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FOSTERING RESILIENCE IN CORRECTIONAL OFFICERS

by

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Bachelor of Science
Shippensburg University, 2010

Master of Science
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Submitted in Partial Fulfillment of the Requirements

For the Degree of Doctor of Philosophy in

Criminology and Criminal Justice

College of Arts and Sciences

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DEDICATION

Life is about the journey, not the destination. For everyone I have ever crossed paths with, thank you. This was our journey. A dedication is in order for many sources of support that are no longer with me physically but in spirit: to my loving Grandparents, Thomas and Mary Lou Gist and Fred and Nora Walker; to my Great Aunt, Lee Hayden; and my Brother and Sister, Steven Philip and Laura Jane Gist. As the ten-year anniversary quickly approaches, I dedicate this to my Father, James Thomas Gist. He is the strongest person I ever knew and helped to make me the person I am today. I promised each of you I would not take the opportunity in this life for granted, and to make a positive difference in the world. This is only the beginning. I love you all and carry you with me.

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Reflecting over the thirty plus years of my life, this section provided the biggest challenge to me…how can I possibly thank everyone? My fellow colleague and friend, Patrick Lowery, established a precedent for acknowledgements that I would like to continue. I would like to preface; I could easily write another dissertation-length paper to thank every person that has helped me to reach this milestone. Please know this section is not meant to be exhaustive, and I have greatly appreciated everyone's support along the way. This is our dissertation!

First, I want to thank my committee, Drs. Hayden P. Smith, John Burrow, Robert Kaminski, and Alicia Sitren. Dr. Smith has been instrumental throughout my academic career and has helped to develop me into a scholar. Dr. Smith inspired this topic, and I found this dissertation to be one of the most enjoyable studies I have worked on through my academic journey. Many parts of this study overlap with my own life, in the many events I have overcome. Most importantly, Dr. Smith has helped me to always view the big picture. Thank you for being a great support and mentor. Dr. Burrow has a heart of gold and always pushes you to think outside of the box. Dr. Kaminski is the statistical guru and has been a father figure to many in this Department. I have also had the privilege of working with Dr. Sitren over the past five years in a series of projects and presentations. Dr. Sitren's attention to detail and insights she has offered have supported the most important goal of this study: to improve the wellbeing of individuals working within a dangerous profession. I thank you all for agreeing to be a part of this committee and look

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forward to continuing future projects together. Most importantly, I have valued all the experiences I have shared with each of you throughout my academic career.

I want to thank all the wonderful members of the South Carolina Department of Corrections, and more specifically: Karin Ho, Sherry Rhodes, Ramona Douglas, and Flossy from Victim Services. Without your support, this study would have never come to fruition. I am thankful for the many people I have had the opportunity to meet and work with at SCDC and hope to continue to work with in the future.

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I also want to thank the many members at Shippensburg University of Pennsylvania. Back when I was a wee lad, I never imagined advancing to any form of graduate school. However, each of you believed in me and helped me to reach this point. I want to thank Drs. Sara Grove, Melissa Ricketts, Britt and Laura Patterson, Tom Austin, Todd Whitman, Matthew Fetzer, Donna Hale, Stephanie Jirard, and the late John H. Lemmon. All of you supported me during when of the biggest challenges of my life and helped me to persevere. I also want to thank Andy Gladfelter, Matthew Fmura, Justin Getz, and Bryan Beegle for being part of the Four Horsemen. Lastly, I want to thank Professors Carol Miller, David Bailey, and Dean Thaddeus Sampson from Harrisburg Area Community College. Dean Sampson had a vision that I would one day become a teacher, and I was only fresh out of high school.

For decades, there have been many from the hometown crew that have been a major support in my life, even from a distance. A special thanks goes out to Scott and Mike Gladfelter, Jen Conway, Scott Lescalleet, Bill Leonard, Jason Hawk, Eric Tregoning, Shawn Noble, Frank Richter, Bobby Long, Jeff Hansbrough, Kendall Fritz, Nichole Howard, Crystal Hess, Logan Wolf, Chad Hoy, Jeramey Justice, Jake Dunk, Tracey DeGroft, Josh Urban, Dustin Hartlaub, Sol Sath, Matt Zittle, and their families. In addition, a special thanks to Dave Gladfelter, John Cole, Dave Wolf, Dennis Peters, Cindy Fetter, Josh Spicer, Kathy Peeling, Jon Rising, and their families for being there for me. Thank you to my church family at Hope Baptist Church and God for always being there.

I am thankful for the family members that are still by my side. Thank you to my Uncle Mike and Aunt Michele Magara, as they helped support me to reach this milestone. I also want to thank my cousins Darrin, Michele, Amber, Jody, Mike and all my other

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family members in the US. Across the pond, I want to thank Uncle Steven, Aunt Karen, Uncle Ed and Aunt Buffy, Lucy and Rosie Walker, and all my other family members. Despite the distance, I am thankful for your love and support. I also want to thank my Mom, and I am proud and thankful for my little brother, Trevor Barnhart.

There are many I have not mentioned and is unintentional. Words cannot express the appreciation I have for everyone that has been a part of my life. As for those who said I would never make it this far, I also want to thank you. You were another source of motivation.

Lastly, I want to thank the love of my life, Dr. Sam DeVizio, for putting up with me over the years. I will never forget meeting you, when I seemed to be living under a cloud of uncertainty. Words cannot express how much I am thankful for you. Together, we each accomplished what seemed nearly impossible to others. Thank you for always believing in me and being my biggest supporter. I am thankful for the many years we have shared together. I am also grateful for our "Son" Fozzy Bear. I also thank Ben, JoAnn, and your family for accepting me as their own and for their major support. Thank you for sharing this journey with me. I love you Sam.

