Anticipated Stigma and Chronic Illness: The Impact of Psychosocial Safety Climate

Michelle DeOrsey
ANTICIPATED STIGMA AND CHRONIC ILLNESS: THE IMPACT OF
PSYCHOSOCIAL SAFETY CLIMATE

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
in
Industrial and Organizational Psychology

by
Michelle Elizabeth DeOrsey
June 2020
ANTICIPATED STIGMA AND CHRONIC ILLNESS: THE IMPACT OF PSYCHOSOCIAL SAFETY CLIMATE

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

by
Michelle Elizabeth DeOrsey
June 2020
Approved by:

Dr. Mark Agars, Committee Chair, I/O Psychology
Dr. Ismael Diaz, Committee Member
Dr. Janet Kottke, Committee Member
ABSTRACT

The purpose of this study was to utilize the Psychosocial Safety Climate (PSC) Work Model of Stress to measure how perceptions of the work climate influence employees with chronic illnesses fears of future stigma and their subsequent psychological health and work attitudes. As workers with chronic illnesses have reported being stigmatized in the workplace and have a high turnover rate, it was important to consider the psychosocial aspects of the work environment in relation to their perceptions of stigma and consequent outcomes. Psychosocial safety climate refers to the policies, practices, and procedures for employee psychosocial well-being. Prior research has confirmed PSC negatively influences job demands and positively influences job resources, thus improving workers' mental health and attitudes towards work. Anticipated stigma refers to the fear of future prejudice, stigma, and discrimination, and has exhibited a negative relationship to psychological health and work motivation. Research has predominately focused on the effects of psychosocial risks at the individual level and has neglected to consider contextual factors in the work stress process, therefore our study addressed this gap. Research on the experiences of workers with chronic illnesses is also limited. Data collection was cross-sectional and sampled from employees self-identified as having one or more chronic disease. Results confirmed PSC is a significant predictor of anticipated stigma, and that anticipated stigma is a mediating factor in the relationship between PSC and the criterion.
ACKNOWLEDGEMENTS

I would first like to thank my advisor, Dr. Agars, for his advice and guidance throughout the writing process and for teaching me the importance of being concise. I would also like to thank Dr. Diaz for his statistical wisdom, as well as Dr. Kottke for her feedback. Thank you to my classmates for the many wonderful discussions, lessons learned, and for the support and encouragement when times were tough. Thank you to all my professors at CSUSB for giving me the opportunity to further my education, to develop myself personally and professionally, and for instilling in me a true love for learning and spirited debate. Lastly, I thank my Mom, Ellie, for being my inspiration to research this subject, and for instilling in me compassion and empathy for others' suffering. I hope to use this degree to improve working conditions for underrepresented and marginalized communities.
# TABLE OF CONTENTS

ABSTRACT ........................................................................................................................................... iii

ACKNOWLEDGEMENTS ......................................................................................................................... iv

LIST OF TABLES ....................................................................................................................................... vii

LIST OF FIGURES .................................................................................................................................... viii

CHAPTER ONE: INTRODUCTION ........................................................................................................... 1

  Chronic Illness, Employment, and Stigma ......................................................................................... 4
  Work Climate, Culture, and Stigma ..................................................................................................... 8
  Concealable Illness and Disclosure Issues ....................................................................................... 10
  Social Support .................................................................................................................................... 12
    Anticipated Stigma and Social Support ........................................................................................ 16
    Attainability of Social Support ...................................................................................................... 18
  Psychosocial Safety Climate Work Model of Stress ........................................................................ 20
  Psychosocial Safety Climate Outcomes .......................................................................................... 24
    Individual Outcomes .................................................................................................................... 24
    Organizational Outcomes ................................................................................................................ 27
  Present Study ..................................................................................................................................... 30

CHAPTER TWO: METHODS ..................................................................................................................... 33

  Participants .......................................................................................................................................... 33
  Design .................................................................................................................................................. 34
  Procedure .......................................................................................................................................... 34
  Measures ............................................................................................................................................. 35
    Chronic Illness Anticipated Stigma Scale .................................................................................... 35
LIST OF TABLES

Table 1. Demographic Variables ................................................................. 47

Table 2: List of Participant Illnesses ............................................................ 50

Table 3. Bivariate Correlation Matrix .......................................................... 51
LIST OF FIGURES

Figure 1: Initial Hypothesized Model................................................................. 31
Figure 2. Revised Structural Equation Model. ..................................................... 46
Figure 3. Estimated Structural Equation Model. .................................................. 47
CHAPTER ONE:
INTRODUCTION

Even for the average healthy person, the demands of a regular work schedule have the potential to increase stress, deplete important resources, and progress into strain (i.e. lowered well-being). However, for individuals already in a diminished state of health, high demands combined with a lack of stress-buffering resources may have a more detrimental effect, further deteriorating their health and inhibiting their continued engagement with work duties. In addition to having to manage their unpredictable illness symptoms in the work context (e.g. pain and fatigue), persons with chronic health conditions, such as fibromyalgia, multiple sclerosis, and Crohn’s disease, are often met with psychosocial challenges attributed to their illness identity, including inadequate workplace support and accommodations, stigma, and discrimination. For example, employees with chronic illness have described being demoted, terminated, and experiencing a lack of advancement opportunities after disclosing their illness to their employer (Siu, Hung, Lam, & Cheng, 2013). Moreover, misconceptions and biases about the capabilities of employees with chronic illnesses are common in the workplace, creating organizational climates that are tolerant of stigma, and inhibiting individuals with chronic illnesses from meaningful workforce participation (Beatty, 2006; McGonagle & Hamblin, 2013; Vickers, 1997).
In workplaces without mechanisms to combat these stigma-related challenges, employees with chronic conditions may fear the loss of valued resources if their illness is revealed to their employer or colleagues, such as their future career opportunities and livelihood. Consequently, employees who anticipate stigma have been demonstrated to modify their behavior by working longer or harder despite illness symptoms to prove their worth (McGonagle & Hamblin, 2013). Others have chosen to conceal their illness from their work colleagues altogether, affecting their access to important organizational resources which may have facilitated their performance of job-related tasks (Beatty & Kirby, 2006; Jones, Farina, Hastdorf, Markus, Miller, & Scott, 1984; Vickers, 1997, 2003). To buffer vulnerable workers from the adverse psychological and motivational effects of stigma and to ensure their inclusion in the labor force, research is needed to identify variables which mitigate the damaging effects of stigma.

Although there is an abundance of research in the occupational stress literature which apply leading theories of stress such as the Job Demands-Resources model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2000), the Job Demands-Control model (Karasek, 1979) and the Effort-Reward Imbalance model (Siegrist, 1996), the literature is predominantly focused on psychosocial hazards (e.g. low control, high work demands, poor work relationships) at the job task level rather than at the organizational level (Hall, Dollard, & Coward, 2010). Consequently, there is currently a lack of research examining perceptions of
organizational characteristics on the demands-resources interaction, leading to a gap in our understanding of the key underlying processes involved in stimulating and reducing employee stress and well-being. Moreover, research examining the effects of stigma on the outcomes of persons with chronic illness in the American workforce is limited.

The current study addresses these gaps by utilizing the Psychosocial Safety Climate (PSC) Work Model of Stress to examine the impact of organizational climate perceptions on the job demands-resources interaction and their combined effects on relevant individual and organizational outcomes of workers with chronic disease. Psychosocial safety climate, a macro-level resource, is defined as the policies, practices, and procedures for the protection of employee psychological health and safety (Dollard & Karasek, 2010). A high PSC climate is comprised of senior management that commits to and prioritizes employee health and well-being at least in equal degree to production objectives. Perceptions of PSC are expected to affect the stress-strain interaction by boosting the availability and benefits of resources and offsetting the effects of demands. The present study will evaluate PSC theory predictions by measuring the effects of PSC on the main and interactive effects of anticipated stigma and social support on the consequent health and work-related outcomes of employees with chronic illnesses.
Chronic Illness, Employment, and Stigma

As people are living longer than ever, there is a rapidly increasing prevalence of chronic disease, also referred to as noncommunicable diseases (NCDs) (WHO, 2018). Noncommunicable diseases, such as fibromyalgia, diabetes, and multiple sclerosis, are non-transmissible, lasting health conditions that restrict one’s life activities, require continuing medical care, and vary day-to-day in terms of predictability and visibility (Beatty & Joffe, 2006). In the United States, 60% of adults have at least one chronic disease, while 40% have two or more, making NCDs a leading cause of death and disability and a primary contributor to the country’s $3.3 trillion annual health care costs (CDC, 2017). Due to the climbing age of retirement, the incidence of chronic illness in the workplace is expected to continue to rise (Beatty, 2012). Despite this prevalence, the experiences and challenges faced by employees with chronic conditions in the American workforce remain understudied.

Employment provides numerous benefits for individuals coping with chronic illness, including helping to establish a normal routine, distracting from illness symptoms (Beatty, 2012; Pinder, 1995), building social relationships, and obtaining support (Register, 1987). Work participation can also offer individuals meaning in life, provide a stable income, and improve psychological well-being (Campen & Cardol, 2009; Vickers, 1997). Due to the many benefits of employment, individuals with chronic conditions are motivated to remain engaged in the workforce. Despite their desire to work, employees with chronic diseases
face unique psychosocial stressors which restrict their capacity to manage competing demands and hinders their ability to continue working (McGonagle & Hamblin, 2013; Siu et al., 2013).

The experience of stigma is a significant and damaging psychosocial stressor faced by individuals with chronic diseases. Stigma, prejudice, and discrimination are stressful and take a psychological toll on their targets (Crocker, Major & Steele, 1998; Goffman, 1963; Link & Phelan, 2001; Major & O’Brien, 2005; Miller & Major, 2000). Stigmatized groups are those that are socially devalued, stereotyped, and perceived as lesser by majority group members in a particular social context (Crocker et al., 1998) due to some ‘mark’ or characteristic (Goffman, 1974) which may be visible or invisible (Jones et al., 1984; Major & O’Brien, 2005). For individuals with chronic illnesses, the illness itself is considered the devalued attribute as it conflicts with workplace values such as productivity, consistency, and efficiency (Beatty & Joffe, 2006).

According to Kurzban and Leary (2001), stigma and social exclusion exist to serve an evolutionary purpose—to enhance one’s self-esteem and social identity, or to legitimize some political, social, or economic structure. Because persons with chronic illness may lack certain abilities and/or social, emotional, or economic resources, others may view them as presenting a greater social threat than benefit, offering little potential to enrich their own well-being and possibly hindering their advancement. This may be especially true in the workplace, where productivity and efficiency are considered essential organizational values.
The uncertainty of illness symptoms and varying phases of health and sickness may hamper others’ ability to predict the behaviors of employees with chronic illnesses (Leventhal H., Ethan, Horowitz, Leventhal E., & Ozakinci, 2004). Consequently, diagnosed workers may be perceived as unreliable and as having fewer resources to contribute to others (Earnshaw, Quinn, Kalichman, & Park, 2013). Additionally, perceptions of unfairness among coworkers may be provoked, for instance, when workers with chronic conditions use their sick days to manage flare-ups or take time off to attend medical appointments (Beatty, 2012). This may create the false impression that persons with chronic illness are less productive or incapable of successfully completing tasks.

As stigma associated with chronic illness in the workplace is mainly related to the perceived capability to perform work-related tasks consistently and competently, revealing a chronic illness in the workplace may have severe employment consequences, such as discrimination, social rejection, and even termination (Munir, 2005; Oldfield et al., 2014; Vickers, 1997). For these reasons, individuals with chronic illnesses may internalize others’ stigmatized views and/or anticipate future stigma, such as the loss of support or demotion, if their illness is revealed to others at work (McGonagle & Hamblin, 2013; Vickers, 1997, 2000).

Anticipated stigma, or the fear of future prejudice, stereotyping and discrimination, is a harmful experience that has a negative effect on the physical and mental well-being of workers with chronic illnesses (Earnshaw et al. 2013; Quinn & Earnshaw, 2013). As the threat of resource loss is stressful (Hobfoll,
1989), workers with chronic illness who fear the potential loss of valued resources such as career prospects, income, or self-efficacy are subjecting themselves to greater stress (McGonagle & Hamblin, 2013). When people with chronic conditions anticipate stigma, valuable time and energy is diverted away from symptom management and other life activities and spent worrying about social rejection or discrimination, possibly diminishing their already overburdened physical and mental health (Earnshaw et al., 2011). Likewise, the anticipation of stigma impacts diagnosed employees’ decisions to disclose and request accommodations, assistance from managers and coworkers, or other needed adjustments (Oldfield, MacEachen, Kirsh, & MacNeill, 2014; Voojis, Leensen, Hoving, Wind, & Frings-Dresen, 2017), suggesting individuals may not be receiving the resources required to cope with their illness demands along with work-related tasks. Research on stress and coping argues that individuals who do not have the available physical or psychological resources required to meet their internal and external demands will likely experience greater stress and strain (Lazarus & Folkman, 1984). Therefore, employees with chronic illness who lack the coping resources required to meet the complex demands of their condition, illness identity and social environment may experience a deterioration of physical and psychological well-being (Ben-Sira, 1984). To illustrate, research has shown that individuals with chronic illness who anticipate greater stigma experience poorer psychological and work-related outcomes, including increased psychological distress (Quinn & Chaudoir, 2015), greater illness symptoms
(Quinn & Chaudoir, 2015; Earnshaw et al. 2013), increased job tension (McGonagle & Hamblin, 2013), and a lower quality of life (Earnshaw, Quinn, & Park, 2011). For these reasons, anticipated stigma is conceived of as a critical psychosocial stressor and job demand.

