & Calem, 2011). Following his release as a family practice resident physician, Jakubowski appealed his discharge asking for an accommodation with “knowledge and understanding” for his disability (Jakubowski v. Christ Hospital Inc., 2010; Morris & Calem, 2011). The courts did not decide in favor of Jakubowski, in part because his accommodation did not sufficiently address how he would be able to effectively complete an essential function of the job (effective communication) as it related to patient’s safety. In short, Jakubowski’s proposed accommodations were not seen as comprehensive enough to address the issues related to his performance. This led one circuit court judge to question if a person with a disability must ask “for the right accommodations” before he was fired (Jakubowski v. Christ Hospital Inc., 2010; Morris & Calem, 2011).

In *Comber vs. Prologue*, an employee with ASD was terminated due to personal conflicts with her supervisor (Comber v. Prologue, Inc., No. JFM-99- 2637, 2000). During her trial, she had an expert testify to reveal how her autism spectrum disorder caused social isolation and minimized her skills to enjoy relationships with others at work (Comber v. Prologue, Inc., No. JFM-99- 2637, 2000). Unfortunately, the court ruled against her disability being the cause for her troubles with her supervisor. This was due to the courts’ identifying a single individual in her organization that she had a working and sociable relationship (Comber v. Prologue, Inc., No. JFM-99- 2637, 2000). The court acknowledged her autism spectrum disorder, but due to many successful years of

working and evidence of socializing, they found the interpersonal difficulties the plaintiff experienced with her supervisor as mere “personality conflicts” rather than the cause of her social issues with the supervisor (*Comber v. Prologue, Inc.*, No. JFM-99- 2637, 2000).

As the court cases above demonstrate, for individuals with ASD, accommodations and protection at work can be difficult to define and harder for others to comprehend compared to physical disabilities (Hensel, 2017; Summer & Brown, 2015). The main concern of accommodating individuals with autism spectrum disorder is often the focus on finding accommodations that address social interaction and communication (Hensel, 2017). Compared to tangible accommodations of some physical disabilities, intangible disabilities propose more challenges as they relate to addressing modifications (Hensel, 2017). Research has shown that an obscuring factor when it comes to accommodations occurs when attempting to define an essential function of a job and undue business hardship (Patton, 2019). When considering accommodations, organizations must consider what tasks, especially as they relate to social interactions, are deemed essential to business functioning (Patton, 2019). For example, eye contact, conversation, and getting along with others may not be essential to a statistician’s role, but these could be seen as essential functions of a customer service representative role, which could make a case for discrimination in hiring and selection permissible (Patton, 2019).

When social tasks or interactions are essential for a job, finding appropriate accommodations for individuals with ASD may seem challenging, but when social tasks are not considered essential, finding accommodations may be more easily accomplished (Patton, 2019). Accommodations for these individuals with ASD may need to consider

noise level, lighting, crowding, interruption, and space navigations, as well as noting that each individual's accommodations might differ due to the uniqueness of the disability (Hillier et al., 2007). Other accommodations may include having specific and clear task requirements and assignments, undergoing individualized training, making clear statements and requests, and offering "down time alternatives" (Hendricks, 2010). When expectations are not clear or there is idle time at work, research shows this to be problematic for individuals with ASD requiring a restructuring of the employee's tasks and expectations (Hendricks, 2010; Hensel, 2017). Reasonable accommodations for individuals on the autism spectrum that address these concerns could include providing a private and/or quiet office area, allowing for flexible start times based on preexisting routines, allowing use of headphones to eliminate noise, lighting adjustments to avoid visual distractions, providing a mentor or coach for adjusting to the work space, and placing a heavier emphasis on written communication methods (Hensel, 2017; Johnson & Joshi, 2016; Patton, 2019). Accommodations will likely be different based on the position, but it is also known that some individuals with ASD do not require accommodations in the workplace to be successful, but for those who do, the discussion of accommodations does not start until the disclosure of the disability has been made (Hensel, 2017; Sarret, 2017).

Disclosure

Disclosure is a personal decision that many stigmatized individuals consider when entering any new work environment (Sarret, 2017). Similarly, for an existing employee the disclosure of a new diagnosis of a condition or disability could be stigmatizing. Research shows that fear of being subjected to stigmas and stereotypes drives fear of

disclosure in individuals with disabilities (Patton, 2019). Individuals with disabilities tend to be subjected to bias as it relates to the job search, which makes the decision to disclose their diagnosis personal and important (Hensel, 2017; Sarret, 2017). As a result, there are varying opinions about when to disclose or even if one should disclose their disability status (Hensel, 2017; Jans et al., 2012; Ohl et al., 2017; Roberts & Macan, 2006; Sarret, 2017). In the work environment, disclosure has been known to affect job satisfaction and job anxiety (Griffith & Hebl, 2002). Research has shown that disclosure relates to high psychological adjustment and life satisfaction outside of work, so when disclosing inside of the workplace, similar results should be produced (Griffith & Hebl, 2002). Research revealed that when individuals disclosed information in regard to their sexual orientation, they were found to have higher psychological adjustment and life satisfaction outside of their work environment and consequently inside of their work environment as well (Griffith & Hebl, 2002). For disabilities in general, disclosing of one's disablement is the only way to receive the necessary and proper legal accommodations, benefits, and protection against discrimination (Hensel, 2017; Sarret, 2017). When there is early knowledge of a disability, this may serve as a benefit for the employer, but can also impose challenges on the employer and individual, especially as it relates to ASD. Accommodations for individuals on the autism spectrum can sometimes be viewed as a challenge or nonnecessity (Hensel, 2017; Sarret, 2017). This drives individuals to believe it is to their benefit to refrain from disclosure until an offer is given, they are hired, or sometimes never revealing this information (Hensel, 2017; Jans et al., 2012; Roberts & Macan, 2006; Sarret, 2017). The work environment and culture of an organization are very important in determining disclosure and will either motivate or

serve as hindrance for the decision. Research shows that understanding the environment, opportunities for feedback, and self-disclosure all impacted the decision to disclose (Griffith & Hebl, 2002; Jan et al., 2012; Sarret, 2017).

For ASD specifically, the Section 503 of the Rehabilitation Act concluded that environments that are perceived as thoughtful, provide education and training, show opportunities for workplace modifications, and clearly display anti-discrimination policies towards people with disabilities, increase the potential for the individual with ASD to thrive and be an efficient worker (Hensel, 2017; U.S. EEOC, 2020). Research also revealed that “over twice as many employed participants (63.23%) disclosed their ASD diagnosis to their employer than unemployed participants (28.87%)” resulting in employment for those who disclosed their diagnosis (Ohl et al., 2017). Despite this finding, the research and experience of others also show that disclosure for different disabilities also has different implications (Jans et al., 2012). The degree to which a disability is hidden or visible affects one’s disclosure approach (Jans et al., 2012). Hidden disabilities tend to be more stigmatized, and individuals with visible disabilities tend to disclose or acknowledge their disability earlier in the hiring process (Jans et al., 2012). Individuals with disabilities that are not visible, like ASD and depression, may feel that disclosing their condition could jeopardize their hiring status, result in termination, or be seen as career limiting by opening the door for stigma and discrimination (Jans et al., 2012; Ohl et al., 2017; Sarret, 2017). A clear example of this was provided when an employer revealed to an employee that if they had known about her disability earlier in the process, they would have not hired her despite her good work quality (Jans et al., 2012). Instances like these make the decision to disclose a disability in the future more

challenging. However, research demonstrates that there are many benefits to disclosing and is sometimes recommended by individuals with disabilities based on other's more positive experience (Ohl et al., 2017; Roberts & Macan, 2006; Sarret, 2017). Other than invoking ADA rights (Ohl et al., 2017), other reasons identified to disclose include eliminating the possibility that an employer may feel deceived; boosting one's self-esteem; increasing likelihood of being hired by being seen as more honest, qualified, and confident; opening lines of communication and needs; developing closer relationships with coworkers; making promotion inquiries easier; and having the ability to advocate and show awareness for one's disability (Hensel, 2017; Ohl et al., 2017; Roberts & Macan, 2006; Sarret, 2017). Most researchers note that as it relates to disclosing, one should focus and emphasize their abilities and performance in concise statements despite their disability, rather than providing details educating the employer on the nature and causes of their disability (Hensel, 2017; Jans et al., 2012). Other factors affecting disclosure in the workplace included one's age of diagnosis, organization-based self-esteem, and perceived discrimination (Johnson & Joshi, 2016). Organization-based self-esteem was defined in the research as the extent to which an individual believes themselves to be capable, significant, and worthy in their organization (Johnson & Joshi, 2016). Perceived discrimination was identified as perceived unfair or unjustified treatment and actions leading to unequal treatment. (Allport, 1954; Dipboye & Colella, 2005; Johnson & Joshi, 2016). It is clear that disclosure is a complex and very personal decision, which is also affected by one's work environment. In the case of *Kinghorn vs G* (*Kinghorn v. Gen. Hosp. Corp.*, No. 11–12078–DPW, 2014), an employee with ASD collected evidence that revealed that their employer believed and described in person

interviews as essential in order to screen for “weirdness” (Hensel, 2017). The low numbers of individuals employed with ASD may also suggest to researchers that getting beyond the initial interview process is a hindrance especially as it relates to disclosure (Baldwin et al., 2014; Hendricks, 2010; Hensel, 2017; Ohl et al., 2017; Sarret, 2017)

