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Workplace Incivility toward Individuals with Disabilities, Secure Attachment Style, and Mental Health: Focus on Mediator and Moderator Effects

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FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

WORKPLACE INCIVILITY TOWARD INDIVIDUALS WITH DISABILITIES,

SECURE ATTACHMENT STYLE, AND MENTAL HEALTH: FOCUS ON

MEDIATOR AND MODERATOR EFFECTS

A dissertation submitted in partial fulfillment of

the requirements for the degree of

DOCTOR OF EDUCATION

in

ADULT EDUCATION AND

HUMAN RESOURCE DEVELOPMENT

by

Mia Riikka Heikkila

2019

To: Dean Michael R. Heithaus
      College of Arts, Sciences and Education

This dissertation, written by Mia Riikka Heikkila, and entitled Workplace Incivility toward Individuals with Disabilities, Secure Attachment Style, and Mental Health: Focus on Mediator and Moderator Effects, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

_____
Kyle D. Bennett

_____
Valerie E. Russell

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Mido Chang

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Thomas G. Reio, Jr., Major Professor

Date of Defense: November 12, 2019

The dissertation of Mia Riikka Heikkila is approved.

_____
Dean Michael R. Heithaus
College of Arts, Sciences and Education

_____
Andrés G. Gil
Vice President for Research and Economic Development
and Dean of the University Graduate School

Florida International University, 2019

DEDICATION

"Your thoughts and your perception of the world influences all that you do, and all that

you are, and all that you can be. If you see the sunshine, feel the sunshine

then you feel good" (Pulsifer, 2019, para. 5).

To my loved ones whose loving kindness, sense of humor, reassurance, and patience got

me through this journey. I sincerely thank you for surprising and significant turning

points. To my godmother Ida who, albeit posthumously, had a hand in providing me an

opportunity to study in the United States. I am forever grateful. To my dear friend Lisa

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ABSTRACT OF THE DISSERTATION

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Mia Riikka Heikkila

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Miami, Florida

Professor Thomas G. Reio, Jr., Major Professor

Despite the value of workplace civility, civility has been replaced by social exchanges that include conduct deemed largely unacceptable and undeniably rude. One type of rude conduct that appears innocuous is called workplace incivility, yet incivility disturbs efficient functioning among employees, intensifies work stress, and poses a financial hazard to an organization. Literature expressly on incivility toward individuals with disabilities is virtually non-existent, although emerging literature reveals that employees with disabilities are at a greater risk of experiencing workplace mistreatment vis-à-vis employees without disabilities. The present quantitative study investigated the role of workplace incivility with respect to employees with disabilities, its relation to mental health, and the role of secure attachment as a moderator and incivility as a mediator. Hierarchical regression and structural equation model analyses were conducted to construe relationships among observed variables of two hypothetical models. The models included both direct and indirect paths consisting of mediator and moderator effects. The

study indicated that (a) having a disability was linked to increased incivility encounters, (b) incivility encounters had a negative effect on mental stability, (c) encountering incivility intensified the negative link between having a disability mental stability, (d) attachment security weakened the positive link between having a disability and incivility encounters, (e) attachment security was linked to increased mental stability, and (f) having a disability was linked to decreased mental stability. The study revealed that employees with disabilities were vulnerable to damaging mental health-related outcomes of incivility but that secure attachment shielded them against incivility encounters.

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ABBREVIATIONS AND ACRONYMS

AAS	Adult Attachment Style
ACT	American College Testing
ADA	Americans with Disabilities Act of 1990
ADHD	Attention deficit hyperactivity disorder
ASQ	Attachment Style Questionnaire
ATSD	American Society of Training and Development
CFA	Confirmatory factor analysis
CFI	Comparative Fit Index
CI	Confidence Interval
CWB	Counterproductive work behaviors
DOT	Dictionary of Occupational Titles
EEOC	Equal Employment Opportunity Commission
GDP	Gross Domestic Product
GPA	Grade point average
HAS	High Attachment Security
HRD	Human resource development
IFI	Incremental Fit Index
IMR	Internet-mediated research
IQR	Interquartile ranges
IRB	Institutional Review Board
JAWS	Job Access with Speech

KSA	Knowledge, skills, and abilities
LAS	Low Attachment Security
LISREL	Linear Structural Relations
LD	Learning disability
MAS	Moderate Attachment Security
NAMI	National Alliance on Mental Illness
NFI	Norm Fit Index
OSHA	Occupational Safety and Health Administration
OSI	Occupational Stress Indicator
PFIT	Perception and Fair Interpersonal Treatment Scale
PMI	Pressure Management Indicator
PTSD	Posttraumatic Stress Disorder
RMSEA	Root Mean Square Error of Approximation
RMR	Root Mean Square
RQ	Relationship Questionnaire
SAT	Scholastic Aptitude Test
SDR	Studentized deleted residuals
SE	Standard error
SEM	Structural equations model
SPSS	Statistical Package for Social Sciences
SRMR	Standardized Root Mean Square Residual
SRPD	The Socially Responsible Purchase and Disposal
SSA	Social Security Administration

TOEFL   Test of English as a Foreign Language

TTW   Ticket-to-Work

WIS   Workplace Incivility Scale

CHAPTER I

INTRODUCTION

Discourteous, impolite, disrespectful, irreverent, uncouth, uncivil, unmannerly, impertinent, impudent, fresh, tasteless, inconsiderate, ill-mannered, undignified, insolent, loutish, insensitive, clownish, clod-hopping, ungallant, ruffianly, saucy, cheeky, malapert, ungracious…[31 synonyms omitted] rustic, blunt, simple. The fact that we have so many words to identify different kinds of rudeness presumably says something interesting about our culture (Westacott, 2012, p. 266).

Chapter I provides background of the study, problem statement, study purpose, rationale, research hypotheses, theoretical framework, significance of the study, definition of terms, assumptions and delimitations of the study, and organization of the study.

Background of the Study

Rudeness may be common, as the 59 word variations suggests, but individuals, at a fundamental level, crave to be treated with respect (Westacott, 2011). Moreover, society expects that people relate to one another with a certain degree of courtesy and civility, and that the civil behavior is demonstrated without the imposition of laws, rules, and regulations that penalize uncivil behavior (Forni, 2008). Finally, civil manners are not only expected, but they are increasingly important in a society that operates through repeated social transactions at a global level (Andersson & Pearson, 1999).

Despite the value of civility, civility has been replaced by social exchanges encouraging freedom of expression that include statements and behaviors deemed largely unacceptable (Andersson & Pearson, 1999; Morris, 1996). Such careless demonstration of individuality has, in some instances, surpassed politeness, consideration, humility, and courtesy with momentous consequences. Far-reaching repercussions are particularly

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burdensome at a workplace where individuals are likely to face the same people day after day. Therefore, workplace behavior that lacks good manners is a salient construct in the current research.

One type of rude behavior inconsistent with good manners is called *incivility,* which is characterized by low-intensity behaviors devoid of concern and humility and that contravene workplace expectations and rules for courtesy, cohesiveness, and amity. Yet the intent to hurt another can be ambiguous. An incivility perpetrator may have engaged in such boorish behaviors without a conscious intention to cause harm, (Andersson & Pearson, 1999), and therefore, the unwitting acts of incivility can be characterized as unfocused (Forni, 2008). Examples of unfocused incivility include inconveniencing other parties by last-minute plan cancellations, unreturned phone calls, and lateness without a significant cause or proper notification (Forni, 2008).

Incivility shakes up workplace harmony and disturbs efficient functioning among employees as a cohesive team. Albeit some forms of incivility are unintentional and unfocused, incivility is expensive to the organization and can escalate to more extreme forms of *workplace deviance*, defined as voluntary behavior that breaches organizational norms and endangers the welfare of the organization and/or its employees (Robinson & Bennett, 1995). Indeed, incivility is part of a larger construct of workplace deviance, a phenomenon that is a serious concern to employers. The annual cost estimates of workplace deviance were up to $200 billion in the early 1990s, and it poses a grave budgetary hazard to the organization (Bennett & Robinson, 2000). In 2005, employees reported experiencing work stress because of experienced incivility, and the annual cost of job stress was estimated at $300 billion.

Andersson and Pearson (1999) defined *workplace incivility* as "low intensity deviant behavior with ambiguous intent to harm the target in violation of workplace norms for mutual respect. Uncivil behaviors are characteristically rude and discourteous, displaying lack of regard for others" (p. 457). The behavior is devoid of concern and humility, and it contravenes workplace expectations and rules for courtesy, cohesiveness, and amity (Andersson & Pearson, 1999). Additionally, an *event* is defined as "a segment of time at a given location that is perceived by an observer to have a beginning and an end" (Zacks & Tversky, 2001, p. 3). Therefore, the present study defined an *incivility event* as a segment of time at a given location that begins with an *experiencer* (i.e., target or observer of the event) detecting impolite behavior with ambiguous intent to harm, and that ends with experiencer's interpretation of the behavior. Pearson and Porath (2009) specified that 96% of the workforce have experienced workplace incivility events, yet only less than 10% of the number of employees experiencing incivility had reported the uncivil experiences to the human resources or employee assistance programs.

Although a large portion of the workforce encounters incivility, and no category of employees is immune to incivility's consequences, individuals with disabilities are particularly vulnerable (Fevre, Lewis, Robinson, & Jones, 2012, 2013). Until recently, researchers hypothesized that health problems and disabilities were consequences of ill-treatment at the workplace. Emerging literature by Fevre et al. (2013) reverses the notion by revealing that individuals with disabilities and health problems *experience* increased levels of ill-treatment. Thus, merely having a *disability*, *or* "any impairment, activity limitations or participation restrictions that results from the health condition or from personal, societal, or environmental factors in the individual's life" (Falvo, 2013, p. 5;

World Health Organization; 2011), makes an employee a more likely *target* (Fevre et al., 2012), or an individual who is experiencing incivility (Pearson & Porath, 2005), than an employee without a disability. Additionally, studies have indicated that some employees with disabilities have more frequent encounters of varying forms of incivility than general employees (Fevre et al., 2013).

The work of Fevre et al. (2013) with his colleagues is exceptional, as research literature regarding workplace incivility and employees with disabilities is scarce; indeed, nearly nonexistent. Fevre and his colleagues have investigated incivility in England, and to date there is no comparable research conducted in the United States. Yet, incivility *is* a significant concern for human resource development (HRD) professionals because the phenomenon is prevalent and has an adverse organizational impact (Reio & Ghosh, 2009). Moreover, individuals with disabilities are a growing and a vital source of labor (Erickson, Lee, & von Schrader, 2014). One adverse consequence of incivility with organizational repercussions is mental health decline (Laschinger, Wong, Regan, Young-Ritchie, & Bushell, 2013).

Mental health is an overall feeling of well-being within an individual with a propensity for adequately coping with normal life stressors while making a positive contribution to the society (World Health Organization, 2004). *Stress* is an intricate conglomerate of factors that links people to their environment, and that transforms the individual's everyday well-being (Hart, Wearing, & Headey, 1993). As the experience of employees with disabilities may deviate from the experience of employees without disabilities (e.g., more frequent and/or intense experiences), the accumulative effect of incivility is inclined to tilt one's mental health in a negative direction or facilitate mental

health decline (Laschinger, et al., 2013; Lim, Cortina, & Magley, 2008; Tepper, 2000). For instance, a person with an apparent pattern of obsessive-compulsive disorder (OCD), an anxiety-based disorder, with a frequent urge to wash hands, may feel increased anxiety if ridiculed or teased for his manners. On the other hand, an employee who is blind may feel socially excluded at work if proper *assistive technology* or an item, article, or product that aids a person to successfully complete tasks (Bailey, 2011) is not provided for her or him to review correspondence; instead she or he may be supplemented with a dismissive attitude of "Oh, the information was not pertinent to you."

Incivility with its roots in organizational social conduct and norms creates disparity for employees experiencing incivility. Those who are persistently exposed to uncivil, low intensity behaviors, which violate societal expectations of fair treatment, experience a greater amount of psychological stress (Cortina, Magley, Williams, & Langhout, 2001). Incivility can lead to lower job satisfaction (Cortina et al., 2001) that diminishes *worker engagement* (i.e., a state in which one's workplace experiences of psychological meaningfulness, safety, and availability converge; Reio & Sanders-Reio, 2011), and that lessens productivity (Hutton & Gates, 2008), which can arguably lead to negative mental health outcomes. A study on job dissatisfaction and stress-related mental health problems depicted a positive association between the two factors with job dissatisfaction leading to burnout, anxiety, and depression (Tatsuse & Sekine, 2013). Yet, the experiences and related outcomes differ from person to person.

Even under precise external circumstances, employees' incivility experiences vary as a result of specific interpretation and perception of the circumstances by the experiencer (Bunk & Magley, 2013). The person's unique, internal resources may

ameliorate negative external experiences, and some characteristics and personality traits

protect against unpleasant social exchanges. One such a characteristic relates to the

concept of *attachment* or the development of an instinctual bond and a relationship with a

caregiver, or a preferred adult that protects an immature being from outside dangers,

(Bowlby, 1954, 1969, 1977, 1984), hereafter called *protector*. It results in an individual

seeking closeness to a person perceived as an experienced protector (Bowlby, 1977).

Furthermore, *attachment style* reflects distinct ways that one (a) controls

emotions, (b) views his or her own worthiness, and (c) perceives significant others as

trustworthy, reliable and supportive (Picardi, Fagnani, Nisticò, & Staz, 2011).

Specifically, the literature supports the notion that an individual's secure attachment style

buffers against adverse social interaction, including workplace incivility. Although

malleable and not entirely fixed, one's attachment style is adequately stable since birth

(Ainsworth, 1979), and therefore, invaluable in explaining mitigating factors and varying

outcomes under similar conditions. The concept of a secure attachment style as a shield is

briefly overviewed in the following section.

Individuals with secure attachment styles learn to expect positive responses from

society, to resolve conflicts effectively, and to have a positive self-image (Ainsworth,

1979; Ainsworth & Bowlby, 1991). Recent research shows evidence that *affect,* or the

experience of feeling an emotion, has a significant role in incivility experiences. A

positive affect promotes physical health and job satisfaction, and a negative affect is

linked to higher levels of workplace incivility (Reio & Ghosh, 2009). Individuals with

insecure attachment styles exhibit higher levels of negative affectivity than individuals

with secure attachment styles (Barry, Lakey, & Orehek, 2007; Bartholomew & Horowitz,

1991; Kafetsios & Sideridis, 2006; Mikulincer, Shaver, & Pereg, 2003; Oskis et al., 2013). On the other hand, a secure attachment style is anticipated to protect against adversarial social encounters and to ameliorate the impact of negative interpersonal experiences because individuals with secure attachment hold positive schemata of social interactions and employ effective self-regulation strategies (Mikulincer, et al., 2003). Consequentially, it is plausible that individuals with secure attachment styles encounter less incivility than their insecure counterparts, and that a secure attachment style stabilizes or abates individuals' mental health decline in the midst of incivility experiences.

Conversely, individuals with insecure attachment styles live through more intense and persistent negative interpersonal experiences than their counterparts with secure attachment styles. The cumulative effect of negative interpersonal experiences creates mental health dissonance, including elevated anticipation and detection of threats and amplified negative emotional responses that form a cycle of distress and mental chaos (Mikulincer et al., 2003). Hence, it is feasible that individuals with insecure attachment styles endure heightened incivility experiences that propel mental health decline. Furthermore, in comparison to securely attached peers, individuals with insecure attachments may become likely incivility targets as a result of poor social skills.

Individuals with disabilities are likely targets of incivility (Fevre et al., 2013), and having a disability in combination with an insecure attachment style may amplify incivility experiences. Therefore, having a disability and exhibiting a secure attachment style appear as two expedient research variables in relation to experienced workplace incivility and mental health status. For the research purposes of this project, all people

with disabilities comprising of individuals with *detectable* and *undetectable disabilities* are included in the sample. In the present research, individuals with detectable disabilities are considered those whom management and coworkers regard as an individual with a disability, without the need for a full disclosure of disability, as either symptomology or detectability of the disability is such that it confirms its existence. Detectability is not limited to person's physical characteristics (e.g., amputations, blindness, cerebral palsy, facial deformations, seizures) but other visible (e.g., ritualistic behaviors such as compulsory hand-washing, repeated interactions with others outside of social norm), auditory (e.g., Tourette's disorder, tic disorder, speech pathology), olfactory (e.g., consistent neglect to upkeep personal hygiene), or tangible attributes (e.g., a specific work product that consistently and negatively deviates from similar work products of others in a similar position while meeting and/or exceeding other work expectations, intellectual disability). On the other hand, undetectable disability is typically not detected by others without a full disclosure by the individual with a disability or another privileged source if the manifestation is non-severe, controlled by medication, or appears as a personality trait rather than a disability (e.g., Crohn's disease, fibromyalgia, depression, anxiety, personality disorders, bipolar disorder, eating disorders, schizophrenia, posttraumatic stress disorder, dissociative identity disorder, insomnia, addictive disorders; Davis, 2005). Overlap between a detectable and undetectable disability may exist in the manner that the disability manifests in an individual (e.g., mild anxiety may be undetectable while severe anxiety may be detectable by others), which will be discussed in this chapter.

Problem Statement

Workplace incivility is destructive to employees and the organization. There is a link between workplace incivility and reduction of productivity (Lewis & Malecha, 2011; Porath & Pearson, 2013), employee turnover (Chiaburu & Harrison, 2008; Leiter et al., 2011), job satisfaction (Lim et al., 2008; Morrow, McElroy, & Scheibe, 2011), employee health (Bartlett, Bartlett, & Reio, 2008; Laschinger et al., 2013; Lim et al., 2008), and numerous other consequences with significant financial impact for a corporation (Porath & Pearson, 2013). In addition, experienced incivility is linked to increased psychological distress (Caza & Cortina, 2007; Cortina, Magley, Williams, & Langhout, 2001) and negative affectivity (Giumetti, Hatfield, Scisco, Schroeder, Muth, & Kowalski, 2013); however, the research is scarce in general and near non-existent in relation to individuals with disabilities.

Likewise, there have been numerous studies on workplace incivility but there is a wide gap in business, psychology, and education research that examines incivility among specific employee populations, such as individuals with disabilities. These factors are of a substantial concern from a human resource development (HRD) perspective because incivility disrupts organizational effectiveness, and the disruption is paid in billions of dollars in expenses, profit losses, and human capital (Bartlett et al., 2008CITE). Furthermore, corporations are faced with deficient skilled workforce in a foreseeable future (Dobbs et al., 2012). On the other hand, individuals with disabilities are a growing and viable human resource constituting a significant portion of the workforce (Erickson et al., 2014) and a likely pool for skilled labor, as the individuals with disabilities fall into a diverse matrix of categories.

Individuals with disabilities represent a wide spectrum of disabilities including mental, emotional, cognitive, physical, sensory, and learning disabilities. In addition, they deliver varying degrees of work skills and experiences reflective of the general population. The present research focuses on people with all disabilities who have engaged in *competitive employment* or in employment compensated by legal wages. *Legal wage* is defined as a minimum federal or state wage, whichever is higher, or above, except in jobs compensated by tips (e.g., waiters, bartenders) and other exempted employees (e.g., farm workers, seasonal workers; U.S. Department of Labor, 2017). The current research will add to the nascent literature exploring the links between experienced workplace incivility among those with disabilities and a select organizational outcome; that is, mental health status.

Purpose of the Study

The purpose of the study is to investigate workplace incivility toward individuals with disabilities, and its relation to their mental health. Furthermore, the study will investigate the role of attachment in incivility experiences.

Research Questions and the Hypotheses

The study will investigate a link between individuals with disabilities and experienced workplace incivility. The extant literature supports the notion that individuals with disabilities as a group experience more workplace incivility than other employees. Therefore, the relationship between having a disability and experienced workplace incivility is of interest (Fevre et al., 2012, 2013).

Second, the research literature has revealed that experiencing, or being the target of workplace deviance, is negatively associated with an individual's mental health status

caused by dissatisfaction, particularly stemming from perceived mistreatment by supervisors and coworkers (Lim et al., 2008). The negative manifestations of mental health decline include severe dissatisfaction, irritability, distress, anxiety, depression, and other mentally debilitating factors (Hansen et al., 2006; Laschinger et al., 2013; Lim et al., 2008; Tepper, 2000). Hence, the relationship between experienced workplace incivility and mental health status is of interest.

Third, in comparison to other employees, individuals with disabilities have been found to experience more intense and frequent encounters with workplace incivility, which is a subset of deviance (Cortina, 2008; Fevre et al., 2012). Prior research (Hansen et al., 2006; Laschinger et al., 2013; Lim et al., 2008; Tepper, 2000) suggests that workplace deviance has a relationship with an individual's mental health status; therefore, links between having a disability and mental health status while experiencing workplace incivility are of research interest.

Fourth, a strong body of literature supports the idea that attachment styles have a lasting impression on individuals' social interactions and perceptions of one's social efficacy (Bowlby, 1951, 1970, 1977, 1982, 2008). Individuals with insecure attachment styles have been found to have ineffective social and coping skills, which lead to unsatisfying relationships. Conversely, individuals with secure attachment styles have developed efficient social skills and positive expectations of others' intentions during social interactions (Ainsworth, 1979; Ainsworth & Bowlby, 1991). Moreover, ineffective *perceptions* of others' intentions in social circumstances may lead to encounters that differ from the encounters of those who have more positive approaches and expectations

(Reio & Ghosh, 2009), and it can be expected that individuals with secure attachments would encounter less acts of incivility.

Fifth, the research literature has revealed that having a secure attachment style is related to an array of positive mental health states that allows the person to maintain a healthy view of self and promote closeness and respect among other individuals, including those who may be perceived as harmful (McCormick & Kennedy, 1994; Mikulincer et al., 2003; Passanisi, Gervasi, Madonia, Guzzo, & Greco, 2015). In addition, they effectively cope with distressing events (Mikulincer et al., 2003). On the other hand, having any type of insecure attachment style is linked to mental health decline and *mental disability* (Bartholomew & Horowitz, 1991; Barry et al., 2007; Kafetsios & Sideridis, 2006; Mikulincer et al., 2003; Oskis et al., 2013) or a condition of "having at least one type of mental disorder, manifested in cognitive, affective, as well as behavior disorders, and impaired daily life and social function" (Li, Du, Zhang, Chen, & Zheng, 2015, p. 11). The literature also suggests that attachment styles of individuals with physical disabilities follow similar patterns as that of the general population (Hwang, Johnston, & Smith, 2009). Therefore, the relationship between (a) securely-attached individuals with disabilities and mental stability, and (b) securely-attached individuals with disabilities who have experienced incivility at work and mental stability are of interest.

Finally, a mental disability simply by definition suggests impaired mental functioning that hinders one's daily activities or social interactions (Li et al., 2015). On the other hand, mental health by definition indicates that, despite daily hassles, individual's mental capabilities work in a balanced and coordinated manner to achieve a

general feeling of content and happiness (World Health Organization, 2004). The

attachments styles of children with physical disabilities are often similar to the

attachment styles of people without disabilities (Hwang et al., 2009). Yet, caregiver's

inadequate attention to and understanding of a child's unique physical and emotional

needs may engender development of insecure attachment style (Berant, Mikulincer, &

Shaver, 2008; Howe, 2006). Therefore, having a disability and mental stability is of

interest.

The study explored the following seven research questions through two models:

(a) What is the relationship between having a disability and workplace incivility

encounters amongst employees? (b) What is the relationship between workplace incivility

encounters and workplace mental stability? (c) What is the relationship between having a

disability and workplace mental stability amongst employees who are experiencing

workplace incivility encounters? (d) What is the relationship between having a disability

and workplace incivility encounters amongst employees with a secure attachment style?

(e) What is the relationship between employees with a secure attachment style and

workplace mental stability? (f) What is the relationship between workplace incivility

encounters and workplace mental stability of individuals with a secure attachment style?,

and (g) What is the relationship between having a disability and workplace mental

stability? Seven hypotheses were tested to investigate the questions (see Figure 1):

Figure 1

Hypothetical Model A and Model B
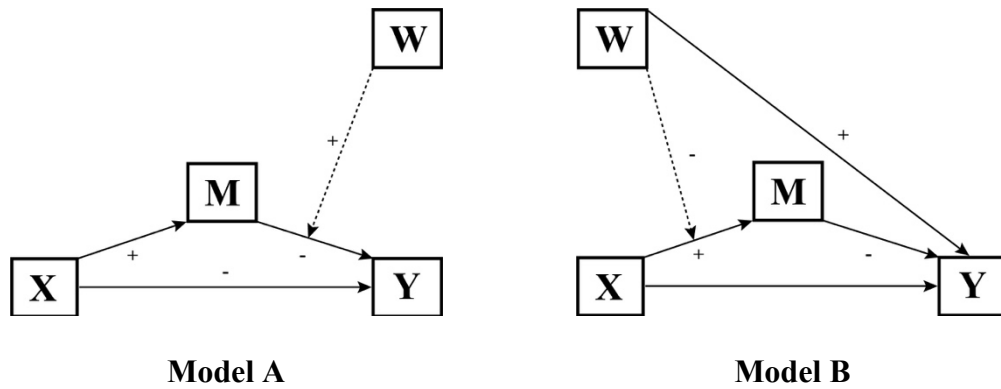
Model A   Model B

Note. X = independent variable (i.e., disability status); Y = dependent variable (i.e.,

mental stability); W = moderator variable (i.e., attachment security); M = mediator

variable (i.e., incivility encounters). The study hypothesized that the quality (i.e., the

positive or the negative relationship) or the quantity (e.g., the numerical size) of the

link varies with the introduction of the moderator variable W. Moreover, the mediator

variable M creates a chain reaction of events with the independent variable X; the

variable X (i.e., having a disability) is linked to the variable M (i.e., increased

incivility encounters), which is subsequently linked to the variable Y (i.e., decline in

mental stability; Hayes & Rockwood, 2017).

H_1: There is a positive relationship between having a disability and personal

workplace incivility encounters.

H_2: There is a negative relationship between personal workplace incivility

encounters and mental stability under ordinary work pressures.

H₃: Experiencing personal workplace incivility encounters mediates the link between having a disability and mental stability under ordinary work pressures.

H₄: Attachment security (i.e., secure-leaning attachment style) moderates (weakens) the positive link between having a disability and personal workplace incivility encounters.

H₅: There is a positive relationship between attachment security (i.e., secure-leaning attachment style) and mental stability under ordinary work pressures.

H₆: Attachment security (i.e., secure-leaning attachment style) moderates (weakens) the negative link between personal workplace incivility encounters and mental stability under ordinary work pressures.

H₇: There is a negative relationship between having a disability and mental stability.

Theoretical Framework

The research was framed around two models supported by existing literature as viable working models: (a) workplace incivility theory (Andersson & Pearson, 1999), including a model of selective incivility (Cortina et al., 2013), guided the understanding of nature of workplace incivility, and (b) attachment theory (Ainsworth, 1992; Ainsworth & Bell, 1970; Ainsworth & Bowlby, 1991; Ainsworth & Marvin, 1995; Bowlby 1969, 1970, 1977) guided the exploration of attachment styles' role in workplace incivility experiences. An abundant body of literature indicates that attachment styles have persevering and profuse implications to the individuals' apperception of social exchanges and encounters.

Concept of Workplace Incivility

Workplace incivility may begin as innocuous, unintentional behaviors, but it can suddenly turn into a precursor for more aggressive workplace interactions that spiral upward into harmful organizational outcomes and destructive workplace behaviors, including violence and physical attack (Andersson & Pearson, 1999). Workplace incivility, with its roots in social conduct by employees within an organization and accepted social norms imposed by the organization, can create disparity for individuals experiencing incivility and costly consequences for the organization. For example, some negative outcomes of incivility that lower organizational profits include a deliberate decrease in work effort and quality, work performance decline, increase in off-task time, drop in organizational commitment, and increase in employee turnover (Porath & Pearson, 2010). Employees who are persistently exposed to workplace incivility experience a greater amount of psychological stress (Cortina et al., 2001; Laschinger, 2013; Lim et al., 2008), lower job satisfaction (Andersson & Pearson, 1999; Blau & Andersson, 2005; Cortina et al., 2001; Morrow et al., 2011; Pearson & Porath, 2005), diminished worker engagement (Giumetti, et al., 2013; Reio & Sanders-Reio, 2011), and lessened productivity (Hutton & Gates, 2008; Lewis & Malecha, 2011), among other negative outcomes than workers who do not experience incivility.

Despite widespread negative outcomes linked to incivility, not all incivility links to negative consequences or stress. For instance, an individual who repudiates morally or ethically reprehensible values upheld by members of some groups may be acting uncivilly or disrespectfully in the eyes of the aforesaid members (e.g., refusing to partake in an initiation ceremony involving illegal engagement; Westcott, 2012).

Notwithstanding, the incivility imposed on the group may not create negative stress within the membership (e.g., the group members may find the individual's refusal to partake in the initiation ceremony laughable), and the outcome of the refusal may be positive for society (e.g., one less member in an unscrupulous cartel).

Regardless of some possible positive purpose for incivility, acts of incivility and stress associated with it are typically negative (Lim et al., 2008). Stress caused by incivility can be devastating to people and organizations and lead to organizational losses that, in the end, are monetary in nature (Bartlett et al., 2008). The devastating nature of uncivil behavior toward an employee is of principle interest to the present research namely because it can lead to increasingly complex psychological repercussions that alter employee's mental health status. The expenditures associated with rising health care costs, increased risk of disability, lowered work rate, absenteeism, and turnover caused by stress is expensive to organizations and frustrating to the employees, including the management (Bartlett et al., 2008). Recent research supports the notion that uncivil work environments increase stress levels, and the American Institute of Stress estimates stress-related incidences absorbing $300 billion each year in sick leave, long-term disability, stress-related illnesses treatment costs, and turnover (Pearson & Porath, 2009). Although not all significant stress, including incivility, permanently deteriorates one's mental health status, it is reasonable to believe that there is an association between employees' mental health decline and stress caused by experienced incivility or rude workplace behavior (Lim et al., 2008).

Uncivil workplace behaviors that lead to stress and other harmful organizational outcomes include the following: (a) accusing another employee of one's own mistakes,

(b) being tardy to or leaving unexpectedly early from a meeting, (c) using an

inappropriate tone in messages, (d) not sharing valuable information, (e) leaving a messy

work area for another employee to clean up, (f) choosing not to communicate with

another employee, and (g) depleting resources that are invaluable to a coworker

(Andersson & Pearson, 1999; Lim et al., 2008; Porath & Pearson, 2010, 2013).

Eventually, an employee who directly or indirectly experiences such behaviors may

choose to leave one's job in hopes of finding a more civil work environment, and recent

research has concluded that approximately 12 percent of employees reported quitting

their jobs due to incivility (Pearson & Porath, 2009). Some other employee turnover

reasons include work stress, poor management, family demands, relocation, pay, work

responsibilities, work schedules, advancement opportunities, career changes, and life

changes (Maertz & Kmitta, 2012). The cost of the employee turnover to the employer

was roughly 1.5 to 2.5 times the employee's salary.

Although only one person may have chosen to leave the company, incivility

involves more than one individual. Some of the pivotal characters associated with

incivility are (a) targets, (b) instigators, and (c) observers. An employee experiencing

incivility is called a *target*; a perpetrator of incivility is called an *instigator;* and an

observer witnesses the acts of incivility (Pearson & Porath, 2005). Additionally,

perpetrators may be grouped to occasional and habitual offenders (Forni, 2008). Websites

called HateBoss.com with blogs such as the one titled "Arrogant, lying, fake, perverted

jerk" (Pearson & Porath, 2009, p. 45) not only speak of incivility breeding more

incivility, but also of employees perceiving supervisors and managers as unfair, habitual

instigators. In fact, it is precisely managerial employees (i.e., managers, supervisors) who

have been identified as the main perpetrators of incivility (Fevre et al., 2012). On the other hand, a large body of research has investigated *general incivility* targets but only a small body of research has identified specific targets. General incivility consists of low intensity behaviors that lack a clear intention to harm but that breach social norms and distress targeted employees (Cortina, 2008). Recently, specific groups as incivility targets have gained more attention among researchers.

Cortina (2008) is one of the pioneers in defining specialized groups as incivility targets, and she argued that in some cases the perpetrators purposefully select certain demographic groups such as women, racial minorities, and employees of advanced age. Her model of *selective incivility* is derived from a notion that an unfair discrimination occurs when a specific social category, with comparable potential to succeed, is placed at an unequal level in comparison to the other groups (Diphoye & Halverson, 2004). The selective incivility is not only devastating to the employee, but it also disrupts the acquisition of a diversified workplace (Cortina, Kabta-Farr, Leskinen, & Huerta, 2013). Therefore, Cortina et al. (2013) examined the effects of selective incivility on the specific subgroups of gender and race, and tested the extension of the study to ageism. Yet, one subgroup that has received very little attention in the field of incivility is people with disabilities. Fevre et al. (2013) added to the emergent literature by conducting a quantitative study on ill-treatment of employees with disabilities, drawing on the sociological model of disability. The research of Fevre et al. was inclusive of both detectable and undetectable disabilities. The proposed research will model its sample after the Fevre et al. sample. The researcher agrees with the contention that an interdisciplinary approach can expand the awareness of workplace deviance against

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employees with disabilities. Moreover, eradicating the power differential between human resources and employees with disabilities is vital in abolishing workplace incivility (Hoel & Beale, 2006).

The section outlined the concept of incivility and some of the negative consequences of incivility, such as declining mental health status. Although, the prevailing research has demonstrated harmful outcomes of workplace incivility (Estes & Wang, 2008), mitigating factors may soften the links between experienced incivility and negative outcomes. The link between experienced incivility and decline in mental health status is another central concept in the present study, and one plausible mitigating factor is a secure attachment style of the experiencer. The following section introduces the concept of attachment styles, and then, provides an overview of links between attachment styles, experienced incivility, and mental health status.

Concept of Attachment Styles

Attachment is instinctual behavior that enhances an animal's chances for survival (Bowlby, 1969). After observing young animals' attachment formation with their parents, Bowlby's developed an attachment theory of humans and related it to their personality development (Ainsworth, 1992). In fact, the attachment bonds formed are so significant that disruptions to the bond (e.g., loss through death) may interfere with personality development with severe negative consequences (Bowlby, 1977).

Against the contemporary Freudian perspective on human attachment, which was focused on human need for food and nourishment, Bowlby discovered animal research that suggested that attachments form because of the offspring's need for protection from external threats. Thus, he modified the basis of his attachment theory to reflect an

ethological view (Bowlby 1970, 1977). In addition to the animal studies that interested Bowlby, Ainsworth conducted field studies on mother-child bonds, which deeply influenced Bowlby's opinion on formation of attachment styles and their influence on psychological development. Studies pointed to two overarching attachment styles: (a) secure and (b) insecure. Furthermore, the insecure attachment style revealed several manifestations, and initially, researchers grouped them into two distinct categories (Ainsworth & Bowlby, 1991). The following section provides a synopsis of a study called a Strange Situation, which assisted in defining the preceding categories.

A *Strange Situation* is a laboratory study that Ainsworth developed to investigate various styles of attachments. In such a study, researchers observe mother-child interactions with and without a stranger present, and with mother entering and exiting the laboratory room. Furthermore, researchers note children and mother's behaviors and reactions to specific occurrences to uncover a mother-child attachment paradigm (Ainsworth & Marvin, 1995). Some of the observations rate (a) caregiver's responsiveness to child's signals, (b) caregiver's cooperation with child (c) caregiver's acceptance of child, and (d) caregiver's availability to meet the child's needs (Weinfield, Sroufe, Egeland, & Carlson, 2008).

The original *Strange Situation* research supported the notion that organized patterns divided various attachment styles into two distinct categories of secure and insecure attachment style (Ainsworth & Bowlby, 1991). Broadly, a secure attachment style refers to the child's sense of the caregiver as a *secure base*, providing contentment and confidence for the child to independently be curious and investigate his or her surroundings. If an alarming need for security or perceived need for protection arose, a

secure child would feel at ease to attain empathetic reassurance from the caregiver. Consequently, the child develops confidence, self-efficacy, and empathy.

In contrast, children with insecure attachments are uncertain of their caregivers' availability to defend them or provide them with a sanctuary during threatening times. As a result of the inconsistent emotional or physical availability of the caregiver, the child feels exposed to threats, feels vulnerable, and may begin fearing abandonment. Therefore, the child explores the world with reduced confidence and relies unenthusiastically on the caregiver in times of duress and may respond with anxiety, anger, or indifference (Ainsworth, 1979; Weinfield et al., 2008). Upon further investigation, the insecure attachment category exhibited notable variations within, which merited additional distinction.

Specifically, insecurely attached children displayed behavior patterns that actuated the categorization of attachment into anxious-resistant attachment, anxious-avoidant and disorganized styles (Ainsworth, 1985; Bowlby, 2008). First, anxious-resistant children are unsure of caregiver's responsiveness and exhibit clingy and uncertain behaviors when exploring. Secondly, anxious-avoidant children have been repeatedly rejected by the caregiver, and thus, have lost confidence in the caregiver as an empathetic protector or provider. These type of children grow up relying on themselves, perhaps even in a narcissistic manner. Finally, Ainsworth (1985) observed a group of children whose reactions were disorganized, and therefore, their behavior patterns did not clearly belong to the other three categories. Some behavior manifestations of disorganized children included confusion, frozen movement, sudden interruptions to movement, and repetitive behaviors (Ainsworth, 1985; Bowlby, 2008).

The negative or insecure representations of childhood attachments may develop

into pathological patterns in adulthood as measured by the Adult Attachment Inventory

(AAI) scales, such as a system classified by Main and Goldwyn in 1991 (Fonagy et al.,

1996). The system is divided into three attachment categories consisting of (a) free-

autonomous (relating to a secure attachment), (b) dismissive (relating to an insecure

attachment), and (c) preoccupied (relating to an insecure attachment). Links between

insecure attachment styles and adulthood psychopathologies are discussed next.

Insecure Attachment Styles and Mental Health

Bowlby (1951) suggested that "the quality of the parental care which a child

receives in his earliest years is of vital importance for his future mental health" (p. 11).

Since Bowlby's statement, researchers have uncovered links between attachment styles

and mental health disorders including the following: (a) mood disorders (Cole-Detke &

Kobak, 1996; Fonagy et al., 1996), (b) anxiety disorders (Fonagy et al., 1996), (c)

dissociative disorders (McFadden, 2011), (d) eating disorders (Cole-Detke & Kobak,

1996; Fonagy et al., 1996), (e) schizophrenia (Scheimbaum et al., 2015), (f) borderline

personality disorder (Fonagy et al., 1996), and (g) antisocial personality disorder (Fonagy

et al., 1996). Individuals growing up in unstable family environments characterized by

parental rejection, lack of affection, and unloving demeanor demonstrate higher rates of

anxiety-based disorders than to individuals with secure attachment styles (Dozier,

Stovall-McClough, & Albus, 2008, Chapter 30).

On the other hand, a disorganized style of attachment combined with early

childhood trauma predisposes one to dissociation. The child's coping mechanism breaks

down with repeated and pending perils without parental protection, and consequently, he

or she develops multiple models of the self that cannot be integrated. Likewise, the experience of childhood trauma combined with inconsistent and incapable caregiving predisposes a person to a borderline personality disorder. Furthermore, eating disorders, which are predominantly diagnosed in women, are linked to dominating mothers and emotionally unavailable fathers, while insecure attachments involving high emotion and criticism are associated with schizophrenia (Sheinbaum, 2015). Finally, attachment styles characterized by paternal deviance, maternal neglect, and abuse have a relationship with the development of antisocial disorder (Dozier, Stovall-McClough, & Albus, 2008, Chapter 30).

It is plausible that individuals with mental disabilities exhibit more insecure attachment styles than individuals without mental disabilities because of a link between insecure attachment style in childhood and the development of mental disability. On the other hand, individuals with physical disabilities generally follow attachment styles of people without disabilities (Hwang et al., 2009). Still, research has revealed that the reduced sensitivity of a caregiver to the needs of children with disabilities propels the development of the insecure attachment styles (Howe, 2006) and emotional vulnerabilities in children with certain physical disabilities (Berant, Mikulincer, & Shaver, 2008). Overall, the early childhood patterns of attachment carry to adulthood social interactions (Bowlby, 1977, Ainsworth, 1985CITE).

In an event that an individual enters the work world with a compromised mental health status engendered by insecure attachment, such as the above described mental disabilities, the individual is anticipated to display more adverse outcomes to experienced workplace incivility than the individuals with secure attachment patterns. Other research

has found that individuals with disabilities are more susceptible to incivility (Fevre et al., 2012, 2013). Moreover, some literature reveals that people with both secure and insecure attachment orientations had more negative *emotions* when reading about virtual people with disabilities than when reading about virtual people without disabilities. On the other hand, only people with secure attachment styles had more positive *attitudes* in a form of cognitions and behaviors when reading about people without disabilities. In other words, despite the initial, negative emotions, individuals with secure attachments actively displaced the negative emotions with positive actions (Vilchinsky, Findler, & Werner, 2010). Therefore, individuals with disabilities with insecure attachment styles may have more negative workplace mental health outcomes than the securely-attached counterparts because of increased exposure to incivility.

Significance of the Study

The study will broaden the incivility literature by investigating links between workplace incivility and disabilities, because individuals with disabilities have been found to experience more acts of workplace incivility in comparison to employees without disabilities. The study is unique because no similar research has been published using a U.S. sample. It will focus on low intensity expressions of incivility at workplaces, or the beginning of the spiral (Andersson & Pearson, 1999). It recognizes potential devastating consequences of uncivil acts to the employee and the organization, especially to individuals with disabilities, as the research reveals that they are more frequent incivility targets than their coworkers without disabilities. The sample includes individuals with detectable and undetectable disabilities. The distinctions of detectable and undetectable disabilities are not clear-cut and vary by disability and severity of its

manifestation. The gray area of detection brings up considerations discussed in the following section.

In instances in which the existence of disability is unclear, an individual with a disability may be treated in an insensitive manner because of the lack of understanding of the individual's limitations. Alternatively, it is possible that in some situations when individual's disability is known, the individual may be treated more fairly either for compassion or for fear of repercussions than if the disability was unknown. Regardless, current literature supports the notion that individuals with disabilities in general are treated with more incivility than those without disabilities (Fevre et al., 2012, 2013). Therefore, it is prudent to include people with all disabilities in the study. Although literature reflects the assertion that people with disabilities experience more incivility than those without disability, factors such as attachment style may moderate or dampen the effect of experienced incivility.

Although having a disability increases incivility experiences, the study proposes that harmful effects of workplace incivility are moderated by secure attachment style of individuals while insecure attachment styles intensify mental health decline in the face of experienced workplace incivility. Individuals with secure attachment styles have adopted better coping skills against life stressors than individuals with insecure attachment styles (Ainsworth, 1979; Ainsworth & Bowlby, 1991). Conversely, individuals with secure attachment styles will be less affected by the exposure to uncivil work environments than individuals with insecure attachment styles. Finally, experiencing workplace incivility promotes mental health status decline, especially with individuals with existing mental instability (Lim et al., 2008). The next section discusses the connections to HRD field.

Implications to Human Resource Development

In the growing U.S. economy, analysts have projected a mismatch in supply and demand of labor (Lengnick-Hall, Gaunt, & Kulkarni, 2008), with the specific need for skilled employees superseding the demand by approximately 1.5 million college graduates (Dobbs et al., 2012). The discrepancy creates a need for companies to shape their skill supply through active and direct action such as skills training and employee development (Dobbs et al., 2012). Companies therefore need not only to train, but also to retain employees to function efficiently. Incivility creates discord, and noxious environments are destructive to employee growth and learning (Reio & Ghosh, 2009). Each employee trained and lost because of an uncivil work environment costs the employer.

Employees provide knowledge, skills, and abilities (KSAs) to the employer, which are resources accessible only through appropriate employee behavior, and which can be shaped through human resource development. An employee possessing necessary skills to perform a job does not guarantee the behaviors to perform the job, and employee effectiveness is related to adapting to specific work environments, which need to be adequately monitored (Wright, McMahan, & McWilliams, 1994). Wright and his colleagues (1994) argue that an organization's competitive edge can only be sustained through proper interaction between employees and human resource practitioners. It is conceivable that the role of human resource practitioners in maintaining a competitive edge over rival organizations may be one of the reasons that billions of dollars are spent on HRD-related activities.

The American Society of Training and Development (ATSD) estimated that organizations in the United States spent nearly $126 billion in employee training and development in 2009 (Gavino, Wayne, & Erdogan, 2012). Uncivil environments that are not adequately addressed through employee and management training, and through implementing firm policies regarding incivility against individuals with disabilities (Fevre et al., 2013) will interfere with retaining the investment in a form of employee turnover. Recent research findings support the notion that incivility significantly influences socialization-related learning and turnover intent at a workplace (Ghosh, Reio, & Bang, 2013).

Individuals with disabilities form a significant portion of the workforce, representing over 10% of non-institutionalized working-age people (Erickson et al., 2013). Thus, understanding prevailing incivility patterns toward individuals with disabilities becomes vital in ensuring retention of viable human capital and reducing monetary losses in the form of turnover and reduced productivity. Only by investigating (a) the incivility experience of individuals with disabilities and (b) its harmful consequences such as mental health decline, can HRD professionals address the issue and reach out to resources aiding in developing proper organizational programs eradicating incivility toward individuals with disabilities.

Incivility theory explains largely the role and nature of workplace ill-treatment, the rationale for some employees becoming targets, and the reasons that ill-treatment has negative outcomes including mental health effects to the incivility experiencer. Attachment theory, on the other hand, justifies reasons for a set of employees appearing to be safeguarded against incivility, while others experiencing more negative

consequences and perhaps more frequent encounters under seemingly similar conditions and treatment.

Definitions of Terms

Affect. The experience of feeling an emotion (Reio & Ghosh, 2009).

Assistive Technology. An item, article, or product that aids a person to successfully complete tasks (Bailey, 2011).

Attachment. The development of an instinctual bond and a relationship with a caregiver, or a preferred adult that protects an immature being from outside dangers (Bowlby, 1954, 1969, 1977, and 1984).

Attachment Style. A distinct way that one controls emotions, views his or her own worthiness, and perceives significant others as trustworthy, reliable and supportive (Picardi, Fagnani, Nisticò, & Staz, 2011).

Competitive Employment. Employment compensated by legal wages in a competitive market (U.S. Department of Labor, 2017).

Detectable Disability. A disability that management and coworkers perceive without the need for a full disclosure of disability, as either symptomology or detectability of the disability is such that it confirms its existence.

Disability. "Any impairment, activity limitations or participation restrictions that results from the health condition or from personal, societal, or environmental factors in the individual's life" (Falvo, 2013, p. 5; World Health Organization, 2011).

Event. "A segment of time at a given location that is perceived by an observer to have a beginning and an end" (Zacks & Tversky, 2001, p. 3).

Experiencer. An individual who, without provocation, encounters an incivility event (i.e., a target or an observer of the event).

Incivility. Low-intensity behaviors devoid of concern and humility that contravene workplace expectations and rules for courtesy, cohesiveness, and amity but with an ambiguous intent to harm (Andersson & Pearson, 1999).

Incivility Event. A segment of time at a given location that begins with an *experiencer* (i.e., target or observer) detecting impolite behavior with ambiguous intent to harm, and that ends with experiencer's interpretation of the behavior.

Instigator. A perpetrator of incivility (Pearson & Porath, 2005).