**Work Climate, Culture, and Stigma**

Despite the enactment of the Americans with Disabilities Act (ADA), employees with disabilities and chronic illnesses continue to be discriminated against in the workplace in large numbers. In 2012, 26,379 disability-related allegations were reported, including involuntary termination and failure to provide reasonable accommodation (U.S. Equal Employment Opportunity Commission 2012b). In a qualitative study of 23 workers with chronic illness, individuals with epilepsy reported being threatened with work termination and involuntarily transferred to less challenging, less fulfilling positions after suffering an episode of illness symptoms (Beatty, 2012). From the same study, employees with multiple sclerosis and epilepsy described how work accommodation requests were often met with confrontational attitudes by management, and how coworkers’ pity, stereotypical misconceptions, and incorrect assessments of their abilities affected their career advancement opportunities (Beatty, 2012). Similarly, in a qualitative study of 40 cancer survivors returning to work, participants expressed that work colleagues’ misunderstandings about cancer, apprehensions about productivity, and concerns related to the cost of accommodations have affected their transition back to work (Stergiou-Kita,
Pritlove, & Kirsh, 2016). Cancer survivors also described being encouraged by their organization to accept lower-level positions, to resign, or retire early, and some detailed being wrongfully terminated, expressing fears related to job loss.

When employees with chronic illnesses experience stigma or discrimination, they may be more likely to anticipate future stigma (McGonagle & Hamblin, 2013). In organizations that prioritize productivity and efficiency at the expense of the psychological health and well-being of its workers, employees with chronic illness must continuously manage their stigmatized identities to meet the expectations of the work context. As persons with chronic illness are already in a vulnerable and diminished resource state due to their unpredictable health, the possible threat of being stereotyped, demoted, or even fired due to their illness is an additional demand that directs time and energy away from illness management and work-related tasks and may lead to strain, such as increased job tension (McGonagle & Hamblin, 2013), greater psychological distress, and poorer health outcomes (Earnshaw et al., 2013; Quinn & Chaudoir, 2015). In one study, employees with chronic conditions who anticipated discrimination experienced higher work-related strain/exhaustion above both illness severity and negative affect (McGonagle, Roebuck, Diebel, Aqwa, Fragoso, & Stoddart, 2014). Anticipated discrimination has also been demonstrated to predict work-related outcomes such as affective commitment and job satisfaction over procedural justice perceptions in workers with chronic disease (McGonagle et al., 2014). By anticipating stigma and engaging in strategies to manage their
identities within the context of the workplace, employees with chronic conditions may suffer a decline in their physical and mental health and develop poorer attitudes towards work.

Concealable Illness and Disclosure Issues

As illness symptoms are frequently concealable (e.g. pain, fatigue), employees with chronic disease face a unique and complex dilemma: whether to reveal their stigmatized identities to their employer and work colleagues (Beatty & Kirby, 2006; Jones et al., 1984; Vickers, 1997, 2003). In one study of 5,264 employees managing chronic illness in the UK’s private and public sectors, it was found that only 50% of sampled individuals revealed their chronic illness at work (Munir, Yarker, & Haslam, 2008). Depending on the perceived psychosocial safety of the work environment, individuals who fear being stigmatized may choose not to reveal their identity to their employer (Beatty, 2012; Munir, 2004, 2005, 2008), even if disclosing would help them obtain important organizational resources, assist in lessening the demands of their illness, or enable them to adequately perform at their jobs (McGonagle et al., 2014). For example, cancer survivors returning to work have described choosing not to reveal their identity if the work culture was perceived to be unsupportive and structured in such a way to discourage disclosure (Stergiou-Kita et al., 2016). Due to the potential invisibility of chronic illness, organizations may be ignorant of the incidence of chronic disease in the workplace, and concurrently unaware of the population’s individual needs (Beatty & Joffe, 2006). As a result, workers with invisible chronic
conditions who choose not to disclose their condition may not receive the necessary organizational resources to mitigate the stress of their high demands (i.e. illness symptoms, long work hours, stigma) and resulting strain outcomes (i.e. psychological distress, reduced work engagement).

According to Lazarus and Folkman’s (1984) transactional theory of stress and coping, individuals appraise situations as threatening when their perceived demands exceed the number of available coping resources (Lazarus & Folkman, 1984). In an environment perceived as psychologically unsafe and as offering fewer resources to manage high demands, individuals are more likely to experience stress and strain, such as decreased well-being and increased psychological distress (Major & O’Brien, 2005). If diagnosed employees feel uncomfortable revealing their chronic condition due to the anticipation of stigma, and must regularly adjust their behavior to appear “normal” without being properly accommodated, their internal and external demands will likely culminate into a diminished state of physical and mental health (Bakker & Demerouti, 2006; Ben-Sira, 1984; Dollard & Karasek, 2010). Consequently, individuals with chronic diseases may leave the organization or workforce unnecessarily (Varekamp, Heutink, Landman, Koning, de Vries, & van Dijk, 2009). When employees perceive an organizational climate as safe and supportive, however, the negative effects of anticipated stigma may be weakened.
Social Support

Social support, generally defined as “the availability of helping relationships and the quality of those relationships” (Leavy, 1983, p. 5), has been associated with notable psychological health and employment outcomes in workers across a wide range of occupations. In a qualitative review of research on social support and well-being, Cohen and Wills (1985) found evidence to suggest social support has both a direct and moderating effect on health and well-being outcomes. The moderating effect model, or the “stress-buffering hypothesis”, asserts that social support protects individuals from potentially stressful situations in two distinct ways. First, social support may interfere with perceptions of actual or anticipated stressors by attenuating the person’s stress appraisal response. By perceiving that helpful others will offer needed resources to mitigate stress, a person’s susceptibility towards experiencing harm is reduced. Additionally, perceptions of social support may enhance one’s perceived coping capabilities in handling demands, preventing situations from being judged as stressful in the first place (Cohen & Wills, 1985). By influencing physiological processes, lowering, and/or removing stress reactions altogether, social support may disrupt the link between stress and the onset of negative health problems. By offering solutions to crucial problems, social support may disrupt the stress appraisal response. For example, social support may interfere with the stress-appraisal process by decreasing one’s perceived significance of
the stressful event, lowering neuroendocrine responses, or by assisting in the development of healthy behaviors (Cohen & Wills, 1985).

Social support is comprised of functional and structural support. Generally, functional support refers to the behaviors that helpful others perform to reduce stress for the target individual (Beehr & Glazer, 2001; Caplan, Cobb, French, Van Harrison, & Pineau, Jr., 1976) and includes two types of behaviors: instrumental and emotional support. The purpose of emotional support is to instill positive feelings in the focal person, for example, by offering praise, positive feedback, or approval. Instrumental support refers to any tangible assistance provided by another in completing a task or solving a problem. Both instrumental and emotional support are predicted to buffer the negative impact of stressors on strains (Cohen & Wills, 1985). For instrumental support to be beneficial, however, the target person must be willing to receive help, otherwise reverse buffering may occur. Reverse buffering happens when social support interacts with stressors to enhance, rather than suppress, the effects of strains (Beehr, 1995; Beehr & Glazer, 2001). In a meta-analysis of 68,343 participants examining emotional and instrumental support in the workplace, both buffering and reverse buffering effects of social support were demonstrated, suggesting contextual factors should be considered when determining if social support enhances or diminishes stress (Mathieu, Eschleman, & Cheng, 2018). Despite reverse buffering, social support may nevertheless help alleviate the effects of stress. This is because the relationship between reverse buffering and strain is often weak and may be
contingent upon the form of strain experienced (Beehr & Glazer, 2001). Beehr, Bowling, and Bennett (2010) identified three reasons why social support from others may not decrease stress and strain. First, social support may unintentionally focus an employee’s attention on their workplace stress and intensify its effects. Next, if social support from others makes the individual feel less competent or inadequate, it may threaten their self-image and increase experienced stress and strain. Lastly, if social support is unnecessary and unwanted by the individual, stress and strain may be heightened. In addition, the person offering social support must understand what the person’s issue is, have the time to help, and the appropriate knowledge and skills given the situation (Beehr & Glazer, 2001).

The ‘matching hypothesis’ proposes that when the appropriate type and source of social support are matched to the types of stressors experienced, there is a greater likelihood of strain outcomes improving (Cohen & Wills, 1985). For example, if a toxic leader is the cause of an employee’s stress, social support from this person may exacerbate their stress, so emotional support from a coworker or another manager may be more appropriate. Likewise, if an employee is experiencing stress due to a recent death in the family, offering emotional support, such as compassion and empathy, might be the most effective at soothing their stress. Matching the source and type of support to the stressful event is more likely to lead to better outcomes. In the Mathieu et al. (2018) meta-analysis, when social support came from the supervisor and the
measurement scale contained questions about social support availability, social support was more strongly associated with improvements in outcomes such as job satisfaction, turnover intentions, and emotional exhaustion (Mathieu et al., 2018). Indeed, supervisor support has been established as having the strongest negative relationship to strains.

In a literature review of the different models of social support in the work stress process, Viswesvaran, Sanchez, and Fisher (1999) discovered that social support significantly buffered the stress-strain interaction, alleviating perceived stressors and decreasing strains (Viswesvaran et al., 1999). The authors explained that social support serves three primary purposes: to decrease strain, to weaken stressors, and to reduce the effects of stressors on strains. In a national sample of 24,486 employed French men and women, lower social support and greater psychological demands were correlated with poorer self-reported health outcomes and lengthier sick leave (Niedhammer, Chastang, & David, 2007), suggesting that when social support is low, the effects of demands on strains may be greater. In a study of 80 intellectual disability support staff members, lower perceived social support was associated with reduced feelings of personal accomplishment (Mutkins, Brown, & Thorsteinsson, 2011), suggesting social support may be influential in an individual’s propensity toward experiencing features of burnout. Conversely, research by Sloan (2012) of 1,550 U.S. state employees demonstrated that employees who felt supported by their coworkers were less affected by unfair treatment by a supervisor, providing
support for the stress-buffering hypothesis (Sloan, 2012). These findings suggested that social support plays a crucial role in the stress-strain interaction, serving as a job resource that offsets the negative effects of job demands.

**Anticipated Stigma and Social Support**

Social support is considered a crucial job resource which buffers the effects of stress for individuals with chronic disease (Ben-Sira, 1984) and has been demonstrated to attenuate the effects of anticipated stigma across several studies. For example, social support may be critical in helping employees manage the demands of their illness at work and in building self-efficacy (Siu et al., 2013). To illustrate, a study of 93 people living with HIV demonstrated that greater perceived instrumental social support buffered the stress associated with anticipated stigma by enhancing individuals’ resilience, subsequently protecting their health outcomes (Earnshaw, Lang, Lippitt, Jin, & Chaudoir, 2014). In contrast, when perceived levels of social support were low, anticipated stigma was correlated with an increase in HIV symptoms. In a separate study, perceived instrumental and emotional employer support led to significant improvements in the average psychological well-being of 1,029 adults living with chronic disease (Munir, Yarker, Haslam, Long, Leka, Griffiths, & Cox, 2007). Similarly, results from a study of 340 African American women with HIV suggested that different types of social support (including perceived accessibility of social support, sources of social support, and satisfaction with social support) moderated the positive association between perceived and internalized HIV-related stigma and
depression, indicating perceived social support may improve psychological health (Vyavaharkar, Moneyham, Corwin, Saunders, Annang, & Tavakoli, 2009). In a study of 172 adults living with chronic illness, researchers established that greater anticipated stigma from work colleagues was related to a significantly lower quality of life when compared to healthy individuals, partially explained by lower perceptions of instrumental and emotional support from others. This finding suggested that when social support from others is perceived to be low, perceptions of anticipated stigma may be heightened, impacting individuals’ quality of life (Earnshaw et al., 2014).