Selection Interviews

The interview process is a ubiquitous method used in selection and hiring efforts (Wanietta, 2016). The interview process may be augmented by resume screenings, phone screening, the use of personality tests, email exchanges, and sometimes on the job performance tests/tasks (Sarret, 2017). The decision to hire or not hire an individual is often made at the end of the interview, but some employers may even make the decision during the interview process (Wanietta, 2016). These decisions may even be made on the basis of information gathered during unstructured or less-structured portions of interviews where employers are getting to know candidates through personal questions (Barrick et al., 2010). After completing an application, the resume screening is the first step in most hiring processes (Wang et al., 2010). After passing the initial resume screen, candidates are often screened again by phone before being invited for in-person interviews. Before the formal interview begins, employers may attempt to assess non-verbal communication, like a handshake, to determine if a candidate is a good fit for the position (Wanietta, 2016). Some research shows that a handshake or smile in the initial greeting of an interview is a high predictor of employment (Barrick et al., 2010). If an employer feels that an individual is qualified and competent during this initial greeting period, the candidate is more likely to be hired (Wanietta, 2016). During the interview, the candidate’s personality traits and social skills are often evaluated more critically than

what the candidate knows and how they learn (Roberts & Macan, 2006). This may include questions focused on individual interests, organizational fit, and sometimes physical attributes depending on the position or career.

Interviews rely heavily on social interactive behaviors and because ASD involves deficits in social interactions, the interview process can prove to be a challenge for many individuals on the autism spectrum (Baldwin et al., 2014; Hendricks, 2010; Sarret, 2017). During interviews, interactions that may be viewed as natural or an easy skill to learn for neurotypical individuals can provide many difficulties for someone on the spectrum (Ohl et al., 2017). Finding and attaining competitive employment is difficult for individuals with ASD, and they are more likely to be unemployed or underemployed than other disability groups (Baldwin et al., 2014). During the job search many individuals with ASD report difficulties in various facets of the process. These include complex applications, social interactions, initial contact, follow ups, forming a succinct resume, and balancing use of impression management (Baldwin et al., 2014; Ohl et al., 2017; Sarret, 2017). Problems faced during the interview reveal different challenges for individuals on the spectrum. Research reveals that difficulties in maintaining eye contact, thinking “on their feet,” processing questions, expressing verbal comprehension, overcoming anxiety, and balancing level of detail to share are all challenges for individuals with ASD during employment interviews (Baldwin et al., 2014; Ohl et al., 2017; Sarret, 2017). Other challenges faced in employment may include acclimating to new procedures and routines, both remembering and following instructions, effective communication, working in rapidly changing or fast paced environments, and dealing with busy or noisy environments (Baldwin et al., 2014; Hendricks, 2010; Sarret, 2017).

The aforementioned challenges are in addition to interpersonally dealing with the beliefs, attitudes, and stereotypes of their coworkers (Baldwin et al., 2014; Hendricks, 2010; Sarret, 2017). Despite these difficulties, adults with autism spectrum disorder offer an abundance of quality characteristics to employers including visual thinking, systematic information processing, detailed technical abilities, honesty, precision, consistency, low absenteeism, and efficiency (Baldwin et al., 2014). Amidst these challenges, there are resources provided to individuals with ASD on how to handle the job search.

Employment readiness programs tend to focus on how to navigate interviews, hygiene, proper attire, how to discuss job related skills, how to handle disclosure, role playing, creating scripts, and mock interview activities (Sarret, 2017). Interviewing, selection, and disclosure are some of the most common challenges faced by individuals with disabilities. Knowing this, this paper serves to explore, understand, and examine how making a decision based on an individual's diagnosis of autism spectrum disorder is affected by disclosure in selection decisions.

Summary

The increase of individuals with disabilities transitioning into adulthood and facing the challenges of seeking employment has become increasingly prevalent (Griffiths et al., 2016; Hendricks, 2010; Hensel, 2017). Knowing that autism spectrum disorder affects high-functioning individual in various ways, it is important for research on employment be inclusive. Organizations like Autism Speaks and the World Health Organization, have compiled extensive support material and funded research on how ASD affects children. This includes best practices for treatment, diagnosis, and education. However, research on how ASD affects adults in the workplace is not

prevalent. Despite the lack of research, there are many laws and accommodations currently available to individuals with disabilities.

Currently in the literature, the decision to disclose one's disability is a pressing issue that does not have a universal conclusion for many adults facing autism spectrum disorder (Hensel, 2017; Jans et al., 2012; Ohl et al., 2017; Sarret, 2017). In some studies, adults on the spectrum have revealed a fear of termination or prevention of hiring if they disclose their ASD diagnosis (Ohl et al., 2017). However, in a study done looking at perceptions of children's behavior and their parents, the results found that when children were given the label of having ASD, participants blamed the parents for the children's behavior less and were more understanding due to the circumstances (Howton, 2018). Other studies have also supported the notion that labeling of one's disability diagnosis is more beneficial than harmful (Werner & Shulman, 2015). Individuals with ASD face challenges with eye contact and social interaction, making the beginning stages of the employment process more difficult (Brazeau et al., 2017). For example, during interviews, gestures like smiling and shaking hands are seen as norms, however these interactions don't always come off as natural for individuals on the spectrum. However, by disclosure of one's ASD prior to an interview, individuals on the spectrum may find the interviewer to be more understanding of their circumstance. The following study aims to investigate if the timing of one's disclosure of their ASD positively or negatively affects how they are rated in an interview and their likeliness to be hired.

Study Overview

Seeking employment whilst having a disability is a challenging experience that an increasing number of adults with ASD begin to face. The research shows that the decision to disclose one's ASD diagnosis when seeking employment has mixed results based on different individual's personal experiences (Jans et al., 2012; Sarret, 2017). Additionally, deciding when or if to disclose one's ASD diagnosis is another challenge faced by these individuals during the hiring process (Ohl et al., 2017). Previous research shows us that by disclosing one's diagnosis, many times one is treated more positively and any attributes of one's disorder is able to be accommodated (Hensel, 2017; Ohl et al., 2017).

The present study will address the extent to which the timing of disclosure of an ASD diagnosis during an employment interview could affect the evaluation of individuals with ASD seeking employment. The study will evaluate three different conditions in which the disclosure of one's ASD diagnosis occurs at the beginning, end, or not at all in an interview. A fictional candidate will be recorded answering interview questions for the job of a medical coding specialist for a fictional health care provider. As discussed earlier, many individuals with ASD, who are high functioning, are well adept to and prefer jobs with minimal interpersonal contact and detail oriented. Therefore, the job of a medical coding specialist was chosen for this study to provide a realistic job option that a high functioning individual with ASD would be both successful and comfortable in. The researchers of this study believe that the earlier one discloses their ASD diagnosis in employment, the more favorable the outcome and chance at hiring that individual may have. These conclusions have led us to the following hypotheses:

Hypotheses

H1: Participants in the Early Disclosure condition will report being more likely to hire the candidate compared to participants in the No Disclosure condition and Late Disclosure condition.

H2: Participants in the Late Disclosure condition will report being more likely to hire the candidate compared to participants in the No Disclosure condition.

H3: Participants in the Early Disclosure condition will provide higher interview question ratings for each of the candidate's interview questions compared to participants in the No Disclosure condition and Late Disclosure condition.

H4: Participants in the Late Disclosure condition will provide higher interview question ratings for the candidate's interview questions compared to participants in the No Disclosure condition.

CHAPTER II: METHODS

The study was a between subject's design to assess interview ratings based on levels of disclosure on a computerized assessment. The study used videos as stimulus material for the participants. The research was conducted in accordance with the Middle Tennessee State University Institutional Review Board (see Appendix A).