Legal wage. A minimum federal or state wage, whichever is higher, or above, except in jobs compensated by tips (e.g., waiters, bartenders) and other exempted employees (e.g., farm workers, seasonal workers) (U.S. Department of Labor, 2017).

Mediator. A variable that accounts for the relation between an independent and a dependent variable by explaining how external physical events take on internal psychological significance (Baron & Kenny, 1986).

Mental disability. A condition of "having at least one type of mental disorder, manifested in cognitive, affective, as well as behavior disorders, and impaired daily life and social function" (Li et al., 2015).

Mental health. An overall feeling of well-being within an individual with a propensity for adequately coping with normal life stressors while making a positive contribution to the society (World Health Organization, 2004).

Moderator. A variable that affects the direction and/or strength of the relation between an independent and a dependent variable (Baron & Kenny, 1986).

Observer. A witness of the acts of incivility (Pearson & Porath, 2005; Reich & Hershcovis, 2015).

Protector. A caregiver, or a preferred adult that protects an immature being from outside dangers (Bowlby, 1954, 1969, 1977, and 1984).

Selective incivility. Specific forms of workplace mistreatment based on social dimensions including sexual orientation, sex, age, race, and disability status (Cortina, 2008).

Stress. Stress is an intricate conglomerate of factors that links people to their environment and that transforms the individual's everyday well-being (Hart, Wearing, & Headey, 1993).

Target. An individual who is experiencing incivility (Pearson & Porath, 2005).

Undetectable Disability. A disability that is not typically detected by others without a full disclosure by the individual with a disability or another privileged source.

Workplace deviance. Voluntary behavior that breaches organizational norms and endangers the welfare of the organization and/or its employees (Robinson & Bennett, 1995).

Worker Engagement. A state in which one's workplace experiences of psychological meaningfulness, safety, and availability converge (Reio & Sanders-Reio, 2011).

Workplace incivility. "Low intensity deviant behavior with an ambiguous intent to harm the target in violation of workplace norms for mutual respect. Uncivil behaviors are characteristically rude and discourteous, displaying lack of regard for others" (Andersson and Pearson, 1999, p. 457).

Outcomes and Delimitations of the Study

Ideally, nationwide statistics from a larger population would yield more powerful statistics than a small sample of individuals with disabilities affiliated with a large southeastern university. The data will be collected from a sample of adults with competitive work experience and affiliated with the university (e.g., undergraduate, graduate, post-graduate, employee) being examined in the present research. University settings are expected to yield a wide range and high frequency of individuals with disabilities employed at various environments. On the other hand, the sample population is not assumed to be representative of the range and frequency of individuals with disabilities at all work settings.

Organization of the Study

The dissertation is sectioned into five chapters. Chapter I, the introduction, is divided into the following subsections: introduction to the problem, statement of the problem, purpose of the study, rationale, research hypotheses, theoretical framework, significance of the study, definition of terms, assumptions and delimitations of the study, and organization of the study. Chapter II, literature review, explores existing literature in workplace incivility, including uncivil work behaviors, organizational outcomes of incivility, links to mental health, role of attachment as a moderator, and theoretical implications of workplace incivility. Chapter III, research methods, presents the research methodology including research design, sample population, instrumentation, data collection, and statistical analysis. Chapter IV, results, analyzes the data, and outlines statistical findings of the study including significance. Chapter V, conclusions and implications, reviews whether or not the study confirmed the original hypotheses,

discusses implications of the study in organizational and human resource development

context, and suggests future research.

CHAPTER II

LITERATURE REVIEW

Chapter II opens with a brief review of individuals with disabilities in relation to a competitive job market before delving into a general overview of workplace incivility theory. It explores uncivil behaviors, outcomes, and targets. Second, the literature review narrows the focus to incivility toward employees with disabilities as targets, and examines links between experienced incivility and one's mental health status. Third, the chapter discusses human attachment theory and details the role of human attachment orientations in incivility experiences because attachment orientation may affect an individual's approach to workplace incivility. Finally, the chapter explores relevant employment-related factors, situating the study through the prism of an individual with a disability at a workplace.

The research is designed around two theoretical frameworks that the existing literature supports as viable working models: (a) incivility theory, including a model of selective incivility (Cortina et al., 2013), will guide the understanding of the nature of workplace incivility, and (b) attachment theory will guide the exploration of attachment styles' role in relation to workplace incivility experiences. An abundant body of literature indicates that *attachment styles*, or general patterns of attachment behaviors toward a caregiver (Ainsworth, 1979; Ainsworth & Bowlby, 1991; Tracy & Ainsworth, 1981), have persevering and profuse implications to individuals' apperception of social exchanges and encounters.

Prior to exploring the literature, it is salient to underscore the need for the study and to situate it within current employment trends. Individuals with disabilities would be

the largest minority group in the United States, if they were included in a comparison with ethnic, cultural, and racial minority groups (Drum, McClain, Horner-Johnson, & Taitano, 2011). Yet, a study investigating the relationship between individuals with disabilities and workplace incivility experiences is a significant piece of literature that is practically nonexistent in the HRD field apart from less than a handful of recent studies. The following is an overview of current trends in a competitive job market impacting individuals with disabilities.

Individuals With Disabilities and Competitive Job Market

With technological advances individuals are living and working longer. The longer people live, the more likely they are to acquire a disability. The overall prevalence of disability in individuals aged 65 to 74 is nearly 26 % in the U.S., and the number almost doubles for the population older than 74 years (Erickson et al., 2014).

Advanced medical technology and protective gear has increased the survival rate, quality of life, and functionality through state-of-the-art medical devices for individuals living through devastating accidents, war injuries, assaults, and traumatic medical conditions (Clark, Bair, Buckenmaier III, Gironda, & Walker, 2007; Elliott & Leung, 2005, Chapter 12; Reiber, McFarland, Hubbard, Maynard, Blough, Gambel, & Smith, 2010; Slaughter, Rogers, Milano, Russell, Conte, Feldman, & Wozniak, 2009; Stein, Georgoff, Meghan, Mizra, & Sonnad, 2010; Stiefel et al., 2005; Wiederhold, Bullinger, & Wiederhold, 2006). As working is financially vital and rewarding to most individuals, and the identity as an employee can be psychologically rehabilitating, some individuals look forward to adjusting back to work even after debilitating events. In fact, one study found that about 60% of individuals returned to full-time employment and 20% engaged

in part-time work after surviving major trauma (Holtslag, Post, van der Werken, & Lindeman, 2007). Lastly, assistive technology and rehabilitation engineering allows a growing number of employees with disabilities to adapt to the world, including work (Butterfield & Ramseur, 2004; Dawe, 2006; Domingo, 2012).

While the working population of employees with disabilities is growing, corporations and government entities lack a sufficiently skilled workforce, particularly at the bachelor's and master's level, but also below bachelor's level. Specifically, jobs such as data scientists, skilled trades (e.g., manufacturing), software developers, cybersecurity professionals, and petroleum engineers are in high demand (Xue & Larson, 2015). Such positions are mostly either sedentary (e.g., data scientists, computer security specialists, software developers) and/or involve working with things rather than people, as reflected by the Dictionary of Occupational Titles (DOT; U.S. Department of Labor, Bureau of Statistics, 1991). In fact, it is helpful to analyze a nature of a job for information such as the following: (a) worker functions, which are an employee's relationship to data, people, and things in his or her job; (b) worker characteristics, which are desirable employee traits that strengthen the likelihood of job success; (c) physical demands, which include specific activities such as walking, sitting, lifting, climbing, stooping, handling, hearing, and depth perception; (d) and explicit environmental conditions such as exposure to atmospheric conditions, noise intensity level, and bodily injury (U.S. Department of Labor, Employment and Training Administration, 1991).

Information extracted from a job analysis can be matched with an employee's abilities, characteristics, and interests to facilitate job success. For example, because the essential functions of a sedentary job are performed mostly in a seated position (U.S.

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Department of Labor, 1991), it is reasonable to deduce that sedentary jobs can be suitable for individuals with some physical disabilities (e.g., individuals with lower limb amputations, pulmonary diseases, and cardiovascular diseases). On the other hand, mostly working with things rather than with people (e.g., manufacturing and software development) are suitable for individuals with impaired social skills (e.g., people with schizophrenia and schizoaffective disorders; Cook & Razzano, 2000) and for people who may benefit from jobs requiring no or very little hearing and/or oral communication (e.g., deaf and individuals with hearing impairments). A deficit in a skilled workforce requires managers to think outside the norm to compensate for lower supply than demand; for instance, they may bring the elderly and likely disabled population back to work (Bjelland, Bruyere, Von Schrader, Houtenville, Ruiz-Quintanilla, & Webber, 2010).

On the other hand, some government entities and their contractors (e.g., vocational rehabilitation programs and Department of Veteran's Affairs) match qualified individuals with disabilities with proper employment and fund training to reach a work goal (Elliott & Leung, 2005, Chapter 12). Vocational rehabilitation programs are available for most individuals with disabilities who plan to engage in competitive employment while U.S. Veteran's Affairs assists war veterans with injuries to secure competitive employment (Elliott & Leung, 2005, Chapter 12). Some private companies have programs for their injured workers. For example, insurance companies, contracted by the private companies, invest in return-to-work programs for individuals with work-related injuries (Franche, Baril, Shaw, Nicholas, & Loisel, 2005). Lastly, the United States Social Security Administration (SSA) awards disability-related benefits, including financial support and health care coverage, for individuals meeting SSA's definition of

disability. It offers programs such as Ticket-to-Work (TTW) to provide incentives for the benefit recipients to make work attempts or to return to employment without losing all the benefits (Elliott & Leung, 2005, Chapter 12).

Getting individuals with disabilities back to work has become a big business that promotes return-of-investment for all parties. However, despite the external efforts to diversify the workforce, most corporations commitment to diversity programs remains low (Dobbin, Kim, & Kalev, 2011). Yet, it is in the corporations best interest for HRD professionals to train management and staff on diversity and to ensure that workplace onboarding, retention, and promotion is maximized. An estimated 2.6 million individuals with disabilities have earned a Bachelor's Degree minimally, and they could potentially fill the need for skilled workers, which is on the rise (Erickson et al., 2014). Moreover, if individuals with disabilities are experiencing higher levels of incivility than other workers (Fevre et al., 2012), then HRD researchers and professionals need to be consider the nature, antecedents, and consequences of such incivility and, indeed, create workplace solutions to increase the retention of employees with disabilities (Reio & Ghosh, 2009). Finally, a frustrated employee with a disability, who is specifically selected as the target of uncivil behavior, may turn to Equal Employment Opportunity Commission (EEOC) as a last resort to resolve a dispute (Bjelland et al., 2010). The negative outcomes of incivility could lead to unnecessary and costly legal proceedings.

Corporations are interested in the financial bottom line. The bottom line is that today's consumers expect social consciousness and corporate responsibility from for-profit and nonprofit companies alike (Webb, Mohr, & Harris, 2008; Lichtenstein, Drumwright, & Braig, 2004). One manner of exhibiting social responsibility is by hiring

people with disabilities, which was included as part of *The Socially Responsible Purchase and Disposal* (SRPD) scale developed to reflect current developments on consumer expectations (Webb et al., 2008). Ensuring equally civil work experiences to all employees is one magnificent and socially responsible course of action. To understand the impact of incivility on individuals with disabilities, the present research examines links between individuals with disabilities, incivility experience, mental health, and role of secure attachment. The following section introduces incivility theory.

Incivility Theory

> Aspire to decency. Practice civility toward one another. Admire and emulate ethical behavior wherever you find it. Apply a rigid standard of morality to your lives; and if, periodically, you fail - as you surely will - adjust your lives, not the standards (Koppel, 1998, para 20.).

Overview of Incivility

The civil manners in which we treat our peers, expose our professionalism and concern for others, and civility reflects constructs such as care, goodwill, appreciation, and consideration. Yet, in workplace settings, CEOs, managers, coworkers, and even vendors have increasingly turned to uncivil treatment via berating, confronting, insulting, slamming and faultfinding (Reio & Trudel, 2013). The reasons propelling such hurtful discourse are unclear, as Roberts (1985) ponders in an editorial that he wrote over three decades ago about the downward turn of civil workplace treatment. He proposes the roots of disrespect stemming from concepts such as *instigator's* self-hate, thrills, satisfaction from put-downs, paranoia, threat, and a skewed perception of a power differential, all of which shine light on a significant societal issue. The instigator, or the perpetrator of workplace incivility, may or may not have conscious motives for the ill-treatment

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(Andersson & Pearson, 1999; Pearson, Andersson, & Porath, 2000), which is aligned with Roberts' (1985) sentiment of being unclear of the conditions provoking uncivil actions but being certain of its harmful consequences. Although Roberts denounces the uncivil actions of even a single professional, he intimated that it is the accumulation of repeated encounters that has a compounding effect in creating a poisonous or deviant workplace environment.

Workplace deviance is defined as behavior that breaches organizational norms and threatens the welfare of the organization and/or its employees (Robinson & Bennett, 1995), and it is ubiquitous in today's organizations (Pearson & Porath, 2005). One study of 800 employees in the United States found that one-fifth of the workforce was a weekly target of workplace deviance, specifically *incivility* (Pearson & Porath, 2005), a subset of workplace deviance. The workplace literature has defined incivility as low intensity, insidious behaviors that reflect inconsideration for others, but that have an ambiguous intent to harm (Pearson & Porath, 2005). Some examples of workplace incivility are withholding information, taking credit for someone else's work, showing little interest in someone else's opinion, and ignoring an employee's opinion (Porath & Pearson, 2010).

Incivility is stealthy and may become a precursor to more aggressive and intense forms of workplace deviance such as bullying and/or workplace violence (Andersson & Pearson, 1999), which shatters workplace commitment and teamwork. Bullying often takes on subtle tones, such as laughing behind another employee's back, making fun of a person, or spreading rumors (Gardner & Johnson, 2001). Yet a pattern of intentional behavior can lead to physical violence, and workplace violence is the most extreme form of workplace deviance; it may escalate to threats with a weapon and actual physical

violence (Hanson et al., 2015). Although incivility is the subtlest form of deviance in the workplace deviance continuum with an ambiguous intention, its consequences are nonetheless detrimental because they can evolve into patterns of increasingly aggressive behavior or spirals that are discussed in the following section.

Action Loops and Incivility Spirals

Considering that incivility can spiral into other forms of deviance, organizations could save billions of dollars by reducing incivility. Essentially, the savings would be accomplished by increasing retention of intellectual and human capital (Porath & Pearson, 2013), maximizing employee productivity (Bartlett et al., 2008; Gardner & Johnson, 2001; Porath & Pearson, 2013; Reio & Ghosh, 2009), strengthening employee engagement (Law, Dollard, Tuckey, & Dornmann, 2011), deepening organizational commitment (Hakanen, Schaufeli, & Ahola, 2008), and avoiding additional monetary loss from litigation (Gardner & Johnson, 2001; Johnson & Indvik, 2001). The above outlined outcomes of incivility have clear organizational implications, but psychological consequences escalated by incivility experiences are damaging both to the employees and to the organization (Cortina et al., 2001).

A singular action by one individual does not create a societal issue but repeated acts prompting *action loops*, or chain of activities recreating the original action, develop into a system. One type of action loop is called *deviation-amplifying loop* with counterproductive consequences. The positive loop is amplified by action and reaction in relation to a normative value such as peace (e.g., countries attempting to outmaneuver one another with increasing supplies of high-tech weapons; Masuch, 1985). In the realm

of workplace incivility, the deviation-amplifying loop has been labeled as an *incivility spiral*.

The incivility spiral draws negative actions of one involved party, which prompts other negative and potentially escalating acts on another party with amplifying intensity of coercive action (Andersson & Pearson, 1999; Ghosh, Dierkes, & Falletta, 2011; Pearson et al., 2000). Once a victim has been offended, the perpetrator may perceive the consequent reactions by the victim as offensive moves, which escalate the spiral. That which may have started as a verbal insult or an act of incivility may end up in more severe forms of workplace deviance including assault resulting in injury. Statistical information for the year 2018 reflected that approximately 65,600 workers across private industries were nonfatally injured by another person (U.S. Department of Labor, 2018). Of the injured workers, about 2,800 were injured by coworkers and associates, which is a slightly *higher* number of incidences than the number of workers injured by assailants, suspects, and inmates. On the other hand, less than a total of 500 workplace homicides occurred in 2017 (U.S. Department of Labor, 2018). Although the incident statistics do not reflect precursors leading to the violent acts perpetrated by coworkers or associates, it is conceivable that a portion of it involved escalating incivility spirals.

The most significant points of the spiral are the beginning and the tipping points (Andersson & Pearson, 1999), and multiple on-going incivility spirals create a system with each spiral operating at different points. The beginning point of the spiral occurs when the called for polite social exchanges turn to unexpectedly curt or crude remarks or demeanor. The unsuspecting person expecting a courteous verbal or behavior treatment may respond in a way that is perceived objectionable by the person, who made the

original reprehensible remark. Whether the instigator intentionally or unintentionally behaved in an uncivil manner is inconsequential to the instigator. The ugly dance of incivility begins, conceivably leading to unimaginable consequences such as violence and death. At times, the spiral escalates because the *target*, or the victim of incivility, perceived the initial negative action as unwarranted and returns the exchange harsher than justified. Subsequently, the spiral curls upward to more extreme forms of expression between the instigator and the target if not addressed and curtailed (Andersson & Pearson, 1999).

On the other hand, the incivility spiral offers exit for both target and the perpetrator. Either one of the parties involved may elect not to respond or to ignore the uncivil behaviors, which may end the spiral (Andersson & Pearson, 1999). As discussed, repercussions of incivility proliferate well beyond transitory bad feelings. In circumstances in which the incivility spiral does not escalate beyond low-intensity, ambiguous exchanges, the incivility target may still be incapable of ameliorating and rationalizing the negative feelings accumulated from the repeated, negative social exchanges leading to self-doubt and mental anguish.

Incivility spiral explains the role of less intense acts of uncivil behavior, such as verbal insults, as a precursor for more intense forms of deviant behavior. Hence, low surface intensity should not deceive HRD researchers and professionals into believing that the phenomenon does not have grave consequences. The subsequent section details manifestations of workplace incivility, or in other words, behaviors at the beginning points of the spiral.

Uncivil Workplace Behaviors

Some forms of interpersonal incivility include overt actions such as making inappropriate remarks about a coworker, cursing or making fun at a person, public humiliation, playing a prank, and making hurtful remarks (Reio & Ghosh, 2009), and Porath and Pearson (2010) outline *prevailing* uncivil workplace behaviors as follows:

1. An employee declares someone else's work as own.

2. An employee does not profess responsibility for his or her mistakes.

3. An employee uses electronic media (e.g., smartphones, messengers, tablets in a meeting).

4. An employee exhibits demeaning and gossiping behaviors toward coworkers.

5. An employee ignores or disparages others.

6. An employee chooses not to share relevant information with his or her coworkers.

7. An employee regards his or her ideas as superior to other employees' ideas.

8. An employee purposefully avoids a coworker or a supervisor.

However, incivility can encompass stealthy conduct that appears to lack intention and attention on the surface, such as neglecting to shut off a cell phone during a meeting, failing to replenish coffee in a communal coffee machine, using the last of the copier ink without replenishing the machine, and failure to include everyone in work-related social functions. Affirmatively, incivility is prevalent at today's workplaces. For HRD purposes, it is vital to understand the possible driving forces for incivility so that they can be researched, better understood, and addressed to the best extent achievable.

Environments That Nourish Incivility

The factors that support deviant behavior must be comprehended before they can be addressed (Felblinger, 2008). Across the fields of work, 99% of employees communicated of being a bystander who observed workplace incivility and 96% of them were incivility targets (Pearson & Porath, 2009). The results are astounding and speak volumes about the virulence of incivility. Factors that breed uncivil workplace conduct are called *antecedents*. If the goal of HRD researchers and professionals, and the organization is to eradicate incivility, then it is pertinent to understand what conditions enable, propel, and provoke it (Bartlett et al., 2008).

Enabling conditions are necessary for incivility to occur and comprise a number of factors, such as perceived power differential between the victim and the instigator (Reio, 2011), low perceived damages to the instigator (e.g., reprimands, losing a job, shunned by coworkers), and discontent with the job (e.g., lacking control of one's own job, role confusion, ambiguous work goals). Factors that propel or motivate incivility create an environment in which the instigator receives rewards in exchange for treating a coworker with incivility (Reio & Ghosh, 2009). Highly competitive environments, reward structures in which obstructing a coworker benefits the instigator, and other anticipated profits reaped from treating others poorly (e.g., achieving a better position) encourage incivility. Lastly, factors that provoke incivility are related to any events that threaten the present working conditions. Outsourcing, restructuring and mergers are a few examples of precipitating factors (Salin, 2003).

General Outcomes of Incivility

Unhealthy climates counteract productivity in a form of reduction in performance, creativity, and learning, and reduction in productivity is a frequently cited consequence of workplace incivility (Bartlett et al., 2008). It has also been linked to negative health effects (Fevre et al., 2013; Reio & Ghosh, 2009), and poorer workplace adaptation and job satisfaction (Reio & Ghosh, 2009), with a concomitant decrease in the mental health of an individual (Laschinger et al., 2013; Lim et al., 2008; Tepper, 2000). Incivility interferes with workplace adaptation; employees, who lack connection to their workplaces, are thus less likely to find job satisfaction than their colleagues with a sense of affiliation (Reio & Ghosh, 2009), which increases turnover (Ghosh, Reio, & Bang, 2013; Tepper, 2000). Mistreatment may further alienate the target from other employees, and cause the target to engage in counterproductive work behaviors (CWB) as well (Andersson & Pearson, 1999; Sakurai & Jex, 2012). Counterproductive work behavior is distinguishable from incivility, with no necessary intent to harm, in that employees engaging in CWB act with intent to abuse, sabotage, or damage the employer (Robinson & Bennett, 1995; Sakurai & Jex, 2012). Alienation and engaging in CWB induce unwarranted work stress, which is a negative mental health consequence of incivility. In the present study, mental health outcomes linked to incivility are of interest, and they will be explored after discussing incivility targets.

Targets of Selective Incivility

A wide range of individuals has experienced workplace incivility either by being an instigator, a target (Marchiondo, 2012), or an observer of incivility (Miner-Rubino & Cortina, 2007). To date, a large majority of the incivility research has focused on *general*

incivility or incivility toward the general employee population rather than on *selective incivility* that targets marginalized populations such as women, racial or cultural minorities, age minorities, and individuals with disabilities (Cortina, 2008; Cortina et al., 2013).

Supporting findings of Fevre et al. (2012, 2013) Cortina (2008) argued that in some cases certain demographic groups such as women, racial minorities, and employees of advanced age are selected as specific incivility targets. Her model of selective incivility is derived from a notion that unfair discrimination occurs when a specific social category at a workplace is placed on an unequal level in comparison to other groups with comparable potential to succeed (Diphoye & Halverson, 2004). The selective incivility is not only devastating to the employee, but it also disrupts the acquisition of diversified workplace (Cortina et al., 2013). Therefore, research on the effects of selective incivility on the specific subgroups of gender, race, and ageism is initiating a germane branch of literature applicable to HRD researchers and professionals.

Despite the research efforts, there is a dearth of information on workplace incivility experienced by marginalized populations or a group of individuals experiencing systematic discrimination that results from prevailing laws, customs and practices (Yeo & Moore, 2003), and one subgroup that has received decidedly little attention in the field of incivility is people with disabilities. The present study will expand Cortina's (2013) conception of specific incivility targets (e.g., women, racial minorities, and individuals of advanced age) to a subgroup consisting of individuals with disabilities. The next section reviews current literature on the subgroup as a target population.

Individuals with Disabilities as Incivility Targets

A recent study revealed that, of the employees experiencing incivility, people with disabilities were more likely targets than general employees when controlling for other factors. Merely having a disability was linked to increased levels of ill-treatment at work and creating work encounters that were more negative than the experiences of a general employee (Fevre et al., 2012, 2013). The study also indicated that employees in medium to large organizations were more likely to experience incivility than employees in smaller businesses (Fevre et al., 2012). The discovery is relevant because medium to large organizations are expected to have human resource departments more so than small companies. Therefore, the issue of incivility toward individuals with disabilities warrants HRD researchers' and professionals' attention.

Notably, very little literature has explored employees with disabilities as incivility targets. Yet, about 15% of the global population experiences *disability* (Barnes, 2012) or "impairment, activity limitations or participation restrictions that results from the health condition or from personal, societal, or environmental factors in the individual's life" (Falvo, 2013, p. 5). The percentage is slightly lower in the United States (U.S.) with one-eighth of the population reporting some form of disability, and a good portion of them are working or looking for employment (Erickson et al., 2014). Thus, the implications of employees with disabilities as incivility targets are relevant to investigate.

The previously discussed studies, which explored employees with disabilities as targets of ill-treatment, indicated that individuals with physical disabilities were not experiencing many more acts of incivility than individuals without disabilities. However, they were experiencing some incivility and substantially more severe acts of ill-treatment,

such as shouting and injury resulting from aggression or violence, in comparison to individuals without disabilities (Fevre et al., 2012, 2013). Individuals with other than physical disabilities were experiencing significantly higher than usual acts on incivility and a total of 21 types of ill-treatment at work (Fevre et al., 2012, 2013). The study finding reflect that individuals with disabilities as a group were treated in a significantly more negative manner at work than individuals without disabilities in 17 indicators of ill-treatment (Fevre et al., 2013). The study findings came from one sample from the U.K., and no comparable published study findings are found in the literature for the United States.

In general, Fevre et al. (2013) found that individuals with psychological (e.g., anxiety, depressive, bipolar, psychotic, and personality disorders) and specific learning disabilities (i.e., neurodevelopmental disorders that impede one's ability to learn skills, such as reading, writing, and math; American Psychiatric Association, 2013) were affected the most by workplace deviance, especially in a form of incivility, in comparison to employees with physical or other disabilities. Still, individuals with physical disabilities (e.g., blindness, deafness) or individuals who are severely limited in one or more fundamental physical capabilities appeared to receive some of the most observable levels of ill-treatment as well. The statement "being shouted at or someone losing their temper with you" and "injury in some way resulting from violence or aggression at work" were found to be more statistically significant for individuals with physical disabilities than for persons lacking physical disability (Fevre et al., 2013, p. 12).

The aforementioned findings imply potentially grave negative impacts on employee's well-being at a subjective, individualistic level, such as mental health status

(Hansen et al., 2006). At a socio-political level, there can be serious ramifications to the employer, as for example if the employee takes legal actions against the employer. This notion will be explored in a later section. The next section explores the links between incivility and mental health.

Incivility and Mental Health

The compounding effects of experiencing interpersonal aggression and abuse are significant because emotional distress from aggression and abuse is positively correlated with victimization history. Essentially, victimization leads to future victimization, and other distressing outcomes such as depression, poverty, divorce, drug use, and unemployment Simply, the individuals with the most exposure to interpersonal aggression are the most distressed **(**Pimlott-Kubiak & Cortina, 2003). Furthermore, research shows that incivility experiences alone without other experiences of aggression impact mental health negatively in the general population (Lim & Cortina, 2005). Incivility is more subtle than overt aggression, yet, it occurs more frequently than overt aggression. Therefore, it is essential to investigate mental health consequences of incivility experienced by individuals with disabilities.

Negative Workplace Stressors Impact on Mental Health

Stress is closely linked to an individual's mental health status (Hobfoll, 1989). Although some stress is positive (i.e., eustress), negative stress (i.e., distress) wears down an individual's mental health. *Eustress* at a workplace pushes employees to achieve goals and work through challenges, while toxic work environments, types of work hours, and difficult work relations among other risk factors create distress (Colligan & Higgins, 2006).

Otherwise, work-related *distress* is linked to psychological impairments such as deficient attention leading to declined productivity and increased absenteeism, which translates to increased loss of revenue for organizations (Colligan & Higgins, 2006; Gardner & Johnson, 2001). One such source of distress is experiencing ill-mannered workplace behavior, which leads to overall dissatisfaction at work. The experiencers worry and consider changing to a different job more frequently than the employees who are not experiencing such distress (Cortina, Magley, Williams, & Langhout, 1999). In addition, the experiencers not only experience distress about their job situation *during* work but also *after* work hours, lowering their overall enjoyment of life (Lim et al., 2008). In general, such ill-mannered workplace behavior falls under a large umbrella of workplace stressors, and more specifically, under workplace deviance, detailed in the next section (see Figure 2).

Mental Health Implications of Experiencing Workplace Deviance

Workplace deviance encompasses varying forms and degrees of negative behavior targeted at an employee of which workplace violence is likely the most obvious form of deviant behavior that would impact an employee's well-being. Yet physical violence and injury that is deliberately caused by a perpetrator is the *least* likely occurrence in the world of workplace deviance (Fevre et al., 2012). Although physical violence and nonviolent acts that lead to injury are typically not tolerated in a work environment, they do not always rise to a level of illegality with some exceptions (e.g., death, certain assaults; U.S. Equal Employment Opportunity Commission, 2018). Examples of nonviolent acts with potential risk of physical injury to another worker include blocking an exit to safety, and sabotage (e.g., a prison guard neglecting to open a

door expeditiously for a social worker after visiting an inmate; a laborer tampering with a door lock of a meat cooler).

Figure 2

A Model of Workplace Stressors
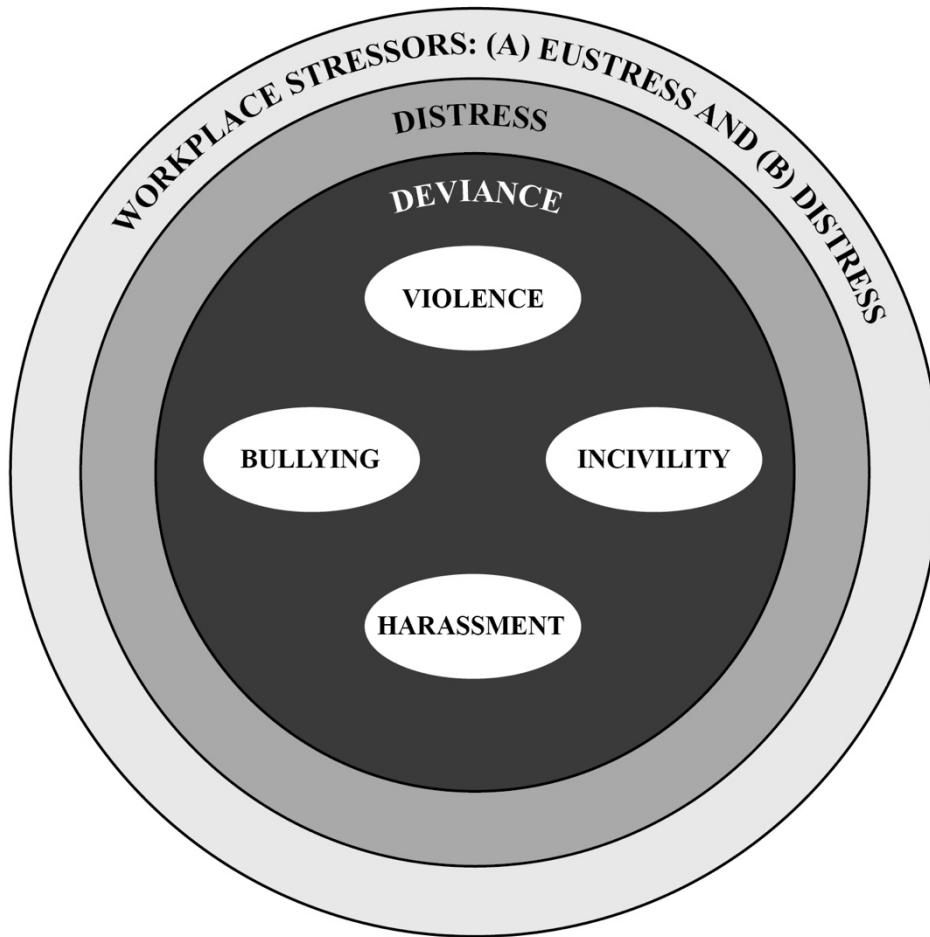
Note. An illustration of conceptual relationships among workplace stressors, distress, deviance, and examples of deviance.

Another form of deviance more obvious than subtle workplace deviance affecting mental health is interpersonal aggression (Aubé, Rousseau, Mama, & Morin, 2009),

including bullying. At minimum, bullying lowers a targeted employee's self-confidence, hinders his/her productivity, disrupts his/her concentration, and shatters his/her job morale; in more severe cases, bullying is linked to abnormal sleep, feelings of paranoia, and depression (Gardner & Johnson, 2001), the latter of which is a diagnosable mental disorder.

Further, other forms of workplace deviance including sexual and gender harassment are linked to declining mental health (Lim & Cortina, 2005). Importantly, any harassment is an illegal form of deviance while incivility is not. Harassment becomes unlawful when it must be endured as a condition for employment, and the severity of it becomes unreasonably intimidating, hostile, and abusive. Specifically, sexual "harassment is illegal when it is so frequent or severe that it creates a hostile or offensive work environment or when it results in an adverse employment decision" (e.g., victim being fired, demoted). Notably, harassment is enforceable only if certain conditions are met (e.g., employer has 15 or more employees, complaint filed within an appropriate time frame; U.S. Equal Employment Opportunity Commission, 2018).

However, the subtlest form of workplace deviance is incivility. Despite its insidious nature and subtleness, incivility is linked to negative mental health consequences. Prior to examining links between experiencing direct incivility and its mental health impacts, it is relevant to discuss mental health impacts of merely observing incivility.

Observing Incivility

Witnessing workgroup incivility without being a target of incivility has deleterious impact on mental health. Research supports the notion that merely observing

incivility is consequential for mental health (Lim et al., 2008). Vicarious exposure to hostility (e.g., incivility in the form of witnessing antagonistic behavior toward a woman or someone with a disability) has negative workplace consequences (e.g., increased anxiety and depression), even when controlling for being a direct target of mistreatment and possessing negative affectivity (Miner-Rubino & Cortina, 2007). Considering that even witnesses to uncivil behavior can cause negative impacts, it is reasonable to expect that a person who *is* a direct target of incivility could also experience negative mental health consequences. The next section discusses the supporting literature on the links between being an incivility target and mental health.

Relationship Between Incivility and Mental Health

Research has found that experiencing incivility is emotionally impactful (Kabat, 2012), and that incivility targets report negative feelings of anger, sadness, and fear (Porath & Pearson, 2012), irrespective of the incivility source (e.g., coworker, supervisor, customer; Cortina et al., 2001; Laschinger et al., 2013; LeBlanc, 2012; Lim et al., 2008; Sliter, Jex, Wolford, & McInnerney, 2010; Sloan, 2012). Targets of workplace incivility experience negative affect, which increases their risk of mental health decline, including psychological disorders of depression and anxiety (Pearson et al., 2000; Pearson, Andersson, & Wegner, 2001), and some individuals seek psychiatric treatment after experiencing workplace mistreatment (Mastroianni, 2012). Importantly, simply the *perception* of incivility is psychologically destabilizing (Sloan, 2012). Research reflects competing theories of how incivility diminishes mental health explored in the next section.

One explanation for the mental health decline after experiencing workplace incivility is that incivility depletes available psychological resources. For example, Conservation of Resources (COR) theory concludes that employees facing workplace stressors utilize their energy reserves to cope with negative stressors, such as incivility (Giumetti et al., 2013). Engaging in an interpersonal conflict exhausts resources. Therefore, employees have less energy for essential work duties and are likely to engage in off-task behaviors, such as unscheduled breaks. In addition, they experience psychological distress, poor mental health, and work withdrawal (Giumetti et al., 2013). One qualitative study described an employee's sense of all-consuming dread, resulting from incivility encounters that distracted her from focusing on work. Although the employee did not believe that the dread was not significant enough to cause her to be depressed, it was mentally exhausting (Mastroianni, 2012). Another explanation proposes that such an accumulation of chronic, daily, and apparently minor stressors (e.g., dreading interaction with supervisors or coworkers) causes significant psychological harm in the long run (Folkman, 2013). Thus, workplace incivility can be a serious matter despite its apparent subtlety, and three major issues in relation to mental health are outlined next.

Workplace incivility is a three-pronged problem from a mental health perspective. First, when excluding other significant workplace stressors, incivility *alone* triggers significant negative mental health outcomes resulting in employee disengagement and off-task behaviors as previously discussed. Secondly, incivility currently does not violate existing employment laws (Lim & Cortina, 2005), and therefore, it leaves exhausted employees alone to grapple with permeating and powerful issues that negatively affect

mental health (Sypher, 2004). Thirdly, the negative outcomes can be long-lasting

(Cortina et al., 2001; Pearson et al., 2001). Essentially, the target is left alone to deal with

incivility, potentially destabilizing employee's mental health in the short and long term.

Therefore, understanding personality traits that may protect an employee from the

effects of experienced and perceived incivility, or conversely, traits that subject an

employee to more incivility, may be helpful for HRD researchers and other

organizational professionals. For example, research shows that individuals who are low

on agreeableness or high on neuroticism may be more likely to become targets of

incivility than those without such traits (Milam, Spitzmueller, & Penney, 2009). On the

other hand, one facet of personality that may shield an individual from incivility is an

individual's healthy attachment pattern to another human being, which is of interest for

the current research.

The previous sections reviewed incivility theory, while linking it to people with

disabilities and mental health outcomes. The next section investigates attachment theory

in detail. It (a) outlines the origins and development of attachment theory, (b) reviews

original and current perspectives on attachment styles, (c) investigates attachment styles

in relation to personality development, (d) evaluates the buffering role of secure

attachment style in uncivil work environments, and (e) explores the negative relationship

of insecure attachment styles to mental health.

Role of Human Attachment

> When a man is blind, or perhaps has lost a couple of limbs, we use his personal
> relationships for a yardstick as to how well he has overcome his disability. If he
> can hold down a job of work with other people, and more especially if he makes a
> happy marriage, we feel that he has triumphed. But the man whose capacity to
> make relationships has been warped or stunted in early childhood so that the

condition is irreversible can never work happily with other people nor make a successful marriage, however physically healthy he may be (Bowlby, 1954, p. 121).

The quote underscores the importance of favorable human relationships that form at home and that carry on to work life. It implies that one's healthy personal relationships enhance relationship building at work, including such individuals who have severe physical disabilities. Research on healthy personal relationships, specifically in a form of *secure attachments* developed in early childhood support a growth of positive self-reliance (Ainsworth, 1979; Ainsworth & Bowlby, 1991). A secure attachment refers to an affectionate bond that lacks anxiety, as the child receives appropriate care from the parent figures in a timely and caring manner.

While early research on human *attachment* focused on the child's bond with his or her primary caregiver (Ainsworth & Bowlby, 1991), later research explored childhood attachment's effects on varying personality developments and relationship patterns in adulthood. Attachment is defined as an enduring, affectional bond between a human being or animal and another specific figure that keeps them close to one another either by proximal physical contact or distant communication (Ainsworth & Bell, 1970). Furthermore, it is a condition in which one finds a secure base in another *from* which to explore the world and *to* which to return for security (Waters, Crowell, Elliott, Corcoran, & Treboux, 2002). The current research expands the current attachment research by investigating the extent to which a secure attachment style may moderate or buffer the adversarial effects of experienced incivility, and insecure attachment styles may amplify mental health decline when people with disabilities are targets of workplace incivility. The theoretical underpinning is attachment theory.

The following section will first briefly outline the origins of the attachment theory and attachment styles. Second, the topic shifts to contemporary literature in the role of attachment in relation to themes such as adult attachment, sex of the individual, multiculturalism, and individuals with disabilities. Third, the discussion progresses to work-related concerns in attachment literature. Fourth, the role of one's attachment style in personality development, including development of a healthy self-concept, is examined as it impinges on establishing and maintaining adequate workplace relationships. A secure attachment style is evaluated as a component of forming personality traits that safeguard an employee against experienced workplace incivility and explores the stabilizing effects of a secure attachment style on mental health. In contrast, the negative effects of insecure attachment styles are reviewed in a context of social exchanges and relationships.

Origins and Development of Attachment Theory

Human attachment theory was largely derived from (a) ethological and Darwinian ideas (Simpson & Belsky, 2008, Chapter 6; Suomi, 2008, Chapter 8), (b) Sigmund Freud's psychoanalytical ideas, such as infant's feeding activities during an oral phase and other activities reducing basic needs such as sex in adult life (Bretherton, 1992), (c) control theory (Kobak, Cole, Ferenz-Gillies, Fleming, & Gamble, 1993), (d) cognitive psychology (Bowlby, 1977), and (e) developmental psychology (Bowlby, 1977; Cassidy, 2008, Chapter 1). John Bowlby, the creator of attachment theory, weaved in influences from all five movements, but eventually concluded that the ethological perspective was the most suitable explanation for attachment formation (Bowlby, 1977). His own and other researchers' field observations supported the heavy weight on an ethological

perspective (Ainsworth, 1992; Bowlby, 1977). Therefore, the following section consists of a brief overview bridging ethological animal research with concepts in human attachment. The section begins with a short introduction to the concepts of imprinting, Bowlby's theory of attachment, and emergence of Ainsworth's attachment styles. The main concentration of the section is on contemporary concepts in attachment literature that, for the most part, guided the present study.

Imprinting and Affectionate Bonds

Two studies in particular challenged the idea that an animal bonds with its parent because of the feeding needs. First, studies on *imprinting* in birds that revealed an emotional bond that the young bird forms after hatching to the parent because the parent is the first moving object (Hess, 1964). Secondly, the forming of affectionate bonds in rhesus monkeys reflected that the infants preferred the surrogate that offered comfort but not food (Harlow & Zimmermann, 1959), The following section overviews the most salient historical development in human development research in regards to the study: the unfolding of attachment theory by John Bowlby and its influence on related theoretical concepts deeply rooted in both genetics and human psychology.

Attachment Theory

The affectionate bond formation in animal development influenced John Bowlby's theory of human attachment and the centrality of emotional bonding between infant and parent in human development. Bowlby's proposed *attachment theory* gained widespread interest among individuals examining personality development (Ainsworth, 1992). *Attachment* of the young to parents is a highly motivated, instinctual behavior that promotes survival (Bowlby, 1969). The theory conceptualizes the tendency of humans to

form powerful affectionate bonds with significant others whom they perceive as stronger and wiser, and the loss of the bond creates distress and negative psychological symptomology in the experiencer (Bowlby, 1977). In formulating his theory, Bowlby was deeply influenced by studies in *Maternal Deprivation*, or early breaking of the child-mother bond. He rejected the prevailing psychoanalytical views on attachment defined by the fulfillment of basic needs (e.g., food and sex), in favor of ethological and evolutionary views (Bowlby, 1970, 1977). The views revealed a genetic component to attachment, with a purpose of safeguarding the younger and weaker ones from the outside threats.

The field research of animal studies also inspired other researchers such as Mary Ainsworth to conduct field observations on human attachment (Ainsworth & Bowlby, 1991). Some of her most remarkable observations of child-mother attachment were collected during Uganda and Baltimore studies, which supported Bowlby's ethological and evolutionary perspectives on human attachment. Contrary to the contemporary views of the time, Ainsworth observed that children were not passive reactors to their environment but they actively explored it, explicitly in the presence of a caregiver (i.e., mother; Ainsworth & Bell, 1970). She noted that the children used their mother as a *secure base*, which is defined as an attachment figure that a child uses as a foundation from which to explore the surroundings even during times when alarming conditions are present (Ainsworth & Bell, 1970).

Ainsworth's studies initiated the genesis of a *Strange Situation* (Ainsworth & Bell, 1970) that simulated time-consuming field observations of child-mother interactions. The goal was to observe the interactions in a controlled laboratory setting

(Ainsworth & Marvin, 1995). It involved a systematic creation of a room with children's toys, chairs, and a door, and the study involved a mother, her child, and a friendly stranger who was trained to interact with the child (Ainsworth & Bell, 1970). The mother and the stranger exited and entered the room following a precise, pre-planned schedules.

Ainsworth's research team labeled and categorized the observations of the interactions and attachment behaviors to detect interactional patterns (Ainsworth & Bell, 1970). The following is a simplistic explanation of the methodology that yielded in the current understanding of attachment styles: The recorded observations were grouped by similarities in child reactions to the mother leaving and entering the room, and three relational patterns emerged, each qualitatively different from one another (Ainsworth & Bell, 1970; Ainsworth & Bowlby, 1991). The next section describes the patterns, which formed the concept of attachment styles.

Attachment Styles

Ainsworth's research expanded attachment theory by detecting distinct patterns of one secure and two insecure attachments between a child and his or her primary caregiver labeled as *attachment styles* (Ainsworth & Bowlby, 1991). The styles are labeled as *secure attachment*, *anxious-resistant attachment* (i.e., insecure-anxious), and *anxious-avoidant attachment* (i.e., insecure-avoidant; Tracy & Ainsworth, 1981), and they mostly vary in the attachment-exploration balance (Weinfield et al., 2008). Succeeding researchers added a fourth attachment style category, namely a third style of insecure attachment (Lyons-Ruth & Jacobvitz, 2008, Chapter 28), which is discussed under a section on contemporary attachment.

Secure Attachment. The mothers of securely attached infants displayed more affectionate behaviors (e.g., holding, hugging, kissing, cuddling, stroking, patting, and other) toward the infants than the mothers of the two anxiously or insecurely attached infants, particularly in a form of close bodily contact such as hugging and cuddling (Tracy & Ainsworth, 1981). Of the three groups, these mothers were the most sensitive and responsive to the infants' cues. Subsequently, the infants formed expectations of their mother being accessible and receptive (Ainsworth, 1979) and they believe the mothers to be dependable and protective when experiencing duress (Aaronson, Bender, Skodol, & Gunderson, 2006).

Insecure-Anxious Attachment. The specific pattern of insecure attachment has also been labeled as ambivalent or contact-resisting attachment (Ainsworth & Bell, 1970). Infants in this group experienced the least number of affectionate acts from their mothers in comparison to the other two insecure groups. Although the mothers of infants with insecure-anxious attachment style displayed the least number of affectionate acts, they engaged in more affectionate acts involving close bodily contact (e.g., hugging and cuddling) than the mothers of infants with insecure-avoidant attachment style (Tracy & Ainsworth, 1981). Furthermore, the infants exhibited both contact-rejecting and contact-seeking behaviors, implying an ambivalent response (Ainsworth & Bell, 1970), and they were insecure when exploring surroundings and difficult to comfort under distress (Aaronson et al., 2006).

Insecure-Avoidant Attachment. Avoidant attachment is a form of insecure attachment and described as defensive, proximity-avoiding attachment (Ainsworth & Bell, 1970). Although, the mothers of the infants displayed affectionate behaviors in a

form of kissing, patting or stroking, they tended to avoid close bodily contact with the

infant (e.g., hugging and cuddling). Their feelings of affection were frequently

accompanied by irritation, resentment and anger, and the overwhelming negative feelings

were associated with the amount of time that the infant interfered with the mother's

interests and activities. Of the three attachment styles, the mothers in this group were

found to be the most rejecting (Tracy & Ainsworth, 1981). The infants looked, turned or

moved away from the mother upon reunion (Ainsworth & Bell, 1970) and actively

avoided contact (Aaronson et al., 2006).

Regardless of the attachment styles between the mother and the infant, mothers

displayed some type of affectionate behaviors toward their infants. However, the quality

rather than the quantity of the mother's attachment behaviors toward the child was a

distinguishing variable in formation of secure and insecure attachments. Mothers who

provided for and were accepting of close bodily contact had mostly securely attached

infants (Ainsworth, 1979; Ainsworth & Bell, 1972; Weinfield et al., 2008).