Social support may enable workers with chronic illnesses to remain engaged in the workplace. For instance, a qualitative study of 69 employees with rheumatoid arthritis, diabetes mellitus, and hearing loss demonstrated that perceived support from management and work colleagues was a significant facilitating factor in individuals’ ability to remain employed (Detaille, Haafkens, & van Dijk, 2003). By increasing self-efficacy in their ability to make adjustments and take medication at work, results from a sample of 772 employees with chronic illness suggested that support from line managers allowed individuals to better manage their illness symptoms in the work context (Munir, Randall, Yarker, & Neilsen, 2009). Hence, social support may reduce the demands associated with anticipated stigma and improve the psychological and work-related outcomes of individuals with chronic illness, enabling them to continue working.
Attainability of Social Support

Despite its many benefits, social support may be challenging to obtain for stigmatized chronic illness groups (Quinn, Dickson-Gomez, Broaddus, & Kelly, 2018). In a qualitative study of 23 black men living with HIV, participants described how their experience of enacted, internalized, and anticipated stigma were associated with an inability to establish or maintain strong social support networks, leading to feelings of shame and social isolation, and restricting their ability to acquire needed social support (Quinn et al., 2018). In a qualitative study of 210 people living with HIV in South Africa, results demonstrated that perceived HIV-related stigma was related to lowered perceptions of social support and greater post-traumatic stress disorder (PTSD) symptoms (Breet, Kagee, & Seedat, 2014). This finding suggested that perceptions of stigma, awareness of restricted opportunities, or adverse changes in social identity associated with HIV status may lower perceived social support from others, leading to an increase in PTSD symptoms. Although the stress-buffering hypothesis states that social support should weaken the effects of stigma and improve outcomes, there are factors which may hamper its protective relationship to mental health. For example, in a literature review about HIV/AIDS stigma in Sub-Saharan Africa, it was reported that cultural constructions, beliefs, and stereotypes mediated the influence of stigma, inhibiting access to social support networks (Mbonu, van den Borne, & DeVries, 2009). Thus, organizational norms, policies and practices may moderate the influence of social support for stigmatized groups. In a qualitative
study of 32 supervisors across three companies, participants detailed how organizational factors either inhibited or assisted in effective problem-solving between supervisors and employees with chronic illness during symptom flare-ups (Nelson, Shaw, & Robertson, 2016). Supervisors described how greater flexibility and power to manage employee tasks, schedules, and routines allowed them to accommodate the needs of individual employees. Thus, in work environments with inflexible job modification and time off policies and little to no investment in employee health and well-being, the positive effects of social support may be weakened. For social support to be an effective resource for mitigating the stress of anticipated stigma, the organizational climate and culture must promote flexibility and autonomy in managing disease, enabling supervisors to adjust work tasks and schedules to meet the individual needs of employees.

For workers with chronic illness, the benefits of social support may be contingent upon perceptions of safe and supportive organizational climates which value and promote worker health and well-being. In work cultures that value productivity and efficiency above health and well-being, individuals with chronic conditions may experience greater anticipated stigma and perceive less social support, leading to poorer outcomes. On the other hand, in climates perceived as supportive and inclusive of employees with chronic illness, individuals may anticipate less stigma and feel more comfortable in utilizing instrumental and emotional assistance from supervisors and colleagues. Therefore, research is
needed to understand if employee perceptions of the work climate influence the utilization of social support and buffer the adverse effects of anticipated stigma.

**Psychosocial Safety Climate Work Model of Stress**

One theoretical lens to better understand how perceptions of work climate influence perceived demands and resources is known as the Psychosocial Safety Climate (PSC) Work Model of Stress (Dollard & Karasek, 2010; Dollard & McTernan, 2011), an extension of the Jobs Demands-Resources model (JD-R; Bakker & Demerouti, 2006). The Jobs Demands-Resources Model argues that every occupation consists of unique characteristics related to work stress, classified as job demands and job resources. Job demands are physical, mental, or emotional features of work that may provoke stress reactions when they require great individual effort (Schaufeli & Bakker, 2004). If not properly coped with, demands may accumulate into stressors and lead to the development of strain (i.e. decreased well-being, burnout, anxiety, depression).

The word “stressor” refers to an environmental condition that influences an individual’s health, while strain denotes individual reactions to stressors (e.g., Jex, Beehr, & Roberts, 1992). Job resources are features of work that promote learning and development, help diminish the impact of demands and accomplish goals, such as social support (Bakker, Demerouti, & Schaufeli, 2003). The JD-R framework connects job demands and resources (stressors and strains) through two distinct health and motivational pathways (Bakker & Demerouti, 2007). The health erosion process refers to the mechanism through which individuals
exercise effort to cope with their incoming demands, leading to energy depletion and negative outcomes, such as lowered well-being. The motivational process describes how the provision of intrinsically and externally valued resources, like control, may increase workers’ engagement and improve organizational outcomes, such as work engagement and commitment. Much of the research using the JD-R model has been predominantly focused at the individual level (Dollard & McTernan, 2011). Thus, scholars Dollard and Karasek (2010) have proposed the Healthy Conducive Production Model or the PSC Work Model of Stress to seek to understand how employee perceptions concerning organizational policies and practices reflect the equilibrium between production goals and the health and well-being of employees.

A psychosocial safety climate (PSC) refers to work policies, practices and procedures for the psychological health and well-being of its employees (Dollard & Karasek, 2010, p. 208). Primarily driven by organizational and managerial principles and beliefs, PSC indicates the organization’s level of dedication to worker health, safety, and well-being. In high PSC work environments, supervisors are expected to display commitment to stress prevention and psychological health promotion. Individuals are also provided a safe and supportive atmosphere to report psychosocial stressors to management and request resources to cope with stress. Thus, PSC serves as a ‘safety signal’ for individuals requesting resources to cope with high demands.
Psychosocial safety climate is comprised of four primary dimensions: management priority, management commitment, organizational communication, and organizational participation. Management commitment reflects upper management’s support and dedication to employee stress prevention through action and involvement. Management priority refers to the weight an organization places on worker stress prevention and health when compared with production objectives. Organizational communication involves the establishment of effective communication channels between management and subordinates in respect to psychological health and safety, permitting the disclosure of stressful work conditions and psychosocial hazards, and facilitating preventative action. Lastly, organizational participation concerns the involvement and voice of every employee in protecting the psychological health and safety of all members across every level of the organization (Hall et al., 2010). Psychosocial safety climate is conceptualized as an important organizational resource and psychosocial risk factor with the potential to cause social benefit or harm (Dollard & Bakker, 2010). According to the JD-R model, psychosocial risks, such as high demands and low resources, manifest regardless of job type and are significantly related to mental health issues. By draining individuals' physical and psychological resources, high physical/emotional demands and low resources contribute to feelings of emotional exhaustion and chronic health issues. Conversely, the motivational component of JD-R suggests that job resources can stimulate work engagement, decrease cynicism, and lead to enhanced performance (Bakker & Demerouti,
Psychosocial safety climate is therefore regarded as a macro-level resource which stimulates the JD-R health impairment and motivation pathways.

Psychosocial safety climate theory draws partially from Karasek’s (2008) Demand- Control Stress Disequilibrium theory, which argues the effects of work-related stress are due to a person’s lack of control over the physiological coordination required to meet the demands of the environment (Karasek, 2008). The theory asserts that the employee in the workplace is part of a flow and energy-based system which requires higher level controls to convert disorganized, uncoordinated energy into meaningful and accurate performance by the individual, creating the capacity to keep up with unstable work stressors and demands. For example, enacted policies and practices aimed at reducing the stress of high demands may help employees maintain emotional homeostasis and prevent harm (Dollard & Karasek, 2010). By establishing channels of social dialogue between upper and lower-level employees and providing stress buffering resources, the threat to an employee’s self-regulation is prevented and individuals are better able to meet their competing demands without impairing their health.

To combat the physical and psychological distress associated with increasing demands, PSC acts as an organizational level control that coordinates and balances worker demands, enables self-regulation, improves social discourse between top management and lower-level employees, and offers workers a voice in the decision-making process, instilling feelings of
empowerment (Dollard & Karasek, 2010). By reducing the impact of demands and providing coping resources, PSC serves both a preventative and ameliorative purpose that improves the physical and psychological health and motivation of employees (Dollard & Karasek, 2010; Dollard & McTernan, 2011).

Psychosocial Safety Climate Outcomes

A 2016 literature review of 13 peer-reviewed articles revealed that PSC is significantly related to a variety of individual and work-related outcomes (Mohd, Idris, & Dollard, 2016). Regarding individual-related outcomes, PSC has been significantly associated with signs of well-being, including emotional exhaustion, psychological distress, and somatic symptoms. Relative to work-related outcomes, higher perceived PSC has been significantly related to greater work engagement, job performance, job satisfaction, positive organizational behavior, job control, work rewards, supervisor support and coping strategies.

Individual Outcomes

By interfering with psychosocial risk factors, psychosocial safety climate has been correlated with improved psychological health-related outcomes, including reductions in emotional exhaustion and psychological distress (Dollard & Karasek, 2010). In a two-month study of 288 school employees, researchers found that exposure to a work-related psychosocial risk management program (PAR) lowered employees’ emotional exhaustion and distress by allowing individuals to utilize their control (e.g. decision influence), enabling access to necessary internal and external resources. Hence, workplace interventions
designed with the essential components of a psychosocial safety climate may reduce work-related stress for school employees.

For workplaces characterized by a lack of policies and procedures aimed at buffering the negative effects of work demands, employees sustained coping efforts in response to work stressors may lead to energy depletion and increased psychological distress. For instance, in work environments lacking procedures for reporting work fatigue and overload (i.e. low PSC), employees may feel obligated to conceal rather than communicate their emotional distress. A high PSC work environment, conversely, acts as top-down resource that assists employees in managing their demands through established communication channels and support systems. Results from Dollard and Bakker’s (2010) study revealed that PSC allowed employees to develop better coping mechanisms, thus improving their psychological health. By negatively interacting with work demands, PSC was significantly related to psychological health, predicting significant changes in skill discretion and emotional demands. Thus, when organizations have policies for communicating demands to upper management and leaders are responsive to those needs, workers may feel better equipped and less taxed by their demands (Dollard & Bakker, 2010).

Kwan, Tuckey, and Dollard (2014) conducted a qualitative study on the impact of PSC climate on employee coping responses to workplace bullying. In high PSC climates, employees who experienced bullying typically utilized active coping strategies, such as voice, to handle instances of bullying. In this way, high
PSC served as a “safety signal”, reassuring bullied employees they would be safe in disclosing incidents of bullying to management without threatening their psychological safety. As hypothesized, higher perceived PSC assisted in lessening the inequality between supervisors and employees by reallocating resources and empowering workers (Kwan et al., 2014, p. 136). Conversely, in low PSC environments, where management was less responsive to workers’ psychological needs, workers were more likely to adopt maladaptive coping strategies, such as avoidance, passive, or emotion-focused coping. For example, employees who were bullied in low PSC environments tolerated the bullying out of fear of losing their jobs, having opportunities taken away, having their performance appraisal affected, or of being characterized as a troublemaker. Because workers in these contexts felt their psychological health and well-being was less valued by the organization, bullying was endured or led to an escalation of conflict. Conversely, managers in high PSC contexts took immediate action when instances of bullying were brought to their attention, building communication and trust, and promoting feelings of safety (Kwan et al., 2014).

Loh, Idris, Dollard, and Isahak (2018) argued that PSC enables the supply, protection, and preservation of job resources by strengthening and offsetting the effects of low resources. A study of 429 participants across 53 workgroups within a hospital revealed PSC served to lessen the negative effects of emotional demands on somatic symptoms and emotional exhaustion above both job control and job rewards, indicating PSC provides a boost to employees’
pool of available emotional resources. Emotional demands led to the worst somatic symptoms when PSC and rewards were both low, suggesting rewards and PSC may offer complementary benefits in minimizing the negative effect of emotional demands on employees’ well-being (Loh et al., 2018).

In a study of 220 workers across 30 organizations, Law, Dollard, Tuckey, and Dormann (2011) demonstrated that organizational PSC interacted with health erosion and motivational pathways in determining the effects of bullying and harassment. In workplaces characterized by low PSC, employees reported more bullying and harassment and fewer resources, including less supervisor support, work rewards, and procedural justice (Law et al., 2011), consistent with the JD-R framework and PSC theory. Psychosocial safety climate was also significantly related to work engagement through work rewards, indicating that PSC activated employees’ extrinsic motivation pathways. Similarly, results revealed that PSC moderated the positive association between bullying/harassment and mental health issues and the negative association between bullying/harassment and work engagement, providing further evidence that PSC interfered with the job demands-resources interaction to improve psychological and motivational outcomes.

**Organizational Outcomes**

Huyghebaert, Gillet, Fenet, Lahianic, and Fouquereaua (2018) conducted two studies evaluating the influence of PSC on work-family conflict (WFC) and turnover intentions through employees’ psychological need thwarting, or the
feeling of having one’s needs oppressed (i.e. need for autonomy, competency, and relatedness). For instance, when workers recognize that their health and well-being are not an organizational priority (i.e. low PSC), they may feel devalued and unappreciated, hampering their need for competency and relatedness. In the first study of 269 nurses, PSC was negatively associated with need thwarting, indicating perceptions of the organizational environment are important in fulfilling individual needs. Moreover, need thwarting mediated the relationship between PSC, turnover intentions, and work-family conflict, suggesting perceptions of PSC matter when it concerns important job attitude outcomes. In their second study, a questionnaire was distributed at two points in time over three months to 393 nurses across 47 French healthcare centers. Results revealed PSC was negatively related to burnout through psychological need thwarting, which in turn was associated with lower turnover intentions and work-family conflict. These findings suggested that need thwarting is a mechanism through which PSC works to reduce burnout, further indicating that PSC serves as a valuable organizational resource in improving work-related outcomes by satisfying individual needs (Huyghebaert et al., 2018).