Participants

The participants for this study were recruited utilizing Amazon's Mechanical Turk (MTurk), undergraduate students at Middle Tennessee State University (MTSU) fulfilling a course research requirement in their introduction to psychology class or from other courses, and through social media promotion. MTurk is an online platform that allows researchers to collect data from a large pool of individuals for a set monetary payment. MTSU participants were gathered using the MTSU Sona system. By recruiting from MTurk, MTSU Sona System, and social media, the researchers were able to collect information from people with a diverse background. Qualtrics was used for survey administration. A consent form was read and digitally signed by participants before each study. Participants recruited through MTurk were directed to a link to complete the consent form and begin the research study

Over 250 participants began the study and 240 completed the entire study. However, only the participants who passed the manipulation check process were included in subsequent analyses. In order to pass the manipulation check process, participants were asked to answer two (2) out of the six manipulation check questions correctly. This cutoff was stringent due to the need for participants in the present study to pay attention to the stimulus within their condition. The final number of participants included was 87 (50

men, 34 women, and 3 individuals that did not identify their gender. From these participants, the most frequently reported source of data was MTurk (63%), followed by social media promotion (29%), and the MTSU Sona System (8%). Most participants indicated that they were familiar with interviews (93%), while fewer participants indicated that they were unfamiliar with interviews (5%) or only have heard of the term (2%).

The ages of participants ranged from 18 to 67 years old. The most frequently reported ethnicity was Caucasian/White (44%) followed by African/American Black (24%), Asian/Pacific Islander (21%), Hispanic/Latina (3%), Arab/Middle Eastern (2%), and those that did not identify an ethnicity (5%). The majority of respondents were employed full time (68%). The most frequently reported degree obtained was a Bachelor's degree (54%), followed by high school diploma (21%), Master's degree (15%), and Associate's degree (10%). The 87 participants were randomly assigned to one of the three disclosure conditions with 39 participants in the no disclosure condition, 27 participants in the early disclosure condition, and 21 in the late disclosure condition.

Materials

Job Description. A job description was compiled using ONET online for the role of a medical coding specialist. The job description and required knowledge, skills, abilities, and competencies can be found in Appendix B.

Interview Questions/Videos. Six interview questions were developed based on the KSAO's found in the job description of a medical coding specialist. The interview questions used for the study are reflective of relevance for the position, as well as needed KSAO's and competencies for the role. The interview questions are based on the

dimensions of attention to details, adaptability, and communication skills for a medical coding specialist. The actor for the study was a volunteer male graduate student. After constructing the interview questions, the actor was trained and coached using a provided script (see Appendix C). Mock video interviews were directed, recorded, and edited for the study. Each video was approximately one to two minutes in length. All three conditions used the same video of the actor responding to the questions in a manner consistent with an individual with attributes of autism spectrum disorder (little to no eye contact, nervous gestures, etc.). The videos for the first and last questions were each differed based on the condition they were constructed for (early, late, or no disclosure). The differences in the video script can be found in Appendix C.

Demographic Questions. After completing the survey, the participants were asked to respond to several demographic questions (see Appendix D). The demographic questions included information about age, level of education, ethnicity, and degree of interview experience. Participants were then provided debriefing information and asked not to share or discuss the study with others that could be possible participants. These items can be found in Appendix D.

Experimental Conditions

There were three experimental conditions in this study. In the No Disclosure condition, the actor answered the interview questions without disclosing their ASD diagnosis. The Early Disclosure condition used a parallel video of the actors' responses to the questions as the No Disclosure condition except for a change in the response to the first question. In the Early Disclosure condition, the candidate's response to the first question (Tell me about yourself) was the same as the No Disclosure but towards the end,

a few seconds of video in which the candidate discloses his ASD diagnosis was added. The Late Disclosure condition also used a parallel video of the actors responses to the questions as the No Disclosure condition except for a change in the response to the last question. In the Late Disclosure condition, the candidate's response to the last question (How would you convince someone that they should hire you as the medical coding specialist for their hospital?) was the same as the No Disclosure but towards the end, a few seconds of video in which the candidate discloses his ASD diagnosis was added. Because parallel videos, with only minor changes, were used for all three conditions, the actor, the actor's responses, and the actor's behaviors are consistent throughout the three conditions.

Measures

Participant Information Questionnaire. In the beginning of the survey, participants were asked to answer questions in regard to their previous experiences with interviews. The questionnaire asked participants about their familiarity with interviews. This was done to gauge participant knowledge of the structure and purpose of interviews in order to help measure the reliability and validity of our results. Participants were then informed that based on their responses to the previous questions, they have been asked to interview and provide ratings on the actors answering of the interview questions. A set of likelihood to hire ratings, interview question ratings, and exploratory individual response ratings was collected using a Qualtrics survey. Each rating contains 5-point Likert scales created by the researchers based on the job description provided of a medical coding specialist.

Interview Question Rating Scale. In order to measure the candidates' overall response to each of the six interview questions, after viewing each interview response in its entirety, the participant was asked to rate that interview question. Participants were asked to "Please rate the candidate's overall response to the interview question" on a 5-point Likert rating scale from *Unsatisfactory* to *Exceptional* for each interview question (see Appendix E). This question was asked following each of the six interview questions.

Likelihood of Hiring Scale. In order to determine the overall likelihood of hiring, the participants were asked to provide a response as to how likely they would be to hire the candidate portrayed by an actor for the Medical Coding Specialist position at KS Health Services using a Likert scale. The scale asks how likely the participant would be to hire the candidate on a 5-point Likert scale from *Extremely unlikely* to *Extremely likely* (see Appendix F). This question was asked following the completion of watching all six of the interview questions.

Attention/Manipulation Check Items. To ascertain the extent to which participants read and understood the job description, they answered a few questions regarding the job description. Similarly, for each of the interview questions, manipulation check questions were provided to gauge participant attention to items and the actor's responses to the interview questions. The manipulation check items included information regarding what the actor discussed in his answering of the interview question. All participants received these questions, despite their assigned condition (see Appendix G & H).

Exploratory Individual Response Rating Scales. After watching the response to each of the six interview questions, the participant was asked to provide a specific rating of the response using a five-point Likert rating scale. In order to measure the candidates'

responses to the six interview questions, a 5-point Likert rating scale from *Not effective at all* to *Extremely effective* was constructed within the survey. Each individual rating of the interview questions contains three areas to rate the candidate's response to the question (see Appendix E). For example, the participant was asked to "Please rate the candidates ability to: Express himself, Communicate an interest in the Medical Coding Position, and Provide job relevant details about himself" for interview question one "Tell me about yourself." These three areas serve as exploratory measures.

Exploratory Suitability Questionnaire. An exploratory questionnaire was also constructed using a 6-point Likert rating scale from *Unsatisfactory* to *Exceptional*, including an option for *Don't Know* (see Appendix F). The purpose of this scale is to explore how well the candidate answered the interview questions and is suited for the role based on the job description of a medical coding specialist. These questions assess the candidate's overall ability to meet the required KSAO's of a medical coding specialist, their fit/suitability to the position, their experience, their qualifications, and whether the participant would enjoy working with this candidate.

Procedure

Participants signed up for the study using the SONA System at Middle Tennessee State University (MTSU), Amazon's Mechanical Turk, through social media promotion (LinkedIn, etc.), and word of mouth. Once participants accessed the link to the survey through Qualtrics, they were given a participant copy of informed consent. The consent form explains the study and voluntary participation. A digital signature on the consent form from each participant was required in order to complete the study.

After the consent form was approved, participants were then prompted to answer 4 questions related to their general experiences with employment interviews for exploratory purposes. For example, “How many jobs have you interviewed for in the last (5) years?.” After answering these questions, the participants were informed that they will be acting as a hiring manager for a fictional company, KS Health Services. They were then instructed to read a job description for the role of a medical coding specialist (see Appendix B), watch, then rate the following videos of the candidate answering each interview question.

Participants were then randomly assigned to the three conditions (Early Disclosure, Late Disclosure, and No Disclosure). A between subject’s design was used in this study. Immediately after each interview video, the participants rated each interview response using a five-point Likert rating scale and provided an interview question rating for each interview question. After viewing and individually rating all six of the candidate’s responses, participants were then asked to rate how likely they would be to hire the individual for the medical coding specialist position open at KS Health Services, along with other exploratory questions about the candidate’s fit for the medical coding specialist position (see Appendix F). The last questionnaire was the demographics survey (see Appendix G).

Data Analysis

In order to clean our data, responses were deleted based on responses to manipulation check items. The aim of this study was to explore whether or not disclosure and/or the timing of disclosure impacts or differs the hiring decisions for individuals with ASD. A between subject’s design was used in order to measure this. Analysis of Variance

(ANOVA) and post hoc analyses were conducted to determine the impact of disclosure on the dependent variable of Likelihood of Hiring. Analysis of Variance and post hoc analyses were conducted to determine the impact that the independent variable of Disclosure of ASD diagnosis had on dependent variable of Interview Question Ratings. Interview questions ratings were averaged and collapsed in order to be used in the analysis. The ANOVA was conducted, using No Disclosure, Early Disclosure, and Late Disclosure as the independent variables. Likelihood of hiring ratings and interview question ratings were the dependent variables.