The previous sections described Ainsworth's classic categorization of attachment

styles. However, attachment style research evolved and gained importance with

researchers investigating attachments formed in adulthood (Ainsworth, 1992) as well as

personality traits in adults. For example, researchers have analyzed links between (a)

attachments styles and interpersonal issues, and (b) attachment styles and self-esteem in

adults. Specifically, studies have indicated that insecure attachment styles have positive

correlations with interpersonal issues (e.g., excessive dependence on others, aggression,

poor sociability), while anxiety in attachment styles have a positive correlation with low

self-esteem (Berry, Wearden, Barrowclough, & Liversidge, 2006). Conversely, such

findings form support for the moderating effect of secure attachment style in the face of unstable and unsupportive surroundings, such as uncivil work environments. The following section discusses attachment to elucidate the concept and the distinct patterns of attachment. Some relevant contemporary trends and findings are described next.

Contemporary Trends in Attachment Styles

Ainsworth's observations on variations in attachment styles, and Bowlby's conceptualization on influences of attachment on future interactions with others, generated future research across the fields including developmental and cognitive psychology. As examples, early attachment has been linked to later development and adult attachment styles (Ainsworth, 1979). Four plausible influences of early attachment relationship correlating with later development are as follows: (a) lasting impressions on neuronal functioning during brain development, (b) learned regulation of emotional responses, (c) behavioral patterns, and (d) beliefs about the world and other people (Weinfield et al., 2008). Research has revealed that approximately 56% of adult attachment types are secure, 25% are avoidant, and 19% anxious/ambivalent (Hazan & Shaver, 1987) while another study indicated the proportions as secure attachment 62%, insecure avoidant attachment 23%, and insecure anxious attachment 15% (Campos, Barrett, Lamb, Goldsmith, & Stenberg, 1983). Furthermore, succeeding researchers re-conceptualized Ainsworth's attachment style classification to more fittingly characterize adult attachment styles.

One subsequent classification system visualized the styles in a two-dimensional space, which was divided into four quadrants relating to a person's view of the self as positive or negative and view of the others as positive or negative. Secure attachment

style occupied a region with low anxiety (i.e., positive view of self) and low avoidance (i.e., positive view of others), while *preoccupied* or anxious attachment style occupied the space of high anxiety (i.e., negative view of self) and low avoidance (i.e., positive view of others). Although avoidant attachment style continued to be characterized by high avoidance, it was split into two separate categories: (a) *dismissing-avoidant* with high avoidance (i.e., negative view of others) and low anxiety (i.e., positive view of self), and (b) *fearful-avoidant* with high avoidance (i.e., negative view of others) and high anxiety (i.e., negative view of self; Bartholomew, 1990; Bartholomew, 1997; Bartholomew & Horowitz, 1991; Berry et al., 2006; Hazan & Shaver, 1987; Main, Kaplan, & Cassidy, 1985; Mikulincer et al., 2003). Fearful avoidant attachment style has also been described as *disorganized* attachment style because of the lack of organized behavior when fearful and distressed, and is often linked to children in high-risk caregiving environments (Lyons-Ruth & Jacobvitz, 2008, Chapter 28).

Another conceptualization of adult attachment styles proposed two continuous octagonal dimensions of (a) attachment anxiety, which is associated with a negative view of the self as unlovable, and (b) attachment avoidance, which is consistent with negative view of others as malicious and unreliable. Both dimensions only incorporated insecure attachment styles. Like children with a secure attachment style, adults with a secure attachment style were found to be comparatively low in avoidance and anxiety dimensions (Wei, Heppner, & Mallinckrodt, 2003). By the virtue of individuals with a secure attachment style expressly viewing self and others in a positive light, a secure attachment style lends itself as a feasible moderator in deviant environments like uncivil

workplaces. The succeeding section investigates a secure attachment style as a moderator.

Sex Differences in Attachment Styles

Research has revealed significant differences in a sex of an individual (i.e., biological designation as female or male) and an individual's attachment patterns. Initially, sex differences in attachment styles appear in middle childhood (i.e., 7-11 years). Boys exhibit more avoidant coping strategies than girls, while preoccupied (i.e., ambivalent) strategies were more prevalent in girls. From an evolutionary perspective, the significantly varying attachment patterns in females and males suggests a biological basis, emphasizing differing reproductive strategies for each sex (Del Giudice, 2008; Del Giudice & Belsky, 2010). An alternative explanation to the sex differences in attachment styles in middle childhood uses gender self-socialization theory that proposes that the attachment style differences are observable in children who were gender-typical, comfortable with their gender or apprehensive about gender-crossing behaviors (Pauletti, Cooper, Aults, Hodges, & Perry, 2016).

A study regarding attitudes and behavior of dismissing women and men underscored the notion of sex differences in attachment patterns, as the study found that there are sex differences even *within* the avoidant attachment style (Monteoliva, García-Martínez, Calvo-Salguero, & Aguilar-Luzón, 2012). Avoidant men disclose a significantly higher number of past relationships than secure and preoccupied men, while avoidant women do not differ from secure and preoccupied women in number of past relationship. Likewise, avoidant men report more negative attitudes when expressing feelings about his partner in comparison to men with other attachment styles. Again,

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women's attitudes do not differ despite the attachment style differences (Monteoliva, et al., 2012).

In addition, when sex is linked to a specific attachment style, unique behavior patterns emerge. One study linked women's attachment style to wellness practices, specifically eating habits and physical activity levels, while men's attachment style was not significantly linked to their wellness habits. The study specifically investigated these health variables because past research shows that deficient dietary choices and lack of physical activity is negatively linked to well-being, including one's mental health. Findings revealed that poor attachment styles in women are linked to poor dietary habits and low physical activity levels (Davis, Sandberg, Bradford, & Larson, 2016). The result is notably important for the current research because it investigates a link between attachment style and mental health. It gives further support to the fifth hypothesis stating a positive relationship between a secure attachment style and mental health status; the mediating factor of healthy eating habits and physical activity is beyond the scope of the present research.

Multicultural Considerations in Attachment Patterns

One caveat to consider in regards to attachment styles is that similar experiences among individuals from various ethnic backgrounds cannot be expected to result in similar secure and insecure attachment styles. Each culture has its own established norms of appropriate behavior, and an individual's experiences that may result in an insecure attachment style in one culture, may result in a secure attachment style in another culture. Moreover, some insecure attachment styles offer protective factors for a group of individuals when looking through a historical and societal lens, and therefore, it can be a

preferred attachment style for that group of individuals (Brown, Hawkins Rogers, & Kapadia, 2008). The following sections provide an overview of multicultural considerations in respect to attachment styles.

Attachment theory assumes that securely-attached individuals exhibit independence (Fiori, Consedine, & Magai, 2009). Yet, in respect to cultural norms, only individualistic cultures presume that autonomy is central to forming a secure attachment style, while collectivist cultures adopt a healthy reliance and interdependence on others as part of secure attachment (Brown et al., 2008). A secure individual in collectivist cultures learns to strive for harmony among individuals without placing his or her emotions as a priority. People from individualistic cultures, which place an emphasis on independence, may view behavior that is acceptable in collectivist cultures, such as acquiescence or sharing the same bed with an attachment figure, as signs of insecure attachment (Brown et al., 2008).

Another cultural difference is that caregiver's actions toward a dependent might result in an insecure attachment for the dependent in one culture and in a secure attachment for the dependent in another culture. As an example, Puerto Rican children who experienced the most significant levels of physical control also had the highest levels of secure attachment. In the contrary, caregiver's high physical control in an Anglo group was linked to insecure attachment (Brown et al., 2008). Interestingly, secure attachment style is not always a preferred style of attachment when looking through various cultural and societal lenses, which is discussed next.

An insecure attachment style acts as a shield for individuals in some cultures. For example, a study found that applying caution in relationships acts both as a protective and

an adaptive measure among some African-American women that stems from a biased treatment of African-Americans females. It is prudent and effective to slowly ease into trusting relationships, for trust cannot be assumed in a culture with a history of racial prejudice against African Americans (Cooley & Garcia, 2012). Likewise, another study revealed that Haitians exhibited notably higher levels of dismissive style of attachment with a positive view of self and a negative view of others in comparison to six other ethnic groups in the United States (i.e., African-Americans, English-speaking Caribbean, Dominican, Puerto Rican, Eastern European, and American European). It possibly relates to Haitians preference to dismiss life's negative events (Fiori et al., 2009).

On the other hand, not only history of racism but also a range of other historical events, such as precarious experiences under Communism (Fiori et al., 2009) and socioeconomic factors, such as poverty skews an individual's attachment style toward being dismissive. Importantly, these factors interact with race and ethnicity, and therefore, the most significant link to insecure attachment may be a sociological one rather than a cultural one (Bakermans-Kranenburg, van IJzendoorn, & Kroonenberg, 2004). The next section discusses another demographic group with high prevalence of dismissive attachment, specifically an aging population.

Attachment style is relatively constant throughout one's life, yet some studies indicate that individuals nearing the end of their lifespan exhibit a higher proportion of dismissive attachment patterns than other age groups. For example, a recent study of older individuals (i.e., $M = 74$) revealed that 83% of African Americans and 65% of European Americans were characterized by a dismissive attachment style (Magai et al., 2001). Although secure attachment style is linked to better quality of life in later life

stages (Bodner & Cohen-Fridel, 2010), individuals of advanced age appear to benefit from dismissive attachment styles as well. The increase in dismissive attachment may be partly a reflection of an aging individual's decreasing support network and an increasing need to be self-reliant (Fiori et al., 2009). Significantly, dismissive attachment, like secure attachment, seems to be linked to better well-being in older population (i.e., 65 and older; Merz & Consedine, 2012).

Attachment Style and People with Disabilities

In a study of participants with a spinal cord injury, spina bifida, cerebral palsy, osteogenesis imperfecta, and other physical disabilities, these individuals mirrored the general population with regards to attachment styles and positive self-view (Hwang et al., 2009). Securely attached individuals had higher self-esteem and self-concept than insecurely attached individuals, and, in general, having a disability did not have a significant negative impact on self-esteem.

In addition, a secure attachment style can protect against anxiety and depression among people with disabilities (Wilson et al., 2013). Wilson et al. (2013) found that a secure attachment style was positively linked to happiness among individuals with spinal cord injuries, which echoed the findings of Hwang et al. (2009).

On the other hand, the number of children with insecure attachments is comparatively higher in children with disabilities compared to children without disabilities. Children's disabilities may activate a stress reaction in parents, which results in altered caregiving and formation of insecure attachment styles (Howe, 2006). Some estimates approximate the number of secure attachments as over one-half to less than two-thirds of the general population, insecure avoidant attachment as approximately one-

fourth of the population, and insecure anxious attachment as around one-sixth to one-fifth of the population (Campos et al., 1983; Hazan & Shaver, 1987).

People with varying attachment styles have distinct approaches to social and interpersonal situations that are largely congruent in the general population and with people with disabilities. Therefore, attachment styles may be central to explaining the relationship between having a disability and experiencing workplace incivility, as secure attachment style would serve as a moderator of this relationship (Reio, 2011). That is, secure attachment style would dampen the positive relationship between disability and incivility. On the other hand, if insecure attachment style was chosen as a moderator, it would strengthen the positive relationship between having a disability and incivility; it would heighten workplace incivility experiences of people with disabilities and explain ensuing mental health consequences. For the current research, secure attachment serves as a moderator between disability and incivility, and therefore, individuals with a secure relationship are expected to have less incivility experiences than the ones with insecure attachments. The next section discusses favorable social competencies linked to secure attachment, and how they translate to work situations.

Secure Attachment and Favorable Work-Related Social Competencies

Attachment theory describes the formation of social competencies, which is linked to effective social exchanges between a caregiver and an infant (Bowlby, 1973). Individuals with secure attachments develop proficiency in interactions with peers, and they are more cooperative, affectively positive and sympathetic than their insecurely attached peers (Ainsworth, 1979). Securely attached children experience repeated patterns of sensitive caretaking from their primary attachment figure that mold the child's

expectations of interpersonal relationships as being positive in general (Weinfield et al., 2008).

Adults with secure attachment styles also exhibit social competencies that are favorable, especially in a work environment because they have a connection to positive work-related outcomes (Phillips, Kaseroff, Fleming, & Huck, 2014). Indeed, these social competencies are so important that up to 90% of job loss has been linked to their absence (Elksnin & Elksnin, 2001). Examples of salient, work-related social competencies include social problem solving, social awareness, cooperation, civility, apologizing, and accepting criticism. Additionally, secure attachment style promotes one's views of oneself and others as capable, competent, and valuable human beings (Mikulincer et al., 2003). Thus, securely attached individuals may possess a skill set that alleviates the negative effects of experiencing workplace incivility due to its influence on positive social functioning and awareness.

Individuals with secure attachments grow up with feeling of acceptance, sense of independence, and confidence that their needs will be responded to by caretakers, which enhance the individual's self-esteem (McCormick & Kennedy, 1994). Self-esteem is related to a positive view of self and others, and it engenders reciprocity, closeness, and respect (Passanisi et al., 2015). In return, individuals with high self-esteem seek positive feedback from others because it matches with their self-views, and thus there is a relational aspect to maintaining self-esteem (Brennan & Morns, 1997). Furthermore, individuals with high self-esteem experience a reduced degree of shame (Passanisi et al., 2015) and reduced incidences of Type D personality, which describes a temperament that is consumed by negative emotions despite the circumstances, and that is socially

withdrawn (Huis et al., 2011). Therefore, individuals with high self-esteem exhibit socially desirable qualities. Another expedient quality in social environments are self-transcendence values, such as concern for others' welfare.

Securely attached individuals have an accepting disposition toward others (Collins & Read, 1990), and authentic concern for well-being of others (Mikulincer et al., 2003). Their attitude regarding personal closeness and interdependence is favorable, which encourages them to invest in welfare of others, as it is mutually beneficial. In addition, securely attached individuals are more likely to have positive self-concepts and envision individuals as less alarming than individuals with insecure attachments. Their self-defense mechanisms are not activated, which allows them to impart a compassionate attitude toward possibly harmful individuals (Mikulincer et al., 2003). Furthermore, securely attached individuals construe a corresponding interpersonal event in a more positive manner and respond with more positive emotions than their insecurily attached counterparts (Collins, 1996). Consequently, non-defensiveness in an uncivil work environment is likely to reduce the likelihood of conflict and avert at least some targeted incivility, while coping skills may help alleviate experienced incivility.

Individuals with a secure attachment style learn to cope with stress in two ways: (a) internal mechanisms and (b) seeking support and comfort from others (Mikulincer et al., 2003). Thus, they are more likely to envision distressing events as being manageable and that the outcome would be under their control. In addition, they seek external resources, utilize problem-solving skills, and acknowledge stress to effectively cope with distressing events (Mikulincer et al., 2003). Individuals with access to varying tools to cope with work-related stress, particularly distress, and those who do not have such

coping skills are likely to add a different type of contribution to an employer (e.g., length of employment, strength of relationships, creative contribution). The following sections overview secure attachment in relation to specific work-related concepts of organizational commitment, turnover intentions, work relationships, and conflict at work, learning, curiosity, motivation, engagement, and knowledge acquisition through cooperative interactional strategies.

Turnover Intentions, Organizational Commitment, and Work Relations

An employee with a secure attachment style is less likely to have turnover intentions and more likely to commit to an organization when compared to their peers with insecure attachments (Banerjee-Batist & Reio, 2016). Secure attachment style is positively linked to employee's affective commitment, or one's identification with, involvement in, and contentment in the place of employment. It reasonable to expect that securely attached individuals form trusting relationships with supervisors because a secure childhood relationship with a primary caregiver serves as a foundation and a model for significant future relationships (Baldwin & Moses, 1996). As secure attachments in childhood transform into trusting relationships throughout the lifespan, including with superiors at work, the employee reciprocates his or her the trust in supervisors by committing to the organization (Metin Camgöz & Bayhan Karapinar, 2016). Further, secure attachment style manifests as positive views of interpersonal work relationships in general and perception of interactional justice (i.e., fair and respectful treatment by superiors; Desivilya, Sabag, & Ashton, 2006). Yet, despite the employees' views on their work circumstances, it may be difficult to avoid all interpersonal

transgressions at work. At such times, it is beneficial to have effective conflict-resolution strategies.

Conflict at Work and Attachment

Conflict at work is almost unavoidable, and at some point, even the most well-intentioned individuals find themselves in conflict with coworkers. Conflict can arise from various interpersonal exchanges, such as conflicting goals, ideologies and interests, but its outcome is not necessarily negative for a person involved in a conflict. If effectively and appropriately resolved, it may have positive outcomes and offer long-term benefits for the person, such as insight and resilience (Gilin Oore, Leiter, & LeBlanc, 2015).

Incivility and conflict may appear to be the same; however, conflict can rise from issues other than one's boorish, insensitive behaviors, as listed above. In other words, incivility is one type of conflict, but not all conflicts necessarily involve incivility. Therefore, it is reasonable to infer that a successful resolution of incivility would also result in positive gains in a work environment and in one's confidence to successfully resolve future incivility conflicts. To illustrate the assumption, consider that research has revealed that individuals with secure attachment have encountered more opportunities to resolve interpersonal conflicts in a mutually satisfying manner and acquired a more fluid skillset to handle interpersonal conflict than the insecurely attached counterparts, as previously discussed (Carpendale & Lewis, 2004; Fleming, 2008).

Forgiveness is one conflict resolution strategy that stabilizes the employee after a conflict and can add to the longevity of employment. Lawler-Row, Younger, Piferi, & Jones (2006) found that, in general, securely attached individuals tend to exhibit more

forgiveness for the transgressor after a transgression than insecurely attached individuals. The individuals with secure attachments were willing to confront the transgressor and work through a conflict, while individuals with insecure attachments preferred to avoid the transgressor, which can be counterproductive (Lawler-Row et al., 2006). It is plausible then that this would lead to positive mental health outcomes for those with secure attachment styles, and support the notion that secure attachment may be an acceptable moderator of the relationship between incivility and mental health.

Attachment and Adult Learning

An individual's attachment style has profound importance not only during childhood exploration, but also during adult learning activities, because exploration is a life-long process (Bowlby, 2008). Fleming (2008) determined that learners with secure attachments have better tools to navigate through challenges of learning. They have optimistic views about reaching goals, and their positive disposition encourages them to fully engage in an activity and to seek success, despite any perplexing challenges. Such individuals cope considerably well with new experiences and ideas, and during conflict, secure learners are open to negotiate to find a resolution. In contrast, their insecure counterparts may feel overwhelmed and distressed when introduced to unfamiliar activities. During conflict, insecure learners are likely to rely on counterproductive coping strategies that exacerbate the conflict or that distance the individual from the source of stress, leading the learner away from the learning goal (Fleming, 2008). Indeed, anxious-ambivalent attachments are correlated with apprehension about work relationships and performance (Hardy & Barkham, 1994). Other explanations for

differences in goal achievement by an adult learner with secure and insecure attachments include level of curiosity, motivation and engagement, which is discussed next.

Attachment and Curiosity

Curiosity has a positive link to both secure attachment and one's motivation to learn (Reio, Petrosko, Wiswell, & Thongsukmag, 2006; Reio, Marcus, & Sanders-Reio, 2009), and securely attached individuals employ curiosity, motivation, and engagement to their advantage, while exploring and processing new information. They actively seek new information, and adjust their thoughts and ideas to fit the newly acquired information, which aids in adjusting to an ever-changing life (Mikulincer, 1997). However, various life circumstances can pose a threat to a full engagement in learning regardless of one's flexible cognitive structure. In such instances, motivation and engagement facilitate positive learning outcomes. For example, employment can pose a threat to students enrolled in higher education, distracting them from fully engaging in academic exploration. Nevertheless, research reveals that employed students with secure attachments are more motivated to engage in higher learning process than their counterparts with insecure attachments, underscoring the protective factor of secure attachment when engaging in exploration (Beauchamp, Martineau, & Gagnon, 2016). Likely, the individuals with secure attachments have developed intrinsic motivation to fully immerse in learning activities.

Attachment and Motivation and Engagement

The concept of intrinsic motivation and engagement are alike, although not precisely the same. Insecurely attached individuals, specifically individuals with anxious and avoidant attachments, exhibit lower levels of work motivation and engagements than

individuals with secure attachments (Byrne, Albert, Manning, & Desir, 2017). Likewise, they approach work with less confidence than their secure counterparts. Therefore, secure attachment facilitates work activity (Hazan & Shaver, 1990). Cooperating with others also aids in learning and knowledge acquisition, and individuals with secure attachments have practiced it over and over with their primary caregiver(s), which is discussed next.

Knowledge Development through Cooperative Interactional Strategies

Central to the concept of secure attachment is the notion that, from early on, the child engages in healthy, spontaneous interactions with a primary caregiver, while exploring the world. Therefore, he or she develops cooperative interactional strategies with their ever-expanding world. Importantly, such collaborative relationships introduce various point of views to the learner's world in a safe environment, which fosters the learner's knowledge development (Carpendale & Lewis, 2004). Favorable relationship exchanges build positive and supportive views of the world. The individual anticipates and expects supportive and safe social interactions, including exploration.

In contrast, individuals with insecure attachments have significant doubts about receiving quality social support. Thus, they are less likely to seek social support in times of adversity than individuals with secure attachments (Florian, Mikulincer, & Bucholtz, 1995). Not only do secure individuals use more effective strategies in building work relationships than their insecure counterparts, but they build better quality relationships than individuals with insecure attachments. Maslyn, Schyns, & Farmer (2017) found that subordinates with secure attachment styles build higher quality relationships with their managers than their insecurely attached colleagues. More specifically, securely attached subordinates create good relationships with managers through exerting effort into

relationship-building exercises, while anxiously-attached subordinates put little effort into building a relationship. Significantly, despite the amount of effort put into relationship building, avoidant style attachment in subordinates directly relates to lower quality relationships with managers. Thus, it is reasonable to infer that insecurely attached individuals' views of a non-supportive world isolate them from using effective collaborative strategies in knowledge acquisition, thereby diminishing learning opportunities.

Securely attached individuals have an array of tools, strategies, and personal qualities that assist them to develop a positive outcome in adverse situations (Kaczmirek, & Wolff, 2007). In contrast, individuals with insecure attachment styles fail to develop an effective internal skillset and reliance on external resources to cope in disadvantageous circumstances. In addition, they are less effective in social situations in comparison to their securely attached counterparts (Florian, Mikulincer, & Bucholtz, 1995).

It may be that one's personality traits may play a role in understanding interpersonal issues linked to insecure attachments that can arise in workplace settings. The following section highlights personality traits that work against individuals with insecure attachments in negative or hostile environments, including work.

Insecure Attachments and Adverse Personality Traits

Insecure attachments in adulthood fall into three categories: (a) anxious or preoccupied attachment, (b) avoidant-dismissing attachment and (c) avoidant-fearful attachment. Individuals with anxious (e.g., preoccupied) attachment styles hold negative views about themselves as distressed and unlovable, while individuals with avoidant (e.g., dismissing-avoidant) attachment styles hold negative views of others as

unsupportive, untrustworthy, and rejecting. A subsequently added fourth category that represents individuals with fearful-avoidant attachment styles, suggests that such individuals hold negative views of themselves and others, which is consistent with the negative disposition of individuals categorized as preoccupied *and* individuals categorized as dismissing-avoidant (Bartholomew & Horowitz, 1991). Research on insecure attachment varies on the number and type of categories of insecure attachment that it includes, but regardless, all insecure attachments are marked by interpersonal difficulties (Horowitz, Rosenberg, & Bartholomew, 1993). The following section characterizes some of the pronounced challenges that people with distinct insecure attachments face in their daily life.

Although, a reduced capacity for interpersonal and coping skills is common for all insecure attachment categories, the precise problematic relational patterns vary by each category with some overlap (Noftle & Shaver, 2006). The relational patterns originate from childhood, and the childhood attachment patterns with a caregiver define the child's personality to an extent to which attachment patterns are correlated with specific *personality traits* (e.g., secure attachment correlates with agreeableness) (Corr & Matthews, 2009). Personality traits refer to personality characteristics that are considerably stable over time (e.g., openness, neuroticism, suspiciousness), but differ from *personality states* that are ephemeral and situational (e.g., fatigue, guilt, stress) (Martin, Long, & Poon, 2002). The Big Five is a widely accepted measure of personality traits consisting of Neuroticism, Extraversion, Conscientiousness, Openness, and Agreeableness.

Each attachment style correlates with unique Big Five traits (Noftle & Shaver, 2006). Secure attachment corresponds to traits such as Extraversion and Agreeableness while negative affectivity (i.e., Neuroticism; Corr & Matthews, 2009) is characteristic of individuals with both anxious and avoidant attachments. The latter relation is particularly compelling because Neuroticism is a form of insecurity, as are anxious and avoidant attachment styles (i.e., insecure attachment styles; Noftle & Shaver, 2006), and it is partially responsible for poor interpersonal skills (Bartholomew & Horowitz, 1991). Both anxious and avoidant individuals score low on Conscientiousness, signaling carelessness and absence of follow-through on commitments. Only avoidant individuals of the insecurely attached score low on Agreeableness and Extraversion (Noftle & Shaver, 2006). Furthermore, Nofle and Shaver's (2006) research revealed that subtleties in the Big Five traits could be teased out, further dissecting interpersonal issues with insecurely attached individuals. For instance, avoidant individuals scored low on altruism and trust, as facets of Agreeableness, low on positive emotion and warmth, as facets of Extraversion, and low on openness to feelings. Both anxiously attached and avoidant individuals score low on assertiveness, a dominance facet of Extraversion. Essentially, favorable Big Five traits such as Extraversion and Agreeableness, which are exhibited by securely-attached individuals, can facilitate functioning at a workplace. Additionally, the beneficial traits can provide an advantage to qualified candidates in a tight job market.

Increasingly, employers utilize computerized pre-employment personality tests based on Big Five principles to make hiring decisions. The tests utilize questions that use forced-choice and a continuous scale that measure applicants' standing in relation to favorable Big Five traits. Applicants who score low on traits that an employer considers

important (e.g., Openness, Extraversion, Conscientiousness) may be electronically eliminated from the pool of applicants before a human resource representative ever reviews a list of potential candidates (Heikkila & Reio, 2016, Chapter 70; Morgeson, Campion, Dipboye, Hollenbeck, Murphy, & Schmitt, 2007). The automated elimination process underscores the importance of accurately identifying traits that are conducive to the work environment from HRD perspective. Conversely, the overarching traits, which employers seek to eliminate (e.g., Neuroticism, carelessness) appear to match with traits correlated with insecure attachment. Beyond the Big Five traits, other negative characteristics disrupt social functioning, erode coping skills, impede self-regulation, and hinder work performance of individuals with insecure attachments, which are briefly outlined in the following section.

Poor interpersonal skills stand in a way of new connections and friendships, which is socially debilitating to anyone, especially those individuals with insecure attachments. In addition, social efficacy and emotional awareness are poor with those who are insecurely attached, the latter affecting the ability to differentiate their own feelings and to communicate accurate emotions to others (Mallinckrodt & Wei, 2005). In some situations, lack of emotional acuity leads to inappropriate expression of emotions. Adults with avoidant attachments ascribe to fear of closeness, while adult with anxious attachments reported jealousy, emotional fluctuations, and need for interpersonal exchanges (Hazan & Shaver, 1987). Yet, social competencies are essential in establishing and maintaining quality relationships (Mallinckrodt, 2000). Partially because of interpersonal skills and coping involving the use of social support system, adults with

insecure attachments exhibit poor coping skills when faced with major life stressors (Gore-Felton et al., 2013).

The negative emotional sequelae of individuals with insecure attachment styles lead to poor coping skills. Insecure attachments have been linked to high negative affectivity, low positive affectivity, poor social support expectations (Barry et al., 2007), anxiety, irascibility, alienation, and mental health decline in adults (Kafetsios & Sideridis, 2006). In addition, avoidant attachment moods include mistrust, restrictions in intimacy, and anger, while anxious attachment is characterized by fearful emotions regarding rejection and separation (Oskis et al., 2013). Such negative attitudes limit individuals' coping methods because of unfavorable expectations of one's own resolution skills and others' intentions, and ineffective coping strategies (e.g., problem-solving capability, managing distress). Inadequate coping strategies lead to negative psychological symptomology, such as depression, anxiety, anger, relationship difficulties, and despair (Wei et al., 2003). Essentially, negative emotions are related to poor coping skills that are linked to other similar negative psychological symptomology, which appears to create a self-feeding, downward emotional cycle in social environments.

Another manner of managing distress is through emotional self-regulation. Individuals with insecure attachments are prone to inability to regulate emotional arousal and contain it to manageable levels (Weinfield et al., 2008). Lack of perceived support limits coping strategies because some effective coping strategies involve the person's social support system. Thus, individuals with insecure attachments are vulnerable because they view others as unreliable and untrustworthy (Mikulincer et al., 2003). Individuals with avoidant attachment styles are particularly affected because of unhealthy

self-reliance and averting away from intimate relationships, which leads to loneliness (Kafetsios & Sideridis, 2006). Unsurprisingly, one study intimated that perceived social support and attachment avoidance are related constructs (Barry et al., 2007). As individuals with insecure attachment styles move through life with a wide range of adverse and ineffective strategies and attitudes, a toll on mental health is conceivable.

Mental Disabilities and Insecure Attachment Styles

An array of mental disabilities is associated with insecure attachment styles. As an example, studies have found increasing levels of alexithymia, which is an affective impairment interfering with processing, maintaining, and communicating ones' emotions (Montebarocci et al., 2004; Oskis et al., 2013). Another mental disorder called social anhedonia, or the inability to derive pleasure from social relationships, is associated with individuals with avoidant-dismissive attachment styles (Berry et al., 2006). The following sections discuss studies that have revealed linkages between specific mental disabilities and insecure attachment, which underscores the importance of secure attachment in one's mental health. Ultimately, secure attachment can be a protective factor inasmuch as it lessens incivility experiences of people with disabilities and indirectly plays a role in maintaining their mental stability in uncivil work environments.

Borderline Personality Disorder and Attachment. Individuals with borderline personality disorder (BPD) demonstrate extreme insecure attachment patterns of enmeshed dependence, fear of rejection, and angry withdrawals. The disorder oscillates between the two states of (a) longing for unusual closeness and (b) exacerbations by unmet relationship expectations leading to rage and is typically associated with anxious (e.g., preoccupied) attachments and fearful-avoidant attachments (Aaronson et al., 2006;

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Levy, 2005). In other words, on one hand they demonstrate an intense desire for an intimate, secure bond, but on the other hand they immensely fear closeness. The individuals with BPD have learned from disturbing past relationship experiences to expect abandonment. Thus, they vacillate between two opposing extreme emotions in relationships, leading to impaired and volatile interpersonal functioning (Sable, 1997). The patterns of extreme desire for closeness followed by hostile withdrawal of individuals with BPD is indicative of anxious-ambivalent attachment style. Although it significantly differs from attachment patterns of individuals with obsessive-compulsive personality styles, both groups of individuals with personality disorders exhibit insecure patterns of attachment (Aaronson et al., 2006). In fact, other personality disorders have been linked to insecure attachment styles as well (Brennan & Shaver, 1995; Lyddon & Sherry, 2001; Sheinbaum, 2015).

Anxiety and Depression in Relation to Attachment. Research supports the finding that having a secure attachment is associated with better mental health in relation to anxiety and depression than having an insecure attachment. Anxiety disorders comprise of the most prevalent forms of mental disorders, while mood disorders (e.g. depression, bipolar disorder) comprise of the highest number of serious cases (Kessler, Chiu, Demler, & Walters, 2005), findings that are particularly salient to this study. One study indicated that individuals with insecure attachments exhibited more negative thinking, depression and anxiety than their secure counterparts (Surcinelli, Rossi, Montebarocci, & Baldaro, 2010). Attachment security is correlated with reduced levels of anxiety, except in the case of separation anxiety. Insecure types of attachment styles are linked to specific types of anxiety with the exception that avoidant attachment is

unrelated anxiety. Ambivalent attachment is linked to separation anxiety, and disorganized attachment is linked to some phobias and somatic symptoms, while avoidant attachment is linked to depression (Brumariu & Kerns, 2010). Another study revealed that individuals with fearful attachments, a subgroup of insecure attachments, have the strongest association with Posttraumatic Stress Disorder (PTSD) of all types of attachments (Woodhouse, Ayers, & Field, 2015). Lastly, eating disorders are also anxiety-based disorders that are linked to insecure attachment patterns (Koskina & Giovazolias, 2010).

Learning Disability and Attention Deficit Hyperactivity Disorder in Relation to Attachment. A study investigating relationships among victimization by bullying, attachment style, and students with learning disability (LD) and attention deficit hyperactivity disorder (ADHD) diagnosis revealed that students who were diagnosed with both LD and ADHD are at high risk for bullying. However, of the at-risk group, students with secure attachment to their mothers were at lower risk than their insecurely attached counterparts (Klomek et al., 2016). The finding supports the choice of attachment style as a reasonable moderating factor in the current research.

Intellectual Disabilities and Attachment. Individuals with intellectual disabilities, such as Down Syndrome, have an increased risk of developing an insecure attachment and exhibiting challenging behaviors. One contributing factor is less availability to positive and consequential relationships. Nonetheless, secure attachment style with parents lessens emotional distress that induce challenging behaviors (Penketh, Hare, Flood, & Walker, 2014).

Schizophrenia Spectrum Disorders and Attachment. Schizophrenia is a multifaceted and profound mental illness involving "positive" symptoms, such as hallucinations and delusions, and "negative" symptoms, such as apathy, withdrawal, speech disturbance, and flat affect or severe reduction in affective expression (Ponizovsky, Nechamkin, & Rosca, 2007). Insecure attachment styles, particularly the avoidant style of attachment, is linked to individuals with schizophrenia, Moreover, individuals with insecure attachments and schizophrenia exhibit more severe symptomology than those with secure attachments and schizophrenia (Ponizovsky et al., 2007). Schizophrenia spectrum disorders may involve debilitating states of psychosis and paranoia, and insecure attachment styles in general are linked to psychosis in a form of paranoia (Wickham et al., 2015) and non-clinical psychotic phenomena, which within a continuum spanning from normal manifestations of the self to clinically psychotic symptomology. Each of these disabilities combined with an insecure attachment diminish and debilitate effective social exchanges, which is discussed next.

Key Differences between Secure and Insecure Attachments

In summary, the fundamental differences in the way in which individuals with secure and insecure attachment styles approach relationships stem from the mental representations that the individual has acquired about one's self in relation to others (Main et al.,1985). The individuals with secure attachment style have formed positive expectations of others and about resolution in times of distress. On the other hand, individuals with insecure attachment styles have formed negative expectations of others and lack appropriate coping skills in times of stress (Collins, 1996). Hence, the individuals with secure attachment style are expected to cope better in an uncivil work

environment. The differences in attachment patterns and relational experiences lead to the discussion on moderators and mediators, and the role of secure attachment as a moderator and the role of incivility encounters at work as a mediator.

Moderators and Mediators

Mediators and moderators are third variables that suggest a direction or magnitude of a relationship (Wu & Zumbo, 2008). The presence of mediators and moderators is probable even for cross-sectional or non-experimental studies, which do not attempt to prove a cause-and-effect relationship. A mediator links an independent variable with a dependent variable, while a moderator modifies a directional effect between two variables. Essentially, moderators and mediators give a researcher a more sophisticated understanding of a link between two variables. The next paragraph overviews the mediator and moderator in the present study.

Attachment literature associates individual's secure attachment with various preventive and protective factors against negative interpersonal events that one may face in life. Therefore, the researcher hypothesized (a) that an independent variable of secure attachment moderates between a dependent variable of experiencing workplace incivility and a dependent variable of mental stability (i.e., Model A), and (b) that an independent variable of secure attachment moderates the link between an independent variable of having a disability and a dependent variable of experiencing workplace incivility (i.e., Model B), namely modifying the relationship by dampening the strength of the relationship. Therefore, a securely-attached individual with a disability is expected to experience less incivility than an insecurely-attached individual with a disability. Further, it hypothesizes that experiencing workplace incivility mediates the link between an

independent variable of having a disability and dependent variable of mental health status; experiencing workplace incivility can lower one's self-esteem and self-concept while increasing anxiety, and therefore, decreasing mental health status. Therefore, an individual with a disability who encounters more incivility experiences is expected to exhibit a sharper mental health decline than an individual with a disability who encounters less incivility (see Figure 3).

As secure individuals develop favorable expectations of relationships and relational outcomes during stress, it is a likely moderator in situations in which an individual experiences incivility. Yet, in some cases individuals with disabilities may perceive the gravity of the uncivil situation unresolvable within the workplace, and they reach out to outside organizations for resolution assistance. One such organization is the EEOC, and disability-related statistics published by EEOC are briefly reviewed next.

U.S. Equal Employment Opportunity Commission Statistics

In 2014, approximately 25,300 individuals submitted a disability-related claim against an employer to the EEOC (U.S. Equal Employment Opportunity Commission, 2015). However, the type of charges and the proportion of charges in relation to one another are unclear. Yet, it is probable that a portion of the charges include claims such as being shouted at and experiencing physical aggression at work. On the contrary, it is less probable that the charges include uncivil treatment, as it is difficult to prove. Overt behavior is more conspicuous for outsiders to observe, identify, and report than the more insidious and less observable acts of incivility with an ambiguous intent to harm (Pearson & Porath, 2005). However, and as earlier discussed, the more severe acts may have been

borne first out of acts of incivility at the place of employment (Reio, 2011). The

subsequent section details employment patterns of individuals with disabilities.

Figure 3

Moderators and Mediators
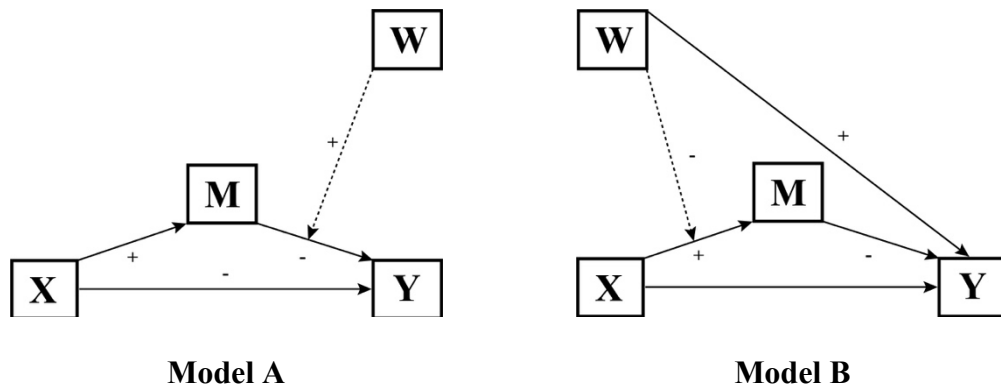
| Model A | Model B |

Note. X = independent variable (i.e., disability status); Y = dependent variable (i.e.,

mental stability); W = moderator variable (i.e., attachment security); M = mediator

variable (i.e., incivility encounters). Model A depicts that incivility encounters (M)

negatively links to mental stability at work (Y), and that attachment security (W)

moderates, or reduces the strength, of the negative link between M and Y. Model B

depicts that having a disability (X) positively links to incivility encounters (M), and

that attachment security (W) moderates, or reduces the strength, of the positive link

between X and M. Both models depict that M (i.e., incivility encounters) mediates the

negative link between independent variable X (i.e., having a disability) and dependent

variable Y (i.e., mental stability) by intensifying the existing negative relationship

(Hayes & Rockwood, 2017).

Employment Demographics of Individuals With Disabilities

The Unites States ranks within the top 20 in the world in Gross Domestic Product (GDP) per capita, which is a measure of country's economy, and it has an estimated employment rate of 95% (Central Intelligence Agency, 2017). About 40 million people or 12.6% of the entire U.S. population reported some form of disability with almost 13% of them reporting a disability that is perceivable to others (e.g., disability relating to vision, hearing, or ambulation). One-tenth of all the individuals with disabilities were of working age (i.e., between ages 21 to 64) and the findings suggest that about 6.7 million of them had a form of employment in 2013, of which an estimated 4.2 million worked full time. Another 1.3 million of the unemployed individuals with disabilities were actively looking for employment.

Although median annual earnings were $38,300 for individuals with disabilities, almost one in three individuals with a disability lived in poverty, and close to one in five receive supplemental security income (SSI; Erickson et al., 2014). Links to the inability to secure and/or retain employment have not been explored for those who qualify for employment, which is potentially another HRD issue. Even though the employment rate gap between individuals with and without disabilities is 42.3 percentage points, the number of individuals with disabilities who are employed is significant, and the issue of incivility toward individuals with disabilities at a workplace becomes a concern for organizations, especially in the HRD sector.

Particularly problematic are the findings that a disproportionate number of reported incivility events involved managers and supervisors in comparison to coworkers, vendors, and customers. The findings have considerable implications for HRD, especially

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in regards to appropriate management sensitivity training in relation to individuals with disabilities as well as policy development detailing consequences of incivility (Fevre et al., 2012, 2013).

Employment Characteristics of the Sample Population

Large numbers of employees with disabilities in the United States have physical disabilities, and some studies indicate that employers are reluctant to hire individuals with detectable disabilities because of concerns about accommodation costs (Stein, 2003). Individuals with hearing (51%) and visual disabilities (40%) had the highest employment rates, and individuals with ambulatory disabilities (24%) tied the third highest employment rates with the individuals with cognitive impairments (Erickson et al., 2014). Although the majority of the working population with disabilities comprises employees with physical disabilities, which are largely visible and easily detectable by the coworkers and the management, this study includes a population that expands beyond physical disabilities. It is important to include individuals with disabilities whose disabilities are not readily discernable to coworkers and supervisors (e.g., cognitive, mental, emotional, and other invisible disabilities) in the sample because they experience demoralizing treatment and dismissing attitudes (Davis, 2005) and have reported the highest levels of workplace incivility experiences (Fevre et al., 2012, 2013). Moreover, they may endure anguish and face skepticism when coworkers or supervisors query about legitimacy of their disability (e.g., appropriateness of requesting accommodations to perform essential work functions), and therefore, may refrain from requesting vital accommodations or assistance (Davis, 2005).

Detectable and Undetectable Disabilities

In the context of the present research, *detectable disability* is defined as a disability that is perceived by others without a need of the individual to provide a full disclosure of disability due to the following factors:

1. Either symptomology or detectability of the disability is such that it confirms the existence of disability (e.g., ambulatory disability, speech impediment, facial disfiguration, quadriplegia, deafness, blindness, limb amputations, traumatic brain injury, epilepsy, cerebral palsy, spinal-cord injury, neural tube defects, muscular dystrophy, rheumatic arthritis, lupus, cystic fibrosis, amyothrophic lateral sclerosis, Parkinson's disease, facial disfigurement, alopecia areata, and neurofibromatosis).

2. Reviewing the individual's work product reveals the disability (e.g., learning disability).

3. Prolonged interaction with an individual reveals abnormal, debilitating behavioral patterns (e.g., autism, obsessive-compulsive disorder, severe mental disabilities).

4. Individual's need for special work accommodations reveals the disability (e.g., companion animal, assistive devices, technological accommodations, ergonomic accommodations, dimly lit rooms, special keyboards).

In other words, the disability should be so evident that no disclosure of the disability is needed, and the person is likely to have been diagnosed with a disability with a medical, speech, or mental diagnosis.

Degree of Impairment

Notably, not all physical or mental disabilities are immediately detectable (e.g., earlier stages of liver disease, hypertension, fibromyalgia, depression, anxiety), and at times, it is the degree of the impairment that shifts the disability from an undetectable to a detectable one. As an example, a condition of controlled diabetes may have undetectable symptomology until it has progressed to the extent that a person has difficulty standing and walking due to debilitating nerve pain in the feet. Likewise, a person with autistic traits at the high end of the spectrum may not be regarded as an individual with a disability, but a person with autism at a low end of the spectrum may have clear and detectable behavioral symptomology, including severe social skills impairments.

Accommodations and Assistive Technology

Accommodations and assistive devices are typically perceivable to others, and an employee utilizing accommodations and/or assistive devices (e.g., hearing aids, wheelchair, customized equipment, Braille note taking computer, job hours modification, seating modification, etc.; Bailey, 2011; Butterfield & Ramseur, 2004) would be regarded as having a detectable disability for the purposes of this research. Furthermore, the disclosure is involuntary because the disability is readily perceived by others (Barnar-Brak, Lechtenberger, & Lan, 2010). Accommodations fall under two broad categories of physical accommodations to a building or a work area, and accommodations to how the work is performed (Stein, 2003). Technological advances have made an array of accommodations available such as powered wheelchairs, ambulatory devices (e.g., exoskeletons), mechanical prosthetic limbs, speech recognition technology (e.g., Dragon Dictate), screen reader (e.g., Job Access with Speech or JAWS), expanded keyboards,

ergonomic seating, touch screens, and adjustable height desks (Bailey, 2011; Cowan et al., 2012). Other perceivable forms of accommodation include a use of a service or companion animal for visual or emotional disabilities (Duncan, 2000; Wisdom, Saedi, & Green, 2009). On the other hand, a person with a hearing disability who disguises the use of hearing aids and who has no needs for further accommodations may not be regarded as a person with a detectable disability.

While considering this sample population, it is essential to review the vocational rehabilitation profession as one key resource (Gilbride, Stensrud, Vandergoot, & Golden, 2003). Vocational rehabilitation counselors play a likely role in eradicating incivility toward people with disabilities through educating HRD professionals and management about people with disabilities as employees, and by providing active support (e.g., erasing unsupported fears and stigma about people with disabilities, changing attitudes, assisting in integration, creating a proper support system, coordinating various services). Research indicates better employment outcomes for employees with disabilities with employers who receive education and support from rehabilitation professionals in comparison to similar employees whose employers lack of professional advice and guidance (Elliott & Leung, 2005, Chapter 12; Emmett, 2008; Gilbride, Stensrud, Vandergoot, & Golden, 2003). In fact, one of major barriers to employment for people with disabilities is lack of accommodations and supports (Butterfield & Ramseur, 2004; Cook, 1991; Stoddard, Jans, Ripple, & Kraus, 1998). Rehabilitation counselors can enumerate impediments to employment for people with varying disabilities and assist HRD professionals in removing such impediments through work accommodation and assistive technologies (Elliott & Leung, 2005, Chapter 12). If work impediments were minimized, presumably

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disability would be less obvious to other workers and result in less incivility; again, a central hypothesis of this research is that having a disability is positively correlated with incivility experiences.

Further, counselors can work with the individuals with disabilities to improve their self-image, social skills, and work adjustment. Such a cooperation already takes place on a regular basis between school counselors and rehabilitation counselors, as students transition from school to work (Fish & Smith-Augustine, 2015). Elliott and Leung (2005, Chapter 12) also projected that vocational rehabilitation will morph in the future beyond biomedical and biopsychosocial models and become central to other fields such as labor relations. Contingent on the findings, outside resources such as vocational rehabilitation counselors may initially become crucial in educating HRD professionals regarding this divergent and unique population.