Additional studies have explored the relationship between PSC and other work-related outcomes. For instance, Geisler, Berthelsen, and Muhonen (2019) researched the relationship between psychosocial safety climate and job satisfaction, work engagement, and organizational commitment in a group of 831 social workers in Sweden. Results revealed PSC to be positively related to job
satisfaction, but surprisingly unrelated to organizational commitment or work engagement. However, this finding may be due to PSC being measured at the individual, rather than aggregated group level (Geisler et al., 2019). Other studies have established a positive relationship between PSC and work engagement (Law et al., 2011; Dollard & Bakker, 2011; Idris, Dollard & Tuckey, 2015). Law et al. (2011) confirmed PSC was significantly related to work engagement through its influence on work rewards, demonstrating PSC’s value as a macro-level resource that boosts the availability of other organizational resources. Likewise, Dollard and Bakker (2010) discovered that PSC positively influenced individuals’ work engagement through job control (i.e. skill discretion). The role of PSC was also investigated in a study of 427 employees across 57 work teams in Malaysia, where PSC was demonstrated to improve job performance and work engagement through individual learning opportunities, suggesting that when guided by managerial actions, learning opportunities perhaps serve as intrinsic and extrinsic motivators in driving employees to achieve their work goals (Idris et al., 2015). Thus, PSC may serve as a highly valuable macro-level resource and safety signal, reducing the impact of psychosocial demands, enhancing the availability of important coping resources, and improving individual and work-related outcomes.
Present Study

The present study will examine the direct and moderating effects of psychosocial safety climate (PSC) on employee perceptions of anticipated stigma and social support. Specifically, we will assess whether perceptions of PSC moderate the impact of anticipated stigma on employees' depression, anxiety, emotional exhaustion, turnover intentions, and work engagement. Using the PSC Work Model of Stress as a theoretical foundation, it is proposed that social support will function as an organizational resource which reduces the stress associated with stigma by boosting valuable resources and offsetting the effects of demands. It is hypothesized that individuals working in high PSC climates will likely perceive greater social support, leading to better psychological and motivational outcomes. Conversely, individuals employed in low PSC climates will likely perceive less social support and experience greater stress related to stigma.

The present research will advance the occupational health literature by examining the effects of anticipated stigma on the psychological health and work-related outcomes of employees with chronic illnesses. Through the lens of the JD-R framework and PSC Work Model of Stress, this research seeks to explore how employee perceptions of psychosocial safety climate (PSC) serve to both reduce demands and enhance available forms of support to improve outcomes for individuals with chronic illness.
High PSC climates consist of communication channels to report demands and provide support with the goal of relieving stress. In this type of environment, organizational resources will likely be perceived as more readily available and easily accessible, increasing their usage, and predicting better outcomes for individuals with chronic conditions. Conversely, in environments with a lack of policies, practices and procedures aimed at mitigating stigma, individuals are predicted to suffer poorer outcomes, such as greater depression and anxiety and lower work engagement. Figure 1 visualizes the initial model and proposed hypotheses.

Figure 1: Initial Hypothesized Model
H1: There will be a significant main effect of anticipated stigma on psychological health (e.g. depression, anxiety, emotional exhaustion) in workers with chronic illnesses.

H2: There will be a significant main effect of anticipated stigma on work engagement in workers with chronic illnesses.

H3: Social support (i.e. instrumental and emotional) will moderate the relationship between anticipated stigma and psychological health in workers with chronic illnesses.

H4: Social support will moderate the relationship between anticipated stigma and work engagement in workers with chronic illnesses.

H5: There will be a significant main effect of PSC on anticipated stigma and social support.

H6: PSC will moderate the buffering effect of social support on the relationship between anticipated stigma and psychological health in workers with chronic illnesses.

H7: PSC will moderate the buffering effect of social support on the relationship between anticipated stigma and work engagement in workers with chronic illnesses.
CHAPTER TWO:

METHODS

Participants

Participants were recruited online through Amazon Mechanical Turk and chronic illness advocacy and support groups on Facebook. Participants were over the age of 18, self-identified as having one or more chronic illness, worked 20 or more hours per week, and have been employed at their current organization for at least six months. A GPower analysis estimated that the study required 119 participants to have satisfactory power with a 0.95 power prerequisite and a Cronbach’s α = 0.05. The final sample size was 202 (Males = 69; Females = 131; Transgender = 1; Nonbinary = 1). Participants’ ages ranged from 18 to 79 years old, the average age category being 25-34. 61.8% of participants identified as White, 24.1% identified as Asian/Pacific Islander, and 5.0% identified as Hispanic/Latino. 43.3% of participants had a Bachelor’s degree, 19.9% had a Master’s degree, 14.1% had an Associate’s degree, and 11.4% had some college but no degree. Table 1 displays all participant demographics.

To control for the potential variation in the stigma experiences between different illness types, the sample was restricted to those identifying as having one or more autoimmune disease (McConagle & Barnes-Farrell 2013), identified by the American Autoimmune and Related Diseases Association (AARDA). This decision was made because individuals who identify as having autoimmune
disease are comparable in terms of Jones et al.’s (1984) dimensions of stigma: concealability (many with autoimmune disease have invisible symptoms), course (many conditions deteriorate over time), disruptiveness (most do not interfere with communication), origin (most people are not viewed as at fault for their disease), as well as peril (most pose no threat to others) (Jones et al., 1984).

Design

The study was a correlational design. The independent variables assessed included anticipated stigma, psychosocial safety climate (PSC), and social support. The dependent variables measured were work engagement, turnover intentions, depression, anxiety, and emotional exhaustion.

Procedure

Links to an anonymous Qualtrics survey were distributed to various online chronic illness support and advocacy groups on Facebook, as well as Amazon Mechanical Turk. No identifying information about the participants was collected. Upon clicking the survey link, a page displayed the study’s purpose and how data would be collected. Participants were asked to indicate their informed consent by clicking “Continue” to start the survey. Participants were initially asked a series of inclusion criteria questions, including “Do you have a diagnosed chronic illness?”, “Is your chronic illness categorized as an autoimmune disease?”, and “Do you work 20 or more hours per week? If inclusion criteria were not met, skip logic was applied in Qualtrics to end the survey.
The survey took approximately 20-30 minutes and was taken in the participant’s preferred location on their own time. Participants who fulfilled the inclusion criteria were asked to answer a series of Likert-style scale questions from an assortment of measures related to their chronic illness, employment, perceptions of stigma, working climate, social support, psychological health and work motivation.

Measures

Measures included self-report questionnaires with Likert-style scale items. Questions about chronic illness appeared after non-illness related items in attempt to reduce bias. As analysis of sub-dimension relationships was out of scope for this study, overall mean scores of entire scales were gathered to assess the relationship between variables.

Chronic Illness Anticipated Stigma Scale

Anticipated stigma is the extent to which individuals expect to be targets of prejudice, stereotyping, and discrimination from others (Quinn & Chaudoir, 2009). The CIASS was created to assess anticipated stigma in individuals with chronic illness and to better understand the processes involved in its effects on individuals' psychological health and behaviors. The scale consisted of 12-items with three subscales to distinguish sources of stigma from family and friends, work colleagues, and healthcare workers. Scale items ranged from 1 (very unlikely) to 5 (very likely) and included items such as, “Someone at work will discriminate against you”, “Someone at work will think that you cannot fulfill your
work responsibilities, “Your employer will assign a challenging project to someone else”, “Your employer will not promote you”, “A friend or family member will blame you for not getting better”, “A friend or family member will not think highly of you”, “A healthcare workers will blame you for not getting better”, and “A healthcare worker will be frustrated with you”. The CIASS has demonstrated high internal reliability across subscales, $\alpha = .92$ for the friends and family subscale, $\alpha = .95$ for the work colleague’s subscale, and $\alpha = .95$ for the health-care worker subscale. The entire scale has demonstrated high internal consistency, with Cronbach’s $\alpha = .95$ (Earnshaw et al., 2013).

**Social Support for Workers with Disabilities Scale**

Social support at work may come from various sources, including supervisors, coworkers, the organization, and significant others outside of work. Sources of social support were measured using items from the 41-item Support for Workers with Disabilities Scale, containing three subscales intended to assess the emotional, instrumental, informational, and appraisal support received from supervisors, coworkers, and family/friends. Participants reported the extent to which they are offered the assistance as described in the items, ranging on a 5-point Likert scale from 1 = “strongly disagree” to 5 = “strongly agree”. Items included: “My supervisor contacted me outside of work to enquire as to my welfare” (Emotional), “My supervisor ensured accommodations were provided in a timely manner (Instrumental), “My supervisor praised me for effort I was putting in” (Appraisal), “My coworkers gave me help in knowing the steps to follow
regarding my injury/disability” (Informational), “My coworkers offered to help me in some way” (Instrumental), “My family and friends showed they supported me (Emotional), “My family and friends helped out with responsibilities at home” (Instrumental). Cronbach’s alpha for the total scale was demonstrated as α = .95, and all three subscales have demonstrated content validity (Lysaght, Fabrigar, Larmour-Trode, Stewart, Friesen, 2012).

**Psychosocial Safety Climate Scale**

PSC was measured using the short 12-item version of the PSC scale (Hall et al., 2010), comprised of four subscales with three items each: management commitment, management priority, organizational communication, and organizational participation. Participants rated items on a 5-point Likert scale ranging from 1= (strongly disagree) to 5 = (strongly agree).

Example items included: “Psychological well-being of staff is a priority for this organization” (management priority), “Senior management show support for stress prevention through involvement and commitment” (management commitment), “There is good communication here about psychological safety issues that affect me” (organizational communication), “Employees are encouraged to become involved in psychological safety and health matters” (organizational participation). Internal consistency for the Management Commitment subscale was demonstrated as α = .89, Management Priority α = .95, Organizational Communication α = .81, and Organizational Participation was
demonstrated as acceptable, $\alpha = .77$. Internal consistency for the entire scale has been demonstrated as high, $\alpha = .95$ (Hall et al., 2010).

**Work Engagement Scale**

Work engagement is a positive and fulfilling affective-cognitive state related to one’s job (Shaufeli & Bakker, 2004). This important indicator of career success consists of three sub-dimensions—vigor, dedication, and absorption. Vigor concerns an individual’s high energy levels and resilience, eagerness to devote time and effort to tasks, and tenacity when encountering difficulties. Dedication involves one’s sense of meaning derived from their work, enthusiastic feelings towards one’s job activities, and feelings of being encouraged and challenged by one’s work. Lastly, the dimension of absorption indicates a feeling of being completely and blissfully engrossed in one’s work activities. Work engagement was measured using the 17-item Utrecht Work Engagement Scale (UWES; Schaufeli, Bakker, & Salanova, 2006) with participant responses ranging from 0 = Never to 6 = Always/Every day. Vigor was measured by items such as “At my work, I feel bursting with energy”, “At my job, I am very resilient, mentally”. Dedication is assessed by items such as, “I am enthusiastic about my job”, “My job inspires me”, and “I am proud on the work that I do”. Absorption was measured with items such as “Time flies when I’m working”, “I feel happy when I am working intensely”, and “It is difficult to detach myself from my job” (Shaufeli & Bakker, 2004). Cronbach’s alpha for the Ultrech Work Engagement scale has been demonstrated as $\alpha = .93$. (Vigor ranges between .75 to .82; dedication from
.88 to .90 and absorption from .70 to .77 (Schaufeli, Salanova, Gonzalez-Roma & Bakker, 2002).

**Turnover Intentions Scale**

Turnover intentions were assessed using the Turnover intention scale (TIS-6; Roodt, 2004), a short questionnaire comprised of six questions related to an individual’s desire to leave their organization. Items included: “How often do you look forward to another day of work?”, and “How often have you considered leaving your job?”. Cronbach’s alpha for this scale is acceptable, α = .80 (Bothma & Roodt, 2013).

**Emotional Exhaustion Scale**

Emotional exhaustion, or feelings of being overtaxed and exhausted due to resource depletion, were measured using items from the Maslach Burnout Inventory (MBI; Schaufeli, Leiter, Maslach, & Jackson, 1996). Item responses ranged on a 7-point scale from 1 = Never to 7 = Always. Items included: “I feel emotionally drained in my work”, “I feel like my work is breaking me down”, I feel I work too hard at my job”, “It stresses me too much to work in direct contact with people”, and “I feel like I’m at the end of my rope.”. Cronbach’s alpha for this sub-dimension has been demonstrated as acceptable, ranging from α =0.83 to 0.91 (Szigeti, Balázs, Bikfalvi, & Urbán, 2016).