CHAPTER III: RESULTS

Descriptive Statistics

Descriptive statistics and frequency counts were used to calculate all qualitative questions in regard to the participants' demographic information. To answer the hypotheses descriptive statistics, one-way ANOVA's, and Tukey's HSD test were computed to determine the differences between no disclosure, early disclosure, and late disclosure likelihood of hiring ratings and interview question ratings. The results were analyzed for their likelihood of hiring and interview question ratings. Interview question ratings were analyzed by creating a variable that averaged responses for each condition. Descriptive statistics for the likelihood of hiring ratings are presented in Table 1.

Descriptive statistics for the interview question ratings are presented in Table 2.

Table 1.

Descriptive Statistics for the Likelihood of Hiring

Variable	N	M	SD
No Disclosure	39	4.44	.55
Early Disclosure	27	4.56	.64
Late Disclosure	21	3.90	1.22

Table 2.

Descriptive Statistics for the Interview Question Ratings

Variable	N	M	SD
No Disclosure	39	3.98	.51
Early Disclosure	27	4.04	.48
Late Disclosure	21	3.73	.76

Hypothesis Testing

Hypothesis 1: Participants in the Early Disclosure condition will report being more likely to hire the candidate compared to participants in the No Disclosure condition and Late Disclosure condition.

In regard to hypothesis 1, we expected the early disclosure condition to have a higher likelihood to hire rating than the late disclosure and no disclosure condition averages. Hypothesis one was first tested by analyzing the test of between subject's effect. A one-way ANOVA showed that likelihood of hiring rating was significant at the overall level, $F_{(2,84)} = 4.51, p < .05$ (see Table 3).

Table 3.

Likelihood of Hiring One-Way ANOVA Results

Dependent Variable	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.
Between Groups	5.59	2	2.80	4.51	0.01*
Within Groups	52.07	84	0.62		
Total	57.66	86			

Further analysis of variance using Tukey's HSD test revealed that the early disclosure ratings did result in higher scale ratings than those in the late disclosure condition, but not in the no disclosure condition. Tukey's HSD tests revealed that early disclosure ratings were statistically significantly higher than late disclosure ratings by a magnitude of 0.65, $p < 0.05$. Post hoc tests also revealed that early disclosure ratings were not statistically significantly different than no disclosure ratings by a magnitude of 0.12, $p = 0.82$ (see Table 4). Therefore, hypothesis 1 was not fully supported. Hypothesis 1 was

supported for comparing early disclosure and late disclosure, but not for comparing early disclosure and no disclosure ratings.

Table 4.

Post Hoc Analysis of Likelihood of Hiring Ratings

Dependent Variable		Mean Difference	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Disclosure						
Early	Late	.65	.23	.02*	-.35	.59
	No	.12	.20	.82	-1.20	-.10
Late	No	-.53	.21	.04*	-1.04	-.02
	Early	-.65	.23	.02*	-1.20	-.10
No	Early	-.12	.20	.82	-.59	.35
	Late	.53	.21	.04*	.02	1.04

Note. * $p < .05$

Hypothesis 2: Participants in the Late Disclosure condition will report being more likely to hire the candidate compared to participants in the No Disclosure condition.

We also expected that our results would reveal that the average likelihood to hire rating in the late disclosure condition, would be higher than the average likelihood to hire rating in the no disclosure condition. Hypothesis two was also tested by analyzing the test of between subject's effect. A one-way ANOVA showed that likelihood of hiring rating was significant at the overall level, $F_{(2,84)} = 4.51, p < .05$ (see Table 3). Further analysis of variance using Tukey's HSD test revealed that the late disclosure ratings did not result in higher scale ratings than those in the no disclosure condition. Tukey's HSD tests revealed that late disclosure ratings were not statistically significantly higher than no disclosure

ratings. Instead, it revealed that no disclosure ratings were statistically significantly higher than late disclosure ratings by a magnitude of 0.53, $p < .05$ (see Table 4).

Therefore, hypothesis 2 was not supported, instead it resulted in the opposite of what was expected.

Hypothesis 3: Participants in the Early Disclosure condition will provide higher interview question ratings for each of the candidate's interview questions compared to participants in the No Disclosure condition and Late Disclosure condition.

We expected that early disclosure would have the highest average ratings regarding interview question ratings, compared to the average ratings of the conditions of no disclosure or late disclosure. Due to the early revealing of the actors ASD diagnosis, we also assumed that any gestures related to ASD (nervous gestures, lack of eye contact, etc.) would be overlooked and compensated for by the participants, resulting in a higher average overall rating. Our results showed that while early disclosure average ratings were higher than both the no disclosure and late disclosure condition, they were not statistically significant differences. Hypothesis three was tested by analyzing the test of between subject's effect. A one-way ANOVA showed that interview question ratings were not statistically significant at the overall level, $F_{(2,84)} = 1.97, p = .15$ (see Table 5). Although there was a lack of statistical significance, post hoc tests using a Tukey's HSD were conducted to evaluate any differences between conditions (see Table 6). Therefore, hypothesis three was not supported.

Table 5.

Interview Question Ratings One-Way ANOVA Results

Dependent Variable	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.28	2	.64	1.97	0.15
Within Groups	24.44	84	0.33		
Total	28.72	86			

Table 6.

Post Hoc Analysis of Interview Question Ratings

				95% Confidence Interval	
Dependent Variable		Mean Difference	Std. Error	Sig.	
					Lower Bound Upper Bound
Disclosure					
Early	Late	.31	.17	.15	-.08 .71
	No	.06	.14	.91	-.28 .40
Late	No	-.25	.15	.24	-.62 .12
	Early	-.31	.16	.15	-.71 .08
No	Early	-.06	.14	.91	-.40 .28
	Late	.25	.15	.24	-.12 .62

Hypothesis 4: Participants in the Late Disclosure condition will provide higher interview question ratings for the candidate's interview questions compared to participants in the No Disclosure condition.

We also expected that the average interview question ratings in the late disclosure condition would be higher than those in the no disclosure condition. Our results showed

that late disclosure average ratings were lower than the no disclosure, did not have statistically significant differences. Hypothesis four was tested by analyzing the test of between subject's effect. A one-way ANOVA showed that interview question ratings were not statistically significant at the overall level, $F_{(2,84)} = 1.97, p = .15$ (see Table 5). Therefore, hypothesis four was not supported.

Overall, we expected our results to show that on average, early disclosure of one's ASD diagnosis resulted in a candidate becoming more likely to be hired, while also having more favorable interview question ratings for each of the interview questions. Our results did support that early disclosure of one's ASD diagnosis resulted in an increase likelihood of hiring rating, but did not support the notion that their interview question ratings would be higher.

CHAPTER IV: DISCUSSION

Much of current research has focused on Autism Spectrum Disorder from the perspective of a child and parent. Research studying employment decisions in the ASD community tends to find mix results based on personal experiences of disclosure. The present study has sought to scientifically determine whether early, late, or no disclosure of ASD has more or less significant implications for the likelihood of that person being hired and their interview question ratings during the interview. The results of this study showed that early disclosure of one's ASD diagnosis does have a significant effect on the likelihood of them becoming hired significantly over late disclosure. However, the differences between likelihood of hiring between early disclosure and no disclosure was minimal.

Hypothesis one stated that participants in the Early Disclosure condition would report being more likely to hire the candidate compared to participants in the No Disclosure condition and Late Disclosure condition. This hypothesis was further broken down in order to investigate whether average likelihood of hiring ratings would result higher ratings for early disclosure over no disclosure and early disclosure over late disclosure. The results showed that the ratings from the early disclosure were not significantly different than those in the no disclosure. Early disclosure ratings did have an higher average than those in the no disclosure condition, but not significantly. However, our results did show the ratings from early disclosure regarding likelihood to hire the candidate was higher than those in the late disclosure condition. This significant finding suggests that disclosing to your interviewer your ASD diagnosis earlier own in your interview, may increase one's chances of being hired for a role they are qualified for.

Early disclosure or no disclosure in an interview may not have had significant differences from our results, but still may prove beneficial to disclose your ASD diagnosis.

The second hypothesis stated that participants in the Late Disclosure condition would report being more likely to hire the candidate compared to participants in the No Disclosure condition. Our results revealed that this was not the case. In fact, our results showed that participants in the no disclosure condition reported being more likely to hire the candidate compared to the late disclosure condition. These results showed that no disclosure is better than late disclosure during the interview process. It also may allude to a recency effect regarding when disclosure occurs and when the likelihood rating is asked for. Interviewers who hear of a candidates ASD disclosure towards the end of the interview may be making their decision with this knowledge still on their mind, therefore having the ability to influence their decision. Although this hypothesis was not supported, it should be noted that in all three conditions, participants rated the candidate on the higher end of the scale, indicating that they would be neither likely nor unlikely, somewhat likely, or extremely likely to hire the candidate. This shows that despite when the ASD was disclosed, the candidate still had a higher chance of being hired for the role. Further studies could possibly research the extent that the candidates' qualifications, interview skills, or any other factor impacts these decisions.