Interdisciplinary Approach to Understanding Disability and Work

Fevre et al. (2013) drew on a sociological model of disability when the research team conducted a quantitative study on ill-treatment of employees with various disabilities. The researcher agrees with the contention that an interdisciplinary approach can expand the awareness of workplace deviance against employees with disabilities and that eradicating the power differential between human resources and employees with disabilities is vital in abolishing workplace incivility (Hoel & Beale, 2006). Despite laws, policies, and mandates in place, a power differential still exists. One such law is Americans with Disabilities Act of 1990 (ADA), and it was enacted to prohibit discrimination against individuals with disabilities in various areas of life. Title I of ADA, which outlines employment-related concerns, is of interest to this research.

Title I of ADA delineates equal employment opportunity rights for individuals with disabilities, including similar access and benefits. Employers affected by the law must abide by it in regards to seeking, hiring, retaining, promoting, and firing individuals with disabilities. Yet, laws do not guarantee that HRD professionals in an organization understand one's disability or disability experience. Misconceptions can hinder employee's productivity, such as the idea that assistive technology is luxury, expensive, and complicated, and that the best assistive technology solution is dictated by a professional rather than an employee (Bailey, 2011). Even if well-intentioned, human resource professionals are not likely to have the background and the knowledge-basis to build organizational training and development that would curtail the incivility experienced by employees with disabilities (Lengnick-Hall et al., 2008).

In addition, involving rehabilitation professionals may financially benefit the employer. Kärrholm, Ekholm, Ekholm, Bergroth, and Ekholm's (2008) longitudinal study revealed that a cooperative, multi-professional, and multi-sectoral approach to employee's vocational rehabilitation benefitted the employer by approximately $42,500 per individual in a six-year period. Therefore, an interdisciplinary approach to HRD may indeed be advantageous. Importantly, public and private vocational rehabilitation professionals are one group with the knowledge and ability to bridge the gap between employees with disabilities and their experiences in the workforce by educating, training, and working as a team with HRD professionals (Johnson, Stodden, Emanuel, Luecking, & Mack, 2002). A brief overview of the role of vocational rehabilitation is appropriate because the research findings may implicate a need for substantial cooperation between

vocational rehabilitation and HRD professionals in combatting workplace incivility toward individuals with disabilities.

Vocational Rehabilitation

As indicated earlier by the percentage gap between employees with and without disabilities, employees with disabilities as a group are recognizably absent from the industrial labor market (Erickson et al., 2014). In fact, vocational rehabilitation professionals with the goal of securing long-term employment for people with disabilities attempt to shorten the gap. However, the gap hints at a wide social exclusion (Barnes & Mercer, 2005), and social inclusion impacts the treatment of individuals with disabilities in the workforce. In effort to reduce the disparity, rehabilitation professionals consciously move away from medical model with emphasis on illness and disease. The medical model implies that the individual with a disability is not whole but needs medical, psychological, or other interventions to become healthy (Falvo, 2013).

On the contrary, vocational rehabilitation professionals view disability as a social construct, and the individual's environment is the limiting factor in optimal performance rather than the individual's disability (Falvo, 2013). In the sociological model of disability, the environment is a barrier for the individual with a disability because it was designed for an individual without a disability. Both physical and sociological environments act as boundaries that reduce the ability of the individual with a disability to fully engage in work activities (Barnes, 2012). Likewise, negative attitudes that are tolerated by the organization serve as limiting factors (Fevre et al., 2013). Comparable attitudes are multi-faceted and could be imposed vertically by organizational leadership,

human resources, and supervisors, or laterally by coworkers within the workplace. Lastly, clients, customers, and vendors could promulgate them.

In general, the societal view of individuals with disabilities as less capable employees hinders the individual's ability to adjust to employment and perform optimally by creating systematic barriers (Barnes & Mercer, 2005). The uninformed view can perpetuate the incivility experiences by having one's work checked more often than others' work and by receiving unmanageable deadlines among other unbalanced acts (Fevre et al., 2013). Such attitude may originate from an archival model of disability named medical model. Medical model of disability views disability as a condition caused by disease, injury, or illness, which brings about impairments that are mainly mitigated by medical care and rehabilitation (Palmer & Harley, 2011). The model discourages inclusion, as it views people with disabilities as a separate group from individuals without disabilities. At the other end of the spectrum is a social model that empowers individuals with disabilities to seek inclusion and to view disability as a condition that does not reside in their body but within society. The World Health Organization (WHO) adopted a perspective that intertwines both medical and social models into a lens that views disability from a biological, individual, and societal perspectives (Palmer & Harley, 2011).

Vocational rehabilitation professionals (a) understand biological, emotional, and psychological factors of disability that create impairments, which limit activities and participation, (b) recognize individual ramifications and impact of disability on an individual, and (c) seek solutions that reduce functional limitations in one's environment (Elliott & Leung, 2005, Chapter 12). The professionals can disseminate factual

information on individuals with disabilities at a workforce by offering practical solutions

and resources to HRD professionals (Emmett, 2008). Importantly, rehabilitation

professionals can educate HRD professionals on workplace accommodations that can

ameliorate other employees' attitudes on disability, dissuade their view on disability as a

deficit, and promote inclusion for all employees (Elliott & Leung, 2005, Chapter 12).

Fevre et al., (2013) intimated that negative treatment of employees with disabilities stem

from social interactions at work. Thus, positive evolvement in attitudes and views on

disability, combined with guidelines for identification and management of workplace

incivility (Estes & Wang, 2008), may contribute to a decrease in incivility toward

individuals with disabilities.

  Chapter II provided a detailed literature review of incivility theory and attachment

theory, and literature surrounding their linkages to employees with disabilities' mental

health. It also situated individuals with disabilities into current employment trends.

CHAPTER III

METHODOLOGY

Chapter III presents the research design, population and sampling, variables and instrumentation, data management, and data analysis.

Research Design

Incivility theory and attachment theory, including related concepts, and sample population shaped the study's framework and design. The sample population did not allow for random sampling, as the population was predetermined. Therefore, the research design was non-experimental, and the individuals are assigned to groups because of their pre-existing characteristics. The primary reason for choosing a non-experimental design was because the independent variable of *having a disability* and the moderator variable of *attachment style* had already occurred, and therefore, could not be controlled. In addition, the independent variable could not be ethically manipulated (e.g., a disability could not be effectuated on a random sample population; Sousa, Driessnack, & Mendes, 2007). Still, such a design can have some benefits over an experimental design.

One advantage of choosing a non-experimental design is that it places subjects in a natural environment while experimental design is a controlled situation that explores a few variables, which can appear and feel artificial to study participants (Foster, Bateman, & Harley, 1997). Secondly, some researchers believe that pre-existence of an unintended condition qualifies as random manipulation that happens *before* the group assignment (e.g., tornado victims, vehicular or workplace accidents, or unexpected, debilitating illnesses), given that the rest of the population characteristics were similar (Raulin &

Graziano, 1995). Thirdly, incivility is a sensitive topic, and a study design that honors participant anonymity is likely to facilitate a more responses than a study design that reveals participant's identity (Alessi & Martin, 2010; Fortson, Scotti, Del Ben, & Chen, 2006; Kays, Gathercoal, & Buhrow, 2012). In addition, ethical concerns, practicality, flexibility, and timeliness may be advantages of non-experimental design, however, cautions should be considered. Choosing a non-experimental design may impose threats to internal validity because limitations in random assignment, controls, and drawing causal conclusions (Lum & Yang, 2005).

Although non-experimental designs have some limitations in drawing causal conclusions, inferences can be highly substantiated by correlation in path analysis. In a broad view, a path analysis begins with a path diagram displaying causal linkages among variables. Subsequently, model-fitting analysis is executed revealing path coefficients, which are standardized regression coefficients. Finally, the weight of the coefficients determines whether the model is or is not statistically significant (Meyers, Gamst, & Guarino, 2013). The following section explains the path model analysis in detail, including supporting statements for selecting structural equation model (SEM), a subset of path analysis, as a research strategy for this study.

A SEM model analysis involves constructing a theory-based path diagram, or a model, that is arranged in a causal order of variables (Holland, 1988). Importantly, the order should not be interpreted as "X is a cause of Y" but rather that "an effect of X is Y", particularly in a non-experimental study. The causal order directs the estimated regression functions, and the *coefficient* of an independent variable explains the causal effect of the independent variable on the dependent variable. The coefficient measures

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the degree to which change to one variable predict a change to another variable and can be either positive or negative.

On the other hand, structural equations model (SEM), also known as simultaneous equation model, is one framework of path model analysis used in applied statistics, including this research. The SEM differs in that allows for more general interpretation than the more restrictive conditional expectation of path analysis through use of an unobservable error term in the analysis. While a research is interested in causes of the effect of X on Y, the error term includes all other unmeasured, yet pertinent, causes of the effect on Y. In other words, an effect of X is likely to be only of two or more causes of Y (Holland, 1988).

In addition, the present study measured mediated and moderated effects. Mediated effects are represented as indirect paths from an independent variable to a dependent variable linked by a mediator variable while moderator effects are measured by interaction by the latent moderator variable. Although other statistical strategies such as multiple regression can be utilized, SEM is a desirable method because it provides a measure of model fit after controlling for measurement error (Holmbeck, 1997). Also, SEM strategies are suitable when the path analysis model includes more than one measured variable for each construct. Furthermore, in comparison to SEM, other strategies such as regression underestimate the effect size of the interaction term (Holmbeck, 1997).

To construe relationships among observed variables in this non-experimental design, a SEM model analysis was conducted. The model included both direct and indirect paths consisting of mediator and moderator effects. The analysis revealed how

sets of variables explained the constructs and the relationships among the constructs (Schumacker & Lomax, 2010).

Population and Sample Size

The final research sample was comprised of $N = 460$ literate individuals with employment experience, fluency in English, and access to computers either via personal means or through the university. In addition, individuals with disabilities had access to accommodations through university department of human resources or through student disability services to complete the survey. The participants had either been accepted into a 4-year university as a student, or they were employed at the university. The admission to the university requires evidence of a secondary school grade point average (GPA), a school record, and a formal demonstration of competencies via admission test scores (e.g., SAT, ATC, TOEFL). In 2018, the admitted students SAT test scores varied from 560 to 640 for reading and writing, and 530 to 620 in math. The ACT composite scores varied between 23 to 27 (U.S. Department of Education, 2018). Therefore, the study would have excluded individuals with disabilities who were unable to hold a job in a competitive market, or who had disabilities that had severe intellectual or cognitive disabilities and inability to meet the outlined criteria.

In addition, the target population met the following criteria: (a) existence of a disability (see Table 1); (b) age 18 years old or older for employment purposes; (c) currently holds or in the past five years has held competitive employment, which is defined as a minimum-wage or above minimum-wage pay for employment, with some exceptions outlined by U.S. Department of Labor; (d) disability is existing or existed during current or past employment; and (e) disability has been documented (e.g., medical,

speech, or mental diagnosis) at one point in life since birth, or the person is regarded as a person with a disability by themselves or others.

Table 1

Manners That a Disability Can Be Detected or Revealed

Detection Modes	Examples
Observation via senses (e.g. visual, auditory)	Ambulatory disability, speech impediment, quadriplegia, deafness, blindness, limb amputations, etc.
Work product or engagement	Learning disability, attention deficit disorder, obsessive-compulsive disorder, etc.
Interaction with Other Employees, Clients, or Customers	Autism, personality disorders, cognitive impairments, mood disorders, stuttering, etc.
Workplace Accommodations	Companion animal, assistive devices, reduction of distractions, memory aids, structural revisions, schedule accommodations, etc.
Medical and/or Psychological Documentation	Evaluation documented by a Licensed Medical Doctor, Psychiatrist or a Psychologist

The university, in which the current study was conducted, is among one of the largest public universities in the United States with an estimated 58,000 students (U.S. Department of Education, 2018). Its disability services are bifurcated into disability services for students and disability services for employees with disabilities. The employees of student disability services guide and support about 2,000 students with disabilities (U.S. Department of Education, 2018). Furthermore, the university provides

employees with disabilities with reasonable job accommodations through human resources, and has an affirmative action statement in effect to protect the rights of employees with disabilities in addition to the laws established by federal and state governments (Americans With Disabilities Act of 1990, 1990; Presswood, 2013). The university's affirmative action plan outlines policies, practices, and procedures including but not limited to recruiting, hiring and accommodating individuals with disabilities. Therefore, the programs and policies established by the university may attract individuals with disabilities to the university as a place of employment, and an appropriate to the population sample can be obtained. The student disability services acted as another possible resource for gaining access to the sample population. The following section discusses the appropriate sample size of that population.

In consideration of the sample size in this the study involving a path model analysis, Schumacker and Lomax (2016) stated "The $\chi2$ model fit criterion is sensitive to sample size because as sample size increases (generally above 200), the $\chi2$ statistic has a tendency to indicate a significant probability level. In contrast, as sample size decreases (generally below 100), the $\chi2$ statistic indicates non-significant probability levels" (p.113). Correctly specified model may be rejected by Chi-square statistics with large sample sizes (Hooper, Coughlan, & Mullen, 2008). The number of participants was more than doubled to allow for a split-sample model validation of structural models, and to ensure a proper number of participants in the event that some surveys must be precluded (e.g., incomplete data). Therefore, the goal sample size was set to around $N = 450$ for qualified study participants.

The population sample filled out a demographics survey independently with or without accommodation, defined as a modification to the environment that allows a qualified participant with a disability to engage in the research (Conyers & Boomer, 2005). The survey reveals salient details regarding the individual including sex, age, race/ethnicity, length of the last employment, disability status, and description of disability (see Appendix E). The research participant was responsible for arranging appropriate accommodations to complete the survey.

Variables and Instrumentation

The research methodologies, or strategies of inquiry, will be comprised of a cross-sectional survey research, which describes population trends in a quantitative fashion. Numerical data is collected and analyzed via statistical methods, and significant relationships between variables are investigated. The survey instruments included a pre-determined set of close-ended questions (Creswell, 2009). The section specifies the research instruments utilized to measure each study variable, and all instruments were scored by using a 7-point Likert scale. The complete version of the questionnaire is included in the Appendices. First, workplace incivility is discussed.

Workplace Incivility Scale

Workplace incivility was measured using a Workplace Incivility Scale (WIS; Cortina et al., 2001). The WIS comprises of seven items (see Table 2) inquiring about employees' experiences with incivility perpetrated by supervisors and coworkers in the previous five years (Cortina et al., 2001). Blau and Andersson (2005) proposed a use of a 7-point Likert scale, which is a modification of the original 4-point scale cited in previous studies on workplace incivility, to measure the frequency of incivility experiences

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(Einarsen, Hoel, & Notelaers, 2009). The modified scale was chosen as an appropriate measure for this research to maintain consistency with other scales, and to allow for more precise options than a 4-point scale (see Appendix B). The scale permitted seven answer options as follows: 1 (*never*), 2 (*hardly ever; about once every few months*)*, 3 (*rarely; about once a month*)*, 4 (*occasionally; at least several times a month*), 5 (*sometimes; at least once a week*), 6 (*frequently; at least once a day*), and 7 (*very frequently; at least several times a day*).

Table 2

Workplace Incivility Scale (WIS)

Item	Item Content
1.	Put you down or were condescending to you?
2.	Paid little attention to your statement or showed little interest in your opinion?
3.	Made demeaning or derogatory remarks about you?
4.	Addressed you in unprofessional terms, either publicly or privately?
5.	Ignored or excluded you from professional camaraderie?
6.	Doubted your judgment on a matter over which you have responsibility?
7.	Made unwanted attempts to draw you into discussion of personal matters?

Note. Survey questions in WIS were framed around the following statement: During the past five years while employed, have you been in a situation where your supervisors or coworkers…(Cortina et al., 2001).

With a standard error of less than .03 ($p < .05$), a confirmatory factor analysis

demonstrated that the seven items represented a single construct. Furthermore, the

internal consistency or reliability of the seven items combined into a WIS scale,

measured by an alpha coefficient, proved to be .89. The value indicated a highly reliable

scale. Finally, convergent validity was measured by correlating WIS with Perception and

Fair Interpersonal Treatment Scale (PFIT), hypothesizing that uncivil treatment would

negatively correlated with fair treatment. A negative Pearson correlation of -.59 indicated

that incivility construct of WIS is valid (Cortina et al., 2001).

Two measures of attachment were implemented in this research. The first measure

is a self-report instrument called Relationship Questionnaire (RQ; Bartholomew &

Horowitz, 1991). The second measure is a Confidence subscale of Feeney et al.'s (1994)

Attachment Style Questionnaire (ASQ). The following is a description of each

instrument.

Relationship Questionnaire

The RQ is measure of four attachment styles called secure, preoccupied, fearful-

avoidant, and dismissive-avoidant, and its prototypic descriptions of attachment styles are

based on Bowlby's conceptualization of attachment patterns (Bartholomew & Horowitz,

1991). The instrument is constructed similarly to its predecessor Hazan and Shaver's

Adult Attachment Style (AAS) questionnaire, which is a measure designed to translate

Bowlby's and Ainsworth's conceptualizations of infant attachment styles to adult

attachment styles (Hazan & Shaver, 1987). Both instruments are an adult attachment style

measure, and three of four attachment style descriptions of RQ correspond with each of

the three attachment categories of AAS (Bartholomew & Horowitz, 1991). Essentially,

Bartholomew and Horowitz follow Hazan and Shaver's lead (Crowell, Fraley, & Shaver,

2008, Chapter 26). Therefore, a brief comparison of the differing aspects of the two instruments salient to the study, and an analysis of the strength of RQ over AAS in this research is provided before moving to a detailed description of the RQ.

The AAS conceptualizes romantic love in adults as an attachment process, and therefore, the questions created by Hazan and Shaver measured attachment explicitly in love relationships and the wording represented a very specific type of adult attachment (Hazan & Shaver, 1987). The RQ's wording is less limiting and reflects attachment styles in significant, adult relationships without focusing specifically on love relationships. In addition, the RQ is a continuous, single-item self-report, measuring various strengths of each attachment style in regards to each participant on a Likert-type scale while the AAS is a single-item, categorical measure (Scharfe & Bartholomew, 1994). Lastly, the AAS measures three attachment styles called secure, avoidant, and anxious/ambivalent (Hazan & Shaver, 1987). On the other hand, the RQ includes a fourth attachment category reflecting each of Bowlby's four attachment styles, one of which was excluded from the AAS (Bartholomew & Horowitz, 1991). The three described elements made RQ a better fit for the study, and the following section provides additional detail on the RQ, starting with descriptions of the attachment styles.

The RQ comprises of four attachment style categories. Of the four prototypic descriptions, the first is labeled *secure*, and it reflects a person who values and loves self, and typically, responds to others in an accepting manner. It corresponds with Hazan and Shaver's (1987) secure attachment. The second prototype labeled *preoccupied* views others in a positive manner but does not extend that view to self. The individual seeks for acceptance from valued others to feel self-acceptance, and it matches with Hazan and

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Shaver (1987) anxious/ambivalent group. The third prototype reflects an individual who

has a negative self-view and beliefs that others are untrustworthy and rejecting.

Therefore, such *fearful-avoidant* individuals avert from close attachments with others. It

likely corresponds partly with Hazan and Shaver's (1987) avoidant attachment style. The

final prototype called *dismissive-avoidant* reflects a positive and loving view of the self,

but negative views of others. The individuals prefer independence rather than close

relationships to avoid hurt and defeat stemming from disappointing relationships

(Bartholomew & Horowitz, 1991). The statements corresponding to each attachment

style are presented in Table 3. The following section discusses reliability of the measure

and stability of the construct by measuring answers to the single items on a continuous

scale.

In general, high reliability is required for high stability, and test-retest correlation

is a function or reliability of the measure and stability of the construct such as attachment

style. Continuous measures allow stability coefficients to be corrected for unreliability,

while categorical measures do not. Thus, categorical measures underestimate stability of

the construct over time. In addition, categorical measures are subject to differential base

rates of each category, which is not a concern with continuous measures. Using multiple

indicators of attachment in structural equation modeling, multi-item continuous

measures, or multiple raters yield to reliability estimates that are separate from the

stability of the construct (Scharfe & Bartholomew, 1994). One such method of using

multiple raters resulted in reliability rating of .85 to .93 for attachment prototypes

(Scharfe & Bartholomew, 1994), while in another study with multiple raters the

reliability ranged from .87 to .95 (Bartholomew & Horowitz, 1991). Both AAS and RQ,

which utilize a single rater, have similar reliability ratings of $r = .50$ (Crowell et al., 2008, Chapter 26). Ideally, the present research would recruit multiple raters, but because of limited funding and time constraints, only self-report is utilized to measure attachment prototypes. To complement the RQ instrument, ASQ is administered as well, which will be discussed later in Chapter III. First, the participant selection of items on RQ is discussed.

The original RQ is a 7-point scale measuring the degree to which each prototype resembles the rater (i.e., the participant), and the scale ranged from 1 (*disagree strongly*) to 7 (*agree strongly*), with a 4 (*neutral/mixed*) option at the center of the scale (Bartholomew & Horowitz, 1991). The original scale was used in the present study. A study participant independently rated each description to the degree that it best demonstrated the way he or she typically felt in relationships, which resulted in continuous measures of attachment styles. In addition, the highest rated item directly translated to a predominant attachment style of secure (i.e., secure) or insecure (i.e., preoccupied, fearful-avoidant or dismissive avoidant) attachment.

Previous studies on infant-mother attachment styles have demonstrated that typically slightly over half of the infants fall in secure attachment style category and the remainder of individuals fall in insecure attachment categories in varying proportions (Hazan & Shaver, 1987). For example, the sample in Bartholomew and Horowitz's study (1991) resulted in 47% secure, 18% dismissive-avoidant, 14% preoccupied, and 21% as fearful-avoidant attachment styles. The proportions for this sample were calculated to compare the pattern to other similar research findings.

Table 3

Relationship Questionnaire's Four Adult Attachment Styles

Item	Item Content
8.	It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I depend on me. I don't worry about being alone or having others not accept me.
9.	I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.
10.	I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I some worry that others don't value me as much as I value them.
11.	I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.

Note. Secure = 8, fearful = 9, preoccupied = 10, and dismissing = 11 (Bartholomew & Horowitz, 1991).

Attachment Style Questionnaire

The second part of the attachment questionnaire utilizes Feeney et al.,'s (1994) Confidence subscale of ASQ to measure secure adult attachment. The full ASQ is comprised of 40 items that correlate with one's attachment style and attitudes of self. The questions fall under five scales of Confidence, Discomfort with Closeness, Need for Approval, Preoccupation with Relationships, and Relationships as Secondary. Only the Closeness scale measures secure attachment style while the four other scales measure various forms of insecure attachment styles. Researchers have found that the instrument

and its scales demonstrate reliability, and construct and criterion validity, and the internal consistency of the individual scales range from Cronbach's alphas of .76 to .84, which is acceptable (Feeney et al., 1994). The instrument is based on a strong theoretical framework and is relatively easy to use. Lastly, Fossati et al. (2003) tested the instrument on clinical (i.e., psychiatric participants) and nonclinical (i.e., independent sample of nonclinical patients) population, and the scales reflected internal consistency even across the samples (Fossati et al., 2003). In the present study, only Confidence subscale measuring secure attachment was used to investigate view of self and view of others (Feeney et al., 1994; Peterson, 2001).

The original instrument was developed as a 6-point Likert scale from 1 (*totally disagree*) to 6 (*totally agree*; Feeney et al., 1994). This author used a modified 7-point Likert scale, a better fit for the research design, with the wording: 1 (*totally disagree*), 2 (*strongly disagree*), 3 (*slightly disagree*), 4 (*neutral*), 5 (*slightly agree*), 6 (*strongly agree*), and 7 (*totally agree*). The eight statements of Confidence subscale, each reflecting a secure attachment style, are outlined in Table 4. Scoring key is presented in the appendices (see Appendix C). The higher the survey participant's score, the more positive view she or he has of self and others (Peterson, 2001). Cronbach's alpha for Confidence subscale is .79. The last instrument utilized in this research called Mental Health scale, a subscale of Pressure Management Indicator (Williams & Cooper, 1998), measures individual's mental health status in relation to work, which is discussed next.

Table 4

Confidence Subscale of Attachment Style Questionnaire (ASQ)

Item	Item Content
12.	Overall, I am a worthwhile person.
13.	I am easier to get to know than most people.
14.	I feel confident that other people will be there for me when I need them.
15.	I find it relatively easy to get close to other people.
16.	I feel confident about relating to others.
17.	I often worry that I do not really fit in with other people. R
18.	If something is bothering me, others are generally aware and concerned.
19.	I am confident that other people will like and respect me.

Note. R = a reverse-scored item. The answer choices ranged from Totally Disagree to Totally Agree in a 7-point Likert scale.

Pressure Management Indicator

Pressure Management Indicator (PMI), a second-generation instrument, was developed to offer companies a reliable, valid, and detailed, yet, concise instrument that fits multicultural environments and that is resilient to changes in diverse work settings (Małkiewicz, Borkowska, Kobos, Gołuch, & Terelak, 2016; Williams & Cooper, 1998; Williams, 2000). The PMI Mental Health subscale proved to be an appropriate instrument to measure sample population's mental health status in relation to work. Researchers created the subscale by using data from another instrument that measures work stress called Occupational Stress Indicator (OSI), a predecessor of PMI (Williams & Cooper,

1998). The OSI data collected from workers attending to outpatient psychiatric care and working population not participating in such care was used to differentiate between normal level of stress and clinical level of stress and to develop the PMI Mental Health subscale. The subscale measures State of Mind (i.e., existing anxiety and depression), Resilience, and Confidence Level (i.e., worry) in an organizational context with implications to one's mental health status related to work-related pressures.

During the development of the PMI, a sample working population ($n = 4,946$) completed the PMI questionnaire and the results reflected alpha coefficients of .82 for State of Mind, .70 for Resilience, and .70 for Confidence Level, indicating reliable scales. Overall, Williams and Cooper (1998) found that PMI demonstrated more reliability than OSI, and it is a briefer, yet more comprehensive, measure than OSI. As an indicator of predictive validity of PMI instrument, the researchers cited examples of studies, such as research on individuals who had left a company and their correlating PMI scores with significant findings (Williams & Cooper, 1998). As a second-generation instrument, PMI is considered valid due to OSI's established validity (Panchal & Cartwright, 2001), including Western and Chinese societies (Siu, 2002). The PMI has demonstrated as a reliable and valid instrument in Finnish research samples (Mauno, Kinnunen, & Pyykkö, 2005).

The Mental Health subscale was scored using a 7-point Likert scale, a modification of the original 6-point Likert scale. The subscale was designed to measure individual's mental health status in relation to work (see Table 5). The scale qualified only the polarized end points of each question with descriptions such as from 1 (*Very*

Untrue) to 7 (*Very True*), and from 1 (*Not Much Energy*) to 7 (*Lots of Energy*; see

Appendix D).

Table 5

Mental Health Subscale of Pressure Management Indicator (PMI)

Item	Item Content
20.	Would you say that you tended to be a rather over conscientious person who worries about mistakes or actions that you may have taken in the past, such as decisions? R
21.	During an ordinary working day, are there times when you feel unsettled and upset though the reasons for this might not always be clearly obvious? R
22.	When the pressure starts to mount at work, can you find a sufficient store or reserve of energy that you can call on when needed to spur you on into action?
23.	Are there times at work when you feel so exasperated that you sit back and think to yourself that "life is really just too much effort"? R
24.	As you do your job, have you noticed yourself questioning your own ability and judgment and a decrease in your overall self-confidence?
25.	If colleagues and friends behave in an aloof way towards you, do you tend to worry about what you may have done to offend them as opposed to just dismissing it? R
26.	If the tasks you have implemented, or the jobs you are doing start to go wrong do you sometimes feel a lack of confidence and panicky, as though events were getting out of control? R
27.	Do you feel confident that you have properly identified and efficiently tackled your work or domestic problems recently?

Item	Item Content
28.	Concerning work and life in general, would you describe yourself as someone who is bothered by their troubles or a "worrier"? R
29.	As time goes by, do you find yourself experiencing fairly long periods in which you feel rather miserable or melancholy for reasons that you simply cannot "put your finger on"? R
30.	Would you say you had a positive frame of mind in which you feel capable of overcoming your present or any future difficulties and problems you might face such as resolving dilemmas or making difficult decisions?
31.	Are there times at work when the things you have got to deal with simply become too much and you feel so overtaxed that you think you are cracking up [a] ? R

Note. R = a reverse-scored item. Pressure Management Indicator [©] Copyright Stephen

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1ET. Using a Likert scale, each participant indicated how he or she felt while working

at the current or the latest place of employment.

[a] Cracking up refers to breaking down under pressure

Procedures

Internet-Mediated Surveys

A survey is composed of three key elements comprising of researchers, study

participants, and survey tools (Fan & Yan, 2010). The present section focuses on survey

tools, and current study utilizes *internet-mediated research* (IMR), or research gathered

via the Internet; specifically, web-based, self-administered surveys. The choice of the

survey tool was influenced by the following findings. First, recent literature revealed that

response rates and socio-demographic make-up of participants using two survey modes,

traditional mail and internet-based surveys, were not statistically different (Fleming &

Bowden, 2007; Kaplowitz Hadlock, & Levine, 2004). Additionally, the psychometric

properties of both types of questionnaires were similar, and internet-mediated data

collection yielded viable and reliable results (Fortson et al., 2006). In addition, web-based

surveys yielded higher response rates than email or postal mail surveys (Hoonakker &

Carayon, 2009). Secondly, Internet users have steadily grown in numbers resulting in

about 1.5 billion people worldwide connecting to the Internet in 2008 (Hoonakker &

Carayon, 2009), and about 88 percent of North Americans connecting to the Internet in

around 2014 (Berzelak, Vehovar, & Manfreda, 2015), which has contributed to IMR as

an appealing data collection mode (Hines, Douglas, & Mahmood, 2010).

In recent decades, IMR has rapidly proliferated (Couper, 2000) with demonstrable

favorable outcomes in social and behavioral research (Hewson, 2014). In fact, IMR (e.g.,

self-administered surveys) has become a mainstream data gathering method, and

literature reflects that a well-designed survey can produce high quality data (Crawford,

McCabe, and Pope, 2005) and generalizability (Hewson, 2014). The most frequently

utilized IMR is a survey, and current literature contains a wide range of guidance on

conducting and designing a proper internet-mediated survey (Hewson, 2014). The next

subsections review benefits, pitfalls, accessibility, content construction, incentives use,

pre-survey content, and other salient considerations regarding web-based, self-

administered surveys.

Benefits of Internet-Mediated Surveys. The benefits of internet-mediated

surveys include shorter delivery time, lower expenses (Alessi & Martin, 2010; Couper,

2000; Fan & Yan, 2010; Hoonakker & Carayon, 2009), technological design features,

and more efficient data collection in comparison to traditional methods such as a paper-and-pencil surveys (Couper & Miller, 2008; Fan & Yan, 2010; Hayslett & Wildemuth, 2004; Hoonakker & Carayon, 2009). Other advantages include less error in data entry, higher flexibility, easier access to a large sample pool, and higher response quality as in the number of questions completed, types of items skipped, and value of answers to open-ended questions (Hoonakker & Carayon, 2009). The research literature has revealed that higher response quality is linked with anonymity when investigating sensitive and personal data, and web-based surveys present such an anonymous mode of research (Alessi & Martin, 2010; Fortson et al., 2006; Kays et al., 2012). As the present study investigates sensitive topics, a web-based survey is appropriate. Lastly, the accessibility of people unaffiliated with major corporations and government entities to a large sample pools has democratized the survey process (Couper, 2000). After overviewing the upside of utilizing IMR methods, the following section discusses its downside.

Pitfalls of Internet-Mediated Surveys. Internet-mediated surveys, including web-based surveys, come with pitfalls relating to participant demographics and characteristics, computer literacy and access, non-coverage, nonresponse, and errors related to IMR. First, the use of self-administered web-based surveys has increased the skill-level needed by the interviewers, as internet-based surveys are more complex to access than traditional surveys. Yet, such methods may be ideal for certain special populations with increased Internet usage, such as college students and professionals (Couper, 2000), individuals living in urban areas, non-Hispanic whites, married individuals, and those who are highly educated (Dutton & Blank, 2011).

On the other hand, specific groups may be underrepresented in IMR surveys (Gigliotti & Dietsch, 2014). The Internet surveys are not ideal for elderly, poor, uneducated (Dutton & Blank, 2011), unemployed, and unhealthy individuals who may not have computer access, literacy, or proper technology (Couper, Kapteyn, Scholau, & Winter, 2007; Foley & Ferri, 2012). The differences in the two described categories of people may contribute to non-coverage error if sample targets general population. In addition, the latter category of individuals may not respond to the survey because of issues previously discussed and contribute to a nonresponse error (Berzelak et al., 2015; Hoonakker & Carayon, 2009). Additional pitfalls include sampling error, measurement error, lack of anonymity, computer security, and nondeliverability (Hoonakker & Carayon, 2009). Although each pitfall bears significance, a salient concept of computer access and survey completion in relation to individuals with disabilities affords a closer investigation. It is covered in the next section.

Computer Access and Survey Completion and People with Disabilities

In addition to the unemployed, poor and uneducated individuals who may have less computer access as a result of lack of resources, having a physical or mental disability may become a barrier for computer usage. Although the current literature has limited information on computer use and people with disabilities, some studies illustrate possible limitations. For instance, individuals with a traumatic brain injury (TBI) provide more reliable information on subject matters that are personal and relevant to them than on those that are contrived or unfamiliar (Kilov, Togher, & Power, 2015). The aforementioned barriers should not have interfered with the study because the population was affiliated with a university that provided computer access, accommodations, and

disability services, if properly requested. As previously discussed, the individuals

affiliated with the university were expected to have a sufficient level of cognitive ability

to complete the study with or without accommodations. After all, the participants had to

meet employment or admissions' requirements.

Individuals with visual disabilities have less access to computers than individuals

without disabilities, but the access rate is higher for both groups if employed in

comparison to those unemployed. Accommodations can be made to enhance computer

access such as larger font size. Individuals with severe visual impairments require

assistive technology, such as software that translates content on visual screen into

auditory output (Chiang, Cole, Gupta, Kaiser, & Starren, 2005). The design features used

in this study to enhance accessibility for individuals with visual disabilities are discussed

under the *survey design and response rate* section.

On the other hand, individuals with mental (e.g., emotional) disabilities may

freely access the survey, yet may be less likely to complete the survey. Mental stability is

linked to enhanced survey completion once logged in (Galesic & Bosnjak, 2006). The

survey introduction included five mental health counseling resources in the rare event of

mental distress in response to the questionnaire. The five resources were comprised of

FIU Counseling and Psychological Services, Jewish Community Services, National

Suicide Prevention Lifeline, Switchboard of Miami (i.e., Miami-Dade County Crisis

Intervention Hotline), and NAMI (i.e., National Alliance on Mental Illness). Phone

numbers, websites, addresses, languages spoken, and times of operation were listed and

confirmed with each source prior to the survey distribution. The outlined factors need to

be taken into consideration in content construction or design to promote response rate, which is discussed below.

Survey Design and Response Rate

Response rate is a sum of various factors, including the identity of the sponsors, subject matter, and length of the survey (Fan & Yan, 2009). Use of the Internet as a medium has altered design and implementation of the surveys (Couper, 2000), which comes with unique set of demands unlike its predecessors. Some of the design features may promote the response rate, while other features may lower the response rate (Fan & Yan, 2010) and obfuscate the data quality, affecting the success rate of the data collection (Couper, 2000; Crawford, McCabe, and Pope, 2005). A well-executed design can result in high quality data collection (Crawford et al., 2005), while poor content design may impose additional barriers for people with disabilities and further contribute to a reduced survey completion rate and data quality. Therefore, a review of key elements in relation to content construction and response rate is salient.

Three key elements are question writing, question ordering, and the visual display of the web questionnaire (Fan & Yan, 2010). The first two elements listed, or survey questions, have received a considerable amount of attention in the extant literature, but visual design has an important relationship with participant's answers as well (Couper, Traugott, & Lamias, 2001). As the question writing and ordering are predetermined by the instruments chosen for this research, the focus shifts to content adaptations that enhance the visual design and minimize nonresponse of individuals with disabilities (e.g., text, audio, images, survey length).

Text and Audio Content. Text needs to be visually clear. Increased font size, use of sans serif type, wider spacing between letters, and appropriate color contrast can promote clarity for individuals with lesser degrees of visual limitations (Richards & Hanson, 2004) and individuals who are dyslexic. The ideal font is 14 points, lower case, emphasized text in bold rather than underline or italics, and void of hyphenation to fill lines (Evett & Brown, 2005). Black on white maximizes contrast for visually impaired, while some individuals with dyslexia prefer black on yellow or dark blue on pale blue (Evett & Brown, 2005), emphasizing the non-homogenous nature of individuals with disabilities. Individuals with more severe visual limitations may benefit from larger text magnification, audio output of the text, or large banner-text displays (Richards & Hanson, 2004), while blind individuals require audio output of the full content. One such screen-reading software is JAWS (Valenza, 2000). Some other recommendations for text clarity are 1.5-2 leading or line spacing between paragraphs, left alignment, 60-70 letters per line, short paragraphs, simple sentences, calling the participant "you", and clear, concise instructions (Evett & Brown, 2005).

Images and Graphic Illustration. Besides choice of text, other visual elements may either streamline or obfuscate the internet survey design. Images or graphics may be used to replace or supplement text or words in survey questions (Toepoel & Couper, 2011) or to stimulate the survey participant. Caution should be exercised when using images, especially photographs. Images are powerfully linked to its context and may systematically affect responses (Couper, Conrad, & Tourangeau, 2007). For that reason, and to preserve readability and accessibility to individuals with visual limitations,

eliminating background graphics and images, and text in motion is appropriate for the present study (Evett & Brown, 2005).

The study utilized Arial, 14-point font with black font on white background to enhance readability and access. Qualtrics[XM] software provided optional tools to create accessible documents. One such tool permitted the development of bifurcated paths that allowed the participant to view documents either in a pictureless Word document that was accessible by screen readers such as JAWS, or in an original PDF document with images. The lack of images did not result in a lack of information, as the only image utilized in the original file was the school logo, and it was typed out in the Word document. Furthermore, Qualtrics[XM] software provided a tool to check survey accessibility for individuals with disabilities, and the check indicated that this survey was accessible.

Survey Length. Survey length can play a key role in the response rate. The length of the response rate has a negative linear correlation with the length of the survey. The length can be measured as the number of questions, pages, and screens, or the completion time, with ideal estimated time of 13 minutes. Once again, as the survey instruments are not created by the author but borrowed from pre-existing sources, the length of the survey for this study is fixed. The design of the survey may not only affect the response rate, but also the data quality.

This section described procedures highlighting use of IMR tools and issues related to it. It covered the benefits and pitfalls of using IMR, access and survey completion, and survey design and response rate. Some of the pitfalls of using IMR can be avoided by using a sample from a university population. Drawing the sample

population from an entity, such as a university is reasonable because individuals have computer access (Hoonakker & Carayon, 2009; Couper et al., 2001). In addition, employers (Acemoglu & Angrist, 2001) as well as universities that receive state or federal funding are required to comply with Americans with Disabilities Act (ADA) and provide reasonable accommodations for individuals with disabilities (Weber, 1994). Computers with standard equipment may be limited with installed software and hardware, but disability centers would generally be equipped to address such accessibility issues.

The survey targeted individuals with current or previous work experience. As earlier discussed, individuals with employment experience are typically more knowledgeable with basic computer use. The accessibility and compliance provisions may influence external validity or generalizability of the study, which will be addressed in the final chapter.

In summary, the survey was designed by adhering to visual and content construction guidelines for individuals with disabilities to the extent that it reasonably encourages survey completion as well as upholds data quality. Elements included a 14-point type in Arial font, which is one san serif typeface and double-spaced content. Emphasized information was in boldface, and the content was typed in black against a white background without graphics, images or moving text. The instructions were constructed with clarity to the extent that it is possible while conveying accurate information. The next section will review the foundations of quality surveys.

Four Pillars of Quality Surveys

"Survey error can be thought as the difference between an estimate that is produced using survey data and true value of the variables in the population that one hopes to describe" (Dillman, Smyth, & Christian, 2014, p. 3). To receive high quality data, the researcher must attempt to minimize coverage, sampling, nonresponse, and measurement errors while conducting research. Each kind of error is summarized (see Table 6).

Table 6

Four Pillars of Quality Surveys

		Pillars
1.	Coverage error	Occurs when pool of potential sample members inaccurately represents the attributes study intends to estimate
2.	Sampling error	Occurs always when only some and not all members of the sample frame are surveyed
3.	Nonresponse error	Occurs when not all sample members respond to the survey and the nonrespondents differ from respondents
4.	Measurement error	Occurs when survey respondents supply inaccurate answers to questions consciously or unconsciously

Note. Dillman et al.'s (2014) four pillars of quality surveys.

Pretesting Procedures

Prior to sampling, the study was reviewed by FIU's Institutional Review Board (IRB; IRB-18-0237), which sets the ethical standards for monitoring research (Edgar & Rothman, 1995) and protecting human subjects (O'Connor, Netting, & Thomas, 2008).

After IRB review, pretesting measures were followed as recommended by Dillman's 4-stage design method (2000). The four stages consist of choosing an expert panel to review the research study, conducting cognitive interviews, conducting a pilot test, and performing a final check (Chaney et al., 2007; see Table 7).

Table 7

Four-Stage Pretesting Procedure

Stages		Action
1.	Review by knowledgeable colleagues	Researcher sends the questionnaire items to a panel of experts for a review who make recommendations.
2.	Interviews to evaluate cognitive and motivational qualities	To identify unclear areas, researcher asks people representative of the sample to read questions out loud.
3.	Pilot test	The pilot study mimics the actual research procedures with a smaller sample population.
4.	Final check	People who were not involved in the other stages of the development conduct a final review of the content.

Note. Dillman's (2000) pretesting procedure.

The expert panel consisted of five scholars each with expertise in at least one of the subject areas concerned in the research including incivility, attachment, people with disabilities, vocational rehabilitation, psychology, and statistics. After each of the four stages adjustments were made to the study questionnaire accordingly. The expert panel reviewed the questionnaire and made recommendations. After the panel agreed that the

questionnaire content adequately represented the research questions, the researcher drafted the final version of the questionnaire.

Five individuals who were representative of the target sample participated in evaluating cognitive and motivational qualities. The pilot test participants preferred email contact and reading the questionnaire in solitude over reading it out loud with the researcher. The request was reasonable considering the needs of the population. The researcher requested the individuals to report any identified areas of concern such as issues of clarity and hindrance to motivation to complete the survey. The pilot participants did not report concerns.

The survey was created with Qualtrics^{XM} online survey software. In addition to the pilot study, the software featured survey tools to review accessibility in relation to individuals with disabilities, and to analyze general survey features. The software program deemed the survey accessible but indicated a concern with the number of questions. All recommendations were considered and adjustments were made when deemed appropriate. In the final stage, four individuals without disabilities who did not participate in any of the previous stages of this research reviewed the questionnaire and made recommendations. One participant reported that the survey was too long. By no means is one of four individuals' opinion without disabilities generalizable. Yet, it may be indicative that the stakeholders (e.g., individuals with disabilities) would find the survey worthy of their time, even if some individuals without disabilities did not. The idea is consistent with exchange theory (Trouteaud, 2004). The next section reviews sampling procedures.

Sampling Procedures

Representatives of disability services reviewed the study and regarded it relevant to the students with disabilities because, presumably, some students with disabilities had competitive work experience. Thus, the researchers anticipated accessing the students and inviting qualified students to participate in the study. Nevertheless, the timing of the study coincided with the start of the semester, and it became apparent that distributing the survey may divert students' focus from academics to research participation at a critical moment. The representatives requested that the study distribution would be postponed to the following winter break. Because of time constraints the researchers chose not to proceed with the provided option. Instead, they relied on faculty and staff, a population which included employees with disabilities. The researchers submitted a public records request to the Office of General Counsel to gain access to email addresses, and sought final guidance from the Office of Research and Economic Development. Subsequently, the study was cleared to be distributed.

Prior to survey distribution, the following protections were activated in the Qualtrics^{XM} software to maximize anonymity: (a) prevent ballot box stuffing (i.e., prevent participants from taking the survey more than once), (b) prevent indexing (i.e., prevent search engines from indexing the participation), (c) secure participants' files (i.e., only users with permission can review responses), and (d) anonymize responses (i.e., no personal information is recorded, and contact association is removed). Dillman et al. (2014) recommended that after the initial survey invitation is emailed, subsequent reminders are sent a week apart, and that if the first two reminders did not produce significant returns, a third reminder is appropriate. On the other hand, if an adequate

sample was not accumulated after three weekly reminders, subsequent reminders should be spaced out with longer intervals so not to aggravate the likely participants.

In mid-September 2018, an initial welcome email was distributed utilizing Qualtrics[XM] software. The email included a short study purpose, an anonymous link to the study, and contact information to this researcher. Initially, a set of three questions were presented to the interested individuals to confirm their qualifications in relation to the study (see Appendix A). A $5.00 e-card to a local coffee shop was offered as an incentive for qualified candidates who fully completed the survey. The division of IT was informed or the survey to avoid the emails being marked as spam, and the subject line and the content of each reminder email was marginally varied to bypass spam filters.

Once an individual entered into the survey questionnaire, Qualtrics[XM] software automatically assigned the questionnaire a random, unique identification (ID) number to provide anonymity, as literature recommends (Dillman, et al., 2014). The survey allowed exiting without data loss, and re-entering to complete it. A forced completion setting was turned on to assure that only qualified participants who completed the entire questionnaire could redeem the e-card incentive. Alternatively, participants could choose to drop off at any point without repercussions. An introductory email supplemented with three weekly reminder emails produced an adequate sample.

Data Analysis

Initially, a Statistical Package for Social Sciences (SPSS; version 25.0 for windows) was employed for data management and preliminary data analyses such as casewide exclusion of surveys with missing values, reverse coding, data cleaning, outlier analyses, correlation analyses, and sequential multiple regression analyses (Bryman &

Cramer, 1999; Pallant, 2013). Subsequently, a Linear Structural Relations (LISREL) software (version 9.30 for windows) was utilized to conduct confirmatory factor analyses (CFA) and structural equation modeling (SEM) to test the model fit (Jŏreskog & Thillo, 1972; Savalei & Bentler, 2010; Ullman & Bentler, 2003, Chapter 23). A two-tailed test of power with a significance level of .05 was used in hypothesis testing (Cohen, 1992; Warner, 2008). The study examined the following hypotheses:

H_1: There is a positive relationship between having a disability and personal workplace incivility encounters.

Correlational and sequential multiple regression analyses were conducted to reveal the strength and direction of relationship between having a disability and experiencing incivility at a workplace (Bryman & Cramer, 1999).

H_2: There is a negative relationship between personal workplace incivility encounters and mental stability under ordinary work pressures.

Correlational and sequential multiple regression analyses were conducted to reveal the strength and direction of relationship between experiencing workplace incivility and mental health status (Bryman & Cramer, 1999).

H_3: Experiencing personal workplace incivility encounters mediates (i.e., intensifies) the negative link between having a disability and mental stability under ordinary work pressures.

A sequential multiple regression analysis was conducted to (a) reveal the strength and direction of relationship among having a disability, experiencing workplace incivility, hypothesized mediator variable (i.e., having a disability multiplied by incivility

encounters), and mental health status (Holmbeck, 1997), and to (b) evaluate the presence of a mediator or an interaction effect (Wu, & Zumbo, 2008).

H_4: Attachment security (i.e., secure-leaning attachment style) moderates (i.e., weakens) the positive link between having a disability and personal workplace incivility encounters.