**Depression, Anxiety, and Stress Scale**

Participants’ emotional states of depression, anxiety and stress were measured using 21 items from the Depression, Anxiety and Stress Scale (DASS-
which contains three self-report scales with 7 items each, with responses ranging from 0 = Did not apply to me at all to 3 = Applied to me very much or most of the time. The depression subscale measured feelings such as devaluation of life, self-deprecation, hopelessness, and lack of interest/involvement (Lovibond & Lovibond, 1995). The anxiety subscale measured emotional states such as situational anxiety, autonomic arousal, skeletal muscle effects, and situational anxiety. Lastly, the stress subscale measured the extent of chronic nonspecific arousal, such as feeling irritable, over-reactive, impatient, and having trouble relaxing. Example items included: “I felt that I was using a lot of nervous energy” (stress), “I felt I was close to panic” (anxiety), and “I was unable to become enthusiastic about anything” (depression). The internal consistency for the depression scale has been estimated as $\alpha = .88$, the anxiety scale $\alpha = .82$, and for the stress scale $\alpha = .90$ (Henry & Crawford, 2005).

Exploratory Variables

Exploratory variables measured included illness severity, month and year first diagnosed, and disclosure status. Illness severity refers to the degree to which a person’s illness affects their life and their degree of perceived control over their illness (Broadbent, E., Petrie, K.J., Main, J., & Weinman, J. 2006). Illness severity was measured because it may be related to one’s perception of stigma experiences. Moreover, as individuals recently diagnosed may be experiencing greater strain as they adapt to the diagnosis, their perception of
stigma may be bolstered. Thus, month and year first diagnosed were measured. Lastly, participants were asked if they have formally disclosed their chronic illness to their organization. Nondisclosure is likely to affect an individual's access to important accommodations and resources and may influence their perceptions of stigma (McGonagle & Barnes-Farrell, 2013).
CHAPTER THREE:

RESULTS

Data Screening

Prior to analysis, data were screened for violations of normality, univariate outliers, and multivariate outliers using IBM SPSS v.24 (N = 2,664). Duplicate cases, or cases that displayed the same IP address (N = 784), were removed from analysis. Failed attention checks (N = 770), or cases who failed the question, “What is 2+2?”, were removed from analysis. Next, careless responders (N = 11), or cases that had repeat extreme scores or completed less than 50% of the survey, were removed from analysis. Lastly, cases which did not meet inclusion criteria, (N = 894), or those who were not from the target population of workers with autoimmune diseases, were removed, leaving a sample size of N = 205.

To evaluate violations of normality, frequency distributions, histograms, and descriptive statistics were examined for each variable. The variables work engagement, social support, psychosocial safety climate (PSC), and emotional exhaustion had a slight negative skew; variables turnover intentions, anticipated stigma, and depression, anxiety, and stress had a slight positive skew. Emotional exhaustion, anticipated stigma, PSC, and depression, anxiety and stress were slightly platykurtic; social support and work engagement were slightly leptokurtic. Due to this non-normality, maximum likelihood robust was used to analyze the data. To examine univariate outliers, variables were transformed into z-scores
with a cut-off score of \( z = \pm 3.3, p < .001 \). Three cases on the work engagement variable contained univariate outliers (\( z = -3.37 \)). Upon further scrutiny, these cases contained repeat responses and were determined as careless responders, leaving a total \( N = 202 \). Next, multivariate outliers were assessed by calculating Mahalanobis Distance, and none were identified (\( df = 5, \chi^2 = 22.22, p < .001 \)).

To assess missing values, a Missing Values Analysis was performed, producing no significant t-tests as less than 5% of cases contained missing values. Expectation Maximization (EM) was used to estimate the existing missing values. Next, reverse-coded items were recoded into different variables and a reliability analysis was conducted for all study variables. Each scale demonstrated an acceptable Cronbach’s alpha of .85 or higher (Table 3). Interaction terms between hypothesized variables were then computed, leaving 10 total variables in the data set: standardized psychosocial safety climate (PSC), standardized anticipated stigma (AS), standardized social support (SS), DASS (depression, anxiety, and stress), turnover intentions (TI), work engagement (WE), emotional exhaustion (EE), the interaction between PSC and anticipated stigma (PSCxAS), the interaction between anticipated stigma and social support (ASxSS), and the interaction between social support, PSC, and anticipated stigma (SSxPSCxAS).

Analysis
A Pearson correlation matrix was performed in SPSS to examine preliminary relationships between study variables (Table 3). Significant bivariate
correlations offered initial support for our hypotheses. Means, standard deviations, and correlations are displayed in Table 3.

To test the study hypotheses, a path analysis was performed. A structural equation model was estimated using Mplus V7.4 (Muthen & Muthen, 1998-2010). Preliminary results revealed severe multicollinearity issues between the independent variables, leading to suppressor effects in our outcome variables when interactions were added to the model. An exploratory factor analysis was performed and revealed anticipated stigma and psychological health loaded onto one factor; PSC, social support, and work engagement loaded onto a second factor, indicating commonalities between the constructs. As a result, a simplified model was proposed (Figure 2). PSC and social support were highly interrelated, suggesting social support is a dimension of high PSC. As it was likely this intercorrelation was producing the suppressor effects in our criterion, social support and the interaction terms were removed from the model, leaving anticipated stigma and PSC as the only predictors. This resolved the multicollinearity and suppression issues and nevertheless allowed us to test for the effects of anticipated stigma and PSC. The revised model predicted strong associations between our predictors and criterion (Figure 3).

Model Estimation

To assess model fit, the hypothesized structural equation model (Figure 2) was tested. Several maximum likelihood estimation methods were utilized and indicated acceptable model fit. The chi-square for the independence model was
significant, $\chi^2 (15, N = 202) = 594.18$, $p < .001$, indicating that model correlations were significantly different than zero and regression estimates could be meaningfully interpreted. Additional estimation methods were also indicative of good fit, including the standardized root mean square residual (SRMR) = 0.06, and the comparative fit index (CFI) = 0.93.

**Direct Effects**

Model estimates for direct and indirect effects are displayed in Figure 3. In Hypothesis 1, it was expected anticipated stigma would positively predict psychological health. Psychological health was defined as a latent construct comprised of the indicators depression, anxiety, stress, and emotional exhaustion; therefore, a positive relationship would indicate poorer psychological health. Hypothesis 1 was supported, ($\beta = .73$, $p < .001$). In Hypothesis 2, it was expected anticipated stigma would negatively predict engagement at work, a latent construct comprised of the indicators work engagement and turnover intentions. Hypothesis 2 was supported, ($\beta = -0.36$, $p < .001$).

In hypothesis 3, PSC was expected to negatively predict psychological health. Hypothesis 3 was supported, ($\beta = -0.16$, $p = .018$), as poor psychological health decreased with PSC. Hypothesis 4 asserted PSC would positively predict engagement at work. Hypothesis 4 was supported. ($\beta = 0.54$, $p < .001$), as engagement at work increased with PSC. In hypothesis 5, PSC was expected to negatively predict anticipated stigma. Hypothesis 5 was supported, ($\beta = -0.32$, $p < .001$), as anticipated stigma decreased with PSC.
Indirect Effects

In Hypothesis 6, anticipated stigma was predicted to mediate the relationship between PSC and psychological health. Hypothesis 6 was supported, (β = -0.23, p < .001). Lastly, in Hypothesis 7 it was predicted anticipated stigma would mediate the relationship between PSC and engagement at work. Hypothesis 7 was supported, (β = .11, p < .001).

The estimated model comprised of anticipated stigma and psychosocial safety climate accounted for 63% of the variance in psychological health, $R^2 = .63$, $p < .001$, and 55% of the variance in engagement at work, $R^2 = .55$, $p < .001$. Specifically, anticipated stigma and PSC accounted for 61% of the variance in depression, anxiety, and stress, $R^2 = .61$, $p < .001$; 57% of the variance in emotional exhaustion, $R^2 = .57$, $p < .001$; 44% of the variance in work engagement, $R^2 = 0.44$, $p < .001$; and 87% of the variance in turnover intentions, $R^2 = 0.87$, $p < .001$.  

![Figure 2. Revised Structural Equation Model.](image-url)
Figure 3. Estimated Structural Equation Model.

Table 1. Demographic Variables

<table>
<thead>
<tr>
<th>Gender</th>
<th></th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td></td>
<td>69 (34.2%)</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>131 (64.9%)</td>
</tr>
<tr>
<td>Transgender</td>
<td></td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td>Do not identify as male, female, or trans</td>
<td></td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td></td>
<td>15 (7.4%)</td>
</tr>
<tr>
<td>25-34</td>
<td></td>
<td>78 (38.6%)</td>
</tr>
<tr>
<td>35-44</td>
<td></td>
<td>56 (27.7%)</td>
</tr>
<tr>
<td>45-54</td>
<td></td>
<td>30 (14.9%)</td>
</tr>
<tr>
<td>55-64</td>
<td></td>
<td>21 (10.4%)</td>
</tr>
<tr>
<td>65-79</td>
<td></td>
<td>2 (1.0%)</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American/Black</td>
<td></td>
<td>5 (2.5%)</td>
</tr>
<tr>
<td>American Indian or Alaskan Native</td>
<td></td>
<td>6 (3.0%)</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td></td>
<td>48 (24.1%)</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td></td>
<td>10 (5.0%)</td>
</tr>
<tr>
<td>Native American/American Indian</td>
<td></td>
<td>3 (1.5%)</td>
</tr>
<tr>
<td>White (non-Hispanic origin)</td>
<td></td>
<td>123 (61.8%)</td>
</tr>
<tr>
<td>Multi-ethnic</td>
<td></td>
<td>4 (2.0%)</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single, never married</td>
<td></td>
<td>38 (18.9%)</td>
</tr>
<tr>
<td>Committed relationship</td>
<td></td>
<td>24 (11.9%)</td>
</tr>
<tr>
<td>Status</td>
<td>Count</td>
<td>Percentage</td>
</tr>
<tr>
<td>-----------------</td>
<td>-------</td>
<td>------------</td>
</tr>
<tr>
<td>Not married</td>
<td>11</td>
<td>5.5%</td>
</tr>
<tr>
<td>Married</td>
<td>101</td>
<td>50.2%</td>
</tr>
<tr>
<td>Separated</td>
<td>6</td>
<td>3.0%</td>
</tr>
<tr>
<td>Divorced</td>
<td>20</td>
<td>10.0%</td>
</tr>
<tr>
<td>Widower</td>
<td>1</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education level</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some high school, no diploma</td>
<td>8</td>
<td>4.0%</td>
</tr>
<tr>
<td>GED/High School diploma</td>
<td>11</td>
<td>5.5%</td>
</tr>
<tr>
<td>Some college, no degree</td>
<td>23</td>
<td>11.4%</td>
</tr>
<tr>
<td>Associate degree</td>
<td>29</td>
<td>14.4%</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>87</td>
<td>43.3%</td>
</tr>
<tr>
<td>Master's degree</td>
<td>40</td>
<td>19.9%</td>
</tr>
<tr>
<td>Doctorate degree</td>
<td>2</td>
<td>1.0%</td>
</tr>
<tr>
<td>Technical training/certificate</td>
<td>1</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Times changed organization in the last 3 years</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once</td>
<td>153</td>
<td>82.3%</td>
</tr>
<tr>
<td>Twice</td>
<td>29</td>
<td>15.6%</td>
</tr>
<tr>
<td>Three or more</td>
<td>4</td>
<td>2.2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Job level</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee</td>
<td>135</td>
<td>66.8%</td>
</tr>
<tr>
<td>Supervisor</td>
<td>31</td>
<td>15.3%</td>
</tr>
<tr>
<td>Manager</td>
<td>34</td>
<td>16.8%</td>
</tr>
<tr>
<td>Craftsman, maintenance</td>
<td>1</td>
<td>0.5%</td>
</tr>
<tr>
<td>Independent contractor</td>
<td>1</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2018 Household income</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0 - $19,999</td>
<td>22</td>
<td>10.9%</td>
</tr>
<tr>
<td>$20,000 - $39,999</td>
<td>49</td>
<td>24.4%</td>
</tr>
<tr>
<td>$40,000 - $69,999</td>
<td>52</td>
<td>25.7%</td>
</tr>
<tr>
<td>$70,000 - $99,999</td>
<td>37</td>
<td>18.3%</td>
</tr>
<tr>
<td>$100,000 - $129,999</td>
<td>28</td>
<td>13.9%</td>
</tr>
<tr>
<td>$130,000 - $159,999</td>
<td>10</td>
<td>5.0%</td>
</tr>
<tr>
<td>$160,000 or more</td>
<td>3</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>More than one chronic illness</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>20</td>
<td>9.9%</td>
</tr>
<tr>
<td>No</td>
<td>138</td>
<td>67.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of chronic illnesses</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>1</td>
<td>0.5%</td>
</tr>
<tr>
<td>Two</td>
<td>17</td>
<td>8.4%</td>
</tr>
<tr>
<td>Three</td>
<td>8</td>
<td>4.0%</td>
</tr>
<tr>
<td>Four</td>
<td>10</td>
<td>5.0%</td>
</tr>
<tr>
<td>Five</td>
<td>5</td>
<td>2.5%</td>
</tr>
<tr>
<td>Six</td>
<td>2</td>
<td>1.0%</td>
</tr>
<tr>
<td>Unsure</td>
<td>1</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disclosed to employer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>161 (79.7%)</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>39 (19.3%)</td>
<td></td>
</tr>
<tr>
<td>Year first diagnosed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>1981</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td>2 (1.0%)</td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>5 (2.4%)</td>
<td></td>
</tr>
<tr>
<td>1992</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>5 (2.4%)</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>3 (1.5%)</td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>2 (1.0%)</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>2 (1.0%)</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>11 (5.4%)</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>3 (1.5%)</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>8 (4.0%)</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>5 (2.4%)</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>2 (1.0%)</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>5 (2.4%)</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>4 (2.0%)</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>6 (2.9%)</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>4 (2.0%)</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>7 (3.4%)</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>10 (4.9%)</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>5 (2.4%)</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>7 (3.4%)</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>6 (2.9%)</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>13 (6.3%)</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>22 (10.7%)</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>16 (7.9%)</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>20 (9.9%)</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>12 (5.9%)</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>4 (2.0%)</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>N (%)</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>Addison’s disease</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>Adhesive arachnoiditis</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>Alopecia areata</td>
<td>5 (2.5%)</td>
<td></td>
</tr>
<tr>
<td>Angina</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>Ankylosis spondylitis</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>Atopic dermatitis</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>Autoimmune chronic pain</td>
<td>2 (1.0%)</td>
<td></td>
</tr>
<tr>
<td>Celiac disease</td>
<td>6 (3.0%)</td>
<td></td>
</tr>
<tr>
<td>Crohn's disease</td>
<td>7 (3.5%)</td>
<td></td>
</tr>
<tr>
<td>Cystic fibrosis</td>
<td>2 (2.0%)</td>
<td></td>
</tr>
<tr>
<td>Endometriosis</td>
<td>4 (2.0%)</td>
<td></td>
</tr>
<tr>
<td>Fibromyalgia</td>
<td>15 (7.4%)</td>
<td></td>
</tr>
<tr>
<td>Grave’s disease</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>Hashimoto’s disease</td>
<td>5 (2.5%)</td>
<td></td>
</tr>
<tr>
<td>Hepatitis</td>
<td>6 (3.0%)</td>
<td></td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>5 (2.5%)</td>
<td></td>
</tr>
<tr>
<td>Hidradenitis Supretiva</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>Hypothyroidism</td>
<td>9 (4.5%)</td>
<td></td>
</tr>
<tr>
<td>Interstitial cystitis</td>
<td>2 (1.0%)</td>
<td></td>
</tr>
<tr>
<td>Lupus</td>
<td>26 (12.9%)</td>
<td></td>
</tr>
<tr>
<td>Lyme disease</td>
<td>4 (2.0%)</td>
<td></td>
</tr>
<tr>
<td>Meniere’s disease</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>Multiple sclerosis</td>
<td>18 (8.9%)</td>
<td></td>
</tr>
<tr>
<td>Myasthenia gravis</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>Pancreatitis</td>
<td>2 (1.0%)</td>
<td></td>
</tr>
<tr>
<td>Pernicious anemia</td>
<td>2 (1.0%)</td>
<td></td>
</tr>
<tr>
<td>Psoriasis</td>
<td>13 (6.4%)</td>
<td></td>
</tr>
<tr>
<td>Rheumatoid arthritis</td>
<td>42 (20.80%)</td>
<td></td>
</tr>
<tr>
<td>Rheumatic fever</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>Severe combined immune deficiency</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>Sinusitis</td>
<td>3 (1.5%)</td>
<td></td>
</tr>
<tr>
<td>Sjogren’s syndrome</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>Thrombosis</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>Type 1 diabetes</td>
<td>13 (6.4%)</td>
<td></td>
</tr>
<tr>
<td>Ulcerative colitis</td>
<td>3 (1.5%)</td>
<td></td>
</tr>
<tr>
<td>Undifferentiated connective tissue disorder</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>Vasculitis</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>Vitiligo</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
</tbody>
</table>
Table 3. Bivariate Correlation Matrix