The third hypothesis stated that participants in the Early Disclosure condition would provide higher interview question ratings for each of the candidate's interview questions compared to participants in the No Disclosure condition and Late Disclosure condition. The fourth hypothesis stated that participants in the Late Disclosure condition would provide higher interview question ratings for the candidate's interview questions

compared to participants in the No Disclosure condition. Our results did not support either of these hypotheses. While the early disclosure condition did have higher averaged interview question ratings, it did not make significant difference compared to the no disclosure or late disclosure conditions. The results show that when someone decides to disclose their ASD diagnosis in an interview does significantly change the interview question ratings given by the participant. The overall ratings responses do not differ whether the candidate discloses their ASD diagnosis early in the interview, later in the interview, or not at all in the interview. It should also be noted that the actor may not have been perceived to have ASD in the videos. This heavily impacts how interviews were rated in both the no disclosure and late disclosure conditions, and could be seen as limitations to this study, as well as an explanation for the low significance.

Theoretical Implications

Due to the lack of research comparing differences in ASD disclosure in interview ratings, the present study provides a better understanding of when to disclose one's diagnosis to increase their chances at being hired with a disability. The results showed that when comparing the mean differences between likelihood of hiring between early disclosure and late disclosure, there were significant differences, but there were no significant differences between early disclosure and no disclosure. The results also showed significant differences between no disclosure and late disclosure likelihood of hiring. Overall, early disclosure and no disclosure resulted in higher interview ratings based on the likelihood to be hired. Future research could investigate how these differences increase or decrease when using a candidate who actually has ASD rather than portraying signs and symptoms of it.

Practical Implications

Although the results of study were not fully what the researchers hypothesized, there is still room for relevant practical implications based on the results. Out of the three conditions, two were found to have significant differences regarding the impact and ratings for the likelihood to hire. This should be important to those with disabilities who may struggle with knowing or deciding when to disclose their diagnosis. Prior to this study, results showed mixed responses regarding when to disclose (Jans et al., 2012; Sarret, 2017). From this research, individuals with ASD can now decide whether early or no disclosure is preferred during their interview practice. Also, practically, since participants were asked to personify the role as a real Human Resources hiring managers, these results have revealed a new direction into the attributions and processes that take place when making hiring decision for individual with disabilities, specifically high functioning autism spectrum disorder. The results have revealed the need for individuals on the spectrum to be honest and confident when they disclose early in their interview or not at all, and possibly decreases the negative association with low unemployment rates. Our results also revealed that likelihood to hire ratings were lowest in the late disclosure condition. This could reveal rater bias, like that of recency effect, resulting in practitioners further emphasizing the need for rater training prior to conducting and rating interview. Considering the limited number of studies that have researched how disclosure impacts hiring decisions for individuals with ASD, despite what our results revealed, numerous practical implications are apparent in the study.

Limitations and Future Research

This study involved a relatively small sample. The results of the study may not be fully representative of the general public because the sample was restricted to the research pool of undergraduate students enrolled in a General Psychology course at one university, MTurk and social media. However, more than half of our data was derived from MTurk.

Also, another limiting factor of this study were the manipulation check items. These questions significantly reduced the total number of participants able to be included in our analyses. Our manipulation check had two vital answers that needed to be correct, which is why they were not included in the study if their answers were not correct. Because participants were not proctored when completing the survey for the study, the manipulation check questions served as the basis for determining whether participants paid attention or not. If the study was done in a proctored setting, it is possible that the number of participants who passed the manipulation check items could increase. Despite these limitations, the results from the current study could provide valuable insight into understanding the hiring and adolescent challenges faced by individuals with ASD in finding employment.

Future research in this study could explore the effects of disclosure using a larger sample of participants. Additionally, research that utilizes an actor with an actual ASD diagnosis may increase the generalizability and validity of the results. Although our actor performed to the best of his ability, readers should note that ASD is an extremely unique disability that portrays itself different in every individual who encounters it.

Participants also did not receive any rater training on how to rate interviews prior to watching videos. Future research could investigate whether providing rater training prior to watching videos results in different results or impacts the significant findings in the study.

Conclusion

ASD is a prevailing disability that is increasing in diagnoses around the world. As children with ASD move into adolescent ages and begin to penetrate the workforce, it is important that hiring practices allow for equitable chances at employment opportunities. This study investigated the differences in interview ratings when one's ASD was disclosed at different times in an interview. Our results showed that our hypotheses were partially supported, therefore, the practical implications that follow should have some impact on the direction of research for this population. Past research has focused on personal experiences that individuals with ASD face with disclosing their diagnosis, however a study that addresses this issue directly has not been conducted (Jans et al., 2012; Ohl et al., 2017; Sarret, 2017). The results of this study have provided insightful awareness into when disclosure decisions should be made for working adults with ASD entering the workforce. We found that making one's decision to disclose earlier in the interview process resulted in higher likelihood to higher ratings over late disclosure. Researchers should continue to investigate human resources functions and their impact and differences on those with autism spectrum disorder.

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APPENDICES

AUTISM SPECTRUM DISORDER IN THE WORKPLACE: HOW DOES THE
TIMING OF DISCLOSURE DECISIONS AFFECT INTERVIEW RATINGS?

Kyshira M. Simmons

Date of Defense

APPROVED:

Dr. Mark Frame Chair

Dr. Judith Van Hein

Dr. Mary Ellen Fromuth

Dean of the College of Graduate Studies

APPENDIX A: MIDDLE TENNESSEE STATE UNIVERSITY INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

IRB

INSTITUTIONAL REVIEW BOARD

Office of Research Compliance,
010A Sam Ingram Building,
2269 Middle Tennessee Blvd
Murfreesboro, TN 37129
FWA: 00005331/IRB Regn.. 0003571



IRBN007 – EXEMPTION DETERMINATION NOTICE

Wednesday, March 17, 2021

Protocol Title **Autism Spectrum Disorder in the workplace: How does the timing of disclosure decisions affect selection ratings**

Protocol ID **21-1135 2q**

Principal Investigator **Kyshira Simmons** (Student)

Faculty Advisor **Mark Frame**

Co-Investigators **NONE**

Investigator Email(s) **ks8a@mtmail.mtsu.edu; mark.frame@mtsu.edu**

Department/Affiliation **Psychology**

Dear Investigator(s),

The above identified research proposal has been reviewed by the MTSU Institutional Review Board (IRB) through the **EXEMPT** review mechanism under 45 CFR 46.101(b)(2) within the research category **(2) Educational Tests, surveys, interviews or observations of public behavior** (Qualtrics Survey). A summary of the IRB action and other particulars of this protocol are shown below:

IRB Action	EXEMPT from further IRB Review Exempt from further continuing review but other oversight requirements apply		
Date of Expiration	12/31/2025	Date of Approval: 3/17/21	Recent Amendment: NONE
Sample Size	ONE THOUSAND (1,000)		
Participant Pool	Healthy adults (18 or older) - Amazon MTurk Workers, MTSU SONA students and other adults		
Exceptions	Online consent followed by internet-based survey using Qualtrics is permitted (Qualtrics links on file).		
Type of Interaction	<input type="checkbox"/> Non-interventional or Data Analysis <input checked="" type="checkbox"/> Virtual/Remote/Online Interview/survey <input type="checkbox"/> In person or physical- Mandatory COVID-19 Management (refer next page)		
Mandatory Restrictions	1. All restrictions for exemption apply. 2. The participants must be 18 years or older. 3. Mandatory ACTIVE informed consent. Identifiable information including, names, addresses, voice/video data, must not be obtained. 4. NOT approved for in-person data collection.		
Approved IRB Templates	IRB Templates: Recruitment Email, IRB Flyer, SONA Script, and Informed Consent Non-MTSU Templates: Recruit scripts and MTurk HIT script		
Research Inducement	MTSU SONA (2 class credits), MTurk Workers (\$3), and none for others		
Comments	NONE		

Summary of the Post-approval Requirements: The PI and FA must read and abide by the post-approval conditions (Refer "Quick Links" in the bottom):

- **Final Report:** The Faculty Advisor (FA) is responsible for submitting a final report to close-out this protocol before **12/31/2025**; if more time is needed to complete the data collection, the FA must request an extension by email. **REMINDERS WILL NOT BE SENT. Failure to close-out (or request extension) may result in penalties** including cancellation of the data collected using this protocol or withholding student diploma.
- **Protocol Amendments:** IRB approval must be obtained for all types of amendments, such as:
 - Addition/removal of subject population and sample size.
 - Change in investigators.
 - Changes to the research sites – appropriate permission letter(s) from may be needed.
 - Alteration to funding.
 - Amendments must be clearly described in an addendum request form submitted by the FA.
 - The proposed change must be consistent with the approved protocol and they must comply with exemption requirements.
- **Reporting Adverse Events:** Research-related injuries to the participants and other events, such as, deviations & misconduct, must be reported within 48 hours of such events to compliance@mtsu.edu.
- **Research Participant Compensation:** Compensation for research participation must be awarded as proposed in Chapter 6 of the Exempt protocol. The documentation of the monetary compensation must Appendix J and MUST NOT include protocol details when reporting to the MTSU Business Office.
- **COVID-19:** Regardless whether this study poses a threat to the participants or not, refer to the COVID-19 Management section for important information for the FA.