A sequential multiple regression analysis was conducted to (a) reveal the strength and direction of relationship among having a disability, secure attachment style, hypothesized moderator variable (i.e., having a disability multiplied by attachment security), and experiencing incivility at a workplace (Holmbeck, 1997), and to (b) evaluate the presence of a moderator or an interaction effect (Wu, & Zumbo, 2008).

H_5: There is a positive relationship between attachment security (i.e., secure-leaning attachment style) and mental stability under ordinary work pressures.

Correlational and sequential multiple regression analyses were conducted to reveal the strength and direction of relationship between a secure attachment style and mental health status (Bryman & Cramer, 1999).

H_6: Attachment security (i.e., secure-leaning attachment style) moderates, or weakens, the negative link between personal workplace incivility encounters, and mental stability under work pressures.

A sequential multiple regression analysis was conducted to (a) reveal the strength and direction of relationship among workplace incivility encounters, attachment security, hypothesized moderator variable (i.e., incivility experiences multiplied by attachment security), and mental stability (Holmbeck, 1997), and to (b) evaluate the presence of a moderator or an interaction effect (Lund Research Ltd., 2018).

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H7: There is a negative relationship between having a disability and mental stability under work pressures.

Correlational and sequential multiple regression analyses were conducted to reveal the strength and direction of relationship between having a disability and mental stability (Bryman & Cramer, 1999).

The quantitative research process was managed as a two-tier process. The first tier involved rudimentary data management (i.e., casewide deletion of questionnaires with missing answers to critical questions), correlation analyses, and sequential multiple regression analyses to uncover significant relationships among research concepts, and to evaluate the viability of the hypotheses (Frazier, et al., 2004; Karadimitriou & Marshall, 2017; Keith, 2006). The second tier involved advanced data analyses under the umbrella of Structural Equation Modeling (SEM). One element of SEM is a confirmatory factor analysis (CFA), also known as the measurement model (Schreiber et al., 2006). In CFA, the terms factor, latent variable, and construct are interchangeable, and they refer to a conceptual element or a theoretical entity. CFA investigates the relationship between hypothetical constructs and their indicator variables (Escobar, 2019).

Another element of SEM is a structural model, which measures the relationships of latent variables with its indicators (Escobar, 2019). It is created to reveal an overall model fit. In this study, the fit was evaluated by (a) three *absolute* fit measure consisting of normed chi-square (i.e., $\chi2/df$), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR), (b) *other* fit measures consisting of *p*-value, (c) three *comparative* fit measures consisting of Norm Fit Index (NFI), Comparative Fit Index (CFI), and Incremental Fit Index (IFI; Hooper et al., 2008;

Iacobucci, 2009; Schreiber, Stage, King, Nora, & Barlow, 2006). An absolute fit index indicates which of the proposed models best fits the data and the underlying theory, and it calculates the model fit in comparison to having no model (Hooper et al., 2008). A comparative fit index compare the chi-square to a null model that is based on the worst-case scenario or the assumption that none of the variables correlate (Browne, MacCallum, Kim, Andersen, & Glaser, 2002; Hooper et al., 2008). Without establishing causality, a path analysis investigates a pattern of relationship among variables, imparts quantitative approximations of likely causal connections, and reveals direction of relationships between three or more variables (Bryman & Cramer, 1999). Therefore, it is a reasonable and powerful measure to evaluate the research question.

Chapter 3 specified research processes including the purpose of the study, research questions and hypotheses, research design, population and sample sizes, instruments, procedures, surveys, pretesting procedures, sampling procedures, and data analysis. Chapter 4 analyzes precise research findings and is followed by Chapter 5 that discusses the significance, impact, and implications of the findings for current and future theory, research, and practice in the field of human resource development.

CHAPTER IV

RESULTS

"It is a sign of maturing discipline when, after direct relations have been demonstrated, we have turned to explanation and theory testing regarding those relations" (Frazier, Tix, & Barron, 2004, p. 116).

Chapter IV details research results using data analyses of correlation, sequential multiple regression, confirmatory factor analysis (CFA), and structural equation modeling (SEM). Initially, the data was screened for abnormal incidences, and tested for a set of assumptions to identify observed items that may inappropriately skew the results. The remaining data was analyzed to reveal participant demographics. Finally, sequential hierarchical regression, CFA, and SEM methods were utilized to evaluate seven hypotheses and two hypothesized models. The data screening section is comprised of the following: (a) missing data, (b) survey completion cutoff value, (c) reverse coding, (d) Cronbach's alpha as a measure of reliability, (e) abnormal indices and assumptions, (f) independence of observations, (g) linearity, (h) multicollinearity, (i) outliers, leverage, influential cases, (j) homoscedasticity, and (k) normality.

Data Screening

Missing Data

Proper data screening can increase rigor and confidence in the research results, and IBM SPSS Statistics version 25.0 (SPSS) was utilized for data screening and regression analyses. Initially, missing data was addressed by listwise deletion or exclusion of participants who did not answer every applicable question (DeSimone, Harms, & DeSimone, 2015), an advisable technique prior to data screening and analysis.

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The survey was designed to elicit a response to each question to eliminate the possibility that a participant overlooked a question. Therefore, missing values fell into two categories. A participant chose not to finish the survey, or a participant entered a response that did not address the respective open-ended question (i.e., participant typed a key stroke or a string of nonsensical characters in an answer box because entering any data would bypass the question). Only five sets of responses of 476 participants were eliminated on the basis of missing values. Thus, 471 surveys were included in the subsequent data screening process.

Cutoff Value for Survey Completion

To establish a cutoff value for a reasonable survey completion time, three time measures were scrutinized: pilot survey completion time, Qualtrics' computerized prediction for completion time, and weighing the mean (*M*), median (*Mdn*), and mode (*Mo*) of the active surveys completed. The survey had no maximum completion time; the participants were permitted to exit and enter the survey without losing previously inputted data, and thus, the completion time ranged from 1 minute and 17 seconds to around two weeks. Therefore, the mean score at *M* = 2.86 hours was more likely than not misleading. The data was multimodal, and the largest group included only 4 of 471 participants. Subsequently, median (*Mdn*) at around 9 minutes was chosen to represent the most reasonable approximation of an average completion time (see Table 8). The score was reasonably close to the mean score for the pilot at about eleven minutes.

Using 9.0 minutes as a completion time standard, cutoff values were calculated at ±1, ±2, and ±3 standard deviations (*SD*; see Table 8). A completion time of about 4.5 minutes represented -1 *SD* below the median, 2.0 minutes represented -2 *SD*s below the

median, and 1.3 minutes represented -3 *SD*s below the median. It is reasonable to conclude that participants who completed a 40-question survey in about 2 minutes or less failed to put their best effort to review instructions, read questions, and choose appropriate answers at this time. Therefore, surveys completed at -2 *SD*s below the median were eliminated from the data, which excluded 11 surveys ($N = 460$).

Table 8

Survey Completion Time and Standard Deviations (SD)

Measure	Seconds
M	10,302
Mdn	545
Mo	422
Minimum	77
Maximum	1,321,782
-3 *SD*	77
-2 *SD*	122
-1 *SD*	270
+1 *SD*	1,257
+2 *SD*	14,150
+3 *SD*	1,321,782

Note. *M* = sample mean; *Mdn* = sample median; *Mo* = sample mode. Multiple modes exist, and the smallest one is shown. It represented four of 471 cases. No survey completion time limits were imposed, which allowed participants to save the survey and continue it at a later time.

Reverse Coding

Reverse coding, or reverse scoring, directionally opposite variables in a Likert scale (i.e., positively and negatively-worded statements and questions) permits a comparison among participants' answer choices and calculation of Cronbach's alpha to evaluate scale reliability. It is not unusual to find both positively and negatively-worded items on a quantitative instrument to reduce *response style bias*, or the participants' tendency to overlook the item content (Suárez-Alvarez, Pedrosa, Lozano Fernández, García-Cueto, Cuesta, & Muñiz, 2018). The research is inconclusive on whether or not a survey benefits from including both types of items on a Likert measure because reversing the content can alter the perceived meaning. In this research, some of the instruments contained both negatively and positively worded items. Therefore, this researcher reviewed reverse-coded items for content with an obvious probability for misinterpretation. The review did not uncover items that would be readily misunderstood. Additionally, this researcher relied on statistical techniques, such as confirmatory factor analysis, to reveal items that most appropriately reflected the research construct.

Cronbach's Alpha

Once all variables were appropriately coded, Cronbach's alpha (α) was calculated to evaluate internal consistency, or reliability, of the four survey measures (i.e., an incivility encounters measure, two attachment security measures, and a mental stability measure; Menezes & Xavier, 2018). Internal consistency is a correlation measure that reveals how closely items included in one measure relate to one another, and Cronbach's alpha ranges from 0 to 1. The values approaching 0 indicate low internal correlation and values approaching 1 reflect high internal correlation (Tavakol, 2011). Although a range

from .70 to .95 is generally deemed acceptable, values above .90 may reflect redundant indicator variables (Tavakol, 2011). Therefore, an alpha value of .90 is preferable to .95. In contrast, items with lower than .70 correlation may be poorly interrelated.

The original data reflected Cronbach's alpha of .93 for incivility encounters measure (i.e., a measure based on WIS), an α of .54 for attachment security 1 measure (i.e., a measure based on RQ), an α of .86 for attachment security 2 measure (i.e., a measure based on ASQ), and an α of .87 for mental stability measure (i.e., a measure based on PMI Mental Health scale; see Table 9). Although, the reliability of attachment security 1 (i.e., the measure based on RQ) was consistent with previous findings when using a single rater (i.e., $r = .50$) with a single rater, the measure was eliminated from further statistical analysis because of a low Cronbach's alpha (.54). No other measures or variables were eliminated at this point of the data screening process.

Table 9

Item Analyses

Measure	Factor (F)	M	α	α if V deleted
Incivility Encounters measure	F1= Inc	2.35	.93	
While employed, have you ever been in a situation where any of your supervisors or coworkers…				
Put you down or were condescending to you?	V1=Inc1	2.53		.91
Paid little attention to your statement or showed little interest in your opinion?	V2=Inc2	2.74		.91
Made demeaning or derogatory remarks about you?	V3=Inc3	2.02		.91

Measure	Factor (F)	*M*	α	α if V deleted
Addressed you in unprofessional terms, either publicly or privately?	V4=Inc4	2.13		.92
Ignored or excluded you from professional camaraderie?	V5=Inc5	2.38		.92
Doubted your judgment on a matter over which you have responsibility?	V6=Inc6	2.55		.91
Made unwanted attempts to draw you into discussion of personal matters?	V7=Inc7	2.12		.92
Attachment Security 1 measure	F2= At	4.36	.54	

Choose the degree to which the each statement describes your overall attitudes toward relationships.

Measure	Factor (F)	*M*	α	α if V deleted
It is easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I don't worry about being alone or having others not accept me.	V8=At8	4.63		.47
I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.	V9=At9R	4.52		.16
I want to be completely emotionally intimate with others, but often find that others are reluctant to get as close as I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.	V10=At10R	4.52		.48

Measure	Factor (F)	*M*	α	α if V deleted
I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others and have others depend on me.	V11=At11R	3.77		.63
Attachment Security 2 measure	F3=At	4.82	.86	
Indicate the degree to which you agree or disagree with each statement.				
Overall, I am a worthwhile person.	V12=At12	5.92		.85
I am easier to get to know than most people.	V13=At13	4.86		.84
I feel confident that people will be there for me when I need them.	V14=At14	4.70		.83
I find it relatively easy to get close to other people.	V15=At15	4.62		.83
I feel confident about relating to others.	V16=At16	5.07		.82
I often worry that I do not really fit in with other people.	V17=At17R	4.13		.87
If something is bothering me, others are generally aware and concerned.	V18=At18	4.22		.86
I am confident that other people will like and respect me.	V19=At19	5.07		.82
Mental Stability measure	F4=Me	4.18	.87	
Think about your current or last employment. Choose the best match from a scale with two opposite choices.				

Measure	Factor (F)	M	α	α if V deleted
Would you say that you tended to be a rather over conscientious who worries about mistakes or actions that you may have taken in the past, such as decisions?	V20=Me20R	3.01		.87
During an ordinary working day, are there times when you feel unsettled and upset though the reasons for this might not always be clearly obvious?	V21=Me21R	3.95		.85
When the pressure starts to mount at work, can you find a sufficient store or reserve of energy that you can call on when needed to spur you on into action?	V22=Me22	4.94		.87
Are there times at work when you feel so exasperated that you sit back and think to yourself that "life is really just too much effort"?	V23=Me23R	4.51		.86
As you do your job, have you noticed yourself questioning your own ability and judgment and a decrease in your overall self-confidence?	V24=Me24	4.39		.87
If colleagues and friends behave in an aloof way towards you, do you tend to worry about what you may have done to offend them as opposed to just dismissing it?	V25=Me25R	3.44		.86
If the tasks you have implemented, or the jobs you are doing start to go wrong do you sometimes feel a lack of confidence and panicky, as though events were getting out of control?	V26=Me26R	3.69		.86

Measure	Factor (F)	*M*	α	α if V deleted
Do you feel confident that you have properly identified and efficiently tackled your work or domestic problems recently?	V27=Me27	5.02		.87
Concerning work and life in general, would you describe yourself as someone who is bothered by their troubles or a "worrier"?	V28=Me28R	3.40		.86
As time goes by, do you find yourself experiencing fairly long periods in which you feel rather miserable or melancholy for reasons that you simply cannot "put your finger on"?	V29=Me29R	4.29		.85
Would you say you had a positive frame of mind in which you feel capable of overcoming your present or any future difficulties and problems you might face such as resolving dilemmas or making difficult decisions?	V30=Me30	5.18		.87
Are there times at work when the things you have got to deal with simply become too much and you feel so overtaxed that you think you are cracking up?	V31=Me31R	4.37		.85

Note. F = Factor; V = Item; *M* = Mean; α = Cronbach's Alpha.; F1 = Incivility Encounters; F2 = Attachment Security 1; F3 = Attachment Security 2; F4 = Mental Stability.

Abnormal Incidences and Assumptions

Before running sequential hierarchical regression analyses on the proposed models, the data was analyzed against a set of assumptions and abnormal incidences that may skew the final results if not properly addressed (Meyers, Gamst, & Guarino, 2013; Warner, 2008). The following screening methods were applied to assess overall data fitness:

1. Independence of observations were analyzed.

2. Normal distribution patterns were investigated via histograms.

3. Bivariate normal shape and extreme outliers were evaluated via scatterplots.

4. Influential cases were examined through leverage and Cook's Distance value.

5. Leverage value was utilized to identify unusual values in moderator analysis involving categorical and continuous variables.

6. Shapiro-Wilk Normality Test was utilized to uncover values that violated normality assumption.

7. Homoscedasticity was evaluated by visual examination of scatterplots.

8. Linear versus curvilinear relation of variables was assessed by curvilinear regression estimation.

9. Multicollinearity was measured by a tolerance level.

The screening process is detailed below.

Independence of Observations. The survey responses were anonymized by (a) not recording personal information, (b) removing contact association, and (c) using an anonymous survey link, and therefore, cautionary survey protections were placed to secure independence of observations to the best extent available. In this study,

independence of observations implied that (a) each participant was counted once, (b) one participant's response was not dependent on another participant's response, and (c) social influence did not alter participants' answers from their original answers (Warner, 2008). Studies that use incentives, such as a gift card for survey completion, are vulnerable to violation of the first assumption because some participants may desire to receive multiple gift cards (The University of Texas at Austin, 2015). Preventive measures are discussed next.

The survey was set up to prevent *ballot box stuffing*, a computer algorithm embedded through Qualtrics software, which blocks participants from taking the study more than once. Even with the caveat that a person with a sophisticated understanding of computer and Internet functions may conceivably succeed in circumventing the ballot box stuffing feature, it is more likely than not that the participants completed a single survey. As an additional safeguard, this researcher searched the survey data for duplicates, and the data reflected one instance of a succession of multiple data sets. Duplicates were excised.

Independence of observations was evaluated by Durbin-Watson coefficient using studentized residual. A Durbin-Watson value that falls between $1.5 < x < 2.5$ is indicative of independence of observations (Karadimitriou & Marshall, 2017; Garson, 2012). Durbin-Watson coefficient for the research sample equaled to 1.94, and therefore, the observations are considered independent. The following section reviews normal distribution.

Normal Distribution. Normal distribution patterns were examined via histograms. Three histograms depicting distribution of attachment security values,

incivility encounters values, and mental stability values reflected varying distribution patterns. The visual examination of attachment security display a slightly negatively skewed distribution (see Figure 4); incivility encounters reflect distinctively positively skewed distribution (see Figure 5); and mental stability reflected a normal distribution (see Figure 6). The attachment security distribution comports with research that places majority of people under the umbrella of *securely attached.* Literature indicates that most employees experience some level of incivility during their careers. However, it is also fair to expect that these employees experience less than the middle range of incivility (i.e., 3), as measured by this incivility scale. The next section reviews outliers, and influential values that create leverage.

Outliers and Leverage

Outliers are extreme observations that have the potential to influence research outcomes, and they are typically defined as 3 *SD*s above or below the norm (Garson, 2012). The screening methods used to uncover outliers consisted of studentized deleted residuals, boxplot, Tukey's hinges, standardized scores, and z-scores.

Studentized Deleted Residuals. First, studentized deleted residuals (SDRs) were examined for observed values that fell 3*SD* above or below the norm (Cohen et al., 2003; Meyers, Gamst, & Guarino, 2013). SDRs reflected that five sets of observations (i.e., sets of answer choices) were located 3*SD* above the norm. These five sets were assessed for outlier classification purposes and for a possible removal from the data set. After a detailed assessment, the data revealed that although the five observations were located at a great distance from the mean, the sets were located near other similar values. Additionally, a scatterplot reflected a steady, linear succession of observations. Although

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no observed sets were eliminated based on SDRs, they were flagged as exceptionalities, pending for a removal until the completion of the data screening process. The next step in screening included outlier analyses using boxplot, Tukey's Hinges and standardized scores.

Figure 4

Attachment Security Histogram
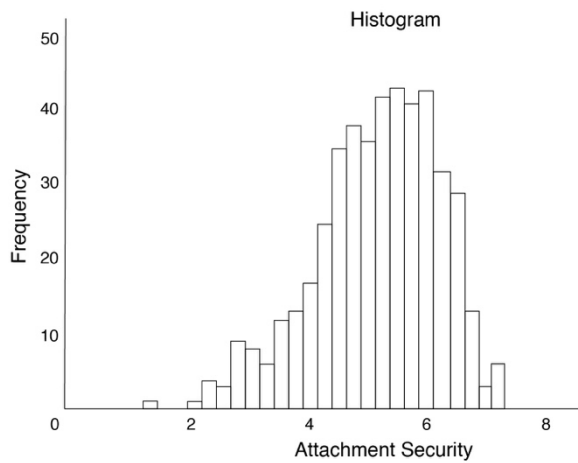
Note. A distribution pattern depicting attachment security. Each increase on a 7-point scale represents an increase in attachment security.

Figure 5

Incivility Encounters Histogram
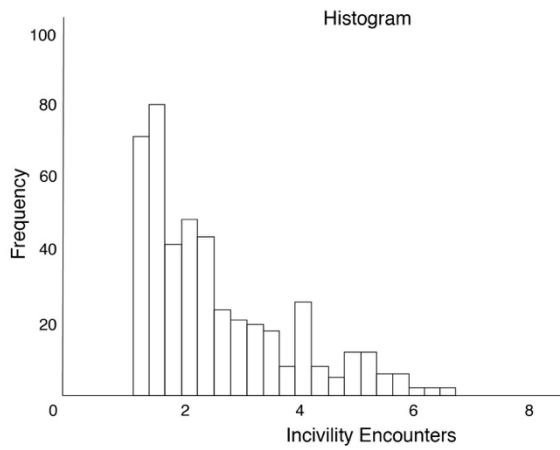
Note. A distribution pattern depicting incivility encounters. Each increase

on a 7-point scale represents an increase in incivility encounters.

Figure 6

Mental Stability Histogram
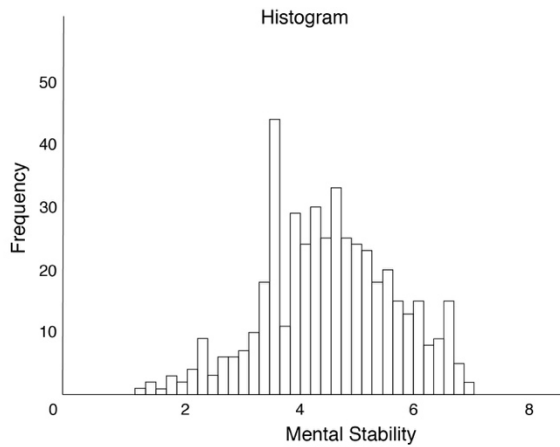
Note. A distribution pattern depicting mental stability. Each increase on a 7-

point scale represents an increase in mental stability under work pressures.

Boxplot, Tukey's Hinges, and Standardized Scores. Boxplots for attachment

security, incivility encounters, and mental stability variables were built in SPSS to

visually inspect existence of outliers from a perspective other than the scatterplots (Parke,

2013). SPSS calculates boxplots using interquartile ranges (IQR) and percentiles. It

marks values that are $1.5 > x > 3.0$ box lengths from upper and lower hinges of the box

with a circle and values that are equal to or above 3.0 the box lengths with an asterisk.

Boxplots revealed the following outliers: two attachment security values were marked as

outliers at a lower level of the boxplot but below 3.0 box lengths (see Figure 7); one

mental stability value was identified as an outlier at a lower level of the boxplot but it

was positioned below 3.0 box lengths (see Figure 9); and, five incivility encounters

values were marked as outliers at the upper end of the boxplot but none of them extended

to 3.0 box lengths (see Figure 8). Next section reviews Tukey's Hinges.

Figure 7

Attachment Security Boxplot
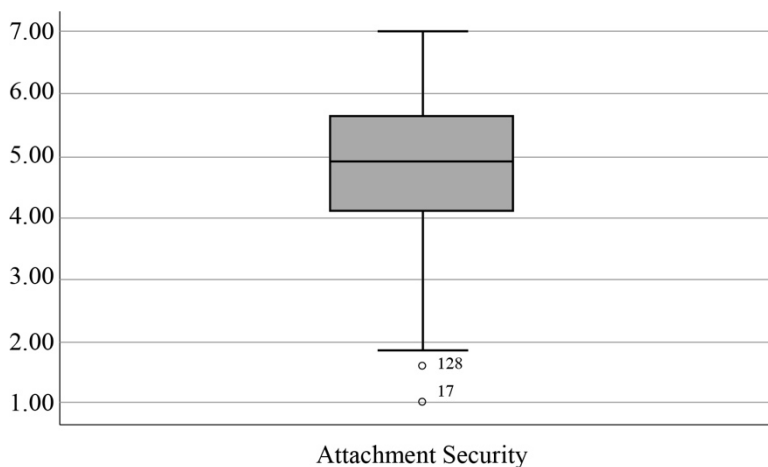
Note. Figure reflects two outliers: 128 and 17.

Figure 8

Incivility Encounters Boxplot
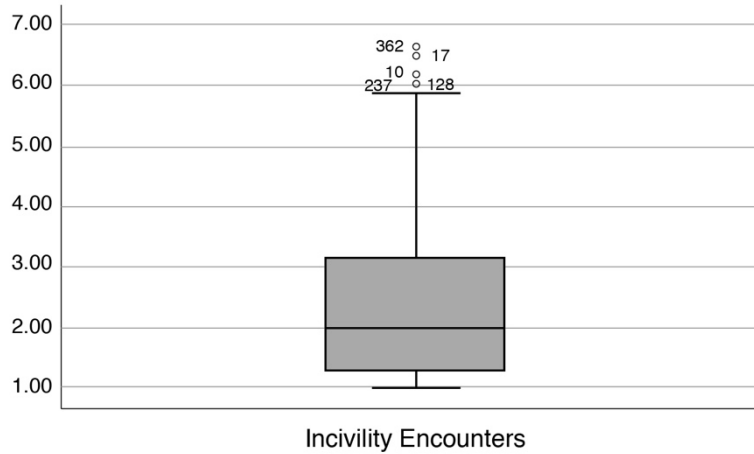
Note. Figure reflects five outliers: 362, 17, 10, 128, and 237.

Figure 9

Mental Stability Boxplot
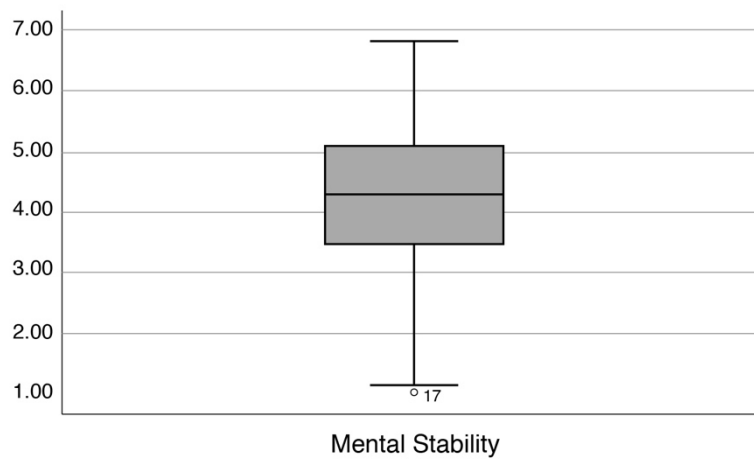
Note. Figure reflects one outlier: 17.

Tukey's Hinges defines values and a range that are used to calculating numerical criteria for extreme outliers (Horbe, 2018). The following logical expressions were inputted into SPSS to identify upper and lower boundaries for outliers. All values at or above the upper boundary, and at or below the lower boundary were considered as possible outliers.

If *IQR = <75ᵗʰ percentile> - <25ᵗʰ percentile>*, then upper boundary is

<variable> ≥ *<75ᵗʰ percentile> + (1.5* IQR)*,

and lower boundary is

<variable> ≤ *<25ᵗʰ percentile> - (1.5* IQR)*.

SPSS identified three attachment security values as outliers below the lower boundary for outliers, identifying values reflecting the lowest levels of attachment security within the sample. Five incivility encounters values were positioned at and above the upper boundary for outliers, reflecting the highest levels of incivility encounters. Two of the above cases appeared in both outlier groups. On the other hand, SPSS did not reveal any outliers within mental stability variables (see Figure 10). Standardized scores were calculated for an additional screening step to reveal extreme outliers.

Figure 10

Venn Diagram of Extreme Outliers
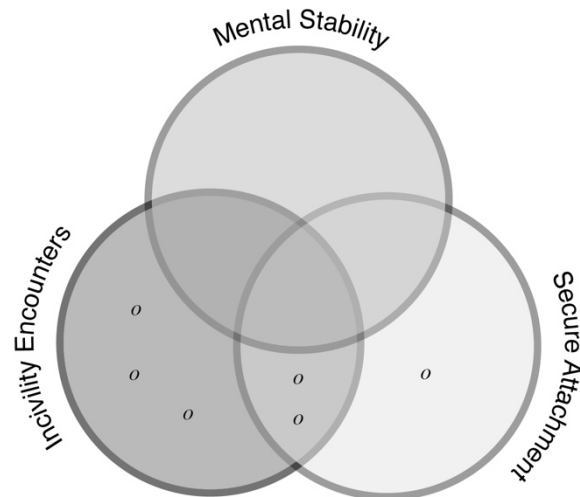
Note. An illustration of the number of outliers for each variable and the shared

outliers. Tukey's Hinges determined cutoffs, which identified extreme outliers (*o*).

Z-Scores, which are standardized scores, were calculated to identify any values

with *z*-score of above or below 4 (Parke, 2013). Two incivility encounters values scored

above 4 (i.e., 4.22 and 4.07). No other values were identified as outliers. Evaluation of all

outlier values reflected that only a single value appeared as an outlier in (a) SDR analysis,

(b) numerical calculation of outliers, and (c) examination of *z*-scores. Nevertheless, this

value did not appear as an outlier for *all* three variables of attachment security, incivility

encounters, and mental stability. Therefore, no additional data sets were eliminated based

on boxplots, Tukey's Hinges, and *z*-scores. Once again, the outlier values were flagged

for exceptionalities. The last screening process was called leverage, which analyzed

individual data sets, and uncovered possible influential values.

An observation that influences the regression line by pulling the line toward itself has leverage (Karadimitriou & Marshall, 2017). Cook's Distance measure (Cook's *D*) identifies the points in a parameter estimation (i.e., observed values) that possibly impact a regression line and that unduly influence the research results (Duivesteijn, Feelders, & Knobbe, 2012; Jauk, Benedek, Dunst, & Neubauer; 2013, Sánchez, 2006). Research data points were evaluated for outliers in a scatterplot using Cook's *D* and Leverage value, and Cook's *D* values threshold of 1.0 (Garson, 2012; Lund Research Ltd., 2018), and it was concluded that despite some distant points, the regression line was not unduly influenced in Model A (see Figure 11) or Model B (see Figure 12).

Figure 11

Leverage Values for Model A
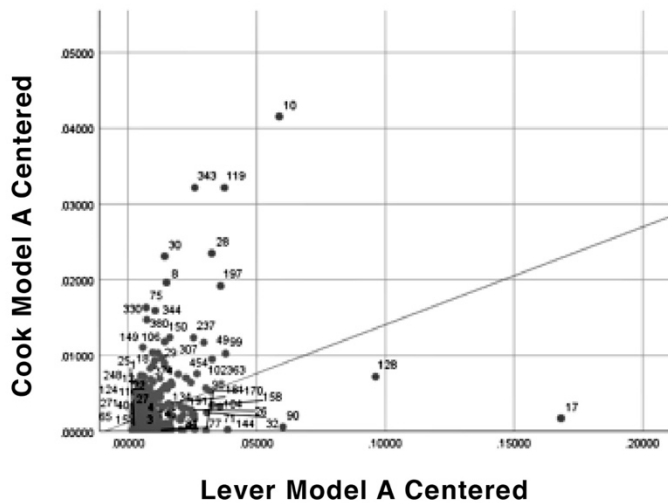
Note. Scatterplot with a fit line illustrates leverage values measured by Cook's *D*.

Figure 12

Leverage Values for Model B
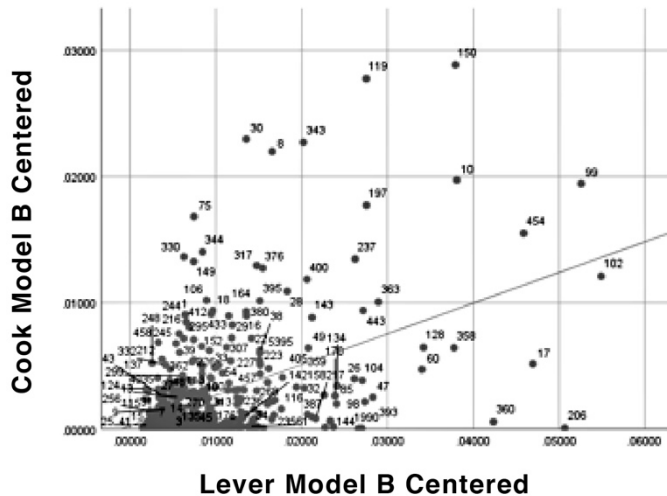
Note. Scatterplot with a fit line illustrates leverage values measured by Cook's *D*.

Each flagged survey was evaluated for a final determination but no additional surveys were removed from the study. The data points that were flagged for exceptionalities, including the two data points with z-scores above 4, did not appear as an exceptionality in all three continuous research factors. In addition, a visual inspection of scatterplots did not reveal distinctly isolated values when reviewed from various perspectives, which is appropriate when analyzing multifaceted models. Thus, all collected surveys were deemed admissible, with the exception of the surveys completed in less than 122 seconds (e.g., less than 2 SDs below the mean) and the surveys with missing values, as previously discussed. An additional leverage screening was conducted specifically to evaluate a dichotomous or categorical moderator variable, which is discussed next.

Leverage was assessed to identify unusual observations in relation to an interaction variable that is a product of one dichotomous of and one continuous variable (e.g., Disability Status x Attachment Security in Model B; Cohen et al., 2003; Kutner et. al., 2005). A leverage value for the moderator analysis was calculated as a product of parameters (p) in the regression model, and a leverage value that is three times above the mean leverage value (Lund Research Ltd., 2018). The parameters were as follows: (a) a dichotomous variable of Disability Status ($p = 2$); (b) a continuous variable of attachment security ($p = 1$); and (c) an interaction variable ($p = 1$). Typically, a thresholds of $3p/n$ is used with small sample sizes and $2p/n$ with large ones. This equals to,

(3 x 4)/460 = .026.

Thirteen of the 460 remaining surveys, or 2.8% of the sample, had a leverage value higher than the specified tolerance level .026. They were flagged as having unusual values. However, none of them were previously identified as outliers, so therefore none were removed.

Shapiro-Wilk's Normality Test. Shapiro-Wilk's normality test uncovers values that violate assumption of normality by assessing studentized residuals (Lund Research Ltd., 2018). The null hypothesis of the test assumes a normal distribution, and therefore, values reflecting $p < .05$ are significant and violate the assumption of normality. The studentized residuals reflected normal distribution for each model with $p > .05$ as assessed by Shapiro-Wilks's test of normality (see Table 10).

Table 10

Shapiro-Wilk's Test of Normality

	W	*df*	*p*
Model A	.995	460	.192
Model B	.995	460	.155

Note. The studentized residuals reflected normal distribution for both models with *p* > .05.

Homoscedasticity. A grouped scatterplot was created to investigate assumptions of homoscedasticity, specifically *between* and *within* group error variances (Haur, Khatibi, & Azam, 2017). Equality of error variances is a particularly important measure when choosing interaction (i.e., moderator) variable that includes a dichotomous variable (Lund Research Ltd., 2018). Homoscedasticity was evaluated by a visual inspection of three scatterplots, which plotted studentized residuals against predicted values in relation to (a) attachment security and mental stability, (b) attachment security and incivility encounters, and (c) incivility encounters and mental stability. As scatterplots did not depict a clear linear relationship (see Figure 13; Figure 14; Figure 15), a curvilinear regression analysis was conducted to analyze and plot linear and quadratic functions.

Curvilinear Regression Analysis. A curvilinear or quadratic analysis was conducted between the three relationships depicted above to investigate any significant quadratic functions. The analysis revealed significant linear and quadratic functions between (a) attachment security and mental stability, and (b) attachment security and incivility encounters. The analyses are explored below.

Figure 13

Homoscedasticity: Attachment Security and Mental Stability
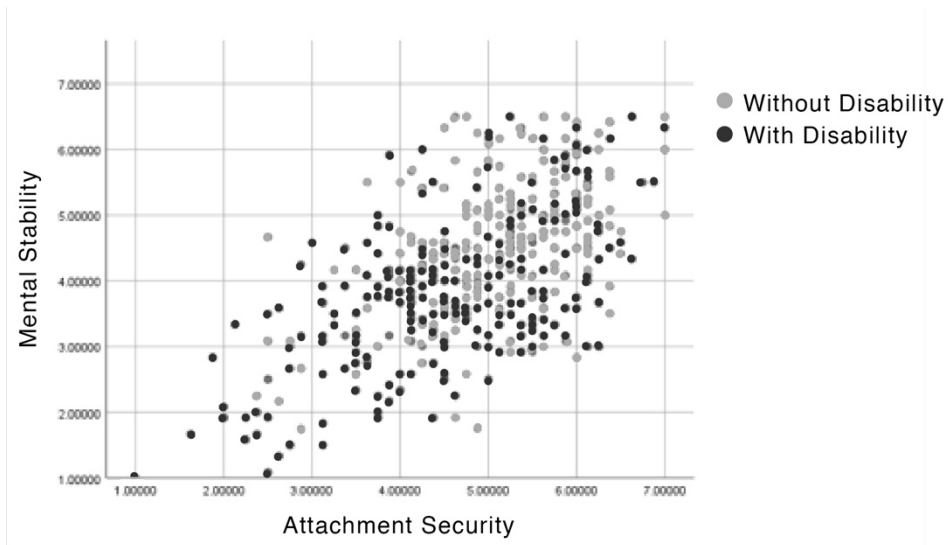
Figure 14

Homoscedasticity: Attachment Security and Incivility Encounters
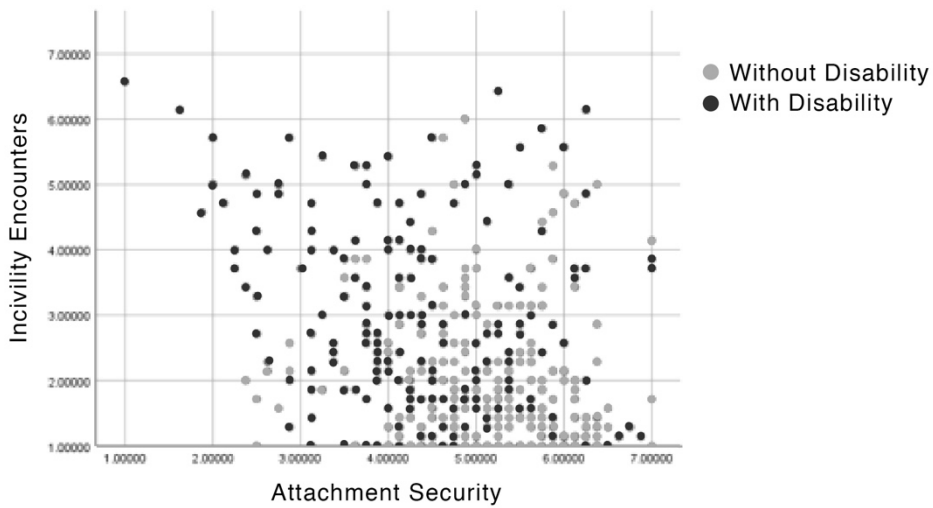
Figure 15

Homoscedasticity: Incivility Encounters and Mental Stability
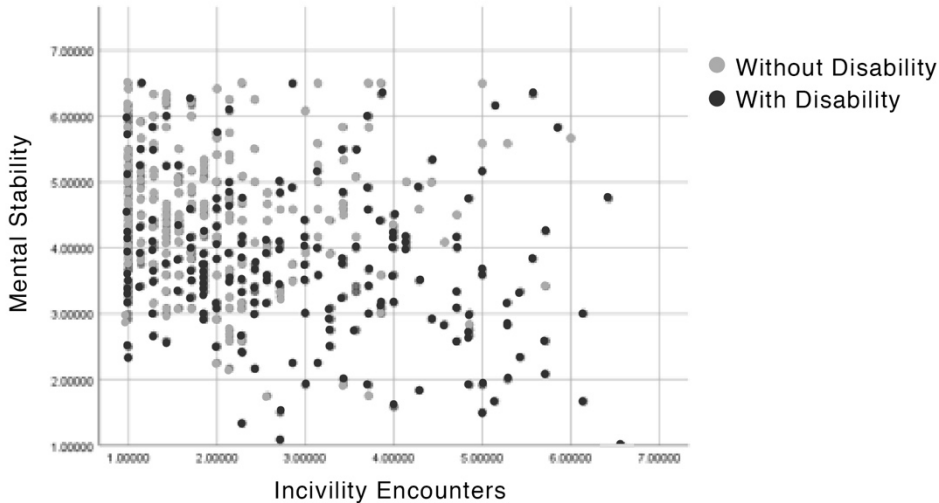
Curvilinear Analysis of Attachment Security and Mental Stability. Two of the

variables involved in Model A moderator analysis created a linear graph that explained

34% of the variance between attachment security and mental stability and that reflected a

significant positive relationship ($\beta = .59$, $p < .001$). On the other hand, adding a quadratic

relationship explained an additional 1% of the variance. While a vertical curvilinear line

was significant ($B = -.06$, $p = .030$), the linear relationship reflected a higher level of

significance ($\beta = 1.11$, $p < .001$) of the two relationships (see Table 11; Figure 16).

Although, it appears that linear line best describes the relationship, the curvilinear

relationship is explored in more detail during moderator analysis.

Curvilinear analysis of attachment security and incivility encounters. Two of the

variables involved in Model B moderator analysis created a linear graph that explained

10% of the variance between attachment security and incivility encounters, and that

depicted a significant negative relationship (β = -.32, p < .001). A quadratic relationship explained an additional 4% of the variance, and a vertical curvilinear line proved significant (B = .16, p < .001). As both linear and quadratic relationship were significant at p < .001, quadratic relationship is explored in subsequent data analyses. Additionally, as the curvilinear line took a visible upward turn at both ends, the points may signal viable details about the nature of the relationship, such as a step function (see Table 11; Figure 17). This will be explored in detail during moderator analysis.

Curvilinear Analysis of Incivility Encounters and Mental Stability. No significant quadratic function was revealed between incivility encounters and mental stability (p > .05). However, the negative linear function was significant (β = -.30, p < .001) and explained 9% of the variance. The relationship is considered exclusively linear (see Table 11; Figure 18). The curvilinear relationship will be considered in moderator analyses for Model A and Model B, which are later discussed under *Data Analyses*. To conclude data screening process, two additional concepts are considered: (a) collinearity and multicollinearity; and (b) independence of observations. Lastly, data-related decisions are summarized.

Table 11

Analysis of Linear and Quadratic Relationships

Analysis	*B*	*SE B*	β	*R²*	Δ*R²*	*p*
Attachment Security and Mental Stability						
Linear				.34		
AS	.64	.04	.59			< .001
Quadratic				.35	.01	
AS	1.20	.26	1.11			< .001
AS x AS	-.06	.03	-.53			.030
Attachment Security and Incivility Encounters						
Linear			.10			
AS	-.39	.05	-.32			< .001
Quadratic			.14	.04		
AS	-.1.87	.34	-1.54			< .001
AS x AS	.16	.76	1.23			< .001
Incivility Encounters and Mental Stability						
Linear				.09		
IE	-.26	.04	-.30			< .001
Quadratic				.09	< .01	
IE	-.45	.18	-.50			.011
IE x IE	.03	.23	.21			> .050

Note. *B* = unstandardized beta; *SE B* = standard error for the unstandardized beta; β = standardized beta; *R²* = coefficient of multiple determination; Δ*R²* = change in coefficient value from linear analysis to curvilinear analysis; *p* = probability value; AS = Attachment Security; IE = Incivility Encounters.

Figure 16

Linear and Quadratic Relationship: Attachment and Mental Stability
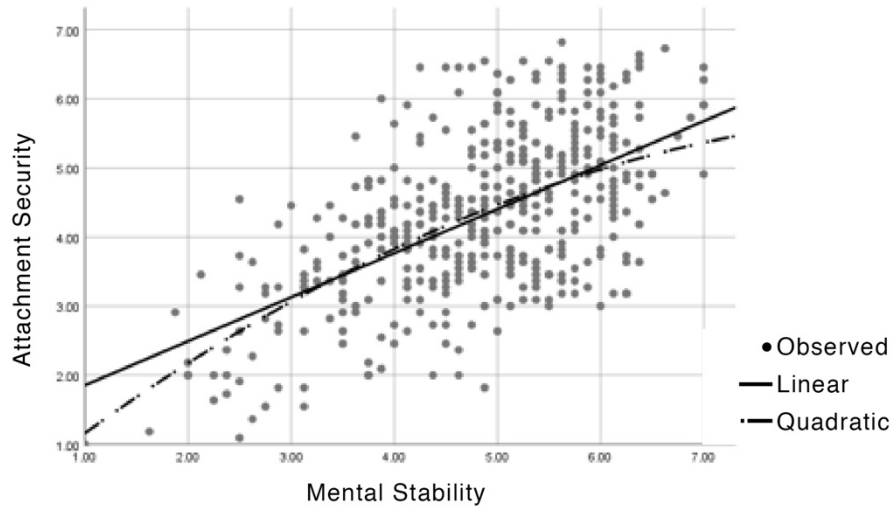
Note. Analysis reflected significant linear and quadratic functions ($p < .05$).

Figure 17

Linear and Quadratic Relationship: Incivility and Attachment
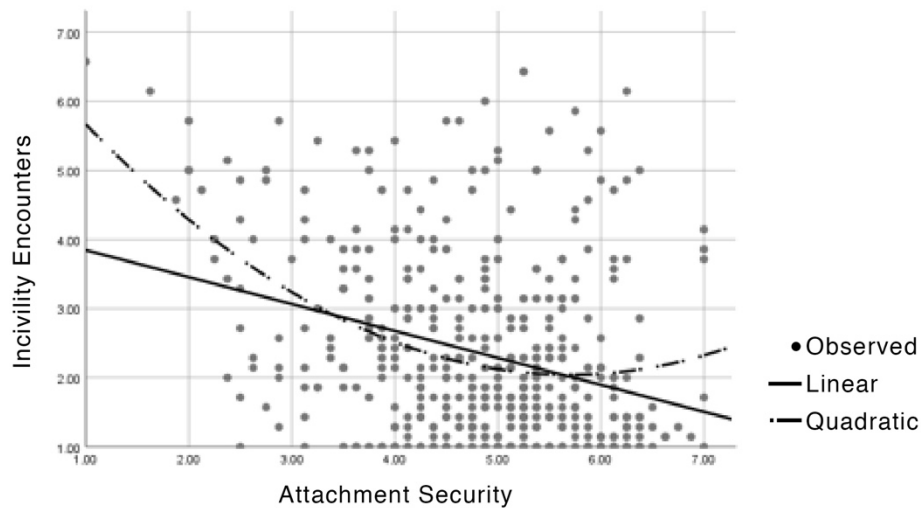
Note. Analysis reflected significant linear and quadratic functions ($p < .05$).

Figure 18

Linear and Quadratic Relationship: Incivility and Mental Stability
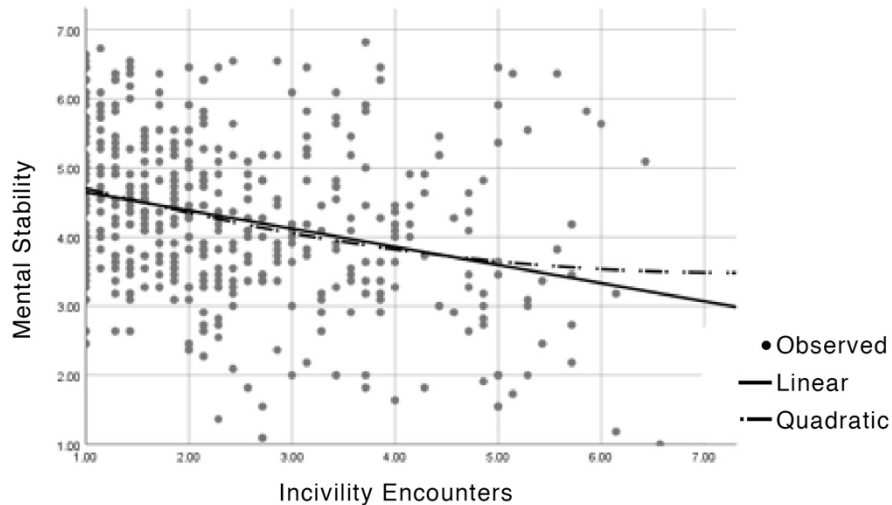
Note. Analysis reflected a significant linear function ($p < .05$); quadratic function was non-significant.