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Anticipated stigma</td>
<td>2.48</td>
<td>.94</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.93)</td>
</tr>
<tr>
<td>2. Social support</td>
<td>3.41</td>
<td>.67</td>
<td>-.54**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.95)</td>
</tr>
<tr>
<td>3. Psychosocial safety climate</td>
<td>3.14</td>
<td>.98</td>
<td>-.32**</td>
<td>.70**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.97)</td>
</tr>
<tr>
<td>4. Depression, anxiety, and stress</td>
<td>2.10</td>
<td>.71</td>
<td>.67**</td>
<td>-.41**</td>
<td>-.18**</td>
<td></td>
<td></td>
<td></td>
<td>(.95)</td>
</tr>
<tr>
<td>5. Emotional exhaustion</td>
<td>4.45</td>
<td>1.44</td>
<td>.51**</td>
<td>-.56**</td>
<td>-.44**</td>
<td>.59**</td>
<td></td>
<td></td>
<td>(.92)</td>
</tr>
<tr>
<td>6. Turnover intentions</td>
<td>2.99</td>
<td>.86</td>
<td>.51**</td>
<td>-.66**</td>
<td>-.60**</td>
<td>.55**</td>
<td>.70**</td>
<td></td>
<td>(.85)</td>
</tr>
<tr>
<td>7. Work engagement</td>
<td>3.97</td>
<td>.88</td>
<td>-.27**</td>
<td>.56**</td>
<td>.52**</td>
<td>-.31**</td>
<td>-.44**</td>
<td>-.62**</td>
<td>(.94)</td>
</tr>
</tbody>
</table>

Note: *p <0.01 **p <.001. N = 202. Cronbach’s alpha is displayed in parentheses.
CHAPTER FOUR:

DISCUSSION

General Discussion

The purpose of the current study was to utilize the Psychosocial Safety Work Model of Stress to explore the impact of psychosocial safety climate on perceptions of anticipated stigma and social support, and their joint effect on the psychological health and work engagement of employees with chronic illnesses. Although critical multicollinearity issues prevented the initial hypothesized model from being tested, a simplified model revealed significant relationships and provided strong support for PSC theory predictions. These findings add to the growing occupational health and safety climate literature by distinguishing PSC as a significant predictor of psychosocial demands, and in turn, well-being and motivation in the workplace (Dollard & Bakker, 2010; Dollard, Opie, Lenthal, Wakeman, Knight, Dunn, Macleod, 2012; Dollard & McTernan, 2011; Hall, Dollard, Coward, 2010; Idris, Dollard, & Tuckey, 2015; Idris, Dollard, & Yulita, 2014; Idris, Dollard, Coward, & Dormann, 2012; Law et al., 2010; Loh et al., 2018). Moreover, our findings align with previous research distinguishing anticipated stigma as a psychosocial demand which negatively affects the mental health and work engagement of workers with chronic diseases (Earnshaw, 2012; Earnshaw et al., 2011; Earnshaw, Quinn, & Park, 2012; Earnshaw et al., 2013; McGonagle & Hamblin, 2013; Quinn & Chaudoir, 2015; Quinn, Williams, Quintana, Gaskins, Overstreet, Pishori, Chaudoir, 2014).
While previous research has predominately focused on the effects of anticipated stigma at the individual level, such as the direct effects of anticipated stigma on well-being (Earnshaw, Quinn, & Park, 2011; Earnshaw, 2012; Ikizer, Ramírez-Esparza, & Quinn 2017), our study explored how organizational resource perceptions influence perceptions of stigma to impact the outcomes of a vulnerable and understudied population. Our findings indicated that the work climate signals the environment is psychologically safe for employees with chronic illnesses or it does not, influencing individuals’ expectations of future stigma and their subsequent feelings and attitudes towards work.

Support was found for all seven hypotheses in the revised model. In hypothesis 1, anticipated stigma positively predicted poor psychological health, indicating that anticipated stigma is associated with increased depression, anxiety, stress, and emotional exhaustion. This aligns with Bakker and Demerouti (2001) contention that demands are the leading predictors of psychological health. In past research, anticipated stigma has significantly predicted increased depression and anxiety in Persian patients with chronic illness (Nejatisafa, Mozafari, Noorbala, Asgarian, Earnshaw, Sahraian, & Etesam, 2017) and in American and Turkish individuals with concealable stigmatized identities (Ikizer, Ramírez-Esparza, & Quinn 2017), highlighting the pervasiveness of anticipated stigma in both individualistic and collectivist cultures. When individuals with chronic illness anticipate the negative consequences of disclosing their identity, they experience increased illness symptoms (Earnshaw et al. 2013), higher
psychological distress (Quinn & Chaudoir, 2015), increased job tension
(McGongagle & Hamblin, 2013), and a decreased quality of life (Earnshaw et al.,
2011), signaling that the addition of anticipated stigma may be especially
destructive to their overall health and well-being. This culmination of physical and
psychosocial demands may consequently result in worsened health and
ultimately, an early exit from the workforce for workers with chronic disease (Ben-
Sira, 1984).

Regarding hypothesis 2, we found anticipated stigma negatively predicted
engagement at work, expanding the limited research examining the effects of
anticipated stigma on worker attitudes and behaviors. Previous literature has
found anticipated discrimination to be negatively related to job satisfaction and
affective commitment in employees with chronic illness (McGonagle et al., 2014).
Similarly, McGonagle and Barnes-Farrell (2014) demonstrated that identity
threat, or the appraisal of being devalued because of one’s identity, was
significantly related to decreased work ability in workers with chronic diseases, or
their perceived ability to remain employed given current demands and resources,
(McGonagle & Barnes-Farrell, 2014). Anticipated stigma has also exhibited a
significant relationship to increased absenteeism and lowered global work
functioning in war veterans with mental illness (Fox, Smith, & Vogt, 2016). The
damaging effects of anticipated stigma on worker attitudes and behaviors are
unsurprising, given that persons with chronic disease have voiced that biases
and misconceptions about their illness have negatively affected their ability to return to work (Beatty, 2012; Stergeio-Kita et al., 2016).

Turning next to hypothesis 3, psychosocial safety climate invoked the health erosion pathway of the JD-R framework by negatively predicting poor psychological health, showcasing PSC’s protective effects on workers’ mental health outcomes. Likewise, previous literature has confirmed PSC is related to decreased psychological distress and emotional exhaustion in school employees (Dollard & Bakker, 2010; Dollard & Karasek 2010) and healthcare workers (Loh et al. 2018), as well as decreased post-traumatic stress symptoms in police officers (Bond, Tuckey, & Dollard, 2010). Idris, Dollard, Coward, and Dormann (2011) found PSC was more strongly associated with psychological health than perceived organizational support, physical safety climate, and team psychological safety in Australian and Malaysian workers (Idris, Dollard, Coward, & Dormann 2011). Our results add to the growing literature on PSC and psychological health, finding that PSC predicted the mental health outcomes of workers with chronic illnesses.

Regarding hypothesis 4, PSC invoked the motivational pathway of the Job Demands-Resources model by positively predicting engagement at work, highlighting the positive effects of PSC on worker attitudes. Likewise, previous research has shown PSC positively predicted affective commitment (Kirk-Brown & Van Dijk 2016) and negatively predicted turnover intentions in workers with chronic disease (Kirk-Brown & Van Dijk 2016). PSC has also predicted turnover
intentions in healthcare workers (Huyghebaert, et al., 2018) and positively predicted work engagement in school employees (Dollard & Bakker, 2010; Garrick, Mak, Cathcart, Winwood, Bakker, & Lushington 2014). Moreover, PSC has displayed a positive relationship to work performance through its positive effects on job resources and work engagement in Malaysian workers (Idris, Dollard, & Winefield 2011). Our results show that high PSC is associated with lower turnover intentions and higher levels of work engagement, indicating employees with chronic illness report more positive attitudes when the work climate is perceived as psychologically safe and supportive.

Concerning hypothesis 5, PSC negatively predicted anticipated stigma, indicating a strong PSC climate serves as a ‘safety signal’, creating a psychologically safe atmosphere where workers with chronic illnesses are less fearful of future stigma for revealing their illness identity. Likewise, prior research has shown high PSC is negatively associated with workplace bullying in police officers (Bond, Tuckey, & Dollard, 2010), negatively related to work pressure and emotional demands in education workers (Dollard & Bakker 2010), and negatively associated with job demands in Malaysian workers (Idris & Dollard, 2011). High PSC has also shown a significant relationship to decreased emotional demands and role conflict in Malaysian workers (Idris, Dollard, & Winefield 2011). Our research corresponded with past research, demonstrating that a work climate for employee psychosocial safety negatively affected
anticipated stigma for workers with chronic disease, identifying it as a target for organizational intervention.