COVID-19 Management:

The FA must enforce social distancing guidelines and other practices to avoid viral exposure to the participants and other workers when physical contact with the subjects is made during the study.

- The study must be stopped if a participant or an investigator should test positive for COVID-19 within 14 days of the research interaction. This must be reported to the IRB as an "adverse event."
- The FA must enforce the MTSU's "Return-to-work" questionnaire found in Pipeline must be filled and signed by the investigators on the day of the research interaction prior to physical contact.
- PPE must be worn if the participant would be within 6 feet from the each other or with an investigator.
- Physical surfaces that will come in contact with the participants must be sanitized between use
- **FA's Responsibility:** The FA is given the administrative authority to make emergency changes to protect the wellbeing of the participants and student researchers during the COVID-19 pandemic. However, the FA must notify the IRB after such changes have been made. The IRB will audit the changes at a later date and the PI will be instructed to carryout remedial measures if needed.

Post-approval Protocol Amendments:

The current MTSU IRB policies allow the investigators to implement minor and significant amendments that would not result in the cancellation of the protocol's eligibility for exemption. **Only THREE procedural amendments will be entertained per year (changes like addition/removal of research personnel are not restricted by this rule).**

Date	Amendment(s)	IRB Comments
NONE	NONE.	NONE

Post-approval IRB Actions:

The following actions are done subsequent to the approval of this protocol on request by the PI or on recommendation by the IRB or by both.

Date	IRB Action(s)	IRB Comments
NONE	NONE.	NONE

Mandatory Data Storage Requirement:

All research-related records (signed consent forms, investigator training and etc.) must be retained by the PI or the faculty advisor (if the PI is a student) at the secure location mentioned in the protocol application. The data must be stored for at least three (3) years after the study is closed. Additionally, the Tennessee IRBN007 – Exemption Notice (Stu)

Institutional Review Board, MTSU

FWA: 00005331

IRB Registration: 0003571

State data retention requirement may apply (*refer "Quick Links" below for policy 129*). Subsequently, the data may be destroyed in a manner that maintains confidentiality and anonymity of the research subjects. **The IRB reserves the right to modify/update the approval criteria or change/cancel the terms listed in this notice.** Be advised that IRB also reserves the right to inspect or audit your records if needed.

Sincerely,

Institutional Review Board
Middle Tennessee State University

Quick Links:

- Post-approval Responsibilities: <http://www.mtsu.edu/irb/FAQ/PostApprovalResponsibilities.php>
- Exemption Procedures: <https://mtsu.edu/irb/ExemptPaperWork.php>
- MTSU Policy 129: Records retention & Disposal: <https://www.mtsu.edu/policies/general/129.php>

APPENDIX B: JOB DESCRIPTION AND KSAO'S

Job: Medical Coding Specialist

Description: Compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical, administrative, ethical, legal, and regulatory requirements of the health care system. Medical coding specialists process, maintain, compile, and report patient information for health requirements and standards in a manner consistent with the healthcare industry's numerical coding system. They are responsible for assigning the correct and appropriate code to describe the service a patient has received for the billing process. (Retrieved from <https://www.onetonline.org/link/summary/29-2071.00>)

These KSAO's and competencies include:

- Detail oriented task
- Requires high focus
- Minimal customer interaction
- Computer and electronic knowledge
- Dependable
- Clerical skills
- Billing software knowledge
- Reading comprehension
- Reasoning skills

(Adapted from ONET.com, 2020).

APPENDIX C: SCRIPT AND INTERVIEW QUESTIONS

1. Tell me about yourself.

No Disclosure/Late disclosure:

–Um– my name is Mark Smith. I am from Nashville, Tennessee.-um- I received my bachelor’s degree at The University of Tennessee. I love accounting and billing. -um- I have been practicing billing since I was young –um– my aunt was a medical coding specialist and she used to show me how she did it. I was naturally good at it. So, when I got to college I worked with various start up health services as their medical coding specialist intern since my freshman year. Now I have decided this is the career that I want to stay in. I also would like to open my own medical billing services one day. I guess what you need to know about me is... {pause and hold still for a moment}... I am able to concentrate and pay attention to details really well, better than most of my peers.

Early Disclosure:

–Um – My name is Mark Smith. -uh- I am from Nashville, Tennessee. I received my bachelor’s degree at University of Tennessee. I love accounting and billing. -um- I have been practicing billing since I was young –um– my aunt was a medical coding specialist and she used to show me how she did it. I was naturally good at it. So, once I got to college I worked with various health services start up as their medical coding specialist intern since my freshman year. Now I have decided this is the career that I want to stay in. I also one day want to start my own medical billing services. -um- I guess what you need to know about me is... {pause and hold still for a moment}..... Because of my autism spectrum disorder {pause and hold still for a moment}... I am able to concentrate and pay attention to details really well, better than most of my peers.

2. Tell me about your experience with medical coding software.

I have a lot of experience with medical coding software. At a young age I watched my aunt work with various insurance companies filing claims and inputting codes. Through my experience with her – um- I am well versed in many alphanumeric codes, including the ICD and the CPT codes. – Um – When I began college I interned and worked for various companies, my knowledge of complex and unusual codes grew as well. In many of my positions people in the office look to me for assistance in evaluating of codes, reading of patient charts, and following up with insurance companies and providers for accurate sequencing of codes. I have certifications as a Registered Health Information Technician and as a Certified Professional Coder. I think that these qualifications and what I learned from my aunt's make me very qualified to work in medical coding software.

3. Tell me about a time you ran into an unfamiliar service while inputting medical codes, how did you resolve this issue?

Response:

–Um– I- usually always know the codes that I to work with, because some hospitals and insurance companies differ. ...Well actually one time at my previous job, the patient had insurance with a company we were unfamiliar with. -um- When we work with unfamiliar or government insurance companies, sometimes their codes slightly differ because the HR processing and sequencing is a little bit different than normal insurance companies. - um- This is why I was not familiar with the codes or the hospital services. My hospital only had limited experiences with government insurance companies. -um- This meant that technically, we weren't able to properly service this patient, government workers aren't usually allowed to receive medical treatment by approved hospitals and urgent care, like this one here at –um– KS Health Services. So –uh– because we did not have the proper codes I was able to –um– compile a list of health care companies and -um- health services around the area that did work with government insurance companies and I gave the list to her. -um- when I explained that weren't able to directly help

her, she still left satisfied and –um– oh! She even left a really good review.

That's actually how –um– I discovered KS Health Services. I did not want to be limited in the type of codes I could bill, and your company was on the list of recommended companies that I gave to her.

4. What would you do if your manager gave you a last-minute assignment to complete a large amount of coding at the end of your shift?

Response:

–Um– well, I plan my work and work the plan so that I can get it done on time. -um- I like to make a plan and stick to it. But -um- ...if it was unplanned... I mean I like inputting codes, so even if it wasn't planned, I think my manager could depend on me to get the work done efficiently, even if I went over a little bit on my time -Um- ...if I had things after work that I needed to get to, I think I would ask my manager to come in early the next day to work on it, or maybe ask my colleagues -um- for help as a last resort. – Um – either way, I think I would try to make it as feasible as possible for my manager to depend on me to get the task done.

5. How would your coworkers describe your work ethic/style?

Response:

- Um- I do not know how they would describe my work ethic, because well, I would have to ask them and they are not here. -um- We generally work by ourselves, so its hard to say. -um- Well, at my last job there was Brandon... Brandon is my friend and he has seen me work and we have talked about work. So yes, {pause} how would Brandon describe my work style? I think Brandon would say that my work ethic is focused. I like to give my work all of my attention, -um- coding requires a lot of focus and detail. -um- If you mess just one code up, then that sets you up wrong for the entire process. I think he would say I am good at not messing any codes up, and that I'm a good friend, and -um- friendly with everyone in the office. I think this is how he would describe my work ethic. My other friends do not work with me so

they –uh– do not know.