Collinearity and Multicollinearity. *Collinearity* reflects a condition in which two predictors correlate highly, and *multicollinearity* reflects an unusually high correlation among more than two variables. The concepts point to a possibly problematic overlapping of variables that are presumed independent (Meyers, Gamst, & Guarino, 2013; Garson, 2012). *Tolerance* is a related concept that measures proximity of variables to one another (Lund Research Ltd., 2018). Tolerance levels range from 0 to 1, and the higher the tolerance, the less the variables are related. Values closer to 1 signify high tolerance, while values closer to 0 signify low tolerance. Furthermore, a high tolerance indicates low multicollinearity (e.g., .84) and is preferred over low tolerance (e.g., .19), which indicates high multicollinearity (Lund Research Ltd., 2018). All variables in Model A and B reflected tolerance of .86 or higher, and therefore, collinearity and multicollinearity does not need to be addressed.

Data Screening Conclusion

After a careful assessment, the researcher decided that the screening process did not warrant a listwise deletion beyond the originally eliminated data. In summary, only data with missing values ($n = 5$) and the data with cutoff values of -2SD or below in relation to survey completion were excluded from the study (i.e., the survey was completed in 122 seconds or less; $n = 11$). The remaining sample was included in the survey as participants ($N = 460$), and the following section analyzes survey participants' demographic data.

Participant Demographics

Participant demographics ($N = 460$) outlined includes disability status, work status, gender, age, years employed, income, and race or ethnicity. Disability and work status were two pertinent demographic factors in this study. Although gender, age, years employed, income, race and ethnicity were not key variables in the outlined hypotheses, they may provide valuable inferences when drawing conclusions and considering future research directions in Chapter 5. Current research literature contains very little information on this topic.

Disability Status

About 59% ($n = 271$) of the sample population consisted of people with disabilities, and 41% (n = 189) of people without disabilities. The survey reflected that most participants or about one-third of the sample reported psychological and/or neurocognitive conditions. Two categories included slightly more than one-tenth of the sample: (a) a combination of psychological, neurocognitive, physical, and medical disabilities; and (b) physical disabilities. Individuals with a medically diagnosed

debilitating, long-term medical illness and/or disability comprised less than one-tenth of the sample (see Figure 19).

Figure 19

Disability Categories for the Sample Population
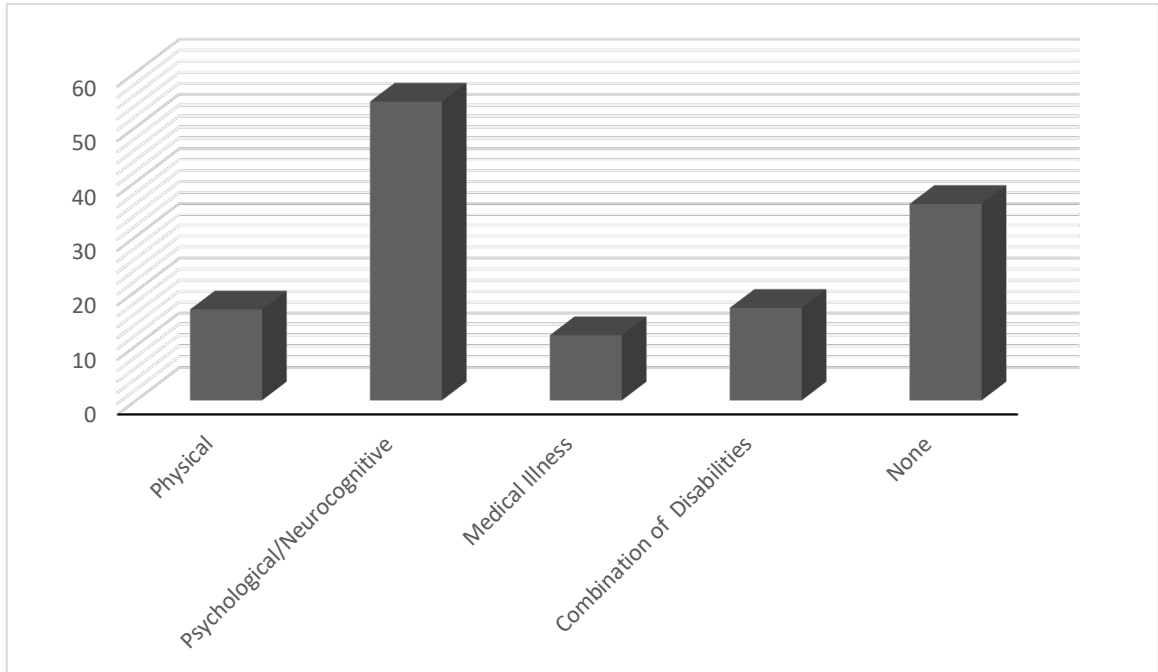
Work Status, Years Employed, and Monthly Earnings

Only participants with competitive work experience qualified for the study. Slightly less than two-thirds of the participants reported from 1 to 9 years of work experience, while one-fifth of the participants reported 10 or more years of experience. Another one-fifth reported less than 1 year of work experience. Income-wise, over 40% of the participants earned up to $2,499 each month, and another 40% earned from $2,500 to $5,999, comprising of about four-fifths of the sample population. At higher income

levels, about one-tenth of the participants earned from $6,000 to 10,999. Lastly, the very highest earners represented only 6% of the sample at $11,000 or more in monthly earnings sample.

Gender, Age, Race, and Ethnicity

Two-thirds of the participants consisted of females and one-third males. Approximately 80% of the participants represented an age range from 18 to 49, and the remainder of participants were 50 years of age or above. In respect to race and/or ethnicity, the largest group at two-thirds of the population identified as of Hispanic and/or of Latin origin, followed by about one-third identifying as White. One-tenth of population consisted of Multiple Races and/or Ethnicities, followed by less than one-tenth as Asian, and less than one-tenth as African American and/or Black American. Lastly, an aggregate number of three categories comprised of (a) West Indian and/or Caribbean, (b) Other, and (c) Native American Indian and/or Alaskan reflected about one-twentieth of the sample.

Data Analyses

Data analysis involved evaluating (a) additional reliability measures beyond Cronbach's Alpha such as inter-item correlations, and (b) existence of moderators and mediators through sequential multiple regression. Analysis of the moderators and mediators were followed by a confirmatory factor analysis (CFA). Finally, structural equation models were built for Models A and B. All of the research data is reported using a statistical significance level of .05 (Frazier et al., 2004). The data analyses are outlined in detail but not in a consecutive order in reference to the hypotheticals. Thus, the

following table summarizes expected study results, actual findings, and page numbers for result discussions (see Table 12).

Correlation

Correlation, which varies from 0 to 1, is a simple and an effective way to calculate interrelatedness between all observed items purported to measure one latent construct, and therefore, inter-item correlations were calculated in SPSS to evaluate interrelatedness. Items indicating close to 0 correlation may not measure the same latent construct while items reflecting close to 1 correlation may be repetitive, and thus, unnecessary (Tavakol & Dennick, 2011). Correlation output also indicates increases and decreases in Cronbach's Alpha values *if* items are removed, thus signaling shifts in overall scale reliability. Generally, alpha values between .70 and .95 are considered acceptable, with the caveat that correlations higher than .90 may indicate redundancy.

An inter-item correlation table can assist in selecting appropriate item for removal. Previously, *Attachment Security 1* scale, comprised of items At8, At9R, At10R, At11R, was eliminated due to low reliability ($\alpha = .54$) and low inter-item correlation. Item At8 measured attachment security construct while items At9R, At10R, and At11R measured various types of insecure attachment constructs. Items At8 and At9R reflected the highest correlation of .46, while items At10R and At11R indicated the lowest correlation of $< .01$ (see Table 13). In addition, a review of the alpha values indicated that if item At11R was removed from the scale, then the overall Cronbach's alpha would increase to $\alpha = .63$ (see Table 9). Although the value reflected the highest alpha among any removed item within Attachment Security 1 scale, it fell below the acceptable range. Importantly, removal of any single item in the scale would have inappropriately altered

the purpose and presumed validity of the scale. Therefore, a deletion of the entire scale

was considered the most appropriate action.

Table 12

Hypotheses and Research Findings

Item	Hypothesis	H_0 Rejected
H_1	There is a positive relationship between having a disability and personal workplace incivility encounters.	Yes
H_2	There is a negative relationship between personal workplace incivility encounters and mental stability under ordinary work pressures.	Yes
H_3	Experiencing personal workplace incivility encounters mediates the link between having a disability and mental stability under ordinary work pressures.	Yes
H_4	Attachment security (i.e. secure-leaning attachment style) moderates (weakens) the positive link between having a disability and personal workplace incivility encounters.	Yes
H_5	There is a positive relationship between attachment security (i.e. secure-leaning attachment style) and mental stability under ordinary work pressures.	Yes
H_6	Attachment security (i.e. secure-leaning attachment style) moderates (weakens) the negative link between personal workplace incivility encounters and mental stability under ordinary work pressures.	No
H_7	There is a negative relationship between having a disability and mental stability under ordinary work pressures.	Yes

Table 13

Inter-Item Correlation Matrix: Secure Attachment 1

Item	8	9R	10R	11R
At8	1.00			
At9R	.46	1.00		
At10R	.15	.46	1.00	
At11R	.02	.21	.01	1.00

Note. At = Secure Attachment variable; R = Reverse-coded.

The remaining concepts of *Attachment Security 2* (α = .86), *Incivility Encounters* (α = .93), and *Mental Stability* (α = .87) were screened for item interrelatedness. The methods included reviewing inter-item correlations, and changes in Cronbach's alpha values after item by item deletions (see Table 9). Review of Secure Attachment 2 variable indicated that the inter-item correlation ranged from .07 (i.e., between At17R and At18) to .66 (i.e., between At15 and At16; see Table 14). Removal of item At17R raised the Cronbach's alpha from .86 to .87, while removal of any other single item resulted in a Cronbach's alpha value < .87 (see Table 9). Because the change in alpha values with and without the item At17R was minimal, and because both values fell within an acceptable range, all Secure Attachment 2 items were preserved until additional statistical analysis.

Reliability statistics of incivility encounters items revealed the lowest inter-item correlation of .53 (i.e., between Inc2 and Inc7), and the highest inter-item correlation of

.78 (i.e., between Inc1 and Inc2; see Table 15). Removal of any single item would result in .90 < α < .93 inter-item correlation, which indicated a high inter-item correlation and possible redundancy (see Table 9). Therefore, all items were preserved for further statistical analysis.

Table 14

Inter-Item Correlation Matrix: Secure Attachment 2

Item	12	13	14	15	16	17R	18	19
At12	1.00							
At13	.43	1.00						
At14	.41	.45	1.00					
At15	.36	.58	.56	1.00				
At16	.47	.53	.58	.66	1.00			
At17R	.32	.27	.30	.36	.40	1.00		
At18	.23	.36	.44	.44	.39	.07	1.00	
At19	.56	.51	.58	.59	.64	.45	.39	1.00

Note. At = Secure Attachment variable; R = Reverse-coded.

Reliability statistics for mental stability indicated an inter-item correlation range from -.02 (i.e., between Me22 and Me20R) to .66 between (i.e., between Me21R and Me29R; see Table 16). A removal of any single item would result in a range of .85 < α < .87, and a removal of item Me24 would increase alpha by < .01. As the alpha change was

minimal, all items were preserved for additional statistical analysis (see Table 9). The

next step in the screening process involved analyzing an existence of moderator and

mediator variables, which is discussed in the context of sequential multiple regression.

Table 15

Inter-Item Correlation Matrix: Incivility Encounters

Item	1	2	3	4	5	6	7
Inc1	1.00						
Inc2	.78	1.00					
Inc3	.72	.64	1.00				
Inc4	.62	.59	.73	1.00			
Inc5	.62	.66	.63	.58	1.00		
Inc6	.68	.74	.67	.63	.68	1.00	
Inc7	.54	.53	.66	.66	.56	.59	1.00

Note. Inc = Incivility Encounters variable.

Table 16

Inter-Item Correlation Matrix: Mental Stability

	20R	21R	22	23R	24	25R	26R	27	28R	29R	30	31R
Me20R	1.00											
Me21R	.48	1.00										
Me22	-.02	.24	1.00									
Me23R	.27	.52	.23	1.00								
Me24	.18	.22	.37	.16	1.00							
Me25R	.47	.43	.12	.33	.16	1.00						
Me26R	.53	.56	.15	.42	.25	.56	1.00					
Me27	.13	.34	.39	.33	.31	.20	.26	1.00				
Me28R	.52	.50	.15	.41	.21	.54	.56	.24	1.00			
Me29R	.34	.66	.25	.60	.20	.47	.51	.34	.54	1.00		
Me30	.07	.30	.39	.39	.33	.18	.18	.57	.26	.38	1.00	
Me31R	.37	.58	.25	.58	.28	.43	.56	.31	.49	.63	.34	1.00

Note. Me = Mental Stability variable; R = Reverse-coded.

Sequential Multiple Regression

In a sequential multiple regression, a step-by-step regression model is created by adding a new variable in each step. The sequence enables a researcher to evaluate regression coefficients and to weigh the *total* contribution of each added variable on the outcome (Keith, 2006). Sequential multiple regression models were built for each

hypothesized moderation models with a predictor, a moderator, an interaction, and an outcome variable (Frazier, et al., 2004; Karadimitriou & Marshall, 2017). The step was necessary to evaluate involvement of moderators within the proposed models because either the predictor variable (i.e., incivility encounters in Moderator Model A) or the outcome variable (i.e., incivility encounters in Moderator Model B) in the hypothesized moderations differed from the predictor variable (i.e., Disability Status in Model A) or from the outcome variable (i.e., mental stability in Model B) in the full models (Frazier et al., 2004). Moderation and mediation theories and analyses are discussed in the next section, followed by dummy-coding, and mean-centering. Results for the regression analyses were considered significant at conventional .05 level (Frazier et al., 2004).

Moderators and Mediators

Moderation and mediation are theories that clarify and broaden an understanding of a causal effect between a predictor (i.e., independent) and an outcome (i.e., dependent) variable by introducing either a moderated or a mediated effect, or both (Wu, & Zumbo, 2008). Testing for moderators and mediators is a sophisticated approach to uncovering viable detail about relationship quality between a predictor and an outcome variable. Essentially, a moderator or a mediator provides a more nuanced explanation about the significant nature of the relationship between two variables than a direct effect alone provides (Frazier et al., 2004).

Although a cause-and-effect relationship cannot be concluded explicitly by information obtained in non-experimental studies, moderation and mediation are widely used in educational and psychological research (Baron & Kenny, 1986; Wu & Zumbo, 2008). In fact, overlooking moderators and mediators can result in misleading research

conclusions or overlooking significant relational considerations between moderator and outcome variables (Baron & Kenny, 1986; Wu & Zumbo, 2008). Basic functions, process, and results of moderator and mediator analyses in Model A and Model B are outlined below. Moderation is described first, followed by mediation.

Moderation. As previously outlined, moderation is an interaction effect created by a concurrent presence of predictor variable and a third variable, other than an outcome variable, called moderator variable. The concurrent presence of the moderator significantly changes a relationship between a predictor and an outcome variable (Baron & Kenny, 1986; Borau, El Akremi, Elgaaied-Gambier, Hamdi-Kidar, & Ranchoux, 2015; Frazier et al., 2004; Aiken & West, 1991). A moderator variable impacts strength or nature of the relationship by (a) either intensifying or weakening it, or (b) changing its direction (Baron & Kenny, 1986). Additionally, a moderator explains the reason that the relationship between a predictor and an outcome is substantially different in nature for some people than for others. For example, Cornell (2002) found that collective self-esteem moderated between perceived discrimination and psychological distress, with individuals with high self-esteem experiencing less psychological distress than individuals with low self-esteem. The following is a list of three types of moderating effects (Frazier et al., 2004):

1. An *enhancing interaction* is comprised of a predictor and a moderator variable that influence the outcome in the same direction, which results in a stronger total effect.

2. A *buffering interaction* include a moderator variable that dampens the effect of a predictor variable on the outcome.

3. An *antagonistic interaction* influence the outcome in a similar magnitude, but in an opposite direction.

This study investigated two hypothesized models with moderators. Model A hypothesized that an independent *Attachment Security* variable moderates between *Incivility Encounters* and *Mental Stability* variables by significantly interacting with the *Incivility Encounters* variable. This researcher proposed in Model A that employees with disabilities and with high attachment security maintain mental stability under work-related pressures, or under daily hassles at work, significantly better than their counter parts with low attachment security (i.e., a buffering interaction or an antagonistic interaction). The expectation is that an employee's internal compass that reflects secure attachment patterns acts as a buffer against negative impact of workplace incivility encounters on mental stability. Predominantly, employees with disabilities *and* secure attachment are expected to have better coping mechanisms after encountering incivility than their less securely attached counterparts. Therefore, the incivility encounters result in significantly less negative impact on work-related mental stability of employees with secure attachment than of those reflecting less secure attachments (see Figure 20).

Figure 20

Model A Moderator
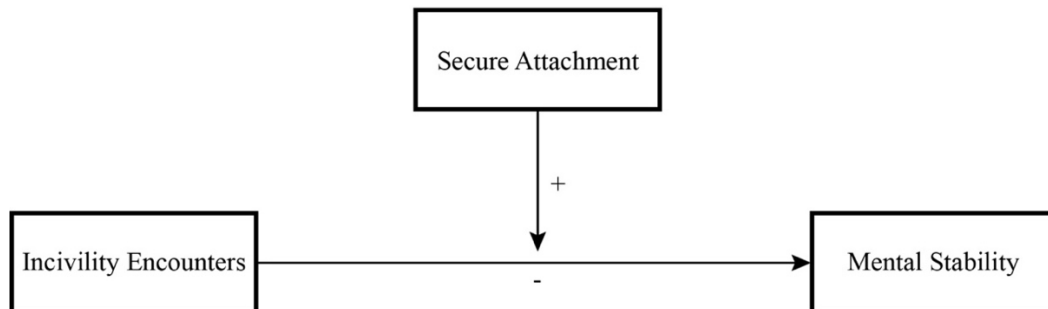
Note. An illustration representing a predictor variable (i.e., incivility encounters), a hypothesized moderator variable (i.e., secure attachment), and outcome variable (i.e., mental stability) in Model A. The diagram reflects the hypothesis that a secure attachment variable moderates (i.e., impacts or changes) the nature of the relationship between incivility encounters and mental stability.

Alternatively, this researcher hypothesized that a high attachment security variable in Model B changes the nature of the relationship between having a disability and being a target of incivility. Hypothetically, a high attachment security *insulates* an employee with a disability *from* incivility encounters through reduction or elimination of incivility encounters in quantity, type, or intensity (i.e., a buffering or an antagonistic interaction). The expectation is that an internal compass that reflects secure attachment patterns acts as a buffer against negative impact of having a disability on incivility encounters. Essentially, employees with disability *and* secure attachment are expected to experience less incivility encounters (e.g., in number, intensity, and/or type) than their colleagues who have an internal compass reflecting more insecure attachment patterns.

Subsequently, this reduction in encounters softens, blocks, reverses the negative impact of incivility (See Figure 21). Next section overviews testing moderator effects between a predictor and an outcome variable.

Figure 21

Model B Moderator
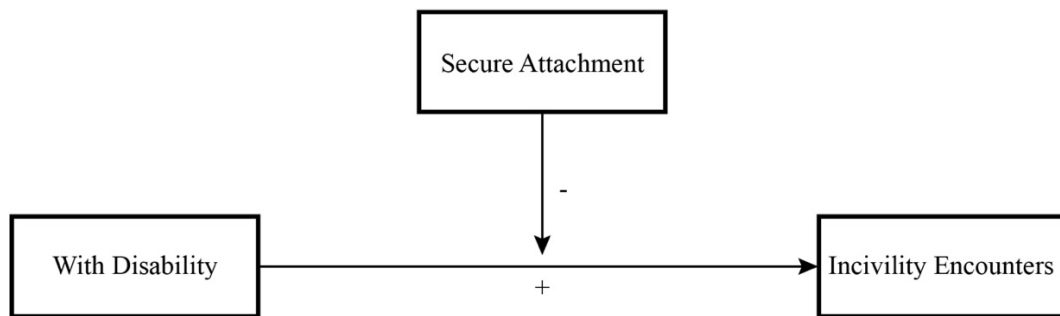
Note. An illustration representing a predictor variable (i.e., With Disability) a hypothesized moderator variable (i.e,. Secure Attachment), and outcome variable (i.e., Incivility Encounters) in Model B. The diagram reflects the hypothesis that a Secure Attachment variable moderates (i.e., impacts or changes) the nature of the relationship between having a disability and incivility encounters.

To analyze whether or not a moderation effect is present, variables involved in the hypothesized moderations are isolated from the corresponding full models (Frazier et al., 2004; Karadimitriou & Marshall, 2017; Lund Research Ltd., 2018). Moderation analyses are limited to predictor, moderator, interaction (i.e., a product of independent and moderator variables), and outcome variables (Baron & Kenny, 1986). Model A moderator analysis comprised of (a) incivility encounters as a predictor, (b) attachment

security as a moderator, (c) an interaction that was the product of incivility encounters and attachment security, and (d) mental stability as an outcome variables (see Figure 20). On the other hand, Model B consisted of (a) Disability Status as a predictor, (b) attachment security as a moderator, (c) interaction that was a product of Disability Status and attachment security, and (d) incivility encounters as an outcome (see Figure 21).

Testing procedures for moderator effects depends partly by whether the variables are dichotomous, continuous, or any combination of the two, and partly by whether a quadratic, or a step function plays a role in moderation. Step function is tested by dichotomizing a continuous moderator at a critical level where the function takes a sharp incline or decline (Baron & Kenny, 1986). Treatment for the hypothesized moderators for Model A and Model B is discussed next.

The interaction variable in Model A was a product of two continuous variables, while the interaction variable in Model B was a product of a dichotomous and a continuous variable. Baron and Kenny (1986) reviewed four scenarios for moderator testing. First, a moderator model consists of a dichotomous independent variable and a dichotomous moderator variable. Secondly, an independent variable is continuous and a moderator is dichotomous. Thirdly, an independent variable is dichotomous and a moderator is continuous. This scenario generally manifests as one of three moderator effects on the dependent variable, including (a) a linear, (b) a quadratic (i.e., curvilinear), and (c) a step model. The step model proposes that a moderator effect takes place at a distinct point of demarcation. Additionally, the model is dichotomized at the point where the step is perceived to occur, and the moderator testing proceeds in a similar fashion as the testing of two dichotomous variables. Fourthly, a moderator model is composed of

continuous independent and moderator variables. Moderator A and moderator B model analyses are reviewed next.

Model A Moderator Analysis for Testing H₆. H_6 stated that high attachment security (i.e., secure attachment style) moderates (weakens) the positive link between personal workplace incivility encounters and mental stability under ordinary work pressures. High workplace incivility experiences *and* low attachment security is expected to have a compounding effect on mental stability. Therefore, mental stability is expected to be significantly more reduced for employees experiencing such compounding factors than for their peers with less incivility experiences and/or high attachment security. Conversely, secure attachment is expected to shield from the negative effects of incivility encounters on mental stability, as hypothesized. First, a curvilinear regression analysis was conducted to review a role of a quadratic function.

Curvilinear Estimation of Moderator A. A quadratic function was investigated via curvilinear estimation in SPSS 25. Interaction in Moderator A was a product of *Incivility Encounters* and *Attachment Security*. The estimation revealed that a linear relationship explained 7% of the changes in mental stability and reflected a significant positive relationship ($B = .17, p < .001$) while a vertical curvilinear relationship explained only an additional 2% of the variance. Although, the curvilinear line was significant ($B = -.01, p = .007$), the linear relationship reflected a higher level of significance (see Table 17). Therefore, Moderator A model is best characterized as a linear relationship. Next, a linear hierarchical multiple regression analysis was conducted to analyze the existence of a moderator in Model A.

Table 17

Moderator Analyses for Significant Quadratic Functions

Analysis	*B*	*SE B*	β	*R²*	Δ*R²*	*p*
Model A Outcome: Mental Stability						
Linear				.07		
AS ∗ IE	.17	.03	.27			< .001
Quadratic				.09	.02	
AS ∗ IE	.10	.04	.15			*p* = .014
(AS ∗ IE) x (AS ∗ IE)	-.01	.01	-.17			*p* = .007
Model B Outcome: Incivility Encounters						
Linear				< .01		
Dis ∗ AS	.03	.03	.05			> .05
Quadratic				.07	.07	
Dis ∗ AS	.57	.10	1.07			< .001
(Dis ∗ AS) x (Dis ∗ AS)	-.10	.02	-1.05			< .001

Note. B = unstandardized beta; *SE B* = standard error for the unstandardized beta; β = standardized beta; *R²* = coefficient of multiple determination; Δ*R²* = change in coefficient value from linear analysis to curvilinear analysis*; p* = probability value; Dis = With Disability; AS = Attachment Security; IE = Incivility Encounters

Moderator Effect in Model A. Multiple regression analysis was used to test if the interaction term of incivility encounters and attachment security ($B_3 \times IE * AS$) proved significant. As previously delineated, the four variables in the moderator analysis were (a) incivility encounters, (b) attachment security, (c) interaction of attachment security and incivility encounters, and (d) mental stability. The intercorrelations among five

measures of mental stability under work pressures are listed on a table below (see Table 18), and the hypothetical equation was written as follows:

$$Y = B_0 + B_1 \times IE + B_2 \times AS + B_3 \times IE * AS$$

Table 18

Model A: Intercorrelations Among Five Measures

	Model A			
Measure	1	2	3	4
1. Mental Stability	1.00			
2. With Disability	-.33***			
3. Incivility Encounters	-.28***	.17***		
4. Secure Attachment	.57	-.24***	-.32•••	
5. IE * SA	.03	.04	.83•••	.19•••

Note. Incivility Encounters x Secure Attachment = IE * SA

*p < .05, **p < .01, ***p < .001

Unstandardized Beta (*B*) coefficients were interpreted because an interaction term cannot be appropriately interpreted through standardized (β) coefficients. Additionally, confidence intervals (CI) of significant interaction terms were reviewed to verify that population sample is other than zero (≠ 0) within a confidence interval (Frazier et al., 2004). Previous literature on moderators has cautioned against interpreting the relationship between predictor and moderator variables, unless such a relationship was strongly supported by literature, which is outside the scope of this research (Frazier et al., 2004). Regression analysis' results are outlined next.

Moderator A interaction effect (IE $*$ AS) was nonsignificant ($p > .050$). That is, in relation to incivility encounters and work-related mental stability, this study did not reveal significant differences among employees with varying degrees of secure attachment and incivility encounters in relation to mental stability at work. Attachment security did not moderate the negative link between incivility encounters and mental stability (see Table 19). H_6 was not accepted, and H_0 remains.

Model B moderator analysis for testing H_4. H_4 stated that high attachment security (i.e., secure attachment style) moderates (weakens) the positive link between having a disability and experiencing workplace incivility encounters. A compounding effect of having a disability *and* low attachment security on incivility experiences is presumed to reflect a curvilinear path in Moderator B model. Essentially, incivility experiences are expected to be significantly more heightened in quantity, quality or both for employees with disability and low attachment security than for their peers with no disability and/or moderate or high attachment security. A curvilinear estimation was conducted in SPSS 25 in a manner previously described.

Curvilinear Estimation of Moderator B. A quadratic function was analyzed through curvilinear estimation in SPSS 25. Interaction in Moderator B was a product of *Disability Status* and *Attachment Security*. Estimation reflected that a linear relationship explained < .01% of the variance in incivility encounters, and depicted a nonsignificant relationship ($B = .03$, $p > .050$). On the other hand, a curvilinear relationship explained 7% of the variance, and the estimation depicted a significant curvilinear relationship ($B = -.10$, $p < .001$; see Table 11; see Figure 16). As the quadratic function was significant (p

< .001), a role of attachment security as a moderator was further explored in subsequent data analyses.

Table 19

Testing Model A Moderator Effects

Step and Variable	Model A			
	B	*SE B*	95% CI	*p*
Step 1.				
Incivility Encounters	-.26	.04	-.34, -.19	=.001•••
Step 2.				
Incivility Encounters	-.11	.04	-.18, -.04	=.003••
Secure Attachment	.60	.04	.51, .68	<.001•••
Step 3.				
Incivility Encounters	-.30	.13	-.55, -.06	=.016••
Secure Attachment	.48	.09	.31, .64	<.001•••
IE * SA	.04	.03	-.01, .09	=.104

Note. Effects coding: Without disability coded 0; With disability coded 1; *B* = unstandardized beta coefficient; *SE B* = coefficients standard error; CI = confidence interval; IE = Incivility Encounters; SA = Secure Attachment

*$p \leq .05$, **$p < .01$, ***$p < .001$

Moderator Effect in Model B. As previously discussed, this researcher expected the incivility experiences to significantly heighten at a critical level of attachment security, rendering attachment security a more significant moderator at a specific cutoff level of security in comparison to other levels. The step model approach described by

Baron and Kenny (1986) was a suitable fit to investigate such critical cutoff levels, but

instead of one critical step, the attachment security variable was divided into three

sections with two critical steps. However, some researchers recommend preserving the

continuous nature of variables during moderator analysis, instead of re-assigning the

variables into categories, to retain the power to discover interaction effects (Frazier et al.,

2004). Thus, the moderator effect was initially analyzed via hierarchical regression. As

previously delineated, the five variables included in each analysis were (a) Disability

Status, (b) attachment security, (c) interaction of Disability Status *and* attachment

security (i.e., interaction), and (d) incivility encounters. The inter-correlations among the

five measures of mental stability under work pressures are listed on a table below (see

Table 20). As the interaction variable in Model B includes a categorical and a continuous

variable, mean centering is the recommended next step.

Table 20

Model B: Intercorrelations Among Five Measures

	Model B			
Measure	1	2	3	4
1. Mental Stability	1.00			
2. With Disability	-.33***			
3. Secure Attachment	.57***	-.24***		
4. Dis * SA	-.16***	.93***	.07	
5. Incivility Encounters	-.28***	.17***	-.32•••	.05

Note. With Disability * Secure Attachment = Dis x SA

*p < .05, **p < .01, ***p < .001

Mean Centering. Continuous variables involved in an interaction benefit from mean centering (i.e., standardization) before an interaction variable is computed in full regression models. Centering a moderator comprised of a dichotomous and a continuous variable avoids issues of multicollinearity, such as inflated correlations (Frazier et al., 2004; Wu & Zumbo, 2008). It also provides a zero point from which to interpret meaningful results and regression coefficients (Frazier et al., 2004; Wu & Zumbo, 2008). Mean centering involves (a) calculating a mean score (M) of a continuous, independent variable and (b) subtracting the mean score from each independent observation within the variable (Meyers, Gamst, & Guarino, 2013). Centering does not alter the regression coefficient, which is an effect of Y's mean over an unit change in X. Consequently, the scale remains intact and only the intercept changes (Meyers, Gamst, & Guarino, 2013). Attachment security variable was centered because Moderator B includes an interaction term that is a product of a continuous attachment security variable and a dichotomous Disability Status variable. After mean centering, Model B moderator was analyzed.

The analysis revealed a significant interaction between disability status and attachment security (see Table 21) , and the predictors explained 14% of the variance (R^2 = .14, $F(3, 456) = 23.86$, $p < .001$). They reflected that the interaction between disability and attachment security had a significant link with incivility experiences ($B = -.42$, p < .001), as did disability ($B = 2.36$, $p < .001$). The results supported H_4, and H_0 was rejected. More nuanced detail about the relationship is obtained by supplementary analyses, which are outlined next.

As the regression analysis revealed a significant interaction, and as this researcher expected a step-like moderation, the moderator variable was categorized into three groups

to elicit additional detail regarding the moderator at different levels of attachment security (Baron & Kenny, 1986). Attachment security$_1$ was comprised of employees with attachment security values of $> +1.00$ *SD* of the mean and was labeled as *High Attachment Security* (HAS). Attachment security$_2$ variable was comprised of employees with attachment security values of -1.00 *SD* $\leq x \leq +1.00$ *SD* of the mean and was labeled as *Moderate Attachment Security* (MAS). Attachment security variable was comprised of employees with attachment security values of < -1.00 *SD* of the mean and was labeled as *Low Attachment Security* (LAS). Consequently, the interactions were treated as products of two categorical variables (Frazier et al., 2004), and dummy coding of categorical variables is discussed next.

   Dummy Coding. Dummy coding is imperative to compute an interaction term between two categorical variables (Baron & Kenny, 1986; Frazier et al., 2004; Lund Research Ltd., 2018). The dichotomous predictor variable *Disability Status* consisted of two categories: people with disabilities (i.e., With Disability) and people without disabilities (i.e., Without Disability). The originally continuous variable attachment security now consisted of three new categories: HAS, MAS, and LAS.

   Moderator Effects of HAS, MAS, and LAS in Model B. To test the proposed step-model of attachment security variable in Model B, the significance of the three interactions were assessed through separate sequential multiple regression models. The first hypothetical equation analyzed HAS as a moderator and was written as follows:

   $Y = B_0 + B_1 \times dis + B_2 \times HAS + B_3 \times dis * HAS$

Table 21

Testing Model B Moderator Effects

Step and Variable	Model B			
	B	*SE B*	95% CI	*p*
Step 1.				
With Disability	.46	.12	.22, .70	=.001•••
Step 2.				
With Disability	.27	.12	.04, .51	=.020••
Secure Attachment	-.36	.06	-.47, -.25	<.001•••
Step 3.				
With Disability	2.36	.61	1.17, 3.55	<.001•••
Secure Attachment	-.07	.10	-.26, .13	=.514
Dis ∗ AS	-.42	.12	-.65, -.18	<.001•••

Note. Effects coding: Without disability coded 0; With disability coded 1;

B = unstandardized beta coefficient; *SE B* = coefficients standard error; CI

= confidence interval; Dis = With Disability; SA = Secure Attachment

*$p \leq .05$, **$p < .01$, ***$p < .001$

Multiple regression analysis was used to test if the interaction term of Disability Status and HAS ($B_3 \times$ dis ∗ HAS) was significant. The regression results indicated that the predictors explained 5% of the variance ($R^2 = .05$, $F(3, 456) = 8.63$, $p <.001$), and the interaction between disability and HAS had a significant link with incivility experiences ($B = -.64$, $p < .05$), as did disability ($B = .56$, $p < .001$). HAS ($B = -.07$, $p > .05$) was nonsignificant. The moderation effect resulted in a population sample other than zero (CI

= -1.25 < α < -.03). Therefore, the analysis revealed significant differences between employees *with* disabilities and HAS, and employees *without* disabilities and HAS. Thus, HAS is a good moderator (see Table 22). More specifically, it acted as an antagonistic moderator for employees with disabilities by changing the direction of the relationship between disability status and incivility encounters from positive to negative ($B_0 + B_1 * $ dis =.30, Y = -.41). Additionally, the results indicated that employees with disabilities and HAS encountered *less* incivility (Y = -.41) than their peers without disabilities (B_0 = -.26). The second hypothetical equation analyzed MAS as a moderator and was written as follows:

$$Y = B_0 + B_1 \times dis + B_2 \times MAS + B_3 \times dis * MAS$$

Multiple regression analysis was used to test if the interaction term of Disability Status and MAS ($B_3 \times$ dis $*$ MAS) was significant. The regression results indicated that the predictors explained 5% of the variance (R^2 = .05, $F(3, 456)$ = 8.62, p < .001). They reflected that the interaction between disability and MAS had a significant link with incivility experiences (B = -.53, p < .05), as did disability (B = .79, p < .001). MAS (B = -.01, p > .05) was nonsignificant. The moderation effect resulted in a population sample other than zero (CI = -1.04 < α < -.02). Therefore, the analysis revealed significant differences between employees *with* disabilities and MAS, and employees *without* disabilities and MAS. MAS acted as an antagonistic moderator for employees with disabilities by changing the direction of the relationship between Disability Status and incivility encounters from positive to negative ($B_0 + B_1 * $ dis = 1.06, Y = -.01). Essentially, a moderate level of attachment security lessened incivility encounters for employees with disabilities. Regardless of the decrease, the employees with disabilities

and MAS encountered *more* incivility ($Y = -.01$) than their peers without disabilities ($B_0 = -.27$; see Table 23).

Table 22

Testing Model B Moderator Effect of HAS

Step and Variable	Model B (HAS)			
	B	SE B	95% CI	p
Step 1.				
With Disability	.46	.12	.22, .70	=.001***
Step 2.				
With Disability	.44	.12	.20, .67	<.001***
High Attachment Security	-.41	.16	-.71, -.10	=.010**
Step 3.				
With Disability	.56	.13	.29, .82	<.001***
High Attachment Security	-.07	.22	-.51, .37	>.050
Dis * HAS	-.64	.31	-1.25, -.03	=.039*

Note. Effects coding: Without disability coded 0; With disability coded 1; *B* = unstandardized beta coefficient; *SE B* = coefficients standard error; CI = confidence interval; Dis = With Disability; HAS = High Attachment Security or $> +1SD$

*$p \leq .05$, **$p < .01$, ***$p < .001$

The third hypothetical equation analyzing LAS as a moderator was written as follows:

$$Y = B_0 + B_1 \times dis + B_2 \times LAS + B_3 \times dis * LAS$$

Multiple regression analysis was used to test if the interaction term of Disability Status and LAS ($B_3 \times$ dis $*$ LAS) was significant. The regression results indicated that the predictors explained 13% of the variance ($R^2 = .13$, $F(3, 456) = 22.18$, $p < .001$). They reflected that the interaction between disability and LAS had a significant link with incivility experiences ($B = 1.08$, $p < .01$). Disability status ($B = .19$, $p > .05$) and LAS ($B = .19$, $p > .05$) were nonsignificant. The moderation effect resulted in a population sample other than zero (CI $= .33 < \alpha < .1.83$). Therefore, the analysis revealed significant differences between employees *with* disabilities and LAS, and employees *without* disabilities and LAS. LAS acted as an enhancing moderator for employees with disabilities by significantly strengthening the positive relationship between disability status and incivility encounters ($B_0 + B_1 *$ dis $= .19$, $Y = 1.17$). In other words, low attachment security had a compounding effect on employees with disabilities who already experienced more incivility encounters than their peers without disabilities. Accordingly, the results reflected that employees with disabilities and LAS encountered more incivility ($Y = 1.17$) than their peers without disabilities ($B_0 = -.27$; see Table 24).

Line Graphs of Moderator A and Moderator B. Two line graphs were produced to visually illustrate Moderator A and Moderator B analyses. An estimation of Moderator A line graph was created by dichotomizing the predictor variable (i.e., incivility encounters) at the mean, and dummy coding it to indicate (a) a group with elevated levels of incivility encounters ($> M$), and (b) a group with reduced levels of incivility encounters ($< M$). The moderator variable was dichotomized into three groups, as previously described (i.e., LAS, MAS, HAS). Mental stability represented the outcome

variable in Model A moderation, and incivility encounters represent the outcome variable

in Model B moderation.

Table 23

Testing Model B Moderator Effect of MAS

Step and Variable	Model B (MAS)			
	B	*SE B*	95% CI	*p*
Step 1.				
With Disability	.46	.12	.22, .70	<.001***
Step 2.				
With Disability	.43	.12	.20, .67	<.001***
Moderate Attachment Security	-.33	.13	-.58, -.09	=.009**
Step 3.				
With Disability	.79	.21	.37, 1.21	<.001***
Moderate Attachment Security	-.01	.20	-.40, .40	>.050
Dis ∗ MAS	-.53	.26	-1.04, -.02	=.041*

Note. Effects coding: Without disability coded 0; With disability coded 1;

B = unstandardized beta coefficient; *SE B* = coefficients standard error; CI

= confidence interval; Dis = With Disability; MAS = Moderate

Attachment Security or -1$SD \leq x \leq$ +1SD.

*$p \leq .05$, **$p < .01$, ***$p < .001$

Table 24

Testing Model B Moderator Effect of LAS

Step and Variable	Model B (LAS)			
	B	*SE B*	95% CI	*p*
Step 1.				
With Disability	.46	.12	.22, .70	<.001***
Step 2.				
With Disability	.31	.12	.08, .54	=.010**
Low Attachment Security	1.03	.16	.72, 1.34	<.001***
Step 3.				
With Disability	-.19	.13	-.05, .44	>.050
Low Attachment Security	.19	.34	-.48, .85	>.050
Dis ∗ LAS	1.08	.38	.33, 1.83	=.005**

Note. Effects coding: Without disability coded 0; With disability coded 1; *B* = unstandardized beta coefficient; *SE B* = coefficients standard error; CI = confidence interval; Dis = With Disability; LAS = Low Attachment Security or < -1*SD*

*$p \le .05$, **$p < .01$, ***$p < .001$

     Moderator A reflected no interaction between workplace incivility encounters and attachment security in relation to Mental stability (see Figure 22). The line graph confirms that attachment security is not a viable moderator in Model A, and the interaction effect will be eliminated from the full Model A analysis. Moderator B reflected interaction between disability status and attachment security. Distinctively, it

depicts a step-like increase in incivility encounters between employees with MAS and those with LAS (see Figure 23). The graphs are consistent with the corresponding regression analyses. The next section reviews mediation analysis and the ways mediation effect differs from moderation effect.

Figure 22

Relationships Among Variables: Moderator A
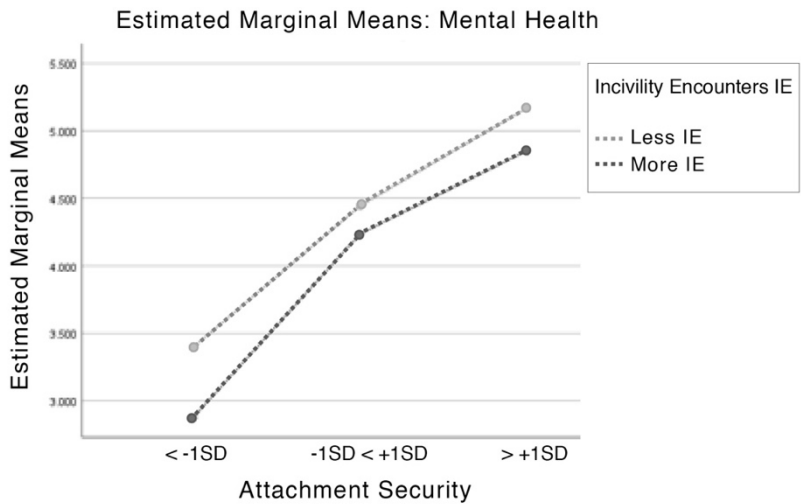
Note. Incivility Encounters (IE), Attachment Security (AS), and Mental Stability (MS) variables, as reflected in Moderator A model. The IE data categorized into a dichotomous outcome comprised of *Less IE* and *More IE*. The illustration reflects no interaction between the two line graphs, and therefore, AS did not moderate between IE and MS variables.

Figure 23

Relationships Among Variables: Moderator B

Estimated Marginal Means: Incivility Encounters
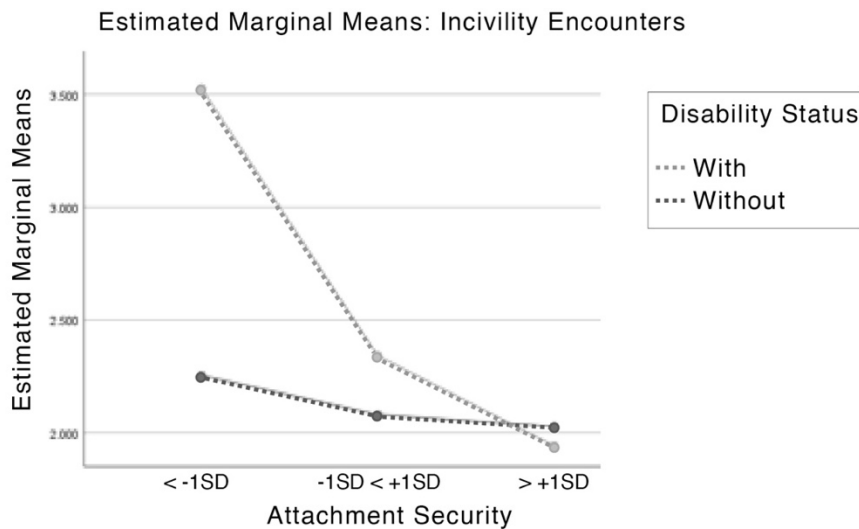
Note. Attachment Security (AS), and Incivility Encounters (IE) variables, as

reflected in the hypothesized Moderator B model. LAS represents attachment

security values of < -1SD; MAS represents values of -1SD; < α < +1SD; and HAS

represents values of > +1SD. The illustration reflects an interaction between the

two line graphs. AS moderated between Disability Status and IE variables.

Mediation. A study variable can be characterized as a moderator or a mediator

depending on theoretical base of the research model tested (Frazier et al., 2004). While a

moderator explains significant changes in a direct relationship between a predictor

variable and an outcome variable, a mediator demonstrates why a significant link exists

between a predictor and an outcome (Frazier et al., 2004). Mediator provides a process

through which a predictor variable influences the outcome variable (MacKinnon,

Lockwood, Hoffman, West, & Sheets, 2002). In other words, it acts as an active

processor between an activating event and a response (Wu & Zumbo, 2008). It also

explains why an external occurrence develops internal psychological relevance, or

simply, what kind of mechanism or system intercedes between input and output (Baron &

Kenny, 1986). Mediator has an indirect effect on the outcome, as it intervenes between

the predictor and the outcome (Wu & Zumbo, 2008), and mediation can be full or partial

(Baron & Kenny, 1986). Consequently, mediation is also referred to as an indirect effect,

and a mediator is labeled as an intervening variable (MacKinnon et al., 2002). Lastly,

mediators offer a nuanced explanation of a phenomenon, and the following conditions are

central for mediation to occur (Wu & Zumbo, 2008): (a) first, stimulus or independent

variable (X) is significantly linked to mediator (M); second, X is significantly linked to

behavior or dependent variable (Y); third, M is significantly linked to Y; and fourth, the

link between X and Y must diminish once M is introduced into the equation (Baron &

Kenny, 1986; Little, Card, Bovaird, Preacher, & Crandall, 2007, Chapter 9).

One underlying assumption in this study is that employees with disabilities

exhibit significantly less mental stability under ordinary work pressures than employees

without disabilities. If true, an essential question persists: Does the negative relationship

between having a disability and work-related mental stability operate through another

variable or variables? Namely, does an employee with a disability experience less mental

stability under work pressures *because* having a disability significantly impacts one or

more other factors (i.e., mediators) that negatively link having a disability to work-related

mental stability? If at least one such a statistically significant link existed, this intervening

link or mediator would reveal new information about the nature of the negative

relationship (Wu & Zumbo, 2008; Frazier et al., 2004).

In this study, exposure of employees with disabilities to workplace incivility,

specifically *personal* encounters as opposed to *witnessed* encounters, is the hypothesized

mediator (see Figure 24). Based on theory applied to this study, employees with both

detectable and undetectable disabilities encounter more workplace incivility than

employees without disabilities, which consequently has a negative impact on mental

stability under usual work-related pressures. Thus, incivility encounters variable mediates

the negative relationship between having a disability and mental stability under ordinary

work pressures. Significant intercorrelations (*p < .001*) among disability status, incivility

encounters, and mental stability under work pressures are listed on a table below (see

Table 25). Previously, curvilinear estimation analysis established that the relationship

between incivility encounters and mental stability is linear (see Figure 18). Whether or

not the incivility encounters variable acts as a mediator in Model A and Model B is

analyzed through a multiple regression analysis (see Table 26).