Turning to hypothesis 6, anticipated stigma was a robust mediator in our model, mediating the relationship between PSC and psychological health, suggesting that high PSC improves mental health outcomes through its negative effects on anticipated stigma. Our findings align with previous literature by demonstrating anticipated stigma partially mediated the effects of culture on Turkish participants’ depression (Ikizer et al., 2017). Other empirical research has demonstrated PSC negatively influenced emotional exhaustion through its effects on work demands (Dollard & Karasek, 2010) and emotional demands (Loh et al., 2018), and negatively predicted psychological distress through work pressure (Dollard & Bakker, 2010). Researchers have also found PSC to be associated with decreased anger and depression through its influence on job demands (Idris & Dollard, 2011), and negatively related to post-traumatic stress symptoms in police officers through its negative effects on workplace bullying (Bond, Tuckey, Dollard, 2010). Strong PSC has also demonstrated an indirect relationship to psychological health through enacted PSC, or the managerial procedures implemented for employee psychosocial health (Dollard Dormann, Tuckey, & Escartín, 2017).

Turning last to hypothesis 7, our study highlighted the role of psychosocial stressors in the motivational process. In past research, PSC has demonstrated a negative correlation with work family conflict and turnover intentions through
psychological need thwarting, or the feeling of being oppressed, incompetent, or reviled (Huyghebaerta Gillet, Fernet, Lahianic, & Fouquereaua, 2018). Previous literature has primarily studied the effects of PSC through job resources. For example, a longitudinal multilevel model of Malaysian workers found PSC was related to increased work engagement and job performance through its effects on role clarity and performance feedback (Chin Chin Lee & Idris, 2016), displaying how strong PSC channels job resources to employees in a safe and supportive environment. A prior study has also found PSC positively predicted work engagement through its positive effects on work rewards (Law et al., 2011).

Our results added to the literature by identifying anticipated stigma as a mechanism through which climate and culture affects attitudes towards work.

To summarize, psychosocial safety climate and anticipated stigma were each unique predictors of important indicators of mental health and worker attitudes. Anticipated stigma was positively related to poor psychological health and negatively related to engagement, suggesting current employees’ fears of being stigmatized affected their well-being and engagement with work duties. PSC negatively predicted anticipated stigma, demonstrating its ameliorative role in influencing individuals’ stigma perceptions. Lastly, anticipated stigma mediated the relationship between PSC and our criterion, suggesting that PSC improves outcomes by way of its negative relationship to anticipated stigma.
Implications and Directions for Future Research

Our study expanded the limited research on anticipated stigma in workers with chronic illness and was the first to explore how psychosocial climate perceptions influence anticipated stigma to impact worker mental health and engagement outcomes in an understudied population. As the chronic illness community in America between the ages of 18-64 have a reduced likelihood of being employed (Ward, 2016), and a greater turnover rate than the general population even after accounting for health issues (Kirk-Brown, Van Dijk, Simmons Bourne, & Cooper, 2014; Roessler, Turner, Robertson, & Rumrill, 2005), it is crucial for researchers to continue evaluating the work climate’s role in influencing employee perceptions of stigma and its effects on psychological health and worker attitudes.

Psychosocial safety climate, an organizational variable comprised of management commitment, management priority, organizational communication, and organizational participation, reflects employees’ shared perceptions of their leaders’ degree of concern for worker psychosocial health and well-being (Hall et al., 2010). According to Dollard and Karasek (2010), PSC has the potential to unite the safety climate literature, which focuses on the work climate’s impact on physical health, with the work stress literature, which focuses on the effects of psychosocial risks on psychological health (Dollard & Karasek, 2010). While valuable, the safety climate literature has neglected to measure the psychosocial features of the working environment and their influence on important employee
outcomes. Further, the work stress literature has overlooked important contextual considerations by focusing on the relationship between psychosocial risks and psychological health. Our results confirmed PSC was an antecedent to psychosocial working conditions, drawing attention to the environmental aspects instrumental in predicting worker psychological health and attitudes, and offering credence to a new construct that unifies two distinct bodies of research.

Our results demonstrated PSC improved outcomes through its negative effects on anticipated stigma, providing researchers a better understanding of the underlying mechanisms involved in PSC’s positive influence on psychological health and work attitudes. Prior research has focused on the direct effects of anticipated stigma, such as the effects of anticipated stigma on individuals’ quality of life (Earnshaw, Quinn, & Park, 2011). Our study extended previous literature by examining anticipated stigma as a predictor, as well as an outcome of PSC, demonstrating PSC negatively predicted anticipated stigma. Additionally, the results revealed that the relationship between PSC and the criterion is mediated by anticipated stigma, suggesting positive outcomes are stimulated through PSC’s alleviating effects on this psychosocial demand. One possibility is that high PSC boosts the availability of organizational resources overall, safeguarding employee well-being, enabling workers to better cope with other demands, and offsetting the negative impact of stigma on work attitudes and well-being.
Results from Dollard, Tuckey, and Dormand’s (2011) longitudinal study of officers from 23 police stations indicated the relationship between emotional demands and workgroup distress was moderated by emotional resources, but only in high PSC work climates (Dollard et al., 2011), offering evidence of PSC as a contextual moderator in the JD-R framework. Functioning as a safety signal, high PSC reassured employees they would be safe in utilizing emotional resources to manage their emotional demands. Future research should seek to understand if PSC has similar moderation effects on the interaction between anticipated stigma and perceptions of job resources, and their combined effect on well-being and worker attitudes.

Concerning practical implications, results from our study emphasized the importance of considering psychosocial aspects of the work environment in relation to the stigma expectations and consequent mental health, engagement, and ultimately, retention of employees with chronic illnesses in the labor force. Organizational level interventions aimed at reducing work and psychosocial demands, modifying stressful working conditions, and directing resources to employees in need, are all examples of the changes organizations could be implementing to diminish perceptions of stigma. The creation and enactment of policy and managerial practice designed to balance productivity with worker physical and psychosocial health is also a target for intervention (Dollard & Karasek, 2010). For employees with chronic illness, it is crucial to work in an organizational climate that promotes flexibility and autonomy in managing their
illness symptoms and enables managers to adjust job tasks and schedules as needed (Nelson et al., 2016).

In his paper on the Demand-Control theory, Karasek (2008) contends that increasing rates of chronic illness may be related to the burdens of modern-day, global social and economic systems, marked by high demands and low control over physiological coordination (Karasek, 2008). For changes to occur at the individual level, therefore, interventions are necessary at the organizational level to increase individual control, coordinate resources, manage demands, reduce environmental stressors, and maintain employee health. Dollard and Karasek (2010) argue that without higher level organizational controls, employees’ self-regulation is threatened, interfering with, for instance, work-life balance, job stability, completion of job tasks, and personal development (Dollard & Karasek, 2010). In a high PSC context, employees can exercise their decision-making authority and working conditions are “conducive to healthy production” (Dollard & Karasek, 2010, p. 211).

Despite the Americans with Disabilities Act, employees with disabilities and illnesses continue to report experiencing stigma and discrimination in the workplace (Beatty, 2012; Stergiou-Kita, Pritlove, & Kirsh, 2016; U.S Equal Employment Opportunity Commission 2012b), including being demoted, fired, and denied promotional opportunities after informing their employer of their illness (Siu, Hung, Lam, & Cheng, 2013) and experiencing misconceptions and biases about their illness symptoms and capabilities (Beatty, 2006; Beatty &
Kirby, 2006; Jones et al., 1984; McGonagle & Hamblin, 2013; Vickers, 1997, 2003). Our findings demonstrated that current employees fear they will be future targets of stigma due to their illness identities, which is known to affect decisions to disclose and request work accommodations or task assistance (Oldfield, et al., 2014; Voojis et al., 2017). Research on anticipated stigma has shown that workers with chronic illness who anticipate stigma take proactive strategies (i.e. working harder or concealing their illness from others) to avoid being stigmatized, which is related to resource loss and strain (McGonagle & Hamblin, 2013). The knowledge of the prevalence of stigma in our organizations and of the alleviating effects of PSC should both alarm and inspire organizational leaders to enact real change in their policies and practices, in a firm commitment to employee psychosocial welfare. As chronic illness often presents with invisible symptoms (Vickers, 1997. 2003), and individuals must choose whether to disclose their diagnosis to management and coworkers, a high PSC protects vulnerable workers and reassures them it is culturally permissible to request resources, such as time off for medical appointments, sick time, or emotional support. In organizations where leaders impose strict production expectations with low regard for worker well-being, it is likely diagnosed workers will conceal their illness to meet cultural expectations and to prevent being stigmatized (Oldfield et al., 2014; Munir, Leka, & Griffiths, 2005; Munir, Yarker, & Haslam, 2008), increasing their stress and inhibiting their access to necessary resources. Conversely, in high PSC climates where organizational leaders display their
concern for employee psychosocial health, the work climate ensures employees they will not be reprimanded, judged, or dismissed if they reveal their illness to others and request support (Idris, Dollard, & Winefield, 2011). Our study revealed that in high PSC, individuals with chronic disease are less likely to perceive themselves as future targets of stigma, which is negatively associated with poor psychological health and positively related to engagement through anticipated stigma. Therefore, psychologically safe work environments provide opportunities for individuals with chronic illness to worry less about the possibility of being reprimanded after disclosing their illness and enables them to focus more on their work responsibilities. As organizational leaders make efforts to increase the workforce participation of persons with disabilities and chronic illnesses, knowledge of how work climate and culture are influencing perceptions of stigma and organizational resources is necessary to understand how to protect, motivate, and retain vulnerable and disadvantaged workers.

Though individuals with chronic illness comprise almost two-thirds of the U.S. population (WHO, 2018, CDC, 2018), they are not equally represented in our organizations. While this may partly be due to illness symptoms, our findings highlight another variable which negatively affects well-being and engagement in employees with chronic illness: the anticipation of stigma. Our research offers testimony to organizational leaders and practitioners, alerting them to the harmful effects of anticipated stigma, and offering a solution to ameliorate this experience for a disadvantaged population that is motivated to remain employed.
Limitations

As our research design was cross-sectional and our study findings dependent on self-reported responses to survey questions at one point in time, results were subject to common method variance (CMV), or “variance attributable to the measurement method rather than to the constructs the measures represent” (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003: 879). However, efforts were made to reduce CMV by rearranging the order of questions, placing questions related to stigma at the end of the survey. Our sample size was also small for a structural equation model, limiting our ability to detect effects in our originally proposed model. Future studies should examine the moderation effects of PSC on the demands-resources interaction using a larger sample.

Furthermore, individual differences, such as positive or negative affectivity or prior mental health predispositions, may affect participants’ subjective perceptions of the work climate or stigma questions. For instance, for individuals with heightened anxiety and depression, there could be a reversed effect of poor psychological health on self-rated perceptions of resources (Rau, Morling, & Rosler, 2010). Future researchers could use a longitudinal, split sample strategy and examine participants at multiple points in time, such as in Dollard et al.’s (2011) study.

Additionally, while psychosocial safety climate is theorized as an organizational attribute representing shared employee perceptions of the organizational climate, the present student assessed PSC as an individual
psychological climate perception across differing organizations. Even so, according to safety climate literature (Zohar & Luria, 2005), PSC is affected by upper management beliefs and principles and is predicted to vary across organizations. Still, it would be useful to measure employee climate perceptions at the organizational level and to learn whether climate perceptions vary across occupations.

Lastly, as multicollinearity issues prevented our first model from being tested, future researchers might consider measuring job resources that are less conceptually related to PSC than social support. It is possible participants were not able to differentiate between PSC scale items and social support scale items, suggesting social support is a dimension of psychosocial safety climate. It would be valuable to pinpoint job resources other than social support to test our original model.

Conclusion

Employees with chronic illnesses anticipate future stigma in the workplace, negatively influencing their psychological health and work attitudes. Our study offers a more complete comprehension of the work stress process by utilizing the PSC Work Model of Stress, demonstrating that for employees with chronic illnesses, anticipated stigma is a psychological demand that may be eased by organizational leaders’ commitment to and concern for employee psychosocial well-being. For future researchers, there is a need to examine
contextual factors in addition to individual factors. For practitioners, a necessary shift from strict expectations and biases, to concern, empathy, and support.
APPENDIX A:

SCALES
Complete list of inclusion criteria
Are you 18 years of age or older?
Do you have a diagnosed chronic illness?
Is your chronic illness categorized as an autoimmune disease?
What is the name of your autoimmune disease?
Do you work 20 or more hours per week?
Please indicate the length of time you have been employed at your current organization.
___years ___months

Complete list of items used to measure anticipated stigma, items found in the Chronic Illness Anticipated Stigma Scale (CIASS; Quinn & Chaudoir, 2009)
A friend or family member will be angry with you.
A friend or family member will blame you for not getting better.
A friend or family member will think that your illness is your fault.
A friend or family member will not think as highly of you.
Your employer will not promote you.
Someone at work will discriminate against you.
Your employer will assign a challenging project to someone else.
Someone at work will think that you cannot fulfill your work responsibilities.
A healthcare worker will be frustrated with you.
A healthcare worker will give you poor care.
A healthcare worker will blame you for not getting better.
A healthcare worker will think that you are a bad patient.