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ABSTRACT

A significant portion of the literature regarding corrections emphasizes the negative factors and outcomes related to the job. The career of a correctional officer includes a stressful, demanding, and unpredictable work environment. Correctional institutions are struggling to keep a correctional staff that can adapt to internal and external forces. Several studies have shown that correctional officers frequently encounter severe inmate misconduct, resulting in high levels of stress, low job satisfaction, and intentions of leaving the job. However, research begs the question of what makes a correctional officer resilient and functional at work?

No prior study has applied a mixed-methods study to directly ask correctional officers what factors contribute to their resilience, while also directly asking what keeps them on the job. To address this gap in the literature, the current study collected both quantitative and qualitative survey data from a statewide sample of correctional officers. Ultimately, the aims of this dissertation were to: (1) develop a comprehensive understanding of resilience using an interdisciplinary approach, (2) examine correctional officer responses to critical incidents, (3) develop categories associated to a correctional officer's level of resilience, and (4) assess factors that contribute to job retention (5) consider the positive factors associated with the profession.

Quantitative analyses found that action-oriented coping strategies and length of service can increase resilience, while some demographic variables and external sources of stress can increase dysfunction. In conjunction, qualitative findings provided a complex

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perspective on many sources that influence resilience including sources of support, individual characteristics, successful coping strategies, balancing stressors and protective factors, and a sense of purpose. In support of these findings, best practices for future research and relevant policy implications are recommended.

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CHAPTER 1

INTRODUCTION

> *"To laugh often and much; to win the respect of the intelligent people and the affection of children; to earn the appreciation of honest critics and endure the betrayal of false friends; to appreciate beauty; to find the beauty in others; to leave the world a bit better whether by a healthy child, a garden patch, or a redeemed social condition; to know that one life has breathed easier because you lived here. This is to have succeeded."*

-Ralph Waldo Emerson

This paper will trace the history, development, and application of the concept of resilience for law enforcement officers, with a special focus on resilience among correctional officers (COs). The current empirical literature often refers to the risks included of being a CO, such as stress, emotional dissonance, high turnover, and other detrimental factors. In conjunction, the current literature also discusses several protective factors, including personal characteristics, organizational function, and policies that can infer some semblance of resilience.

There is substantial empirical evidence that COs face a difficult, stressful, and dangerous job. These risks have been identified both at the individual level (i.e. role conflict, personality, burnout) and organizational level (i.e. high turnover, low pay, low recognition). Access to data on risks and negative outcomes related to corrections has been easier for scholars to quantify. There has been far less research devoted to defining positive emotions and outcomes for correctional staff. For example, there is very little research that

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assesses resilience in COs. This paper examines COs' coping strategies in relation to levels of resilience and functioning at work.

Specifically, this paper defines the term resilience in the context of the correctional milieu, by identifying what resilience is, and how it can be fostered. The need for research in this area is evident, as presently, prisons are expected to function at an optimum level, despite being severely understaffed and with limited fiscal resources. A lack of policies and trainings currently represent missed opportunities to access vulnerable staff who need resilience support, and perhaps such trainings can improve working conditions. In turn, resilience training can improve the function of the prison as a whole.

Theoretically, the concept of resilience has been sporadically assessed in the field of criminal justice. While police studies on resilience exist, there are even fewer in corrections. This is surprising when one considers that individual or personal resilience is defined by the person experiencing some challenge, stressor, or set back prior to responding with resilience. This appears particularly relevant to the correctional milieu, and therefore more work is needed.

Given the lack of research on how resilience is fostered among COs, we must begin with discussion on how other disciplines have formed the concept of resilience. Resilience is a complex concept, which has yet to receive a uniform conceptualization. However, resilience has been significantly assessed in other disciplines, such as psychology, social-psychology, sociology, public administration, and public health. This multifaceted approach will yield a clear conceptualization of how resilience can be applied directly to COs. Insights reflected by COs may offer support in improving training programs and

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maintaining a well-embodied workforce that delegated the responsibilities of providing supervision and maintenance to a potentially violent and dangerous population.

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CHAPTER 2

OVERVIEW OF RESILIENCE

The first glimpse of the concept of resiliency traces back to the developmental work of Emmy Werner. In 1955, Werner began a longitudinal study, featuring the Island of Kauai, in the State of Hawaii. This longitudinal study focused on how both biological and environmental factors can influence childhood development. This study is highly respected since it is one of the only studies to include all citizens of an entire county, thus it was a true population study. In addition, the study tracked individuals of all demographic backgrounds, including race, gender, socioeconomic status (SES), and family structure. Most importantly, this is the only longitudinal study that measured development of resilience from birth to nearly midlife (Werner, 1971).

In the first segment of the study, all infants born in the 1955 cohort (N=1,311) were included in the longitudinal study. Approximately 30 percent of the mothers exhibited symptoms of mild, moderate, or severe perinatal complication. At the age of two, the cohort was assessed on biological stressors consisting of physical (i.e. musculoskeletal/cardiovascular defects), intellectual (i.e. mental retardation), parental (i.e. criminal history, mother's level of education) and behavioral (i.e. interaction with family) statuses. Moreover, the cohort was examined by environmental stressors, including family structure, community involvement, and financial problems. Based on examination of combined biological and environmental factors, approximately one-third of the cohort were deemed "high-risk" in terms of childhood development at the age of two; classified

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as such, by having at least four or more stressors observed. These stressors were considered as adverse events (Werner, 1971).

The next evaluation of the cohort occurred at the age of ten. At this point, we begin to see a different picture. Approximately one-third (12 percent) of the cohort viewed as “high-risk” are doing rather well in overall development. In continued examination, Werner found a gradual recovery process is pertinent to explain early differences among survivors of stress. Specifically, this 12 percent of children had achieved coherence, defined as, “a feeling of confidence that one’s internal and external environment is predictable and that things will probably work out as well as can be reasonably expected” (Werner, 1971, p. 163). Likewise, Werner determined these children were resilient. Any deficiencies or stressors previously recorded had been virtually eliminated by the age of 10, which necessitated further exploration (Werner, 1971).