Table 25

Intercorrelations for Mediator Analysis

Measure	1	2
1. Mental Stability		
2. Disability Status	-.34***	
3. Incivility Encounters	-.30***	.17***

*p < .05, **p < .01, ***p < .001.

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Figure 24

Mediator Model: Model A and Model B
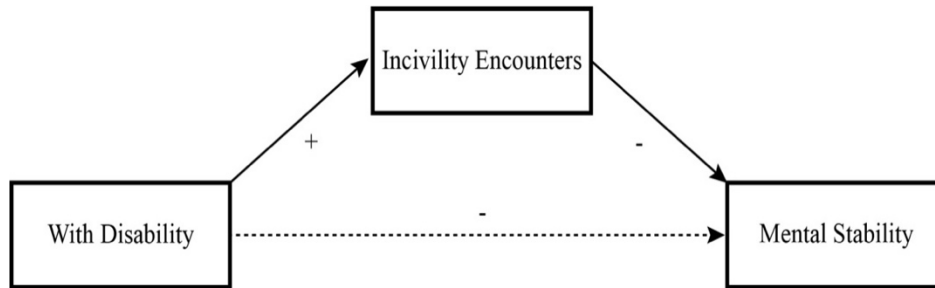
Note. The mediator model is comprised of the following elements: (a) a predictor variable (i.e., with disability), (b) a mediator variable (i.e., incivility encounters), and (c) an outcome variable (i.e., mental stability). The diagram reflects three hypotheses: (a) having a disability increases incivility encounters (i.e., a direct positive relationship); (b) incivility encounters decrease mental stability (i.e., a direct negative relationship), and (c) incivility encounters intervene with a direct negative relationship between having a disability and mental stability by intensifying or strengthening the existing negative relationship.

Mediator Analysis for Testing H₃. H_3 stated that experiencing personal workplace incivility encounters mediates the link between having a disability and mental stability under ordinary work pressures. The first step of the equation represented a direct path from disability status to mental stability, and the second step of the equation added incivility encounters variable. The two equations were measured through a stepwise regression analysis were written in steps as follows:

Step 1: Y = B₀ + B₁ × Dis

$$Step\ 1:\ Y = B_0 + B_1 \times Dis$$

$$Step\ 2:\ Y = B_0 + B_1 \times Dis + B_2 \times IE$$

Table 26

Mediator Analysis for Model A and Model B

Step and Variable	B	SE B	β	R^2	ΔR^2	p
Step 1.				.12		< .001
With Disability	-.80	.10	-.34			< .001
Step 2.				.17	.06	< .001
Incivility Encounters	-.22	.04	-.24			< .001

Note. B = unstandardized beta; *SE B* = standard error for the unstandardized beta; *β* = standardized beta; *R^2* = coefficient of multiple determination; *ΔR^2* = change in *R^2* value from one model to another, *p* = probability value

The stepwise regression results indicated that Step 1, which consisted of disability status as a predictor, explained 11% of the variance on mental stability (R^2 =.11, $F(1, 458) = 59.89$, $p < .001$). Step 2 introduced incivility encounters as a mediator, which increased the total variance to 17% ($R^2 = .17$, $F(2, 457) = 47.70$, $p < .001$). The results reflected that disability status had a significant direct link with mental stability (β = -.34, $p < .001$) in Step 1. In Step 2, disability status remained significant (β = -.30, $p < .001$), and the newly introduced incivility encounters variable was significant (β = -.24, $p < .001$).

As hypothesized, Step 1 equation revealed that disability status, specifically having a disability (i.e., with disability), had a negative relationship with mental health

status. Mental stability decreased with the introduction of *with disability* variable (B_0 + $B_1 \times Dis$ = 4.76 + (-.80), Y = 3.96). In addition, Step 2 equation revealed that incivility encounters had a significant negative relationship with mental status as hypothesized (B_0 + $B_1 \times Dis$ + $B_2 \times IE$ = 5.21 + (-.70) + (-.22), Y = 4.29). Employees with disabilities experienced less mental stability than their peers without disabilities. An introduction of incivility encounters variable added another layer of negative relationship with a significant impact on mental health status. Therefore, the analysis indicated that incivility encounters partially mediated the relationship between having a disability and mental health status, and partially explained the differences between employees with disabilities and without disabilities in relation to mental stability under usual work pressures. H_0 was rejected, and H_3 was accepted. To test the remaining hypotheses (i.e., H_1, H_2, H_5, H_7), a confirmatory factor analysis (CFA) and structural equation modeling (SEM) were implemented.

Confirmatory Factor Analysis

Previously, Cronbach's alpha was investigated to establish item to factor reliability, and all items were preserved for further analysis (see Table 9), with the exception of attachment security 1 factor and its observed variables due to low Cronbach's alpha (i.e., At8, At9, At10, At11). Confirmatory factor analyses (CFAs) were conducted by building measurement models for Model A and Model B, which estimated a population covariance matrix and compared it to an observed covariance matrix (Schreiber et al., 2006). The latent variables were incivility encounters (IE), attachment security (AS), and mental stability under work pressures (MS), which were measured with observed variables. Incivility encounters was measured with seven statements (Inc1

to Inc7) on a Likert-based scale; attachment security was measured with eight statements (At12 to At19); and mental stability was measured with 12 statements (Me20R to Me31R; see Table 27).

CFA was performed in the full model using LISREL 9.30 (see Figure 25). The model fit was assessed through comparing the results to recommended cutoff levels for continuous data (Iacobucci, 2009; Schreiber, Nora, Stage, Barlow & King, 2006; see Table 28). The comparative fit indices CFA (.81), and IFI (.81) indicated an unsatisfactory model fit, as recommended comparative model fit is $\geq$ .95. Likewise, the RMSEA (.10), standardized RMR (.11), and ratio of Chi-Square to degrees of freedom ($\chi2/df$; 5.95) were below generally acceptable levels of confidence interval < .06 to .08, $\leq$ .08, and $\leq$ 2 or 3, respectively.

The model was re-specified by considering items with (a) low standardized factor loadings, (b) significant cross-loading items, and (c) high error covariances for removal (see Table 29). Initially, four mental stability items (Me22, Me24, Me27, Me30) and two attachment security items (At17R, At18) were removed for high error variances ($\geq$ .73). Subsequently, items with three or more cross-loadings were removed, including three incivility encounters items (Inc1, Inc4, Inc7), four mental stability items (Me20R, Me23R, Me26R, Me28R), and one attachment security item (At12). Finally, one additional attachment security item (At12) was removed for having cross-loadings with two other items, including an item measuring a different factor and to obtain a parsimonious model. The re-specification increased the model fit to acceptable levels (see Table 28), measured by CFA (.99), IFI (.99), RMSEA (.03), standardized RMR (.04), and

$\chi 2/df$ (1.53). As the model reflected a good fit the remaining items were accepted into SEM models (Model A, and Model B).

Table 27

Original Items of the Construct: Indicator and Latent Variables

Indicator	Latent	Indicator	Latent	Indicator	Latent
Inc1	IE	At12	AS	Me20R	MS
Inc2	IE	At13	AS	Me21R	MS
Inc3	IE	At14	AS	Me22	MS
Inc4	IE	At15	AS	Me23R	MS
Inc5	IE	At16	AS	Me24	MS
Inc6	IE	At17R	AS	Me25R	MS
Inc7	IE	At18	AS	Me26R	MS
		At19	AS	Me27	MS
				Me28R	MS
				Me29R	MS
				Me30	MS
				Me31R	MS

Note. Note. IE = Incivility Encounters; AS = Secure Attachment;

MS = Mental Stability; R = reverse-coded indicator

Figure 25

Original CFA Model: Model A and Model B
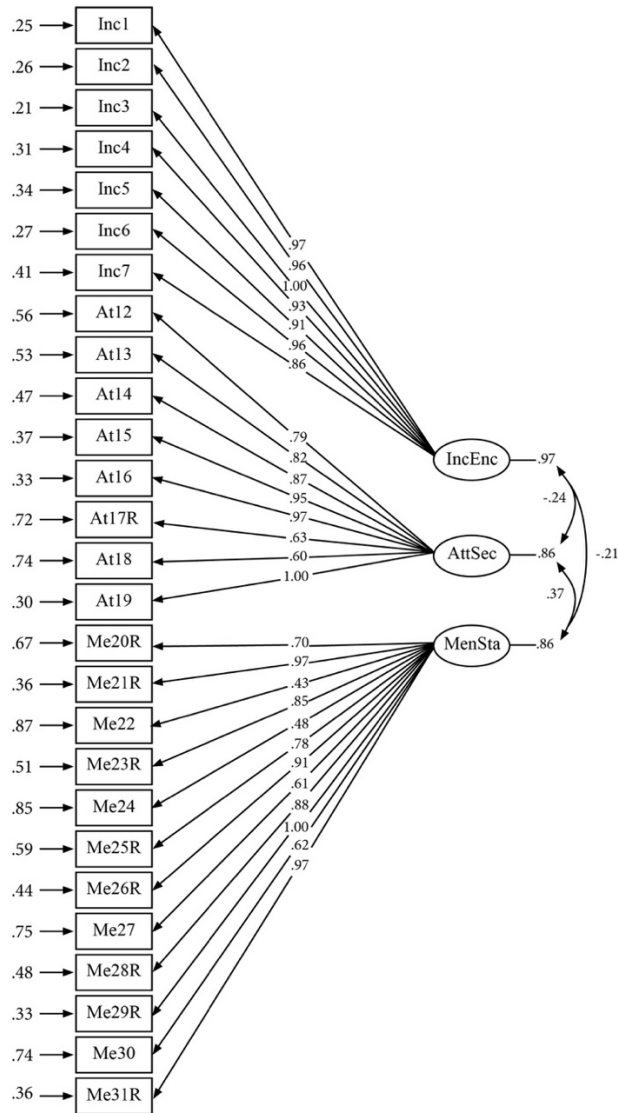
Note. R = Reverse-coded variable. Latent variables include Incivility Encounters

(IE), Attachment Security (AS), and Mental Stability (MS).

Table 28

Guide to Assessing Model Fit

Index	General Rule for Acceptable Model Fit	Type of Fit
χ^2/df	≤ 2 or 3	Absolute
p-value	> .05	Other
RMSEA	< .06 to .08 (confidence interval)	Absolute
SRMR	≤ .08	Absolute
NFI	≥ .95 for acceptance	Comparative
CFI	≥ .95 for acceptance	Comparative
IFI	≥ .95 for acceptance	Comparative

Note. Fit indices' cutoff levels for continuous data (Hooper, Coughlan, & Mullen, 2008; Iacobucci, 2009; Schreiber, Nora, Stage, Barlow & King, 2006). χ^2 = chi-squared; *df* = degrees of freedom; *p*-value = probability value; RMSEA = root-mean-square error of approximation; SRMR = standardized root-mean-square residual; CFI = comparative fit index; IFI = incremental fit index.

The final model reflected four items under each latent factor for a total of 12 items, each item representing a statement measured on a Likert-based scale. Incivility encounters consisted of Inc2, Inc3, Inc5, and Inc6. Attachment security consisted of At13, At14, At16, and At19. Lastly, mental stability consisted of Me21R, Me25R, Me29R, and Me31R (see Table 30; Figure 26). The final items reflected acceptable Cronbach's alpha values for incivility encounters (α = .89), attachment security (α = .83),

and mental stability (α = .82). As all Cronbach's alpha values remained < .90, the items

did not reflect redundancy (see Table 31). These observed items frame the final iteration

of the CFA measurement model. It is preserved in its current form for both of the ensuing

SEM analyses that are discussed next.

Figure 26

Final CFA Model: Model A and Model B
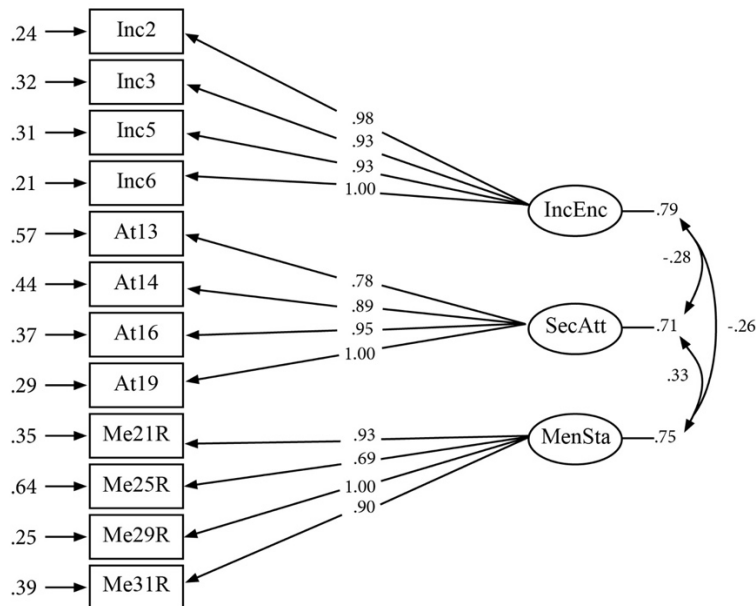
Note. R = Reverse-coded variable. Numbers "1.00" in the path diagram reflect

regression coefficients that are constrained to 1 to minimize number of parameters

in the model estimation (Schreiber et al., 2006).

Table 29

Model Re-Specification for a Parsimonious Model

Removed	Decision Factor	χ^2 ($N = 460$)	df	χ^2/df	RMSEA
None		1,910.60	321	5.95	.104
Me22; Me24	Error variance ≥ .85	1,658.75	272	6.10	.105
Me27; Me30	Error variance ≥ .77	1,257.20	227	5.54	.099
At17R; At18	Error variance ≥ .73	970.01	186	5.22	.096
Inc1	Cross-loadings: Inc2, Inc4, Inc7	812.92	167	4.87	.092
Inc4	Cross-loadings: Inc2, Inc3, Inc6, Inc 7, Me20R, Me26R, Me29R	693.73	149	4.66	.089
Inc7	Cross-loadings: Inc2, Inc3, Me20R	615.14	132	4.66	.089
Me20R	Cross-loadings: Inc3, At12, At15, At16, Me23R, Me25R, Me28R, Me29R, Me31R	461.30	116	3.98	.080
Me23R	Cross-loadings: At12, Me25R, Me26R, Me28R, Me29R, Me31R	395.71	101	3.92	.080
Me26R	Cross-loadings: Me25R, Me28R, Me29R	319.13	87	3.67	.076
At15	Cross-loadings: At12, At13, At16	250.94	74	3.39	.072
Me28R	Cross-loadings: Inc5, Inc6, Me25R	178.60	62	2.88	.064
At12	Cross-loadings: Inc3, At14	77.79	51	1.53	.034

Note. R denotes a reverse-coded variable

Table 30

CFA Model Fit Indices

Model	χ^2	χ^2/df	RMSEA	SRMR	CFI	IFI
Original CFA	1910.60	5.95	.10 (.10 - .11)	.11	.81	.81
Final CFA	77.79	1.53	.03 (.02 - .05)	.04	.99	.99

Note. χ^2 = chi-squared; *df* = degrees of freedom; RMSEA = root-mean-square error of approximation; SRMR = standardized root-mean-square residual; CFI = comparative fit index; IFI = incremental fit index.

Table 31

Final Indicator Variables for SE: Model A and Model B

Measure	Factor (F)	*M*	α	α if V deleted
Incivility Encounters measure	F1= Inc		.89	
While employed, have you ever been in a situation where any of your supervisors or coworkers…				
Paid little attention to your statement or showed little interest in your opinion?	V2=Inc2	2.74		.85
Made demeaning or derogatory remarks about you?	V3=Inc3	2.02		.87
Ignored or excluded you from professional camaraderie?	V5=Inc5	2.38		.86

Measure	Factor (F)	M	α	α if V deleted
Doubted your judgment on a matter over which you have responsibility?	V6=Inc6	2.55		.84
Attachment Security 2 measure	F3=At		.83	
Indicate the degree to which you agree or disagree with each statement.				
I am easier to get to know than most people.	V13=At13	4.86		.84
I feel confident that people will be there for me when I need them.	V14=At14	4.70		.83
I feel confident about relating to others.	V16=At16	5.07		.82
I am confident that other people will like and respect me.	V19=At19	5.07		.82
Mental Stability measure	F4=Me		.82	
Think about your current or last employment. Choose the best match from a scale with two opposite choices.				
During an ordinary working day, are there times when you feel unsettled and upset though the reasons for this might not always be clearly obvious?	V21=Me21R	3.95		.85
If colleagues and friends behave in an aloof way towards you, do you tend to worry about what you may have done to offend them as opposed to just dismissing it?	V25=Me25R	3.44		.86
As time goes by, do you find yourself experiencing fairly long periods in which you feel rather miserable or melancholy for reasons that you simply cannot "put your finger on"?	V29=Me29R	4.29		.85

Measure	Factor (F)	*M*	α	α if V deleted
Are there times at work when the things you have got to deal with simply become too much and you feel so overtaxed that you think you are cracking up?	V31=Me31R	4.37		.85

Note. F = Factor; V = Item; *M* = Mean; α = Cronbach's Alpha.; F1 = Incivility Encounters; F2 = Attachment Security 1; F3 = Secure Attachment 2; F4 = Mental Stability.

Structural Equation Modeling Analyses

SEM is a technique that morphs CFA and multiple regression into one analysis for both confirmatory and exploratory purposes (Schreiber, 2006). It consists of a measurement model and a structural model with variables that are exogenous (i.e., constructs that influence others but are not influenced by others) and endogenous (i.e., constructs that are influenced by others and may influence others), and that are functional either observed or unobserved. SEM is constructed as sequences of specified relationships that resemble regression equations, and that are ran simultaneously to reveal direct, indirect, and total effects of the measured constructs (Schreiber, 2006). The final CFA model was imposed on both Model A and Model B. Both models were constructed of the same variables but in a different sequence. While Model A placed the attachment security construct after the incivility encounters construct, Model B placed the attachment security ahead of the incivility encounters to mimic the hypothesized models. The equations for mental stability (Y_1) in Model A and Model B are based on the following formulas:

Model A₁: Y₁ = B₁ × Dis + B₂ × IE + B₃ × AS

Model A₂: Y₁ = B₁ × Dis

Model B₁: Y₁ = B₁ × Dis + B₂ × AS + B₃ × IE

Model B₂: Y₁ = B₁ × AS

Fit Statistics for SEM Model A and Model B. The fit statistics for Model A and Model B confirmed a good model fit for each model (see Table 32). As expected, both models exhibited the same fit statistics, and the fit statistics confirmed the CFA with an acceptable CFI (.99), IFI (.99), RMSEA (.04), and the Chi-square divided by degrees of freedom reflected 1.65. To expose any instability within the results, the sample was randomly split into two equal groups (i.e., $Split_x$, and $Split_y$) in SPSS ($N = 230$). The SEM analyses were replicated, and resulting new models were compared to the original models (Schreiber et al., 2006). Model A and Model B were processed with $Split_x$ and $Split_y$ to examine stability of the results and equal distribution among the survey population (see Table 33). The $Split_x$ reflected an acceptable CFI (.98), IFI (.98), RMSEA (.05), and the Chi-square divided by degrees of freedom reflected 1.58 for both models, and likewise, the $Split_y$ reflected an acceptable CFI (.98), IFI (.98), RMSEA (.05), and the Chi-square divided by degrees of freedom reflected 1.60 for both splits (see Table 33). The SEM analyses results are considered stable.

The following sections reviews direct, indirect, and total effects of the SEM analyses. To test H_1, H_2, H_5, and H_7, path analysis were conducted in LISREL 9.30. H_1 stated that there is a positive relationship between having a disability and personal workplace incivility encounters. H_2 stated that there is a negative relationship between personal workplace incivility encounters and mental stability under ordinary work

pressures. H_5 stated that there is a positive relationship between attachment security (i.e.,

secure attachment style) and mental stability under ordinary work pressures. H_7 stated

that there is a negative relationship between having a disability and mental stability under

ordinary work pressures. Model A and Model B are analyzed to test the hypotheses.

Model A analysis is outlined next.

Table 32

Fit Statistics for Structural Equation Models A and B

SEM Model	df	χ^2 (N = 460)	χ^2/df	p-value	RMSEA	CFI	IFI
Model A	60	99.01	1.65	< .05	.04	.99	.99
Model B	60	99.01	1.65	< .05	.04	.99	.99

Note. χ^2 = chi-squared; *df* = degrees of freedom; *p*-value = probability value;

RMSEA = root-mean-square error of approximation; CFI = comparative fit

index; IFI = incremental fit index. Theoretically, a fitting model has a non-

significant p-value (> .05) in relation to χ2; refer to text for additional

discussion on p-value and fit statistics.

Direct, Indirect, and Total Effects for Model A. Direct, indirect, and total

estimates were examined to evaluate the relationships among disability status, incivility

encounters, and attachment security, and each variables relationship to workplace mental

stability. Model A was derived from a theoretical framework and proposed that a

significant proportion of the total effect on mental stability can be explained by two direct

and two indirect effects. The two direct effects on mental health were disability status and

attachment security, and the two indirect effects were (a) incivility encounters mediated

by attachment security, and (b) disability status mediated by incivility encounters *and* attachment security (see Figure 27).

Table 33

Fit Statistics for Split Groups X and Y

SEM Model	*df*	χ^2 ($N = 230$)	χ^2/df	*p-value*	RMSEA	CFI	IFI
Split$_x$							
Model A	60	94.64	1.58	< .05	.05	.98	.98
Model B	60	94.64	1.58	< .05	.05	.98	.98
Split$_y$							
Model A	59	94.85	1.60	< .05	.05	.98	.98
Model B	59	94.85	1.60	< .05	.05	.98	.98

Note. χ^2 = chi-squared; *df* = degrees of freedom; *p*-value = probability value; RMSEA = root-mean-square error of approximation; CFI = comparative fit index; IFI = incremental fit index. Theoretically, a fitting model has a non-significant *p*-value (> .05) in relation to χ^2; refer to text for additional discussion on p-value and fit statistics. Sample population was equally divided into random Split$_x$ and Split$_y$ of $N = 230$. Theoretically, a fitting model has a non-significant *p*-value (> .05) in relation to χ^2; refer to text for additional discussion on *p*-value and fit statistics.

Figure 27

SEM Model A

Note. Model A proposed that a significant proportion of the total effect on mental stability can be explained by two direct and two indirect effects. The two direct effects on mental health were disability status and attachment security, and the two indirect effects were (a) incivility encounters mediated by attachment security, and (b) disability status mediated by incivility encounters and attachment security.

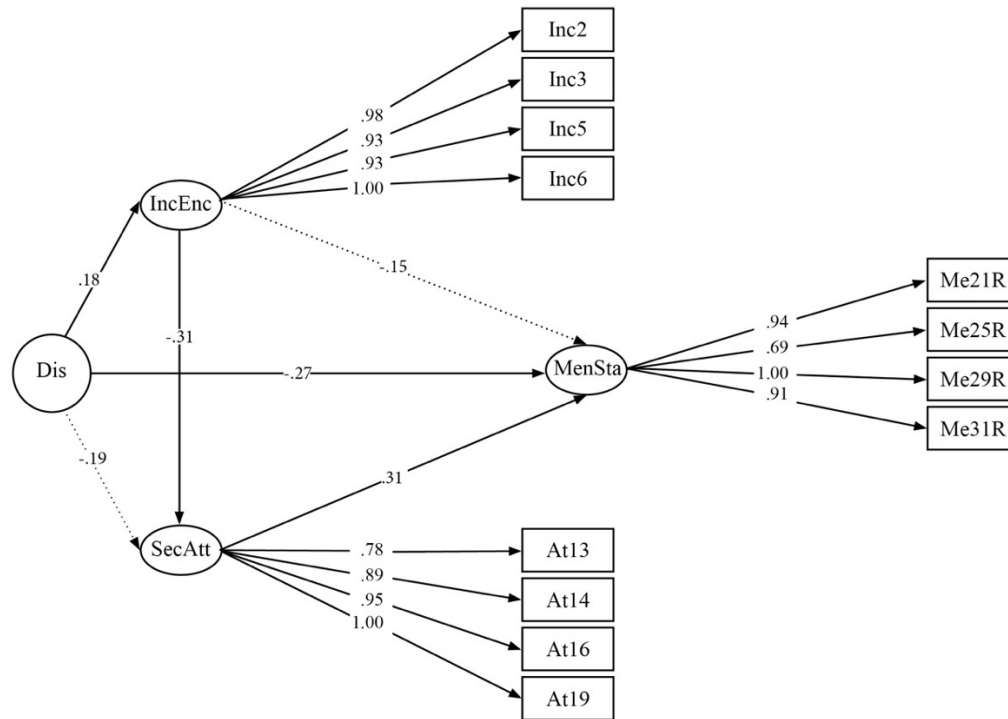The SEM model analyses revealed that all paths were significant, and the three variables (disability status, incivility encounters, and attachment security) accounted for 32.9% of the variance in workplace mental stability. Specifically, disability status ($p <$ .001) and attachment security ($p <$ .001) had statistically significant direct effects on mental stability. Disability status ($p <$ .001) and incivility encounters ($p <$ .001) had statistically significant indirect effects on mental stability (see Table 34; Table 35; Table 36).

Table 34.

Total, Direct, and Indirect Effects of Disability Status

Variable	TE	DE	IE [a]
Model A			
IE [b]	.18***	.18***	
AS	-.25***	-.19***	-.05***
MS	-.38***	-.27***	-.10***
Model B			
IE [b]	.18***	.09*	.09***
AS	-.25***	-.25***	
MS	-.38***	-.27***	-.10***

Note. Significance of total effect (TE) and indirect effect (IE) are measured by *t*-value (*df* = 60), and direct effect (DE) is measured by *p*-value.

[a] IE = Indirect Effect; [b] IE = Incivility Encounters

$t \leq .05^*$ at absolute value of ≥ 2.00; $t \leq .01^{**}$ at absolute value of ≥ 2.66;

$t \leq .001^{***}$ at absolute value of ≥ 3.46; $p \leq .05^*$, $p \leq .01^{**}$, $p \leq 001^{***}$

Analyses for Testing H5 and H7. The direct effect of disability status on mental stability was represented with a path coefficient of -.27 and standard error (*SE*) of .04 (*p* <.001), suggesting that having a disability has a statistically significant negative relationship with workplace mental stability. The significant, negative path coefficient supported H_7, and H_0 was rejected. The direct effect of attachment security on mental stability was represented with a path coefficient of .31 and standard error (*SE*) of .05 (*p* <.001), suggesting that a secure attachment has a statistically significantly positive link with increased mental stability under ordinary work pressures. The significant, positive path coefficient supported H_5, and H_0 was rejected.

Table 35.

Total, Direct, and Indirect Effects of Incivility Encounters

Variable	TE	DE	IE [a]
Model A			
AS	-.31***	-.31***	
MS	-.25***	-.15***	-.10***
Model B			
AS			
MS	-.15**	-.15**	

Note. Significance of total effect (TE) and indirect effect (IE) are measured by *t*-value (*df* = 60), and direct effect (DE) is measured by *p*-value.

[a] IE = Indirect Effect

$t \leq .05^*$ at absolute value of ≥ 2.00; $t \leq .01^{**}$ at absolute value of ≥ 2.66;

$t \leq .001^{***}$ at absolute value of ≥ 3.46; $p \leq .05^*$, $p \leq .01^{**}$, $p \leq 001^{***}$

Table 36.

Total, Direct, and Indirect Effects of Attachment Security

Variable	TE	DE	IE [a]
Model A			
IE [b]			
MS	.31***	.31***	
Model B			
IE [b]	-.36***	-.36***	
MS	.31***	.31***	.05**

Note. Significance of total effect (TE) and indirect effect (IE) are measured by *t*-value (*df* = 60), and direct effect (DE) is measured by *p*-value.

[a] IE = Indirect Effect; [b] IE = Incivility Encounters

$t \leq .05^*$ at absolute value of ≥ 2.00; $t \leq .01^{**}$ at absolute value of ≥ 2.66;

$t \leq .001^{***}$ at absolute value of ≥ 3.46; $p \leq .05^*$, $p \leq .01^{**}$, $p \leq 001^{***}$

The indirect effect of disability status, mediated by incivility encounters and attachment security on mental stability, was represented with a path coefficient -.10 and SE of .02 (p < .001), and the indirect effect of incivility encounters, mediated by attachment security on mental stability, was represented with a path coefficient of -.10 with SE of .02 (*p* < .001). This suggested (a) that both incivility encounters *and* attachment security variables significantly mediated the path from disability status to mental stability, and (b) that attachment security significantly mediated the path from incivility encounters to mental stability. The outcome corroborated the previous findings of hierarchical regression.

Direct, Indirect, and Total Effects for Model B. Direct, indirect, and total

estimates were examined to evaluate the relationships among disability status, incivility

encounters, and attachment security, and each variables relationship to workplace mental

stability. Model B was derived from a theoretical framework and proposed that (a) a

significant proportion of the total effect on mental stability can be explained by one direct

and two indirect effects, and (b) a significant proportion of disability status on incivility

encounters can be explained by one direct effect. The first direct effect derived from

incivility encounters on mental stability, and the second direct effect derived from

disability status on incivility encounters. The two indirect effects on mental stability were

(a) attachment security mediated by incivility encounters, and (b) disability status

mediated by attachment security *and* incivility encounters (see Figure 28).

The structural equations addressing Model B_1 revealed that all paths were

significant, and the three variables (disability status, incivility encounters, and attachment

security) accounted for 32.9% of the variance in workplace mental stability. The reduced

form equations addressing Model B_2 revealed that the path was significant, and disability

status accounted for 4% of the variance in workplace incivility encounters. Specifically,

incivility encounters ($p < .001$) had a statistically significant direct effect on mental

stability, and disability status ($p < .001$) had a statistically significant direct effect on

incivility encounters. Attachment security ($p < .001$) had a statistically significant indirect

effect on mental stability, and disability status ($p < .001$) had a statistically significant

indirect effect on mental stability (see Table 34; Table 35; Table 36).

Figure 28

SEM Model B
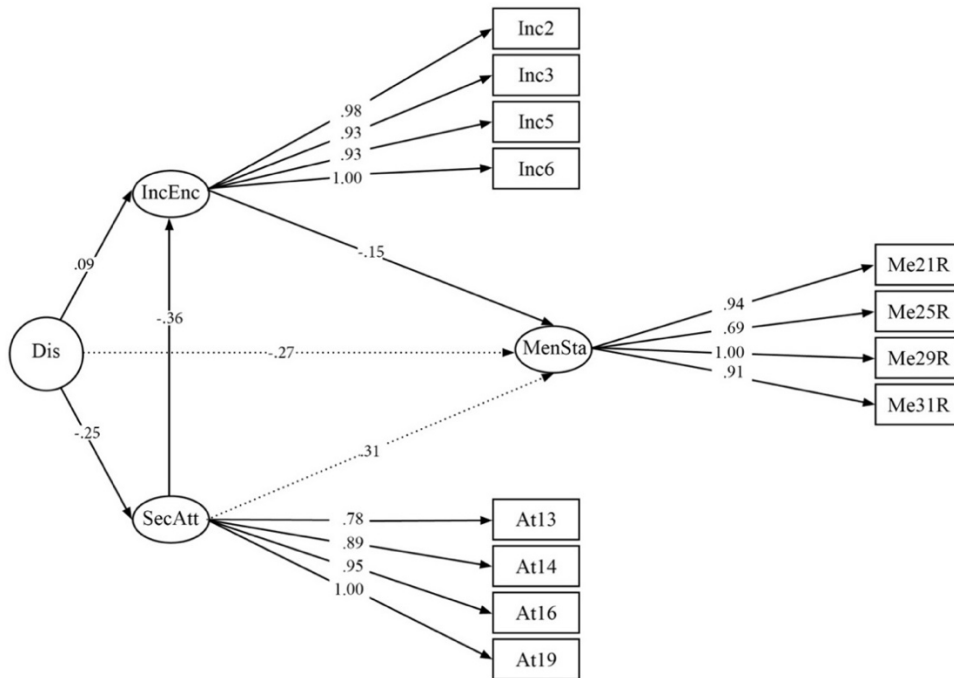
Note. Model B proposed that (a) a significant proportion of the total effect on mental stability can be explained by one direct and two indirect effects, and (b) a significant proportion of disability status on incivility encounters can be explained by one direct effect. The first direct effect derived from incivility encounters on mental stability, and the second direct effect derived from disability status on incivility encounters. The two indirect effects on mental stability were (a) attachment security mediated by incivility encounters, and (b) disability status mediated by attachment security and incivility encounters.

Analyses for Testing H_1 and H_2. The direct effect of incivility encounters on

mental stability is represented with a path coefficient of -.15 and *SE* of .05 (p =.001),

suggesting that workplace incivility encounters have a statistically significant negative

relationship with workplace mental stability. The significant, negative path coefficient

supported H_2, and H_0 was rejected. The direct effect of disability status on incivility

encounters is represented with a path coefficient of .09 and *SE* of .04 ($p < .05$) indicating

that simply having a disability significantly increases workplace incivility encounters.

The significant, positive path coefficient supported H_1, and H_0 was rejected.

The indirect effect of attachment security, mediated by incivility encounters, was

represented with a path coefficient of .05 and *SE* of .02 ($p < .01$), and the indirect effect

of disability status, mediated by attachment security and incivility encounters on mental

stability, was represented by a path coefficient of -.10 and *SE* .02 ($p < .001$). The results

indicated (a) that incivility encounters significantly mediated the path from disability

status to mental stability, and (b) that attachment security *and* incivility encounters

significantly mediated the path from disability status to mental status. The outcomes were

aligned with previous hierarchical regression findings. In summary, *H_1, H_2, H_3, H_4, H_5,*

and *H_7* were supported (see Table 12). Simply having a disability increases incivility

encounters, which effectively lowers one's mental stability under ordinary work

pressures. Additionally, because having a disability has a negative effect on one's mental

stability under ordinary work pressures, incivility encounters mediate the relationship by

further deteriorating mental stability at work. On the other hand, having a secure

attachment reduces incivility encounters. Additionally, the 3-level analysis of attachment

security suggests that high attachment security not only reduces incivility encounters but

reverses the trend; employees with disabilities and with high attachment security

experience less incivility encounters than their peers without disabilities and with high

attachment security. However, it is appropriate to issue a caveat that, although previous

literature has found categorization of continuous variables appropriate to tease out

nuances and add significant detail to a research, the results of such categorization should

be approached with caution. Although H_6 or attachment security was not supported as a

moderator between incivility encounters and mental stability, it may more appropriately

examined as a mediator. This significant relation was suggested by SEM analysis and

will be discussed in Chapter V.

Summary of the Results

The results of the study mostly support the hypotheses outlined. Disability status,

attachment security, incivility encounters, and mental stability were all significantly

associated with each other. Attachment security moderated the link between having a

disability and incivility encounters but not the link between incivility encounters and

mental stability. Incivility encounters mediated the link between disability status and

mental stability. Chapter V discusses the implications of the results for future research,

theory, and practice, and outlines study limitations and additional considerations.

CHAPTER V

DISCUSSION

Study Summary

Despite the value of workplace civility, civility has been replaced by social exchanges that include statements and behaviors deemed largely unacceptable and undeniably rude (Andersson & Pearson, 1999; Porath & Pearson, 2010, 2013). One type of rude behavior that appears innocuous is called workplace incivility, yet incivility disturbs efficient functioning among employees, intensifies work stress, and poses a grave financial hazard to an organization. The present quantitative study investigated the role of workplace incivility with respect to individuals with disabilities, its relation to mental health, and the role of secure attachment as a moderator and incivility as a mediator. While incivility that an employee experiences was expected to facilitate mental health decline, an employee's secure attachment style was proposed to buffer against it.

Sequential hierarchical regression and structural equation model analyses were conducted to construe relationships among observed variables of two hypothetical models in this non-experimental design. The models included both direct and indirect paths consisting of mediator and moderator effects. The present study indicated that (a) having a disability was linked to increased incivility encounters, (b) incivility encounters decreased target's mental stability, (c) encountering incivility intensified the negative link between having a disability mental stability, (d) attachment security moderated or weakened the positive link between having a disability and incivility encounters, (e) increased levels of attachment security increased workplace mental stability, and (f) having a disability was significantly linked to decreased workplace mental stability. The

current study revealed that employees with disabilities were vulnerable to damaging mental health-related outcomes of incivility but that secure attachment shielded them against incivility encounters. Lastly, a step-like analysis of the moderator categorized into three levels of attachment security (i.e., high, moderate and low) reflected that employees with disabilities and high attachment security encountered *less* incivility than the employees *without* disabilities.

The current study was conducted at a large university located in the Southeastern of the United States. The majority of the study participants identified as of Hispanic/Latin origin, and participants of White origin represented only the second largest population. Therefore, the population sample was unrepresentative of current U.S. population as a whole, with White population as the majority demographic group. However, the study reflected demographic trends in the research location. Importantly, they also represented a changing demographic trend (Cilluffo & Cohn, 2019; Horowitz, 2019), as Hispanic population is projected to grow and surpass other minority groups (Cilluffo & Cohn, 2019).

The purpose of the study was to expand incivility literature by (a) introducing a population that is nearly absent from the incivility literature (i.e., individuals with disabilities), (b) investigating a role of attachment style, precisely secure attachment, as a moderating factor in incivility experiences, and (c) analyzing the relationship of incivility experiences with workplace mental stability. The following section reviews the research questions and hypotheses.

Discussion of the Results

The discussion of the results progresses in a consecutive order from H_1 to H_7, and it compares and contrasts relevant findings in the two models. Importantly, the two models are not nonpareil with regard to the chosen observed variables but simply representations of discretionary models, which meet the Goodness of Fit standards. Alternative SEM models with a model fit commensurate with the proposed SEM models are conceivable (Chin, 1998). Additionally, the survey format was limited to a self-report reflecting participants' perceptions of experienced incivility events, as opposed to perceptions of observers or perpetrators. Therefore, the findings are derived from participant's subjective perception of being a target of incivility, and his or her interpretation of the event.

Hypothesis 1

The first hypothesis asserted a positive relationship between having a disability and workplace incivility encounters, and statistical analyses supported the first hypothesis. Essentially, employees with disabilities indicated that they were targets of incivility at higher rates than employees without disabilities. Previous research literature supports the finding that individuals with disabilities are significant targets of workplace ill-treatment (Fevre et al., 2012, 2013). As a significant caveat, this researcher identified only two publications with respect to workplace ill-treatment toward people with disabilities. Both publications were based on a single British, government-sponsored research on workplace ill-treatment, and the researchers characterized 21 instances of ill-treatment. Only seven characterizations resembled incivility, including (a) someone withholding information central to job performance, and (b) an employee dismissing his

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or her colleague's opinions (Fevre et al., 2013). The word *subtle* in reference to

workplace incivility (e.g., exclusion from social engagements, repeated rejections of

one's ideas) does not imply a less harmful experience than overt forms of deviance (e.g.,

shouting, shoving; Pearson et al., 2001). Undoubtedly, incivility has damaging outcomes.

It is more prevalent than overt forms of workplace deviance (Cortina et al., 2001) and can

spiral into aggression, including bullying and physical assaults (Andersson & Pearson,

1999). In general, a single incivility event is ephemeral and inconspicuous to observers.

Notwithstanding the observers' unawareness, recurring incivility events can grow

palpable to the target and erode his or her well-being, including mental stability (Caza &

Cortina, 2007; Colligan & Higgins, 2006; Laschinger et al., 2013). The current study

supported the notion that incivility has negative mental health outcomes.

Hypothesis 2

The second hypothesis proposed a negative relationship between personal

workplace incivility encounters, and mental stability. Mental stability was measured

through one's coping skills under work pressures (Williams, 2000; Williams & Cooper,

1998). Statistical analyses supported the second hypothesis, and increases in incivility

encounters resulted in decreases in workplace mental stability. The present research

indicated a notable adverse impact on employee's mental state when the employee

perceived to be a target of incivility. Likewise, previous literature supports the notion that

experienced incivility is adversely linked to mental stability (Caza & Cortina, 2007; Sliter

et al., 2010), with the caveat that the prior research did not single out employees with

disabilities as the sample population. Based on a sample of university students, Caza and

Cortina (2007) concluded that the majority had experienced psychological distress as a

result of incivility. Additionally, previous literature supports that simply observing, or witnessing, incivility is destabilizing to one's mental wellness (Pearson et al., 2001).

Hypothesis 3

The third hypothesis, which proposed that incivility encounters variable mediates a link between having a disability and mental stability, dovetail into the first, second, and seventh hypotheses: (a) The first hypothesis reflected that having a disability increased workplace incivility encounters; (b) the second hypothesis established that incivility encounters decreased workplace mental stability; and (c) the seventh hypothesis indicated that having a disability decreased workplace mental stability. The findings of H_1, H_2, and H_7 were conceptualized as follows:

- H_1: Having a Disability (+) Incivility Encounters (i.e., a positive relationship)

- H_2: Incivility Encounters (-) Mental Stability (i.e., a negative relationship)

- H_7: Having a Disability (-) Mental Stability (i.e., negative relationship)

The third hypothesis asserted that the incivility encounters variable mediates or amplifies the negative link between having a disability and workplace mental stability. As expected, the statistical analysis supported the third hypothesis. Additionally, the aggregate of findings of H_1, H_2, and H_7 reinforced the third hypothesis. Thus, it signaled that an incivility event propelled a conscious or a subconscious adverse internal dialogue within the experiencer (Baron & Kenny, 1986), and the experiencer's interpretation of the event intensified his or her mental dissonance. Mediators illustrate how external events (i.e., incivility event) assume internal processes (i.e., event perception or interpretation), and the processes involve subjective factors that can either strengthen or weaken the

impact of the event (i.e., outcome; Baron & Kenny, 1986). No previous literature known to the researcher has investigated impact of workplace incivility on mental health of individuals with disabilities. However, research of Sliter et al. (2010) parsed out a process of emotional labor, or exhaustion, as the mediator between incivility encounters and mental health outcomes of customer service workers (i.e., bank tellers). Thus, it is plausible that the adverse internal dialogue of individuals with disabilities during incivility encounters also relates to emotional labor, which leads to mental exhaustion.

Hypothesis 4

The fourth hypothesis proposed that a secure attachment style moderates (i.e., weakens) the positive link between having a disability and personal workplace incivility encounters. Moderator variables either alter the intensity or reverse the direction of the link between an independent and dependent variable, or do both (Baron & Kenny, 1986). Notably, the altered link may be significant for one subpopulation but nonsignificant for another. The statistical analyses supported the fourth hypothesis, and a secure attachment style decreased incivility encounters of employees with disabilities. No studies known to this researcher have explored subjective factors that safeguard employees with disabilities against workplace incivility. Thus, the present research laid the groundwork by exploring a secure attachment style as a moderator between having a disability and incivility encounters. The research incorporated two models with the same moderator variable, though each model assigned an unique function, or a role, to the moderator (see Figure 3). The placement of the secure attachment variable in two divergent roles added rigor and specificity to the study.

Findings of the fourth hypothesis demonstrated that one subjective factor that weakens

the impact of incivility is a secure attachment style. Additionally, the step-like analysis of

the moderator categorized into high, moderate and low attachment security revealed that

both high and moderate attachment security acted as antagonistic moderators by changing

the direction of the relationship between disability status and incivility encounters from

positive to negative. Significantly, the findings indicated that employees with disabilities

and high attachment security encountered *less* incivility than the employees *without*

disabilities.

The finding that the quality of the secure attachment (i.e., high, moderate, and low

attachment security) is significant further expands the understanding of the constructive

role of attachment at work and employees with disabilities. The researcher of the present

study was unable to locate other literature that analyzed secure attachment as a moderator

in a similar context. Yet the notion that an individual's secure attachment style lessens

interpersonal conflict is extensively supported by literature. Individuals with a secure

attachment style demonstrate personality characteristics that promote satisfactory

outcomes during dissension, misunderstanding, and squabbles (Bartholomew, 1990,

1997; Bartholomew & Horowitz, 1991). Throughout the lifespan, individuals with secure

attachments have encountered successful interpersonal experiences. Positive

interpersonal outcomes build general self-assurance in relationships. Additionally, each

new experience allows the individual to retest learned strategies and to discover new

ones, which leads to a stockpile of mental tools for interpersonal events (Collins, 1996;

Mikulincer et al., 2003). Securely-attached individuals have learned to eradicate

distressing elements proactively and constructively, and to reestablish balance and

harmony in life without compromising social relationships (Mikulincer et al., 2003).

Essentially, years of skillful and successful resolutions of interpersonal conflicts have

built multiple tools to resolve, avert, or lessen impacts of incivility.

Previous literature supports that one hallmark of securely-attached individuals is a

positive view of others, including the belief that others are trustworthy (Metin Camgöz &

Bayhan Karapinar, 2016; Mikulincer et al., 2003; Picardi, Fagnani, Nisticò, & Staz,

2011). The employees who (a) place trust in others, (b) presume that people have

genuinely good intentions, and (c) acknowledge that threatening events are largely

manageable can cope with stressors (e.g., incivility events) more constructively than the

employees who are easily distressed by any apparent threat (Mikulincer et al., 2003).

Second hallmark of securely-attached individuals is a well-developed set of interpersonal

coping skills (Mikulincer et al., 2003). Therefore, the fourth finding also develops the

research of Mikulincer et al. (2003), which asserts that securely-attached individuals can

better cope under distress than individuals with insecure attachments.

Hypothesis 5

The fifth hypothesis argued that a secure attachment style (i.e., secure-leaning

attachment) is positively linked to mental stability under work pressures. Statistical

analyses supported the hypothesis; increased levels of attachment security directly and

significantly increased mental stability. In 1954, Bowlby lamented that an individual's

capacity to create healthy interpersonal relationships is not studied by medical

professionals, although it is likely (a) the most significant human function, (b) a function

that leads to a psychiatric disability if fractured, (c) a behavior based on relationship

expectations that are affixed during an individual's first three to five years of life, and (d)

a competence that impacts romantic, employment, and other relationships throughout one's life. To the extent that a secure attachment style promotes creation and maintenance of healthy interpersonal bonds that in turn positively link to mental health, the present findings support Bowlby's (1954) argument that the capacity to form healthy human bonds is a significant competence that impacts employment relationships.

Current attachment literature recognizes the significance of early childhood bonds in later relationships and mental health (Aaronson et al., 2006; Bowlby, 1951, 1954, 1970, 1977), and again, the present study demonstrated that employees with secure attachment styles maintained better mental health under work pressures than employees with insecure attachment styles. It is not surprising, for securely-attached individuals have internalized a stable, consistent, and intricate understanding of themselves as an individual (Mikulincer, 1995). They have a sense of mastery over life skills and an ability to compartmentalize distressing events without spillover to the entire self-image. Additionally, securely-attached individuals are unlikely to experience an occasional defeat as a debilitating event. Instead, they cope with distress constructively because their self-image mirrors established representations of positive attachments and outcomes (Mikulincer, 1995). Meyers' (1998) study identified that securely-attached individuals effectively managed stress and anxiety to the benefit of their well-being in comparison to their insecurely-attached counterparts. Consequently, previous studies suggest that the securely-attached individuals have well-adapted and malleable coping skills in the face of stress. The exceeding skills allow the securely-attached to more effectively maintain mental stability under duress than their insecurely-attached peers, and the present

research indicated that the malleable and effective coping skills under distress extend to work environments.