Complete list of items used to measure psychosocial safety climate, items found in the Psychosocial Safety Climate Scale (PSC-12; Hall et al., 2010)
In my workplace senior management acts quickly to correct problems/issues that affect employees’ psychological health.
Senior management acts decisively when a concern of an employees’ psychological status is raised.
Senior management show support for stress prevention through involvement and commitment.
Psychological well-being of staff is a priority for this organization.
Senior management clearly considers the psychological health of employees to be of great importance.
Senior management considers employee psychological health to be as important as productivity.
There is good communication here about psychological safety issues which affect me.
Information about workplace psychological well-being is always brought to my attention by my manager/supervisor.
My contributions to resolving occupational health and safety concerns in the organization are listened to. Participation and consultation in psychological health and safety occurs with employees’, unions and health and safety representatives in my workplace. Employees are encouraged to become involved in psychological safety and health matters. In my organization, the prevention of stress involves all levels of the organization.

Complete list of items used to measure social support, items found in Support for Workers with Disabilities Scale (Lysaght, Fabrigar, Larmour-Trode, Stewart, Friesen, 2012)

**My supervisor…**
Offered flexibility in work hours (Instrumental)
Willingly provided time off to attend appointments (Instrumental)
Made me feel guilty about needing accommodations* (Emotional)
Demonstrated knowledge of the work re-entry process (Informational)
Expressed genuine and sincere concern (Emotional)
Responded quickly to address my injury/disability-related needs at work (Instrumental)
Told me to take it easy when I was having problems (Emotional)
Contacted me outside of work to enquire as to my welfare (Emotional)
Ensured accommodations were provided in a timely manner (Instrumental)
Praised me for effort I was putting in (Appraisal)
Let me know my contributions were valued even when I was functioning below capacity (Appraisal)
Provided me with honest feedback when I returned to work (Appraisal)
Provided mostly negative feedback in regard to my progress when I returned to work* (Appraisal)
Pressured me to take on additional duties before I was ready* (Instrumental)
Did not always follow the recommendations of my health providers* (Instrumental)
Demonstrated that he/she trusted me (Emotional)
Did not provide information unless asked* (Informational)
Was supportive of changes that were needed in my duties or schedule (Instrumental)
Was open to talking about my concerns (Emotional)
Verbally attacked me at times* (Emotional)

**My coworkers…**
Gave me help in knowing the steps to follow regarding my injury/disability (Informational)
Offered to help me in some way (Instrumental)
Checked in with me outside of work to see how I was doing (Emotional)
Let me have as much privacy as I needed when I wasn’t wanting to talk (Emotional)
Genuinely seemed to care about my health and well-being (Emotional)
Would ask me how I was doing (Emotional)
Were hostile or distant when I was functioning below capacity* (Emotional)
Gave me good advice relative to my injury/disability (Informational)
Were able to share information from their own experience (Informational)
Jumped in and offered to take some of the load off me (Instrumental)
Offered to help me with things outside of work (Instrumental)
Were willing to listen to my problems (Emotional)

**My family and friends...**
Showed they supported me (Emotional)
Helped out with responsibilities at home (Instrumental)
Gave me suggestions on how to deal with my problems (Informational)
Care about what happens to me (Emotional)
Give me love and affection (Emotional)
Are available to talk to me about my personal problems (Emotional)
Are available to talk to me about my work-related problems (Emotional)
Would help if I needed transportation (Instrumental)
Would help if I was having problems due to my injury/disability (Instrumental)

---

**Complete list of items used to measure depression, anxiety, and stress, items found Depression, Anxiety and Stress Scale (DASS-21; Lovibond & Lovibond, 1995)**

I found it hard to wind down.
I was aware of dryness of my mouth.
I couldn’t seem to experience any positive feeling at all.
I experienced breathing difficulty (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion).
I found it difficult to work up the initiative to do things I tended to over-react to situations.
I experienced trembling (e.g. in the hands).
I felt that I was using a lot of nervous energy.
I was worried about situations in which I might panic and make a fool of myself.
I felt that I had nothing to look forward to.
I found myself getting agitated I found it difficult to relax.
I felt downhearted and blue.
I was intolerant of anything that kept me from getting on with what I was doing.
I felt I was close to panic.
I was unable to become enthusiastic about anything.
I felt I wasn’t worth much as a person.
I felt that I was rather touchy.
I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat).
I felt scared without any good reason.
I felt that life was meaningless.

---

71
**Complete list of items used to measure emotional exhaustion, items found in the Maslach burnout inventory (MBI; Schaufeli, Leiter, Maslach, & Jackson, 1996)**

- Working with people all day long requires a great deal of effort.
- I feel emotionally drained by my work.
- I feel like my work is breaking me down.
- I feel frustrated by my work.
- I feel I work too hard at my job.
- It stresses me too much to work in direct contact with people.
- I feel like I’m at the end of my rope.

**Complete list of items used to measure turnover intentions; items from the Turnover intention scale (Bothma & Roodt, 2013)**

- How often do you dream about getting another job that will better suit your personal needs?
- How often are you frustrated when not given the opportunity at work to achieve your personal work-related goals?
- How often have you considered leaving your job?
- How likely are you to accept another job at the same compensation level should it be offered to you?
- To what extent is your current job satisfying your personal needs?
- How often do you look forward to another day at work?

**Complete list of items used to measure work engagement, items found in the Ultrecht Work Engagement Scale (UWES; Schaufeli, Bakker, & Salanova, 2006)**

- At my work, I feel bursting with energy.
- I find the work that I do full of meaning and purpose.
- Time flies when I'm working.
- At my job, I feel strong and vigorous I am enthusiastic about my job.
- When I am working, I forget everything else around me.
- My job inspires me.
- When I get up in the morning, I feel like going to work.
- I feel happy when I am working intensely.
- I am proud on the work that I do I am immersed in my work.
- I can continue working for very long periods at a time.
- To me, my job is challenging.
- I get carried away when I’m working.
- At my job, I am very resilient, mentally.
- It is difficult to detach myself from my job.
- At my work I always persevere, even when things do not go well.
- At my work, I feel bursting with energy.
Complete list of demographic items

Please list your age.

What is your race?
• African American/Black
• American Indian or Alaskan Native
• Asian/Pacific Islander
• Hispanic/Latino
• Native American/American Indian
• White (non-Hispanic origin)
• Multi-ethnic

What is your gender?
• Female
• Male
• Transgender
• Do not identify as male, female, or transgender

What is your marital status?
• Single, never married
• Committed relationship, not married
• Married
• Separated
• Divorced
• Widower

What is the highest level of school you have completed or the highest degree you have received?
• No schooling completed
• Nursery school to 8th grade
• Some high school, no diploma
• GED/High school diploma
• Some college, no degree
• Associate degree
• Bachelor’s degree
• Master’s degree
• Doctorate degree
• Technical training/certificate

How many times have you changed organizations in the last 3 years?
• Once
• Twice
• Three or more

Please indicate the job level that best represents the level of your current job.
• Employee
• Supervisor
• Manager
• Other (please specify)

How much total combined money did all members of your household earn in 2018?
• $0 – $19,999
• $20,000 – $39,999
• $40,000 – $69,999
• $70,000 – $99,999
• $100,000–129,999
• 130,000–159,000
• 160,000 or more

Exploratory Variables
Have you formally disclosed your autoimmune disease to your employer?
When were you first diagnosed with your autoimmune disease? Month Year

Complete list of items used to measure illness severity, items from The Brief Illness Perceptions Questionnaire (Broadbent, E., Petrie, K.J., Main, J., & Weinman, J. 2006)
How much does your illness affect your life?
How much control do you feel you have over your illness?
APPENDIX B:
INFORMED CONSENT
Informed Consent

PRINCIPLE INVESTIGATORS: You are invited to participate in a study being conducted by Michelle DeOrsey and supervised by Dr. Mark Agars of the Psychology Department at California State University, San Bernardino.

APPROVAL STATEMENT: This study has been approved by the Institutional Review Board of California State University, San Bernardino. The University requires that you give your consent before participating in this study.

DESCRIPTION: You will initially be asked to answer several questions regarding your age, your employment status, and your chronic illness. Next, you will be asked to answer questions related to your perceptions of the work environment, how you are treated by others, and how you feel both inside and outside of work. Lastly, you will be asked questions about your race/ethnicity, gender, educational level, and socioeconomic status.

The questionnaire will take approximately 15-20 minutes to complete. A blue bar will appear on the top of your screen indicating your progress until completion.

RISKS AND BENEFITS: This study involves no risks beyond those routinely encountered in daily life, nor any direct benefits. Participation in this study is entirely voluntary and participants can withdraw their participation at any time.

The more people that participate in this study, the more accurate and informative the results will be.

COMPENSATION: In this study, there is no direct compensation to you. However, you have the opportunity to contribute to scientific exploration and the theoretical development of social issues.

PARTICIPATION: Your participation in this study is voluntary. You are free to withdraw your participation at any time during the study. You are also free to skip any questions you feel uncomfortable answering.

CONFIDENTIALITY: As no identifying information will be connected with your responses in this study, all of your responses are completely anonymous. Only the primary investigator and faculty supervisor will have access to the results of this study, and these will only be reported as group data, not individual responses. The data will be evaluated, but no connection between your identity and the results will be made.
RESULTS: Access to all your responses are limited to the investigators and faculty supervisor. If we publish the results of this study, we will report only aggregate (group) data; we will not report individual responses. The following groups may need to review study records, but the records will not be linked to your identity: institutional oversight review offices at California State University, San Bernardino and federal regulators. All data will be destroyed five years after publication.

OPPORTUNITY TO ASK QUESTIONS: Any questions regarding this study can be answered by contacting Professor Mark Agars (Mark.Agars@csusb.edu or 909-537-5598).

CONFIRMATION STATEMENT: I have read the information above and agree to participate in this study. By selecting the option to continue, I affirm that I understand the above information and that I am taking part in this study voluntarily with the option to end my participation at any time with no penalty or negative consequence for voluntarily ending my participation. I also acknowledge that I am at least 18 years of age.

By clicking the arrow below, you are voluntarily agreeing to participate in the study.
APPENDIX C:

INSTITUTIONAL REVIEW BOARD APPROVAL
December 4, 2019

CSUSB INSTITUTIONAL REVIEW BOARD
Administrative/Exempt Review Determination
Status: Determined Exempt
IRB-FY2020-60

and
Department of CSBS - Psychology
California State University, San Bernardino
5500 University Parkway
San Bernardino, California 92407

Dear:

Your application to use human subjects, titled “Anticipated Stigma and Chronic Illness: The Impact of Psychosocial Safety Climate” has been reviewed and approved by the Chair of the Institutional Review Board (IRB) of California State University, San Bernardino. It has been determined that your application meets the requirements for exemption from IRB review in accordance with 45 CFR 46. As the researcher under the exempt category you do not have to follow the requirements under 45 CFR 46 which requires annual renewal and documentation of written informed consent which are not required for the exempt category. However, exempt status still requires you to attain consent from participants before conducting your research as needed. Please ensure your CITI Human Subjects Training is kept up-to-date and current throughout the study.

Your IRB proposal is approved. You are permitted to collect information from [250] participants for [no compensation] from the community & social media platforms. This approval is valid from [12/4/2019] to [12/3/2020].

The CSUSB IRB has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval notice does not replace any departmental or additional approvals which may be required.

Your responsibilities as the researcher/investigator include reporting to the IRB Committee the following three requirements highlighted below. Please note failure of the investigator to notify the IRB of the below requirements may result in disciplinary action.

6/13/2020
CoyoteMail - IRB-FY2020-60 - Initial Psych Reviewers Admin/Exempt Approval Letter
- Submit a study closure through the Cayuse IRB submission system when your study has ended.

The protocol modifications, adverse/unanticipated events, and closure forms are located in the Cayuse IRB System. If you have any questions regarding the IRB decision, please contact Michael Gillespie, the Research Compliance Officer. Mr. Michael Gillespie can be reached by phone at (909) 537-7586, by fax at (909) 537-7028, or by email at mgillesp@csusb.edu. Please include your application approval identification number (listed at the top) in all correspondence.

If you have any questions regarding the IRB decision, please contact Dr. Jacob Jones, Assistant Professor of Psychology. Dr. Jones can be reached by email at Jacob.Jones@csusb.edu. Please include your application approval identification number (listed at the top) in all correspondence.

Best of luck with your research.

Sincerely,

Donna Garcia

Donna Garcia, Ph.D., IRB Chair
CSUSB Institutional Review Board

DG/MG

79
REFERENCES


CDC (2017) Chronic diseases.


and/or identity centrality act as resilience resources? *AIDS and Behavior, 19*(1), 41–49.