From ages 10 to 18, Werner established a series of risk factors and protective factors to foster resilience that explained the unique differences among those classified as “high-risk” and had experienced adverse events. Family discord was acknowledged as the most significant risk factor (Werner, 1971; Werner, 1989). Family discord included, separation from mother, absence of father, chronic sibling rivalry, divorce, having stepparents, death of a family member, and foster home placement. Another major risk factor was any parent diagnosed with mental illness, subsequently, affecting childhood behavior development. At the community-level, chronic poverty and limited access to community resources were also risk factors. Risk factors of children, at the individual-level, comprised of chronic illness, failing in school, frustration, and behavioral/socialization problems (Werner, 1989).

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In contrast to these risk factors, several variables were identified as protective factors related to resilience. Family and informal social supports were demonstrated as the most important protective factors. Despite, some children experiencing family discord, they received steadiness in the availability of caring from sources outside of the immediate family (Masten, Best & Garmezy, 1990; Werner, 1989). The ability to build trusting bonds to member outside of the family revealed the concept of adaptability (Werner, 1971). An increased level of competence allowed children access to informal social support. Competence is a key protective factor, at the individual-level, that enhanced both problem-solving and social skills (Werner, 1989). Thus, having an informal network was crucial for childhood development and could include an extended family member (i.e. grandparent), church member, or schoolteacher they viewed as a positive role model. Other important individual-level protective factors featured physical status, autonomy, and spirituality; providing children with the ability to cope with severe adverse events (Masten *et al*., 1990; Werner, 1989).

Werner (1971) defined resilience as "the ability to overcome and endure a risk(s) or adverse live events" (p. 24). Werner (1989) suggested that in order to achieve resilience, there must be a balance between vulnerabilities and stress resistance. In part, achieving resilience involved "successful coping" that can influence long-term resilience (Werner, 1989, p. 4). Coping was deemed as the short-term, immediate responses that influenced the long-term capability of being resilient. Conversely, maladaptive coping styles could lead to less resilient or dysfunctional behaviors (Werner, 1971; Werner, 1989). For children, some examples of dysfunctional behaviors ranged from being disruptive in class to experimental substance use (Werner 1989).

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Vulnerabilities are defined as external forces of an individual's environment that "temporarily or permanently" challenged an individual's development of resilience (Werner, 1989, p. 163). Some vulnerabilities involved factors like poverty, separation from family, and parental psychopathology. Stress resistance is defined as internal forces, within an individual, that act as a buffer against stress. Examples of stress resistance included autonomy, positive self-image, and sense of purpose. Continued evaluation of the "high-risk" children found that they surpassed expectations and outcomes of those without observable risk factors. For example, at the age of 18, they had no prior contact with the juvenile system (Werner, 1989). By the age 32, these "high-risk," but resilient adults had overcome childhood adversities and continued to experience positive outcomes, such as further education, military service, stable employment, and building families (Werner, 1995).

Werner's (1971) study offered several important strengths. First, Werner's study is one of the select few longitudinal studies that followed a sample of individuals for several decades. Secondly, the study considered various biological, sociological, and psychological factors that were attributed to resilience. Lastly, findings of the study were generalizable to the populations and enhanced external validity. For example, the entire population of the United States experienced similar events over the time of the study, such as economic recession, changes in government, wartime, and the AIDS epidemic (Werner, 1995).

Notwithstanding the respect and quality of Werner's (1971) study, there were some notable limitations to discuss. There are still gender differences that warranted further exploration. While the study included both genders in the sample, more information about

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the female participants was gathered from informal sources (i.e. schoolteacher), whereas males were interviewed directly more often. The study did not account for differences in family structure, such as children raised by adoptive or foster parents and associated levels of resilience. While the study examined the development of resilience from childhood to midlife, there is little understanding of how resilience differed during later parts of life. The study also lacked the inclusion of any clinical interventions to measure differences in levels of resilience. Most importantly, there remained no uniform definition of what resilience is (Masten *et al*., 1990; Werner, 1995).

In summary, resilience is an ongoing process. Resilience is something that one learns they may have, after experiencing an adverse event that requires them to overcome a challenge. Put differently, resilience is not something that one is born with but "is learned through social, emotional, and cognitive areas of development" (Masten *et al*., 1990 p. 437). Most importantly, it is not absolute and does not have a linear direction. Resilience is based upon a process of adversity, outcomes, and mediating macro-level and micro-level variables (Masten *et al*., 1990; Werner, 1995). Mediating macro-level (environmental) and micro-level (individual) variables consisted of protective factors and risk factors that led to individual resilience (Werner, 1971). Certain macro-level variables included, access to healthcare, unemployment rates, and levels of poverty. Various micro-level variables involved, mental illness, family conflict, autonomy, and stable role model (Werner 1971; Masten *et al*., 1990). Figure 1: Resilience as a process and outcome, demonstrates a simple conceptualization of resilience. In Werner's longitudinal study and as mentioned by others, three major outcomes are linked to the concept of resilience: positive outcomes despite

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high-risk status, maintained competence under stress, and recovery from traumatic events (Masten *et al*., 1990; Werner, 1989; Werner, 1995).