6. Tell me why we should hire you as the medical coding specialist for our hospital?

Response:

Early/No Disclosure:

–um– Well I would tell you that I am very experienced. I have been practicing medical billing professionally for over 4 years now, so I am familiar with almost every service that is coded for insurance in hospitals. -um- I would convince you to first trust the organization, KS Health Services is well known in the Nashville area for -um- prompt, and accurate medical billing. And I represent that company so -um- so you could trust me to also be prompt and accurate in medical billing. -um- I am good with numbers and I am good at paying close attention to details for long periods of time with minimal distractions. -um- Places with too many distractions are not conducive to working hard, and I like to work hard. Sometimes, when there are too many distractions I can -uh- lose focus ... {pause and hold still for a moment }... but I like this career because everyone is focused so there are minimal distractions and -um- I am able to work hard. This is how I would convince someone to hire me as their medical coding specialist.

Late Disclosure:

–um– Well I would tell you that I am very experienced. I have been practicing medical billing professionally for over 4 years now, so I am familiar with almost every service that is coded for insurance in hospitals. -um- I would convince you to first trust the organization, KS Health Services is well known in the Nashville area for -um- prompt, and accurate medical billing. And I represent that company so -um- so you could trust me to also be prompt and accurate in medical billing. -um- I am good with numbers and I am good at paying close attention to details for long periods of time with minimal distractions. -um- Places with too many distractions are not conducive to working hard, and I like to work hard. Sometimes, when there

are too many distractions I can -uh- lose focus ... {pause and hold still for a moment }... Because of my autism spectrum disorder... {pause and hold still for a moment }... but I like this career because everyone is focused so there are minimal distractions and -um- I am able to work hard. This is how I would convince someone to hire me as their medical coding specialist.

APPENDIX D: DEMOGRAPHIC QUESTIONNAIRE

What is your current age (in years)?

What is the last degree you obtained?

- ☐ High school diploma (or equivalent)
- ☐ Associate's degree
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ Doctorate
- ☐ None of the above

Current Employment Status (Check all that apply)

- ☐ Employed full time
- ☐ Employed part time
- ☐ Unemployed / Looking for work
- ☐ Student
- ☐ Homemaker
- ☐ Retired

Please indicate the number of years you have been employed full time (40+ hours a week), even if you are currently unemployed

- ☐ Less than 1 year
 - ☐ 1-3 years
 - ☐ 3-5 years
 - ☐ 5-10 years
 - ☐ 10 + years
-

Please indicate the number of years you have been employed part time (less than 40 hours a week), even if you are currently unemployed

- ☐ Less than 1 year
 - ☐ 1-3 years
 - ☐ 3-5 years
 - ☐ 5-10 years
 - ☐ 10 + years
-

Are you currently enrolled at a college or university?

- ☐ Yes
 - ☐ No
-

Display This Question:

If Are you currently enrolled at a college or university? = Yes

What is your current level in college?

- ☐ Freshman
- ☐ Sophomore
- ☐ Junior
- ☐ Senior
- ☐ Graduate Student
-

Please indicate which gender you identify most with

- ☐ Men
- ☐ Women
- ☐ Transgender man
- ☐ Transgender women
- ☐ Prefer not to say
- ☐ Other _____
-

Display This Question:

If Are you currently enrolled at a college or university? = Yes

What is your current major(s)?

▼ Accounting ... Other

What is your race/ethnic identity?

- ☐ Caucasian/White
 - ☐ African-American/Black
 - ☐ Arab/Middle Eastern
 - ☐ Hispanic / Latino
 - ☐ Native American/Alaskan Native
 - ☐ Asian / Pacific Islander
 - ☐ Bi-Racial / Multi-racial
 - ☐ Prefer not to say
 - ☐ Other (Specify) _____
-

Thank you for participating in the survey. Your answers have been recorded. If you have any additional questions, please feel free to contact Dr. Mark Frame at Mark.Frame@mtsu.edu. Please do not discuss the survey with peers or others that may be participants in this study.

APPENDIX E: INDIVIDUAL RESPONSE AND INTERVIEW QUESTION RATING SCALES

For the following questions, view the video before answering. After watching the video, use the rating scale to rate the interviewee's response.

Question 1: Tell me about yourself.

Please rate the candidate's ability to:

	Not effective at all	Slightly effective	Moderately effective	Very effective	Extremely effective
Express himself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communicate an interest in the Medical Coding position	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide job relevant details about himself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please rate the candidate's overall response to the interview question:

	Unsatisfactory	Below average	Average	Above average	Exceptional
The candidate's overall response was:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 2: Tell me about your experience with medical coding software.

Please rate the candidate's ability to:

	Not effective at all	Slightly effective	Moderately effective	Very effective	Extremely effective
Explain his experience with medical coding software	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Demonstrate an interest in medical coding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Explain his knowledge of medical coding processes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please rate the candidate's overall response to the interview question:

	Unsatisfactory	Below average	Average	Above average	Exceptional
The candidate's overall response was:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 3: Tell me about a time you ran into an unfamiliar service while inputting medical codes, how did you resolve this issue?

Please rate the candidate's ability to:

	Not effective at all	Slightly effective	Moderately effective	Very effective	Extremely effective
Effectively communicate with patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Demonstrate ability to problem solve	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Explain the problem and why it was important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please rate the candidate's overall response to the interview question:

	Unsatisfactory	Below average	Average	Above average	Exceptional
The candidate's overall response was:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 4: What would you do if your manager gave you a last-minute assignment to complete a large amount of coding at the end of your shift?

	Not effective at all	Slightly effective	Moderately effective	Very effective	Extremely effective
Describe a plan to ensure the work was completed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Demonstrate a desire to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

complete the
work assigned

Demonstrate
flexibility

☐ ☐ ☐ ☐ ☐

Please rate the candidate's ability to

Please rate the candidate's overall response to the interview question:

	Unsatisfactory	Below average	Average	Above average	Exceptional
The candidate's overall response was:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 5: How would your coworkers describe your work ethic/style?

Please rate the candidate's ability to:

	Not effective at all	Slightly effective	Moderately effective	Very effective	Extremely effective
Demonstrate a positive work ethic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Describes his work ethic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Explains how his work ethic is suited for the job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please rate the candidate's overall response to the interview question:

	Unsatisfactory	Below average	Average	Above average	Exceptional
The candidate's overall response was:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 6: Tell me why we should hire you as the medical coding specialist for our hospital?

Please rate the candidate's ability to:

	Not effective at all	Slightly effective	Moderately effective	Very effective	Extremely effective
Express himself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sells himself and his skills and abilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Explains why he should be hired as a Medical Coder	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please rate the candidate's overall response to the interview question:

	Unsatisfactory	Below Average	Average	Above Average	Exceptional
The candidate's overall response was:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[illegible]

Effectively interact with coworkers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Effectively perform on the job of a Medical Coder	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Based upon the candidate's responses to the six interview questions that you viewed, please rate your agreement to the following statements about the candidate:

The candidate is good fit for the Medical Coder position	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The candidate is qualified for the Medical Coder position	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would enjoy working with this candidate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Based upon the candidate's responses to the six interview questions that you viewed:

	Extremely unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Extremely likely
How likely would you be to hire this candidate for the Medical Coder position at KS Health Services.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

APPENDIX G: MANIPULATION CHECK ITEMS

1. In his response to this interview question, the candidate discusses which of the following:

- ☐ His time earning his degree at Vanderbilt
- ☐ His experience learning about medical coding from his aunt
- ☐ How his engineering and math degree could make him a good medical coder
- ☐ How his background in Psychology helped him to understand how to work with people

2. In his response to this interview question, the candidate discusses which of the following:

- ☐ How the client he was attempting to assist left frustrated and annoyed
- ☐ His experience applying his Psychology knowledge to solve a complex interpersonal issue between coworkers
- ☐ How he became familiar with KS Health Services.
- ☐ His familiarity with alphanumeric codes

3. In his response to this interview question, the candidate discusses which of the following:

- ☐ A specific instance when his negotiation skills helped him to solve a conflict between two coworkers
- ☐ That he tries to be as flexible as possible
- ☐ His time as co-captain on the rugby team and how he resolved interpersonal conflict on a weekly basis
- ☐ His use of Psychology to alleviate and resolve interpersonal conflict

4. In his response to this interview question, the candidate discusses which of the following:

- ☐ That his coworker Brandon would describe his work ethic favorably
- ☐ That most of his coworkers are friends and they find his work ethic to be amazing, which is why he will miss working with his friends
- ☐ That he learned his work ethic from his grandmother and she taught him to give everything he had to work 5 days a week
- ☐ How he uses Psychology to be conscientious and agreeable which gives him a great work ethic

5. In his response to this interview question, the candidate discusses which of the following:

- ☐ His ability to work well in changing environments with multiple distractions
- ☐ How his four (4) years of experience make him familiar with many aspects of medical coding
- ☐ How degree from Vanderbilt will help convince people to hire him
- ☐ How he will use his knowledge of Psychology to influence clients to hire him

6. In his response to this interview question, the candidate discusses which of the following:

- ☐ A specific instance when his communication skills helped him to solve a difficult problem for a client
- ☐ His use of Psychology to understand the meta-messages that people send when they communicate with him
- ☐ How he makes it a point to start each day by checking in with his coworkers and building rapport
- ☐ That he is not that comfortable talking to strangers for long periods of time

7. During the interview, the candidate disclosed which of the following facts about himself (please check all that apply):

- ☐ He was never really happy during his time at Vanderbilt
- ☐ He suffers from depression
- ☐ He has autism spectrum disorder

- ☐ He used to be really bad at math
- ☐ His aunt was a medical coder
- ☐ He was from Memphis, Tennessee

Display This Question:

If During the interview, the candidate disclosed which of the following facts about himself (please... = His aunt was a medical coder

In which part of the interview did the candidate reveal that his aunt was a medical coder?