Hypothesis 6

The sixth hypothesis was unique to Model A, and it investigated the manner in which attachment security moderated a link between workplace incivility encounters and mental stability. That is, does an employee's attachment security moderate, or diminish, the magnitude of the negative link between incivility experiences and mental stability at a statistically significant level? Essentially, securely-attached employees with disabilities were expected to exhibit more robust mental stability under work pressures than their insecurely-attached colleagues with disabilities. A regression analysis of secure attachment did not reflect statistically significant moderation, or interaction, effects between incivility encounters and mental stability. The findings did not support H_6, and H_0 was maintained.

Although Model A did not reveal attachment security as a moderator, it is conceivable that insecure attachments in general or a specific type of insecure attachment mediates (i.e., strengthen) the negative relationship between workplace incivility encounters and mental stability. Current literature reflects that adverse experiences in childhood and unfavorable psychological outcomes are mediated by insecure attachments styles (Sheinbaum et al., 2015). It is reasonable to infer that adverse experiences in adulthood experiences and negative mental outcomes may likewise be mediated (i.e., amplified) by insecure attachment styles.

Hypothesis 7

The seventh hypothesis contended that a negative relationship exists between having a disability and mental stability under work pressures. The hypothesis was unique to Model A, and the statistical analyses supported the hypothesis, indicating that employees with disabilities exhibited less robust mental stability under work pressures than employees without disabilities. It is prudent to recognize that mental disabilities are common, and that health is not only described as freedom from illness, but also as an ability to effectively access personal resources on a need basis (World Health Organization, 2004). The majority, or around 40%, of the individuals with mental disorders fall under mild category, and 55% of all individuals with mental disorders exhibited only a single diagnosis (Kessler, Chiu, Demler, & Walters, 2005). The two most prevalent disorders are an anxiety disorder (e.g., panic disorder, generalized anxiety disorder, post-traumatic stress disorder, etc.) and a mood disorder (e.g., depressive disorders, bipolar disorders, attention-deficit/hyperactivity disorder [ADHD]; Kessler et al., 2005).

As work pressures can create a compounding effect with mental disorders, it would not be surprising if a mental disability attenuated employee's mental stability. For example, worry and fear are central concepts of anxiety disorders (American Psychiatric Association, 2013), and work pressures may deepen worries and fear of an employee with an anxiety disorder. Moreover in the post-industrial era, employers place emphasis on mental proficiency instead of physical functioning to complete work tasks (Barnes, 2012). An emphasis on mental proficiency may create distress for those with mental disabilities. On the other hand, employees with physical disabilities may experience

destabilizing and demoralizing mental anguish as result of insufficient career

development opportunities and stagnation (Colligan & Higgins, 2006).

Systematic exclusion of people of disabilities from the workforce has left

employees with disabilities underrepresented in professional and managerial positions,

and overrepresented in semi- and unskilled positions (Barnes & Mercer, 2005).

Employees with disabilities are less likely to engage in a friendly banter with coworkers,

and more likely to experience social exclusion during breaks and professional

conversations than employees without disabilities. Instead of friendly social interaction,

they receive task-related commands (Lengnick-Hall et al., 2008). Each of the internal and

external factors discussed can weigh heavily on an employee's mind, contributing to

decreased mental stability at work.

Model A and Model B Comparison for Replication Purposes

The researcher of the present study recommended Model B as the most

appropriate model for study replication purposes. All supported hypotheses can be

examined with Model B. Additionally, only Model B examined a secure attachment style

as a moderator between having a disability and incivility (i.e., Hypothesis 4), and Model

B moderator variable cannot be measured with Model A design.

Implications for Theory, Research, and Practice

Implications of the study findings are divided into three principal sections. First

section outlines theoretical implications in relation to HRD. The second section advances

the theoretical implications to salient HRD-related research concepts. The final section

connects the findings with HRD practice.

Implications for Theory

The study expanded incivility theory in four distinct areas. First, the study extended Cortina's (2008) theory of selective incivility by broadening the population to include employees with disabilities, and it concurred with the conclusion that a selective minority population can experience increased levels of incivility encounters in comparison to majority groups (Cortina et al., 2013). Second, it reinforced previous studies that link incivility encounters to decreased mental stability (Caza & Cortina, 2007). Third, it demonstrated that workplace incivility mediated or amplified a negative link between having a disability and workplace mental stability, which supported previous findings that incivility experiences result in adverse mental outcomes (Caza & Cortina, 2007). However, no known research has explored incivility as a mediator between *employees with disabilities* and mental stability, and the current study found that employees with disabilities had comparatively more negative link with mental health than their counterparts without disabilities. Fourth, it reflected that securely-attached employees with disabilities experienced less incivility because secure attachment acted as a moderator by buffering against the negative outcomes of incivility. The finding begs the question whether securely-attached employees with disabilities experience less negative outcomes in relation to incivility encounters because their relationship skills circumvent incivility encounters itself, or because they can cope better with the aftermath of incivility better than their insecurely-attached peers, or both?

Besides enriching incivility theory, findings broadened existing literature on attachment theory. The detailed findings and their relation to literature were discussed

under each appropriate hypothesis. The researcher finds that the most salient theoretical implication relates to Cortina's (2008) concept of selective incivility.

Selective Incivility

The theoretical implications of the current study are most salient in the context of Cortina's (2008) theory of selective incivility. The first finding reflected that employees with disabilities experienced heightened levels of incivility. Cortina theorized that sexism and racism lead to rationalized acts of interpersonal incivility, or selective incivility, toward women and racial minorities. The acts manifest in a disparate number of incivility encounters directed at minorities in comparison to men and individuals who identify as white (2008). Indeed, a subsequent study found that gender and race predicted workplace incivility encounters. It reflected a compounding effect of race and sex with non-white women encountering the most workplace incivility (Cortina et al., 2013), supporting the theory of selective incivility. The present study augments the theory by highlighting another minority group, specifically employees with disabilities, who experience selective incivility.

Selective incivility overlaps with a modern concept of discrimination that posits that individuals belonging to the majority sincerely, but erroneously, believe that they do not engage in discriminatory behaviors and that they *do* exhibit inclusive behaviors. (Cortina et al., 2013). The very individuals sweepingly and firmly denounce discrimination, and believe that discrimination against minorities has been abolished. Yet they resent the minority for a belief that the minority demands *and* receives unjustified work-related advantages and treatment; a precept that leads to discriminatory acts such as selective incivility (Cortina et al., 2013). Therefore, the implications of selective

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incivility theory infer that employers and employees without disabilities, who belong to the majority, can sincerely believe that do not discriminate against employees with disabilities, all the while resenting them for perceived gratuitous, work-related benefits (e.g., work accommodations such as an ergonomic chair or a customized keyboard).

Workplace Incivility and Mental Stability. In accordance with previous studies on incivility and mental stability, the present research implicated that mental stability of employees with disabilities declined as incivility encounters intensified. The finding creates a distinction to previous literature by highlighting employees with disabilities as a minority population that bears significant mental consequences as a result of incivility. It is a weighty discovery for employees with disabilities, considering that the present study also indicted that individuals with disabilities experience increased levels of incivility. Incivility generates cognitive disturbance, which interferes with productivity and job satisfaction (Cortina et al., 2013). As previously discussed, selective incivility singles out women and racial minorities in particular (Cortina et al., 2013). Thus, the findings of this research may have the gravest implications for employees with disabilities who are women, and who belong to a racial/ethnic minority group.

Mediators and Moderators. The study revealed that incivility encounters mediated the relationship between having a disability and mental stability. Metaphorically, the link between having a disability and mental stability is an artery. As a mediator, incivility is a vascular disease that stiffens the artery and increases the pressure within, leading to impaired functioning. On the other hand, secure attachment moderated the relationship between having a disability and incivility encounters. Figuratively, secure

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attachment in its role as a moderator is an extinguisher that cuts off the oxygen supply and smothers the flames of incivility.

The incivility encounters variable in this study partially explained the reason that some employees with disabilities demonstrated greater decreases in mental stability than others. It augmented existing incivility theory by identifying workplace incivility as a partial contributor to increased pressure that employees with disabilities feel and that in turn deteriorates one's mental capacity to effectively tackle daily stressors at work. The finding is consistent with existing literature in relation to the role of a mediator. Mediators pinpoint intermediary mechanisms that link independent and dependent variables, and convert dyadic relationships into series of linked relationships. They explain the *why* and *how* a process occurs (Baron & Kenny, 1986; Wu & Zumbo, 2008). The current finding explained that the employees with disabilities who encounter incivility (i.e., why) have more pronounced negative mental health outcomes than employees with disabilities who do not encounter incivility or who encounter less incivility in comparison to other individuals with disabilities.

Moderator explains *when* an independent variable has either the strongest or the weakest link to a dependent variable, and *for whom* the link is the strongest or the weakest (Baron & Kenny, 1986; Wu & Zumbo, 2008). This study revealed that, among employees with disabilities, incivility encounters were weaker for employees with secure attachments than for employees with insecure attachments, as hypothesized. Moreover, incivility encounters were the weakest for employees with disabilities who scored the highest on attachment security. The finding expands the incivility theory by identifying a unique characteristic that safeguards an employee with a disability against incivility

encounters. The finding also augments the attachment theory, as this researcher is unaware of other studies that have analyzed the role of attachment in the context of workplace incivility and employees with disabilities as incivility targets.

Secure Attachment and Workplace Mental Stability. Securely-attached employees with disabilities in the present study displayed higher levels of mental stability than their insecurely-attached counterparts. The present study findings corroborated Meyers (1998) findings that securely-attached adults have greater levels of personal competence, experience less mental distress, and they are less likely to engage in self-blaming narratives than insecurely-attached adults. Additionally, he posited that the findings implied that a secure attachment increased one's capacity to manage distress. The study expands attachment theory by revealing that positive mental outcomes of secure attachment apply to this minority population as well. The discovery is notable jointly with the final finding that employees with disabilities exhibited a reduced range of mental stability, provided that the attachment variable was excluded from the equation.

Disability and Workplace Mental Stability. This study indicated that individuals with disabilities experience less mental stability under work pressures, which is a logical conclusion because the population included individuals with mental disabilities. Therefore, the two most salient theoretical implications embed this final finding with the previous finding regarding secure attachment. First, the two findings collectively illustrate that a secure attachment may offset the negative link between having a disability and mental stability. Secondly, the past literature on children with disabilities and attachment styles, en masse, reorients traditional beliefs about core

foundations and antecedents that direct the quality of the attachment between a child with a disability and a primary caregiver (Howe, 2006).

Attachment styles appear to be primarily rooted in the *quality* of interpersonal interaction between a child and a caregiver rather than in the child's *disability*. Biopsychological approaches to attachment emphasize the critical function of a healthy, nurturing attachment to infant's brain development, and specifically, the development of the brain's limbic system, which is related to emotional development and learning among other functions (Penketh et al., 2014). Sustained periods of negative emotional states can markedly impact the brain chemistry of a developing infant or a child. Lastly, some scholars argue that attachment is not an unidirectional concept, and a disability can impact the quality of interaction (Clegg & Lansdall-Welfare, 1995). The researcher argues that such a view does not contradict, but augments, the idea that attachment is first and foremost based on the relationship quality rather than disability-related factors.

Essentially, it is conceivable that a value of the link between having a disability and mental stability is more reflective of one's attachment style than of having a disability. Caregiver's approachable, encouraging, compassionate, perceptive, and harmonious interactions communicate acceptance and love to the child with a disability, which in turn facilitates the growth of a positive self-image, emotional intelligence, and social competence (Howe, 2006). If true, secure attachment is a likely moderator between having a disability and mental stability.

Implications for Research

The research implications consists of (a) selective incivility, (b) incivility encounters and mental stability, and (c) mediators and moderators, and mental stability.

Selective Incivility. Exploring the nuances selective incivility appears as a worthwhile exploration for the benefit of human resource development in organizational, industrial, and government settings. Cortina et al. discussed a concept of "double-whammy" of discrimination toward non-white women (2013). If Cortina's logic prevailed, then non-white women with disabilities would experience a *triple-whammy* of discrimination (e.g., minority gender, minority race or ethnicity, and having a disability) in a form of incivility. The present research found that employees with disabilities experienced increased incivility encounters. However, it was beyond the scope of this research to explore within-group and between-group differences, and the researcher recommends it for future research to pinpoint individuals or groups most vulnerable to incivility among individuals with disabilities. For example, between-group differences could measure incivility encounters of women with disabilities and men with disabilities, while within-group differences might compare incivility encounters of white Hispanic women with disabilities and White women with disabilities. The latter example can be particularly compelling in regions similar to the research location in which Hispanic/Latin population is dense. Also, a narrow question, such as what type of people with disabilities experience the most incivility encounters, may be salient for a nuanced explanation of selective incivility.

A comparison of a member of one disability subgroup to a member of another may uncover significant patterns of selective incivility. Initially, a proper classification system of people with disabilities would need to be determined. In one conceptual classification tree, *Employees with Disabilities* could represent an overarching category that incorporated members with a sweeping spectrum of disabilities. The members of

ensuing subgroups would connect to one another by shared disability-related characteristics. Therefore, the membership count would decrease with each added stipulation, and the tree would grow additional branches with each new criteria. The design of the most appropriate classification system would depend on the researcher's theoretical lens and the research goals.

Once the disability classification system is clear to the researcher, then the researcher is responsible for effectively implementing it in his or her research. If the grouping involved detectable and undetectable disabilities, as one alternative proposed in the present research, then the approach may include employees estimating detectability of disability on a quantitative scale or through qualitative questions. Some questions investigating employee's experiences may include the following:

1. In your opinion, what is the likelihood that coworkers, supervisors, customers, or clients (i.e. colleagues and customers) detect your disability through sight, sound, behavioral observation, work product, or by other detectable means?

2. If you believe that your disability *is* detectable, choose the most likely manner in which your colleagues may detect your disability, such as sight, sound, behavioral observation, work product, or by other means?

3. From the options above, what other ways your colleagues and customers may detect your disability?

4. What type of statements have you heard your colleagues and customers make regarding your disability in relation to your employment? Would you rate the statements as positive, neutral, or negative?

Secondly, a study including basic demographic variables of race or ethnicity, and sex of participants with disabilities may uncover additional selective incivility patterns. One likely pattern is a cumulative impact of incivility on employees ascribing to more than one minority group (Cortina et al., 2013). Other salient questions relate to incivility perpetrators, which may include colleagues, customers, clients, subordinates, supervisors, managers, and executives. The following is a list of proposed research questions:

1. Does belonging to a racial or a gender minority group coupled with having a disability, generate a double bullseye on the incivility target?

2. Do perpetrators sense a triple bullseye on a *female* employee with a disability who belongs to a racial or ethnic minority?

3. Are there statistically significant differences in incivility experiences between an employee with a detectable and undetectable disabilities?

4. Who perpetrates acts of incivility toward you? Does one group appear to single you out more than others in relation to uncivil treatment?

Today is merely a dawn in disability-linked, incivility research. Simply framing the research questions around a journalistic approach, and investigating answers to basic questions of *who*, *what*, *when*, *where*, *why*, and *how* may bring forth significant information. For example, invaluable concepts in HRD literature may include pinpointing specific groups of employees with disabilities *who* are most adversely impacted by workplace incivility, and identifying ranks of employees (e.g. coworkers, supervisors, managers etc.) *who* perpetrate workplace incivility toward employees with disabilities. A detailed understanding of at-risk subgroups and incivility perpetrators is especially worthy to HRD professionals in charge of developing effective civility trainings.

Incivility Encounters and Mental Stability. As discussed in the section above, H_1 indicated that individuals with disabilities experienced increased levels of incivility, and previous literature reflects that selective incivility targets women and racial minorities (Cortina et al., 2013). Meanwhile, H_2 reflected that having a disability has an inverse link to mental stability. If all of the above assertions are true, as the studies suggest, the mental stability outcomes may be seriously adverse for employees with disabilities who are also women or who belong to a racial or an ethnic minority.

Past literature identifies females and gender minorities as targets of selective incivility with increased levels of incivility encounters (Cortina et al., 2013). Meanwhile, the present research highlighted employees with disabilities as targets of selective incivility, and linked the incivility encounters with adverse mental stability outcomes. However, does one disability subgroup encounter *less* adverse mental outcomes than others? One might presume based on the findings of selective incivility research that white male employees with physical disabilities are mentally less impacted by incivility encounters than employees with mental disabilities. Yet Fevre et al. (2013) found that employees with physical disabilities endured more vicious acts of workplace deviance (i.e., violence) than those with mental disabilities. This leads to a question whether employees with detectable and undetectable disabilities exhibit significant differences in mental stability outcomes when mediated by incivility encounters? Lastly, previous research literature demonstrates that a passive act of witnessing incivility leads to adverse mental outcomes for the observer (Pearson, Andersson, & Wegner, 2001). The discussion prompts four future research questions regarding incivility encounters and mental stability.

1. Are there statistically significant differences between females and males with similar disabilities with respect to effects of incivility on mental stability outcomes?

2. Is there a statistically significant difference between incivility toward employees with undetectable and detectable disabilities, and mental stability outcomes?

3. Is there a statistically significant difference between incivility toward employees with mental and physical disabilities, and mental stability outcomes?

4. Does observing incivility toward a known employee with a disability have negative mental stability outcomes for the observer?

Mediators and Moderators, and Mental Stability. The present research findings indicated that incivility encounters variable partially mediated the negative link between having a disability and mental stability. In relation to the mediator variable, the study did not evaluate if significant differences existed among specific subgroups of employees with disabilities such as employees with physical and mental disabilities. However, the research by Fevre et al. (2013) included a logistics regression analysis on ill-treatment among three groups of employees with disabilities, specifically employees with (a) physical, (b) psychological or learning disabilities, and (c) other disabilities. The employees with *all other than* physical disabilities reported significantly more covert types of ill-treatment than employees without disabilities and employees with physical disabilities (Fevre et al., 2013).

Therefore, it is reasonable to deduce that incivility encounters as a mediator between having a disability and mental stability is likely a more significant mediator for employees with mental disabilities than for employees with physical disabilities. The same rationale would not support significant differences between detectable and undetectable disabilities, unless a majority of the population with undetectable disabilities fell under mental disabilities. Future research may examine differences between employees with mental and physical disabilities, and workplace mental stability outcomes when mediated by incivility encounters.

The present research utilized a secure attachment style as a moderator variable (a) between having a disability and incivility encounters, and (b) between incivility encounters and mental health but secure attachment did not moderate, or significantly weaken, the negative impact of incivility encounters on workplace mental stability. On the other hand secure attachment acted as a moderator between having a disability and incivility encounters by safeguarding against the negative outcomes of incivility. The finding begs the question whether securely-attached employees with disabilities experience less negative outcomes in relation to incivility encounters because their relationship skills circumvent incivility encounters itself, or because they can cope better with the aftermath of incivility better than their insecurely-attached peers, or both?

Wu and Zumbo (2008) outlined conceptual differences between mediators and moderators that were specific to applied research. One such a distinction was that a mediator was best characterized as a temporary mental state such as a mood or a state of arousal. On the other hand, a moderator was best characterized as a permanent and overall stable trait of one's personality (Wu & Zumbo, 2008). Therefore, it is conceivable

that even securely-attached employees can develop insecure adult attachments in aberrant circumstances. One hypothetical situation is proposed below.

Despite exhibiting a secure attachment style, a person might be unable to form secure attachments with significant people at work (e.g., supervisor, mentor), if the significant people were perpetrators of incivility. In that case, a situational insecure attachment style, specific to the individual's place of employment, might mediate or intensify the negative link between incivility experiences and mental stability. An example of such an aberrant circumstance is working for a superior who exhibits antisocial personality traits and who creates a toxic environment by both allowing *and* encouraging incivility. Without workplace support, targeted employees can develop insecure attachments that are situational and that do not spill over to secure relationships outside of work. If true, then a work attachment style acts more like a temporary state of insecure attachment than a permanent attachment style. As such, an insecure attachment might be an appropriate mediator between incivility encounters and mental health by accelerating mental health decline in employees with disabilities, and the concept prompted the following question.

5. Does insecure attachment mediate (strengthen) the negative link between workplace incivility encounters and mental stability under ordinary work pressures?

Furthermore, a compelling body of literature suggests that trust is an integral component of attachment security that cements successful interpersonal relationships. A personality trait of trust is comprised of dependability, unwavering perseverance during unexpected needs, and uncompromising determination in strength of the relationship

(Peterson, 2001). However, trust and a secure attachment style are interlaced, and it may

be problematic to declare whether one's actions can be attributed to secure attachment or

trust. In fact, some research suggests that not a secure attachment but a personality trait of

trust moderates capricious interpersonal circumstances. Thus, a correlation between trust

scales and secure attachment scales may prove valuable to compare and contrast the two

concepts (Peterson, 2001). The present research indicated that secure attachment thwarted

incivility encounters. To investigate if trust operates similarly to secure attachment, the

following questions are proposed.

6. Does a character trait of trust moderate the positive link between having a
    disability and personal workplace incivility encounters?

7. Does (a) a character trait of trust and (b) a secure attachment style moderate
    the negative link between having a disability and workplace mental stability?

8. If both secure attachment and trust are significant moderators, is there a
    significant positive correlation between the two variables? If so, how
    significant?

The final recommendation for future research includes testing insecure

attachments with the ASQ's subscales measuring incivility (Hazan & Shaver, 1987).

A bulk of the chapter has outlined implications for theory and research. As the

research regarding incivility and employees with disabilities is in its nascency, a number

of theoretical considerations and related questions will likely to evolve from future

research. It is prudent to scale back the discussion on practical implications until more

research has been completed. The following section highlights some general

recommendations and practical considerations.

Implications for Practice

Practice implications section explores four broad concepts that are material to the HRD field. The concepts are (a) reference checks in the age of social media, (b) attachment style and employment, (c) considerations in conflict mediation (d) civility initiatives, and (e) disability awareness.

Reference Checks in the Age of Social Media. During a selection or screening process, appropriate human resource personnel is encouraged to conduct reference checks (Pearson & Porath, 2005). The goal is to eliminate incivility instigators, especially in impactful positions. Yet, the checks should not be limited to contacts that the job candidate provided. Interviewing pertinent personal and professional contacts, in addition to the ones provided, may prove to be a constructive pursuit during a selection process (Pearson & Porath, 2005).

Social media (SM) has created abundant and accessible paths to access information on the job candidate (Roth, Bobko, Van xIddekinge, & Thatcher, 2016), and SM can supply rich information on the candidate and aid in the selection process. LinkedIn, Facebook, Houseparty, Twitter, Periscope, Instagram, SnapChat, and TikTok are merely a fraction of SM platforms available to internet users (Turner, 2019 n.d.). Users have manifold avenues to update their day-to-day thoughts, feelings, and activities in words, pictures, audio, and video, and to connect with like-minded individuals. As a result, viewing the best-qualified candidates and candidate's personal references in and out of professional settings can be and easy, accessible, and covert process.

Yet the practice of sharing material on the internet can have considerable influence over selection processes, and very little research has addressed correlations

between SM posts, and factors that spillover to the applicants' jobs (Roth et. al., 2016). Thus, personnel is advised to draw conclusions between the posts and job qualifications with a great deal of caution. In 2016, Roth et al. advised other researchers to examine this relatively new and impactful practice in the field of human resources by stating "…this is a somewhat rare moment in the human resources literature when a new class of selection methods arrives on the scene, and we urge researchers to help understand the implications of using SM assessments for personnel decisions" (p. 1). SM as a tool in applicant selection can have positive and negative consequences for employees with disabilities.

On one hand, SM may provide viable information on incivility instigators. On the other hand, it allows for a biased decision-making process without consequences, and opens the door to a another form of selective incivility. A stealthy internet use in selecting a job candidate allows evasion of diversity initiatives and regulations such as the ones imposed by the EEOC (Roth et. al., 2016). Use of exclusionary practices toward a select groups of qualified candidates can be concealed., and such practice resembles selective incivility due to its targeted, subtle, discriminatory, and ambiguous nature.

Attachment Style and Employment. Understanding an applicant's attachment style may have practical importance similar to understanding an individual's Big Five personality traits during a hiring process and personality tests utilized to screen applicants (Heikkila & Reio, 2016, Chapter 70; Richard & Schat, 2011). Big Five measures include traits of openness, conscientiousness, extraversion, agreeableness, and neuroticism, but does not include attachment styles. Yet a secure attachment style has been linked to positive workplace characteristics such as effective resolution of interpersonal conflict (Mikulincer et al., 2003).

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The present study revealed that employees with disabilities and with secure attachment encountered less incivility than the ones with insecure attachment, which supports the notion that securely-attached employees have effective interpersonal skills during a conflict. Additionally, securely-attached employees with disabilities handled work pressures more efficiently than their insecurely-attached counterparts. Despite the findings that securely-attached employees have positive job-related characteristics, including attachment scales in personality tests designed for job application processes award serious ethical considerations.

On the other hand, the trait of agreeableness, which is part of the Big Five measures, includes a personality attribute of trust. Measuring a character attribute or a disposition that closely correlates with secure attachment, such as trust, may be a more ethical choice and an appropriate indicator of employee fit than a secure attachment. Trust is a critical element in well-functioning partnerships, and work can be viewed as a partnership between an employee and an organization (Wang & Hsieh, 2013). Covey and Merrill (2007) suggested that trust is a significant economic driver and a strength in an employee, and that a risk of not trusting people outweighs a risk of trusting people. HRD professionals can be involved in choosing and creating tools that identify the best-fitting candidates. Therefore, they may consider exploring the personality attribute of trust, in addition to its umbrella category and a Big Five concept of openness. The relation between secure attachment and trust is a significant matter for HRD professionals that awards exploration beyond this study, as previously discussed under research implications section.

Considerations in Conflict Mediation. Incivility is subtle, ambiguous, and unfocused (Andersson & Pearson, 1999; Forni, 2008). Thus, each incivility event is contingent on target's interpretation of perpetrator's intention, and conversely, on perpetrator's conscious intention or lack thereof. The appreciation of asymmetry in perspectives, and in alternative explanations can be constructive in conflict mediation. The ambiguity of incivility permits incivility targets considerable latitude in interpreting the event, as illustrated by the following two vignettes:

1. Through warm and loving attachment relationships, securely-attached individuals have not only developed a positive view of the self, and they have also developed a belief that others have a positive view of them (Mikulincer, 1995). Therefore, the securely-attached is likely to interpret events accordingly. For example, a coworker's statement "Your hair looks good today" can be interpreted as "Your hair looks *good* today" or "Your hair looks good *today,*" depending on the employee's internal schemata.

2. Unexpectedly, a female employee discovers a nail polish container on her work desk, with no note attached. The employee's perception of one's intent to leave the polish anonymously is unique, and the *interpretation of the intent* may be more powerful than the intent itself (e.g., "What a thoughtful gift by someone who knows that I love to polish my nails. I must thank this person!", "Is this a cunning suggestion that I should manicure my nails? Should I report it?", " Did someone come by to see me and forgot this on my desk? I wonder what the person wanted to share and if she needs the polish back?"). What if it

was a deodorant bottle instead of a nail polish, or the recipient was a male instead of female?

The varying interpretations may create impactful differences (a) in qualifying the intent (i.e. gracious, rude, or fair), and (b) in respect to feeling of appreciation or dissonance (e.g., delighted, bothered, or indifferent) in ambiguous workplace encounters. Likewise, it enables perpetrators similar latitude in devising plausible, conscious or subconscious, justifications for uncivil behaviors (Cortina, 2008). In instances in which a perpetrator has willfully acted in an uncivil manner toward a chosen target, one can erroneously conflate such workplace victimization with *victim precipitation theory*.

Victim precipitation theory asserts that a target shares responsibility for triggering incivility events (Cortina, Rabelo & Holland, 2018). The theory originated in criminology, and posits that "some victims invite abuse through their personalities, styles of speech, or dress, actions, and even their inactions" (Cortina et al., 2018, p. 81). Victim precipitation theory is growing its roots in workplace mistreatment characterization with detrimental consequences for some incivility targets (Cortina et al., 2018). Conceivably, one can argue that an employee's disability-related characteristics (e.g., engagement in sign language, use of a wheelchair, allowance for accommodations) invite workplace incivility. Explanations that shift the locus of responsibility from perpetrator to target obscure the common understanding that incivility is rooted in the murky deeps of discrimination (Cortina, 2008; Cortina et al., 2013; Cortina et al., 2018), and inappropriate explanations bring about improper workplace solutions. This researcher encourages individuals who implement workplace solutions to combat incivility, such as

conflict mediators, to firmly understand that incivility is a form of workplace

discrimination. Yet the perpetrator may not have willfully and consciously engaged in

incivility, and therefore, a delicate and nonbiased approach to uncover the perpetrator's

motives is appropriate. Educating rather than reprimanding the incivility perpetrator may

prove to be a reasonable approach, particularly when the motive is unclear.

Civility Initiatives. HRD professionals develop or present manifold initiatives

that educate new employees who engage in onboarding activities, and current employees

who attend continuing education and retraining programs. Civility initiatives assist

employees to learn interpersonal skills that promote civility, to raise awareness of

civility-related policy, and to understand consequences of workplace language and

behavior that is illegal or unacceptable (Cortina et al., 2013). Trainings aim to create a

work environment that is conducive to optimal work production and job satisfactions.

Incivility literature recommends that HRD professionals create civility policies,

promotion campaigns, and training programs that encourage professional and respectful

workplace behavior (Cortina et al., 2013). The goal is to develop a work culture that

welcomes diversity and that adopts zero tolerance policies in relation to all harassment

(Pearson & Porath, 2009). In addition to training on civility expectations, this researcher

recommends to train employees to recognize incivility, to understand antecedents to

incivility, and to assess insensitive and exclusive workplace language and behavior.

An emotionally safe corporate culture toward individuals with disabilities is likely

to promote confidence in diverse workforce, and management professionals encourage

civility by modeling appropriate behaviors (Cortina et al., 2013; Pearson & Porath, 2009).

Because employees take cues from persons of power, HRD professionals should urge

management professionals to internalize inclusive language and behaviors (Cortina, et al., 2013; Pearson & Porath, 2009). Moreover, HRD professionals should consider qualifications for managerial hires that include a reasonable degree of prudent and equitable treatment of subordinates, coworkers, clients, and customers.

Yet, training employees to recognize incivility, dissuading them from participating in incivility, modeling inclusive language and behaviors, and establishing zero tolerance policies may not be enough. Additionally, HRD professionals should outline clear action steps for employees who encounter incivility that detail to whom, when, what, where, and how to report incivility encounters, and HRD *must* give employees a confidentiality assurance, with the exception of reports indicating serious harm to self or others. On the other hand, the consequences of purposefully reporting false information must be clear. Lastly, Occupational Safety and Health Administration (OSHA) administrators, including the Secretary of Labor, should view all interpersonal workplace deviance as a health hazard, and create nationally binding policies to address interpersonal work hazards.

Disability Awareness. Congress has enacted disability employment laws (e.g., ADA, Rehabilitation Act, Workforce Innovation and Opportunity Act) and regulations (e.g., Section 504 regulations), and created enforcement agencies (e.g., EEOC) and programs (e.g., state vocational rehabilitation agencies, Ticket to Work Program) serving employees with disabilities. However, it is not enough to promote civility toward individuals with disabilities. HRD departments are urged to take action and develop disability awareness programs, which can curb incivility toward employees with disabilities. Casting employees with disabilities in a positive light by emphasizing

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abilities, and qualifications, and highlighting similarities between employees with and without disabilities can be expected to engender positive awareness among other employees. This researcher recommends that any disability-related employment training is developed cooperatively with a team that includes people with diverse disabilities, and varying certified, licensed, or accredited practitioners in the disability field (e.g., specialists in disability employment law, disability policy and compliance, vocational rehabilitation, ADA compliance, and ergonomics assessment).

Study Limitations

Study limitations section outline considerations that constrained the study from its greatest extent. Four major constraints consisted of (a) access to population, (b) restrictions to generalization, (c) financial limits, and (d) time restrictions.

Access to Population

Originally, this researcher had planned to reach out to students with disabilities who were employed and who utilized the university-based office of disability services. Office representatives concurred with this researcher that, to all appearances, the study appeared to contribute to disability literature. Thus, it may appeal to qualified individuals utilizing disability services. However, as the research timing coincided with the beginning of a school year, it became apparent that the timing was unsuitable. Students were orienting for the upcoming year, an activity that took precedence over the research study. The representatives of disability services recommended postponing the survey distribution until the upcoming break between fall and spring semesters.

Pursuing this recommendation would have postponed the start of the study by approximately four months. A lengthy postponement was impractical, due to time

constraints. The study moved forward as planned, albeit limited to university employees as the study population. Whether any of the employees with disabilities had registered as a student and utilized disability services, is unknown. Thus, this researcher recommends that a survey schedule that includes students with disabilities avoids coinciding with the beginning of a new school year. Presumably, other unfavorable timings for launching a survey are dates that coincide with midterms and finals. Other types of time-related limitations are discussed next.

Time Restrictions

Some survey participants have limited interest, attention span, commitment, or motivation to complete a web survey. Simply, the survey may not be worth their time, which is consistent with exchange theory (Trouteaud, 2004), and accordingly, longer surveys reflect higher noncompletion rates (Liu & Wronski, 2018). Contrarily, participants who took an exact survey but were told different completion times during introduction (i.e., 3-5 minutes vs. 10-15 minutes; 8-10 minutes vs. 20 minutes), showed similar responses (Trouteaud, 2004; Walston, Lissitz, & Rudner, 2006). Time, whether it be real or perceived, is a clear factor in participation.

Under quintessential circumstances in which time was *not* a factor in the completion rate, this researcher would have included insecure attachment scales in the study to measure anxious, avoidant, and disorganized attachment, in addition to secure attachment. However, with secure attachment alone, the survey length was beyond optimal. To reduce completion time, future studies may consider testing Confidence subscale of Attachment Style Questionnaire (ASQ), Workplace Incivility Scale (WIS), and PMI Mental Health subscale using only questions from the final path model. Other

studies have utilized shortened versions of scales to reduce nonparticipation rate

(Richards & Schat, 2011). If the results of the shortened scales proved reliable, then

insecure attachment scales could be added for another path analysis without creating an

excessively lengthy survey.

Restrictions to Generalization

The study was conducted at a large Hispanic-Serving Instruction and thus, the

sample represented a Latino or Hispanic majority at 38%, which is not representative of

majority race or ethnicity of U.S. employees (U.S. Department of Commerce, 2018). The

majority of employees are White at 61%, and Latino or Hispanic population represents

only about 18% of the workforce. Additionally, more females participated at 67% than

males, and an average workforce consists of more males than females at 42%. For these

reasons alone, the study is not generalizable to all U.S. workplaces. However, it may be

generalizable to other Southeast universities with a higher concentration of Latino or

Hispanic population. Nevertheless, it is reasonable to expect that the results are largely

reflective of trends regarding employees with disabilities.

Financial Constraints

Each participant who completed and submitted the full survey received $5.00 gift

card as an incentive. The study had to be terminated once a financial cutoff ceiling was

reached because it was entirely researcher-financed without scholarships, stipends,

corporate sponsorships, governmental grants, or any external sponsors. The monies for

the study came from researchers' personal funds, and more participants expressed interest

in the study than the financial constraints allowed. A sizable participation appeared

promising with less financial constraints.

Nevertheless, it is conceivable that the incentive amount significantly contributed to ample interest in the study. On the other hand, an independent, personal funding unshackles the researchers from external pressures, which can be a significant consideration when judging the impartiality of research findings. In essence, study financing is a double-edged sword, and a financial freedom from a sponsorship has its benefits, despite its constraints.

Conclusion

> A highly successful CEO like Jack Welch may entitle his memoir *Jack: Straight from the Gut*, but he then makes it clear that what set him apart wasn't just his gut but carefully worked-out theories of management, systems, and principles as well. Our world requires that decisions be sourced and footnoted, and if we say how we feel, we must also be prepared to elaborate on why we feel that way…I think that approach is a mistake, and if we are to learn to improve the quality of the decisions we make, we need to accept the mysterious nature of our snap judgments. We need to respect the fact that it is possible to know without knowing why we know and accept that–sometimes–we're better off that way (Gladwell, 2005, p. 24-25).

Gladwell's belief that a pure feeling, without a deep understanding of its causes, may be telling to an employee who is dealing with subtle but destructive work hassles such as incivility. Human attachment and its transactional nature is an indelible product of evolution (Bowlby, 1969), whereas feelings reflect personal outcomes of complex sets of relational interactions (Anchin, 2008; Henriques, 2008). Thus, it is reasonable to think that an employee simply needs a fleeting bad feeling to identify a toxic workplace relationship or environment. Incivility research supports that negative feelings born out of workplace incivility indeed motivate some employees to leave a pernicious workplace (Pearson & Porath, 2009). Thus, this researcher agrees with Mr. Welch; a gut feeling alone can suggest an appropriate direction in decision-making. However, a gut instinct

coupled with supporting theories provide a stronger argument than a gut instinct alone. A nuanced, theory-based research teases out details that shed light on HRD-specific issues, such as turnover.

Productive work environments are built by implementing carefully tested theories and analyzing work occurrences that create powerful emotions and feelings, and that embolden employees to behave consciously or unconsciously in response to an emotion. Moreover, interpersonal events can either advance or decimate positive feelings. Frequent positive interpersonal events increase energy levels while a lack of positive emotion links to depression. Furthermore, negative interpersonal events, depression, and social stress link to fatigue (Parrish, Zautra & Davis, 2008), and stress is an interaction between an individual and a stressor (Colligan & Higgins, 2006). One stressor that decimates positive feelings is incivility (Cortina et al., 2013). It is a deviant specter that chisels away at mental stability and an experiential equivalent of Fata Morgana, an ambiguous event that distorts one's perception and that sows doubt in the mind of the experiencer. An ambiguous incivility event can create a justifiable condition for the experiencer to ponder the accuracy of a perceived uncivil encounter and the perpetrator's intent.

Because incivility is perplexing and hardly detectable, it is also problematic to substantiate and undoubtedly contestable. Yet professional research demonstrates that responsible organizations profit from acknowledging that incivility is a silent killer of prosperity. Therefore, curtailing incivility not only comports with good business practices but it also eliminates unnecessary negative outcomes that weigh down the organization.

Incivility impacts almost all employees, but all employees are not impacted by incivility with identical vigor. This study revealed that employees with disabilities face

significantly impactful incivility encounters with damaging mental stability outcomes. It also uncovered that protective factors such as secure attachment can be an antidote to incivility. Therefore, employees responsible for developing policy, training, and practices, such as HRD professionals, benefit from (a) approaching incivility as a nuanced phenomenon, and (b) understanding that some subgroups of employees are significantly more vulnerable to incivility than others.

Human resource development professionals can assist in creating an environment that helps employees understand and recognize incivility, that discourages incivility engagement, and that insert protective factors. One example of an insulating factor is a team leader and supervisor training on how to build bonds with employees that mimic secure attachment bonds. For example, Walgreens developed a social communication skills training program to develop employees' interpersonal skills (Emmett, 2008). Similar programs may include teaching employees behavior and communication styles that mirror the styles of securely-attached individuals, by and large. While workplace incivility is bad for business (Porath & Pearson, 2009), actively creating, developing, and maintaining positive relational experiences based on the principles of the secure attachment may prove to boost business.

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APPENDIX A

Table A1

Study Qualifications

Screening Questionnaire

This describes me…

Employees with Disabilities

1. A person with a mental, physical, emotional, and/or other disability

2. At least 18 years of old

3. A person with current or past employment experience

Yes, all three statements above describe me.

No, at least one or more statements above does not describe me.

Employees without Disabilities

1. I am NOT a person with disabilities

2. At least 18 years of old

3. A person with current or past employment experience

Yes, all three statements above describe me.

No, at least one or more statements above does not describe me.

Note. The screening questionnaire was followed by an informed consent, a study questionnaire, a demographics questionnaire, and a link to an incentive.

Table B

Workplace Incivility Items and Factor Loadings

Item	Factor Loading
During the PAST FIVE YEARS while employed by the Eighth Circuit Courts, have you been in a situation where any of your superiors or coworkers:	
1. Put you down or was condescending to you?	.84
2. Paid little attention to your statement or showed little interest in your opinion?	.79
3. Made demeaning or derogatory remarks about you?	.74
4. Addressed you in unprofessional terms, either publicly or privately?	.73
5. Ignored or excluded you from professional camaraderie?	.72
6. Doubted your judgment on a matter over which you have responsibility?	.71
7. Made unwanted attempts to draw you into a discussion of personal matters?	.58

Note. The table represents the original 7-item Workplace Incivility Scale (WIS) by

Cortina et al., 2001.

Table C3

Attachment Style Questionnaire's Confidence Subscale

Item	Content
C1	Overall, I am a worthwhile person.
C2	I am easier to get to know . . .
C3	I feel confident that other people . . .
C4	I find it relatively easy to get close . . .
C5	I feel confident about relating to others.
C6	I often worry that I do not really fit in . . . R [a]
C7	If something is bothering me . . .
C8	I am confident that other people . . .

Note. C = Confidence subscale item. R = Reverse-coded item. A key to score the

ASQ's Confidence Scale (Feeney et al., 1994).

APPENDIX D

Table D4

Mental Health subscale of Pressure Management Indicator© (PMI)

Item	Content

Please use the scale to answer each question by circling the relevant number. Consider the questions in reference to how you have felt while working at your current/latest place of employment.

1. Would you say that you tended to be a rather over conscientious person who worries about mistakes or actions that you may have taken in the past, such as decisions? R

   Very untrue   Very true

2. During an ordinary working day, are there times when you feel unsettled and upset though the reasons for this might not always be clearly obvious? R

   Never   Often

3. When the pressure starts to mount at work, can you find a sufficient store or reserve of energy that you can call on when needed to spur you on into action?

   Not much energy   Lots of energy

4. Are there times at work when you feel so exasperated that you sit back and think to yourself that "life is really just too much effort"? R

   Never   Often

5. As you do your job, have you noticed yourself questioning your own ability and judgment and a decrease in your overall self-confidence?

   Noticeable degree   No noticeable degree

6. If colleagues and friends behave in an aloof way towards you, do you tend to worry about what you may have done to offend them as opposed to just dismissing it? R

   Definitely do not worry   Definitely worry

Item	Content
7.	If the tasks you have implemented, or the jobs you are doing start to go wrong do you sometimes feel a lack of confidence and panicky, as though events were getting out of control? R
	Never Often
8.	Do you feel confident that you have properly identified and efficiently tackled your work or domestic problems recently?
	Have not tackled properly Have tackled properly
9.	Concerning work and life in general, would you describe yourself as someone who is bothered by their troubles or a "worrier"? R
	Definitely no Definitely yes
10.	As time goes by, do you find yourself experiencing fairly long periods in which you feel rather miserable or melancholy for reasons that you simply cannot "put your finger on"? R
	Never Often
11.	Would you say you had a positive frame of mind in which you feel capable of overcoming your present or any future difficulties and problems you might face such as resolving dilemmas or making difficult decisions?
	Definitely no Definitely yes
12.	Are there times at work when the things you have got to deal with simply become too much and you feel so overtaxed that you think you are 'cracking up'? R
	Definitely no Definitely yes

Note. Mental Health subscale focused on employee's feelings and behaviors and

the manner in which perceived work pressure impacted such feelings and behaviors

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Table E5

Survey Section 4: Demographics Questionnaire

Demographic Data

Section 4 of the survey consist of 10 statements and questions gathering important demographic information. Choose the answer that best describes you.

I was born a…

    Male

    Female

I am currently of age…

    18-29

    30-39

    40-49

    50-59

    60-69

    70-79 or older

What is the closest description of your race or ethnicity?

    White

    Multiple Races/ Ethnicities

    African American/ Black American

    Hispanic/Latin

    Asian

    Native American Indian/ Alaskan

    West Indian/ Caribbean
    Other

Demographic Data

How many years have you been employed with your current employer or with your most recent employer?

Less than 1

1-4

5-9

10-14

15-19

20-24

25-30

30+

Did you earn at least a minimum wage or is/was your job legally exempted from minimum wages such as tipped jobs. Some examples are a waiter, bartender, etc.

Yes

No

What is your monthly income now or at your last job?, if not employed?

Less than $1,300

$1,300 - $2,499

$2,500 - $3,999

$4,000 - $5,999

$6,000 - $8,499

$8,500 - $10,999

$11,000 or more

Do you have a diagnosed disability or are you regarded as a person with a disability?

Yes, I do have a disability or I am regarded as a person with a disability

No, I do not have a disability

Demographic Data

Which one of the four categories best describes your disability or disabilities

Physical disability (e.g., amputation, hearing loss, vision loss, cerebral palsy, paralysis, multiple sclerosis, etc.)

Psychological or neurocognitive condition (e.g., learning disability, dementia, personality disorder, traumatic brain injury, bipolar disorder, autism, ADHD, anxiety, depression, etc.).

Debilitating long-term medical illness or some other type of medical disability diagnosed by a medical doctor (e.g., cancer, pulmonary conditions, progressive kidney malfunction, fibromyalgia, burns, etc.).

Any combination of the above described categories 1, 2 and/or 3.

Do you have an official diagnosis of a disability by a licensed professional?

Option 1. Yes, I have an official disability diagnosis of a disability by a licensed professional?

Please list each of your medical and/or psychological diagnoses and/or disabilities in the box below.

Option 2. No, I do not have an official disability diagnosis by a medical doctor, psychiatrist, or psychologist. Yet, I am a person with a disability.

Please list your disability or disabilities in the box below.

Did you use any accommodations or medical devices while completing this survey? Choose 1 for Yes and 2 for No.

Examples of some accommodations:

Technological devices and software such as a screen readers or enlargers, a modified computer keyboard or an ergonomic mouse, a screen enlarger, speech recognition software, etc.

A support individual who assisted you with data input or reading the text, a support animal, etc.

Other devices such as arm supports, grip aids, hearings aids, a wheelchair accessible desk, use of a rolling walker, a modified workstation, use of an oxygen tank, use of prosthesis, etc.

Rest breaks, timers, noise cancelling headsets, private testing rooms etc.

Please describe the accommodations that you utilized to complete this survey.

Vita

MIA RIIKKA HEIKKILA

Born in Finland

1991 - 1995	B.S., Mass Communications Texas Woman's University Denton, Texas
1995 - 1997	Photographer, Texas
1997 - 1998	Coursework toward Teacher Certification Texas Woman's University Dallas County, Texas
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1999 - 2009	Occupations in Photography, Texas and Florida
2009 - 2010	M.S. in Counseling Program Nova Southeastern University Davie, FL
2009 - 2010	Employment Specialist and Job Coach, Florida
2011- 2012	Vocational Rehabilitation Counselor, Florida
2011 - 2012	Coursework toward Rehabilitation Counselor Certification, California (online)
2012 - 2015	Vocational Rehabilitation Supervisor, Florida
2015 - present	Vocational Consultant, Florida
2015	Certified Rehabilitation Counselor (CRCC)
2016	Certified Ergonomics Assessment Specialist (CEAS)

PUBLICATIONS AND PRESENTATIONS

Heikkilä, M.R., & Reio Jr, T.G. (2014). The role of computerized personality assessments in students with disabilities' school-to-work transition. In V. Wang (Ed.). *Handbook of research on education and technology in a changing society* (pp. 67-81). https://doi.org/10.4018/978-1-4666-6046-5.ch005

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The Lorraine R. Gay Award for Excellence in Research and Scholarship for Best Graduate Student Paper at South Florida Education Research Conference in 2015. Title of the paper: *A Study of the Relational Component in an Academic Advisor Professional Development Program*