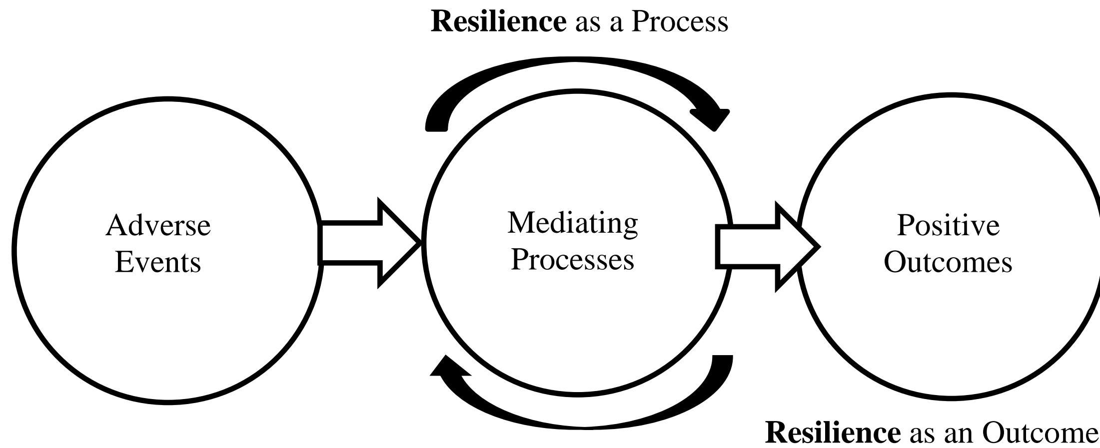

Figure 2.1. Resilience as a process and outcome. (**see** van Breda, 2018, p. 4).

Moving away from early studies of resiliency on childhood development, this model can be directly applied to the profession of law enforcement officers, specifically correctional officers (COs). The life of a CO involves a daunting career, given the fact, "few other organizations are charged with the central task of supervising an unwilling and potentially violent population" (Griffin, Hogan, Lambert, Tucker-Gail, & Baker, 2010, p. 239). A significant amount of the empirical literature frequently addresses the stressors, risk factors, and negative outcomes related to working in jail or prison (i.e. burnout, substance abuse, isolation, poor physical and mental health, turnover). COs can experience adverse events (critical incidents in the literature) based on individual factors (Alarid, 2009; Allard, Wortley & Stewart, 2003; Biermann, 2007; Ferdik & Smith, 2017; Lariviere, 2001; Tewksbury & Mustaine, 2008; Toker & Biron, 2012) and organizational factors (Blau, Light, & Chamlin, 1986; Dowden & Tellier, 2004; Lambert, Hogan, & Tucker, 2009; Lasswell, 2010; Maruschak & Berzofsky, 2016; Riolli & Savicki, 2014; Smith &

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Kaminski, 2011). In many instances, the organization itself can influence COs individually (Lazarus, 1995; Lazarus & Folkman, 1984).

As evidenced by the literature, van Breda's (2018) resilience model can be applied directly to COs, as they experience adverse events (i.e. inmate suicide), mediating processes (i.e. debriefing exercise), and outcomes (i.e. CO returns to work) almost daily. Resilience often operates under the following domains: physical, mental, emotional, and spiritual (McCraty & Atkinson, 2012). In order to better understand how the process of resilience operates among COs, we must briefly discuss the major threats and/or risks experienced by COs; conceptualized as critical incidents.

Risk Factors in Corrections

As previously mentioned, an individual is not born resilient but learns they are resilient, after overcoming a specific challenge, risk, or threat (Masten *et al*., 1990; Werner, 1989). Several studies in the field of corrections have provided depth to the number of existing risk factors but little on resilience. Risk factors will be briefly explored, in the context of COs, before moving on to resilience, which is how individuals respond after experiencing a risk or event.

Gender. Lariviere (2001) surveyed approximately 1,700 COs throughout several provinces of Canada. Females reported higher levels of job stress and felt prison organizations were more discriminatory and harassing towards them, thus, establishing a more hostile environment (Lambert *et al*., 2007). Conversely, Dowden and Tellier (2004) found in a meta-analysis that gender had a weak effect on job stress. In terms of employment, there is still a disproportionate number of female COs compared to male COs. Alarid (2009) determined in a random sample of 176 COs, females were less likely to

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engage in risk-taking behaviors. Put differently, male COs were more likely to use physical force to regain order during inmate conflict. Male COs were also more likely to engage in other risk-taking behaviors, such as substance abuse, promiscuity, and failure to follow orders (Blau *et al*., 1986; Griffin *et al*., 2010; Lambert *et al*., 2014). Toker and Biron (2014) added female COs are more likely to use avoidance techniques to disengage from hostile situations either between a fellow CO or with a difficult inmate.

Comparatively, Toker and Biron (2012) found that male COs suffered from higher rates of PTSD and depressive symptoms and resorted to excessive alcohol and substance use to cope. In fact, several male COs are resistant towards expressing feelings of depression and believed that it challenged their masculinity (Randall, 2013). In addition, Suliman and Einat (2018) discovered that male COs neglected self-care (i.e. diet and exercise) and limited social interaction. Male COs allowed their stress to carry over from one domain to another and placed family members at higher risk as potential targets (Blau *et al*., 1986; Griffin *et al*., 2010; Lambert *et al*., 2014; Triplett, Mullings, & Scarborough, 1996). In 2009, Valentine, Oehme, and Martin (2012) found that 60 male COs were arrested for domestic violence in Florida, based on official records. However, nearly 30 percent of both male and female COs reported knowing of COs engaging in acts of domestic violence regularly, which demonstrated a higher frequency of unreported domestic violence among 20,000 COs working in Florida (Valentine *et al*., 2012). Most importantly, several scholars have noted that compared to females, rates of suicide have significantly increased among male COs (Ferdik & Smith, 2017; Lambert *et al*., 2009; Olson & Wasilewski, 2017; Trounson & Pfeifer, 2016; Suliman & Einat, 2018).