- ☐ Near the beginning of the interview
- ☐ Near the middle of the interview
- ☐ Near the end of the interview
- ☐ I do not recall

Display This Question:

If During the interview, the candidate disclosed which of the following facts about himself (please... = He has autism spectrum disorder

In which part of the interview did the candidate reveal that he has autism spectrum disorder?

- ☐ In the beginning of the interview
- ☐ Near the middle of the interview
- ☐ At the end of the interview
- ☐ I do not recall
- ☐ He did not disclose it, I could just tell

APPENDIX H: ATTENTION CHECK ITEMS

What job did Mark apply for?

- ☐ Medical researcher
 - ☐ Medical coder
 - ☐ Research consultant
 - ☐ Medical consultant
-

Which of the following were one of the KSAO's of a medical coder?

- ☐ High focus
 - ☐ Great deal of customer interaction
 - ☐ Frequent travel
 - ☐ Artistic talent
-

Which of these are a part of your tasks as a hiring manager?

- ☐ Review resumes
- ☐ Determine yearly bonuses for KS Health Service
- ☐ Review and rate interview questions
- ☐ Review job applications from monster.com

APPENDIX I: INFORMED CONSENT FORM

IRBF024 - INFORMED CONSENT for ONLINE STUDIES

(Use this consent template when recruiting adult participants when online data are collected)

Mandatory Consent Requirements for online use:

- a. Use the same text used in this form when requesting online consent from the participants – Provide the online consent link for IRB review
- b. The first page of the survey must display this informed consent text.
- c. Participants' consent to participate must be entertained by two distinct responses: one to consent and one to decline.
 - i. The participant age must be verified through a separate question
 - ii. Agreeing to consent and age verification must both be true before the online instrument can be administered.
 - iii. Additional questions may be asked for filtering ineligible participants

IRBF024 – Participant Informed Consent (ONLINE)

Language to be used for online surveys that qualify for "no more than minimal risk"

Use the following text as printed here in the first page of the Qualtrics survey to administer online informed consent. Alterations to this template are allowed on a case by case basis. However, making alterations would delay the review and approval process.

Information and Disclosure Section

The following information is provided to inform you about the research project in which you have been invited to participate. Please read this disclosure and feel free to ask any questions. The investigators must answer all of your questions and please save this page as a PDF for future reference.

- Your participation in this research study is voluntary.
- You are also free to withdraw from this study at any time without loss of any benefits.

For additional information on your rights as a participant in this study, please contact the Middle Tennessee State University (MTSU) Office of Compliance (Tel 615-494-8918 or send your emails to irb_information@mtsu.edu, URL: <http://www.mtsu.edu/irb>).

Please read the following and respond to the consent questions in the bottom if you wish to enroll in this study.

1. **Purpose:** We are conducting a research study to examine best practices for applicant during employment interviews. As part of our survey, you will be asked questions about yourself and your work/ interview experience. Participants will then be asked to view and then rate video interview responses.
2. **Description:** There are several parts to this project. They are: Participants will view interview responses of a person applying for a job as a medical coder. The participant will view the videos of the applicant responding to interview questions and then be asked to rate interview responses. This survey should take about 45 minutes to 1 hour to complete. Participants MUST have video and audio capability on their computers and MUST be able to view and hear the videos being presented. Please complete this study using a PC or tablet, instead of a mobile device or smart phone. Parts of the study require participants to view videos and/or listen to

audio in full before responding with answers. Please complete the study in an environment which will allow you to hear and view video content.

3. Target Population: Adults who are 18 years or older and fit one of the following descriptions:

- Workers of Amazon Mechanical Turk
- Students enrolled in the MTSU SONA research pool
- Other adults who do not fit the above two descriptions

4. IRB Approval Details

- o Protocol Title: **Autism Spectrum Disorder in the workplace: How does the timing of disclosure decisions affect selection rating**
- o Primary Investigator: **Kyshira Simmons**
- o PI Department & College: **Psychology Behavioral Sciences**
- o Faculty Advisor (if PI is a student): **Mark Frame**
- o Protocol ID: **21-1135 2q** Approval Date: **03/17/2021** Expiration Date: **12/31/2025**

5. Duration: The whole activity should take about **45-60** minutes/hours. The subjects must take at least **45** minutes/hours to complete the study.

6. Here are your rights as a participant:

- Your participation in this research is voluntary.
- You may skip any item that you don't want to answer, and you may stop the experiment at any time (but see the note below)
- If you leave an item blank by either not clicking or entering a response, you may be warned that you missed one, just in case it was an accident. But you can continue the study without entering a response if you didn't want to answer any questions.
- Some items may require a response to accurately present the survey.

7. Risks & Discomforts: Participants will be asked to dedicate 45 minutes to 1 hour of their time completing this study. Potential risks include fatigue from survey length.

8. Benefits:

- a. Benefits to you that you may not receive outside this research: Participants will benefit from this study by becoming familiar with employment interviews and how they are used are rated.
- b. Benefits to the field of science or the community: Participation in this study will help develop research in the field of Industrial/Organizational Psychology and increase employment clarity and direction for the field of human resources field and interviewing knowledge.

9. Identifiable Information: You will NOT be asked to provide identifiable personal information/You may provide contact information for follow-up / We may request your contact information for compensation purposes.

10. Compensation: You may be compensated based on which of the population you correspond to (refer to item 3 above). **is no compensation for participating in this study/** The participants will be compensated as described below:

- a. The Amazon Mechanical Turk workers will receive a \$3.00 compensation provided they satisfy the following compensation requirements
- b. The students from MTSU SONA will receive two (2) class credits if they meet the requirements
- c. There is no compensation for other adult participants

Compensation Requirements:

- a) The qualifications to participate in this research are: **Participants must be 18 years of age or older.** If you do not meet these qualifications, you will not be included in the research and you will not be compensated.
- b) After you complete this consent form you will answer screening questions. If you fail to qualify for the research based on these questions, the research will end and you will not be compensated.
- c) Please do not participate in this research more than once. Multiple attempts to participate will not be compensated.
- d) Attention checks are embedded in the research. If you fail **3 or more** of these, then you will not be compensated.
- e) To be compensated, you must receive a completion code. That requires clicking on the final screen of the study. If you choose to stop for any reason, you will still need to click through until the end to receive compensation (just leave the items blank and click through until the end < if items require a response to present the survey accurately, you will need to respond to those items as your progress to the end of the survey)>.

11. Confidentiality. All efforts, within reason, will be made to keep your personal information private but total privacy cannot be promised. Your information may be shared with MTSU or the government, such as the Middle Tennessee State University Institutional Review Board, Federal Government Office for Human Research Protections, if you or someone else is in danger or if we are required to do so by law.

12. Contact Information. If you should have any questions about this research study or possibly injury, please feel free to contact Kyshira Simmons by telephone 202-802-1447 or by email ks8a@mtmail.mtsu.edu OR my faculty advisor, Mark Frame, at mark.frame@mtsu.edu or 615-898-2465. You can also contact the MTSU Office of compliance via telephone (615 494 8918) or by email (compliance@mtsu.edu). This contact information will be presented again at the end of the experiment.

You are not required to do anything further if you decide not to enroll in this study. Just quit your browser. Please complete the response section below if you wish to learn more or you wish to part take in this study.

Participant Response Section

- | | |
|-----------------------------|---|
| <input type="checkbox"/> No | <input type="checkbox"/> Yes I have read this informed consent document pertaining to the above identified research |
| <input type="checkbox"/> No | <input type="checkbox"/> Yes The research procedures to be conducted are clear to me |
| <input type="checkbox"/> No | <input type="checkbox"/> Yes I confirm I am 18 years or older |
| <input type="checkbox"/> No | <input type="checkbox"/> Yes I am aware of the potential risks of the study |

Select the appropriate box below:

- ☐ I am an Amazon Mechanical Turk Worker
☐ I am an MTSU SONA student
☐ I do not belong to either of the above

By clicking below, I affirm that I freely and voluntarily choose to participate in this study. I understand I can withdraw from this study at any time without facing any consequences.

- ☐ NO I do not consent
☐ Yes I consent