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Race. A review of the association between race and risk factors for COs offered some different findings. A significant number of studies agreed that whites, compared to nonwhites, experience more stress working in the correctional milieu (Lambert *et al*., 2007; Lariviere, 2001; Lasswell, 2010; Tewksbury & Mustaine, 2008). Generally, correctional institutions represented a disproportionate number of nonwhite inmates. As a result, relationships are often improved between nonwhite COs and nonwhite inmates (Lariviere, 2001; Tewksbury & Mustaine, 2008). However, nonwhite COs expressed less job satisfaction and reduced positive attitudes (Lambert *et al*., 2009; Lasswell, 2010). White COs often have more access to promotional opportunities and less administrative segregation (Ferdik & Smith, 2017). Lastly, nonwhite COs often had a more favorable view, when correctional institutions aligned with the goal of rehabilitation versus a more punishment-oriented approach (Tewksbury & Mustaine, 2008).

Education. In practice, COs with a higher education level are hired to reduce problems and operate more efficiently within a correctional institution (Dowden & Tellier, 2004; Lariviere, 2001; Lasswell, 2010). However, mixed results were revealed in examining the correlation between education and risk factors. Approximately, one-third of state and federal COs attained a college degree (Alarid, 2009) For some COs, education became more of a risk factor. For example, Lariviere (2001) argued COs with more education had poor job attitudes, as they felt the job was unchallenging and beneath them. Similarly, Blau *et al*. (1986) found an increase in education resulted in frequent boredom and advanced few opportunities for promotion. In contrast, education also functioned as a protective factor. Education yielded better job performance, improved job satisfaction (Lariviere, 2010), and increased problem-solving techniques (Allard *et al*., 2003). In fact,

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education has provided a hydraulic effect within a structured correctional setting (Engen, Gainey, Crutchfield, & Weis, 2003). As overcrowding has been a major issue in many correctional settings (Dowden & Tellier; Ferdik & Smith, 2017), fewer staff are expected to manage and oversee a larger unit or ratio of inmates (Varker & Devilly, 2012). More educated and experienced COs are viewed as more autonomous and are allotted more discretion (Allard *et al*., 2003; Lariviere, 2010) and have helped to alleviate fiscal resources (Engen *et al*., 2003).

Age. A review of the relationship between age and risk factors for COs showed some unique and unexpected effects. Age and length of service share a linear direction. Some scholars agree with the findings that older COs are better able to manage hectic situations, as older COs acquired more experiences and a better understanding of prison operations (Dowden & Tellier, 2004; Tewksbury & Mustaine, 2008). Yet, other scholars find that age is more of a risk factor for multiple reasons. Griffin *et al*. (2010) found a positive association between age and depersonalization, which involved a lack of commitment, minimal performance, and the belief that only they as individuals can solve the institution's problems. An increase in depersonalization also increased an individual's level of cynicism. Individuals, who experienced higher levels of cynicism, believed that the organization could not resolve major problems and showed disregard for following orders (Griffin *et al*., 2010). Additionally, an increase in age correlated with a decrease in resilience (Riolli & Savicki, 2014). This stemmed from an increased awareness in older COs' vulnerabilities, which is a major focus of resilience in psychology. Vulnerabilities included: a diminishing physical capability to complete tasks, rising awareness of mortality, living with a chronic health condition (i.e. high blood pressure), and growing

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intimidation by inmates. As a result, the broadening of vulnerabilities elevated levels of stress (Schwarz, 2018).

Quality of Relationships. Poor relationships can be disadvantageous to a CO's emotional resilience (Balmer, Pooley & Cohen, 2014; Biermann, 2007; Blau *et al*., 1986; Dowden & Tellier, 2004). For instance, conflict between COs, ranged from small disputes, assignment of tasks, and lack of recognition from superiors (Balmer *et al*., 2014). Poor relationships with inmates can also threaten emotional resilience (Blau *et al*., 1986). Inmates are often challenged when acclimatizing to an institutional setting. In addition, research has indicated that prisoners resorting to self-injurious behaviors often experience conflict with COs and receive multiple disciplinary reports, when compared to inmates who do not engage in self-injurious behaviors (Smith & Kaminski, 2011). Thus, conflict with COs and inmates potentially leads to more tension and complaints filed by inmates (Griffin *et al*., 2010).

Other Risk Factors. There are several other risk factors identified in the literature that are worth noting. Level of fear among COs is a major problem in the United States, when compared to other countries (Carson, 2018). Fear of victimization by an inmate is one of the major factors influencing levels of fear among COs (Allard *et al*., 2003; Dowden & Tellier, 2004; Griffin *et al*. 2007). According to the Bureau of Justice Statistics (BJS) in 2016, the average number of inmates confined for violent offenses has averaged 60 percent (Carson, 2018). CO to inmate ratio is a factor that enhanced COs' fear of victimization (Lambert *et al*., 2007). When it comes to level of security Dowden and Tellier (2004) found that fear of personal injury among COs occurred more frequently at maximum security prisons, yet rates of actual injury occurred more often in minimum- security prisons.

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Oppositely, Allard *et al*. (2003) contended CO's were twice as likely to be assaulted at maximum security prisons. Collectively, the findings of each study have supported the greater potential for physical injury and COs' fear of victimization.

In addition to the fear and potential for physical injury, there is also a threat to health that stemmed from two major risk factors. The first risk factor is the presence of infectious disease which is overrepresented in inmate populations. The second risk factor is the notion that COs are principally responsible for intervening in security matters that may involve violence, self-harm, and exposure to bodily fluids (Alarid, 2009; Biermann, 2007; Ferdik & Smith, 2017). Other threats to physical health include infectious diseases like human immunodeficiency virus (HIV), tuberculosis, and hepatitis B and C. In fact, HIV rates in federal prisons ranged from 1 to 8.5 percent of total inmates, compared the range of 0.1 to 1 percent in the general public population (Alarid, 2009). Routine interactions between COs and inmates increase the risk of transmission of infectious diseases. For example, Ferdik and Smith (2017) found that many COs must often intervene in physical altercations involving individual fights, rioting, illegal intravenous drug use through contraband, and either prison rape or any form of sexual contact. Similar risks occurred in providing care to inmates. According to the most recent data reported by BJS, in 2011-2012, nearly half of the total state and federal inmates suffer from at least one chronic condition (i.e. diabetes) (Maruschak & Berzofsky, 2016). Similarly, Smith and Kaminski (2011) indicated the high prevalence of self-injurious behaviors among inmates involved cutting with an instrument. Not only did self-injurious behaviors present physical risk, but COs experienced mental and emotional difficulties (Smith & Kaminski, 2011).

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Organizations also enhanced health risks to COs in their lacked provisions of personal protective equipment (Alarid, 2009).

A number of scholars have argued that the organization itself develops risk factors (Allard *et al*., 2003; Lambert, Cluse-Tolar, & Hogan, 2007; Lariviere, 2001). Moreover, the culmination of internal and external organizational risk factors provided greater burden to COs; affecting all domains of resilience (Griffin *et al*., 2010; Lambert *et al*., 2009; Lasswell, 2010). External factors of prison organizations include the media and politics. The media often drives emotions of the general public by capitalizing on the horrid conditions of prisoners. For example, Surette (2013) contended that media coverage often portrayed correctional institutions as corrupt and depriving inmates of basic needs. Further, Surette (2013) added that the media represented COs as being violent and psychotic, while inmates are viewed as "victims of the system" (p. 485). Depictions from the media have portrayed COs as having a blatant disregard for the humane treatment of prisoners (Ferdik & Smith, 2017; Surette, 2013). Policies that result from these media perceptions often work against the goals of the prison (Dowden & Tellier, 2004).

Internally, the organization plays a major role in directing daily tasks of COs, while operating in an unpredictable environment (Lambert *et al*., 2009). Allard and colleagues (2003) opined that prison organizations are associated with an uncertainty of responsibilities, guidelines, directives, and policies. Often, arbitrary and bureaucratic policies affect lines of communication from administrators, supervisors, and CO staff members (Blau *et al*., 1986). For instance, COs have often recognized the challenge of administrative segregation (Ferdik & Smith, 2017), issues of favoritism (Lambert *et al*., 2009), and a lack of organizational transparency (Griffin *et al*., 2010). As Dowden and

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Tellier (2004) pointed out, COs typically develop a higher level of social distance. This increase of social distance is represented by a lack of trust in the organization and a sense of alienation (Dowden & Tellier, 2004). Lambert *et al*. (2009) added organizations develop an "us versus them" (p. 465) mentality that negatively impacted COs' job morale.

Breakdowns in organization can manifest into chronic stressors for COs and negatively influenced job satisfaction and organizational commitment (Allard *et al*., 2003). If organizational policies become misaligned, then COs experienced more role conflict (Griffin *et al*., 2010; Lambert *et al*., 2009). Role conflict of COs is experienced at both individual and organizational levels (Allard *et al*., 2003). Many COs have faced a paradox between ensuring the humane treatment of inmates, while also maintaining order (Lambert, Hogan, & Tucker, 2009). COs also encountered role overload, when COs staffed at a lower rank are placed in charge and reflected more as administrators (Griffin *et al*., 2010). Next, COs are met with role stress, when job demands limit a CO's control over the completion of tasks (Blau *et al*., 1986).

Administrative demands and weak organizational support can often produce increased levels of stress and negative outcomes of COs. As chronic stressors continued, COs began to experience occupational burnout (Ferdik & Smith, 2017), which has typically been defined as, "emotional exhaustion, depersonalization, and feeling of reduced personal accomplishment (Allard *et al*., 2003, p. 281). Once a CO reaches burnout, scholars have noted major decreases in job satisfaction (Lariviere, 2001), job performance (Lambert *et al*., 2007), and organizational commitment (Lambert *et al*., 2009). In addition, burnout created many negative outcomes. For example, rates of absenteeism began to increase among COs who experienced burnout; used as an avoidance technique (Lariviere, 2001).

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Problems at work spilled over into family life, leading towards incidents of domestic violence and/or divorce (Lambert, Hogan, Kelley, Kim, & Garland, 2014). COs also became self-destructive and resorted to self-medicating behavior (Lambert *et al*., 2009). Collectively, chronic stressors led to significant rates of job turnover (Blau *et al*., 1986), and placed further strain and work overload on actively employed COs (Allard *et al*., 2003). Dowden and Tellier (2004) determined most COs quit work within 18 months and resulted in the cycling of organizational risk factors: stress, exhaustion, burnout, and job turnover.

To summarize, correctional administrators are crucial to COs' needs and in promoting positive work outcomes. As Lambert *et al*. (2009) concluded, there is an ongoing reciprocal relationship between organizations and COs; thus, mismanaged organizations influence negative characteristics of COs. Lasswell (2010) even found that organizational risk factors provide more damaging effects and are reinforcing of individual risk factors. Moreover, administrators control the distribution of resources, which can either improve or hinder the needs of COs. Ultimately, organizational factors work as a continuum, ranging from fostering resilience among COs, to placing further constraints, increased risk, and added dysfunction to the correctional workforce.

Protective Factors in Corrections

As previously mentioned, resilience is considered to be both a process and outcome (McCraty & Atkinson, 2012; Richardson, 2002; van Breda, 2018). Protective factors enhancing resilience during critical incidents developed from research conducted in multiple disciplines. Psychology and public health have typically focused on individual attributes, such as hardiness, sense of purpose, and motivation (Cloninger, 2013; Tyron & Radzin, 1972). In social-psychology, research has examined multiple behavioral profiles

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related to combat adversity (Fraser, Galinsky, & Richman, 1999). Sociology and public administration have concentrated their efforts on understanding organizational protective factors that build resilience, such as self-regulation, adequately distributing finite resources, and collective engagement (Adger, 2000; Brough & Biggs, 2015; Duit, 2012). Similar themes of resilience can be applied both to the individual and organization, while providing a contextual emphasis to corrections.

Collectively, research has consistently supported four domains of resilience that have been referred to in the discussion of risk factors: physical, emotional, mental, and spiritual (McCraty & Atkinson, 2012; Richardson, 2002). An individual or organization has reached coherence, equilibrium, or "biopsycho-spiritual homeostasis" when achieving mastery in each domain of resilience (Richardson, 2002, p. 311). *Physical resilience* includes possessing strength, agility, a basic level of physical health, and adaptability to preserve strength, when the need arises (McCraty & Atkinson, 2012). This is crucial for COs in handling aggravating and escalating physical disputes with inmates (Schwarz, 2018). Physical resilience has a strong association with *mental resilience*, which features constant focus, using one's intuition, rationality, and the inclusion of multiple viewpoints (McCraty & Atkinson, 2012). If a CO is weak mentally, then a lack of focus can cause injury to themselves or others in a dangerous situation (Chae & Boyle, 2013). *Emotional resilience* entails keeping a positive outlook (McCraty & Atkinson, 2012). Emotional intelligence also is a part of *emotional resilience* and involved an individual aware of and able to control their own emotions (Lambert *et al.*, 2014; Law & Guo, 2016). Individuals with emotional intelligence recognized the emotions of others and were better equipped to handle relationships with other COs (Lambert *et al.*, 2014; Plough *et al.*, 2013; Randall,

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2013). Organizations and sources of support are salient factors to sustaining emotional resilience (Randall, 2013). Lastly, *spiritual resilience* is conceptualized as commitment to an organization's values and beliefs and tolerance for others' values and beliefs (McCraty & Atkinson, 2012). This is extremely important, given the level of diversity among fellow COs and inmates (Plough *et al*., 2013).

Coping. As stated above, resilience is a learned concept that occurs in response to a negative or critical incident. After the critical incident has occurred, an immediate process of coping begins in order to process any trauma and to begin an effort of regaining coherence or returning to a sense of normalcy (Sandler, Wolchik, & Ayers, 2007). If impending signs of danger are present (i.e. prison riot), a CO may employ escape/avoidance tactics to protect levels of coherence (Balmer *et al*., 2014). Immediately, after a situation has been deescalated and controlled, COs are likely to begin to process the event that occurred. A series of emotional coping techniques are managed to reduce damaging responses and to provide meaning of the situation (Balmer *et al*., 2014). Christiansen (2018) adds that a sense of humor is not an uncommon coping mechanism. Humor is used to minimize a dangerous event and is a way for a CO to let others know they are fine (Cloninger, 2013). Altering behaviors to promote physical resilience, such as diet and exercise, have reduced negative outcomes to mental and emotional resilience as well (Mignano, Faghri, Huedo-Medina, & Cherniack, 2016).

Emotional distance (no reaction) to a dangerous encounter has been argued as a dysfunctional response (Riolli & Savicki, 2014). Emotional distance becomes problematic, when individuals have suppressed their emotions and lacked any ability for healthy coping (Brodie & Eppler, 2012). As a result, individuals engaged in destructive behaviors (i.e.

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substance abuse, lack of exercise) for stress maintenance (Chae & Boyle, 2013; Lambert *et al*., 2014). Contrary to this notion, Bonanno (2004) argued that emotional distance can demonstrate a high level of resilience. In the example of a fatality, Balmer and colleagues (2014) found that individuals, using cognitive efforts, change the meaning of the situation and remind themselves they have no emotional connection to the deceased individual. Christiansen (2018) added that COs have learned to accept the violent event as part of the job and can move on from it.

From an organizational standpoint, debriefings are used to learn from the situation and to try and mitigate stress (Randall, 2013). Typically, debriefings rely more on working together with fellow COs, along with practitioners (Christiansen, 2018). Family support can also empower a CO, but there must be a balance between family and work (Erdogan, Bauer, Truxillo, & Mansfield, 2012). However, there have been mixed results in an organization's ability to provide adequate coping resources (Castleden, McKee, Murray, & Leonardi, 2011). In addition, there is need for more effective preventative coping interventions, as most examinations of resilience are reactive instead of proactive (Plough *et al*., 2013).

Adaptability. Adaptability is another major protective factor for both organizations and COs that yield higher levels of resilience. The level of adaptability changes over time and is based upon the contextual relationship between the individual and environment (Lazarus & Folkman, 1984; Sandler *et al*., 2007). Adaptability has demonstrated spiritual resilience, when a CO is tolerant of other perspectives among coworkers and leadership (Randall, 2013). For example, a new supervisor may be a stressor to some, but COs exhibiting adaptability are more tolerant and accepting of the change in the organization

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(Duit, 2012). Many COs have shown more adaptability, when believing they have control of situational factors, as opposed to letting situational factors control them (Randall, 2013; Suliman & Einat, 2018). COs with more adaptability have been able to reduce stress related to role conflict (Allard *et al*., 2003). For example, many COs have developed job variety (Lambert *et al*., 2007). Job variety illustrates a CO's level of adaptability. In one example, a CO, responsible for intake and custody, is needed at another unit to quell an aggravated incident in the recreational unit. In addition, COs must be able to adapt their behavior during interactions with inmates (Riolli & Savicki, 2014). Emotions of inmates can quickly intensify (i.e. not adjusting to an institutionalized setting), which requires a CO to act quickly to calm the event (Cloninger, 2013).

Equally, organizations that demonstrated adaptability have yielded positive outcomes (Brough & Biggs, 2015). As previously mentioned, governments are responsible for the allocation of fiscal resources to correctional institutions and the implementation of new policies (Dowden & Tellier, 2004). Administrators face the challenge and must be adaptable to managing fiscal resources efficiently to allow sustained function of the organization (Duit, 2012). Additionally, goals of the prison can alter during political cycles, such as a shift from punitive-oriented to rehabilitative-oriented philosophies (Plough *et al*., 2013). Conjointly, organizational adaptability has influenced individual adaptability, which in return, has helped to sustain resilience of individuals (Richardson, 2002).

Sense of Purpose. COs who have displayed a high sense of purpose are better equipped to handle adverse effects (Randall, 2013). Much like adaptability, COs with an increased sense of purpose believe that there is a deeper meaning behind why they experienced a critical incident. They focused more on the positives of a negative situation

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and continued to grow and prosper (Bonanno, 2004). Additionally, COs accepted that violent encounters will frequently be a part of the job, which allowed them to eliminate resistant behaviors, such as anger and resentment (Cloninger, 2013). Tyron and Radzin (1972) added a sense of purpose eliminated states of depression, boredom, and alienation. COs with a sense of purpose aligned more with the goals of the institution (Tewksbury & Mustaine, 2008). For example, in an institution more punishment-oriented, a CO will support that their sense of purpose is to keep the community safe. Similarly, in an institution focusing on rehabilitation, COs value that they can help someone to become more law abiding (Cloninger, 2013). Overall, COs with a higher sense of purpose experienced a more positive attitude (Randall, 2013), sense of accomplishment (Riolli & Savicki, 2014), cohesiveness with others (Castleden *et al*., 2011), hardiness (Tyron & Radzin, 1972), and better job involvement, performance, and satisfaction (Sandler *et al*., 2007).

Sources of Support. Research has suggested that sources of support are vital to an individual CO's resilience and to the functioning of an organization (Adger, 2000; Bonanno, 2004; Brodie & Eppler, 2012; Erdogan *et al*., 2012; Suliman & Einat, 2018). For individual COs support systems have included, though are not limited to, family, friends, peers, and supervisors (Balmer *et al*., 2014). Erdogen *et al*. (2012) emphasized the importance of family for COs, using a top-down, bottom-up approach. This approach allowed COs to prioritize the importance of family and work. They found that low job commitment was not always a negative factor. Accordingly, COs focus on time with family as a reward for overcoming traumatic events. In addition, COs, who valued family above work, remained motivated and were fully immersed in the completion of tasks; despite low

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job commitment (Erdogan *et al*., 2012). In addition, fellow peers are another salient factor of support (Chae & Boyle, 2012). Fellow COs are often more relatable and understanding, as they may have also experienced a similar traumatic event (Suliman & Einat, 2018). Moreover, peer and organizational approval offered encouragement and allowed access for COs to seek clinical coping techniques, such as counseling or group therapy (Adger, 2000).

Organizations offering strong support to COs have been proven to foster resilience, generate positive outcomes, and manage more effectively (Castleden *et al*., 2011). COs respond to strong organizational support, along with positive outcomes, which are gained through "organizational citizenship" (Suliman & Einat, 2018, p. 638). Supervisors have played a vital role in minimizing barriers for COs to report stress through effective communication (Randall, 2013). Supervisors consider the needs of subordinates and have worked alongside of administrators in decision-making. Using this approach, individual COs developed more trust with the organization and expressed a level of gratitude that their concerns have been voiced (Schwarz, 2018). Organizational citizenship has produced a collective effort and loyalty to the goals of the institution, support of fellow peers, and more participation (Suliman & Einat, 2018).

Risk Awareness. For the past several decades, COs and organizations have been more reactive to stressors, compared to proactive, and have required immediate action and a level of adaptability. Overtime, organizations have acquired more awareness of the major stressors that COs have faced on the job. Resultingly, organizations have taken on a more proactive approach and have tried to minimize identifiable stressors through risk awareness; though efforts have been modest (Plough *et al*., 2013). Risk awareness is different from adaptability in the fact that critical incidents have not occurred yet, but given

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the unpredictable nature of the profession, there is an increased potential they will occur (Fraser *et al*., 1999). Risk awareness has allowed organizations and COs to develop buffering factors that will help reduce the impact of adversity related to the job (Chae & Boyle, 2013). For example, organizations will periodically offer training programs to prepare COs for anticipated scenarios, such as coping with anger, how to properly handle a challenging encounter with an inmate, and an increased use of virtual simulations (Fraser *et al*., 1999; Randall, 2013). Administrators and supervisors have also aimed to provide continuous instruction and feedback, among lower-ranking COs, to ensure policies are fully understood and being followed. This approach has gained more collective involvement (Plough *et al*., 2013). In addition, organizations have strengthened problem-solving skills among COs using reinforcement contingencies. Reinforcement contingencies involve the use of action plans; a stepwise order to overcome and deescalate an adverse situation (Duit, 2012). For example, if a CO senses a loss of control over a situation, then they rely on more experienced COs for guidance and direction (Sandler *et al*, 2007). Risk awareness has granted organizations to become more robust, self-regulating, aid in prevention, provide balance to the infrastructure, and enhance COs' level of confidence (Duit, 2012; Fraser *et al*., 1999).

Ultimately, protective factors, along with risk factors, demonstrate are constantly evolving in operations of each correctional institution. Further understanding of both risk factors and protective factors will enable lawmakers and administrators to enact policies and procedures that will effectively increase protective factors, while minimizing potential risk factors.

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Criminological Theory Perspectives

The prior discussion has focused on COs' exposure to critical incidents, risk factors, protective factors, coping strategies, and how they relate to resilience. There are three major criminological theories that share similarities with the process of resilience: Merton's (1938) anomie/strain theory, Agnew's (1992) general strain theory, and Sampson and Laub's (1993) life course theory. Given that the study will focus on the correctional milieu, it is important to incorporate criminal justice contexts to the concept of resilience.

Borrowing from Durkheim's (1893) theory of anomie, Merton's (1938) anomie theory referred to the uncertainty and alienation that individuals experience as a result of blocked access to the socially acceptable goals and means of society. Anomie is common for both COs and inmates. For example, COs have struggled with low salaries, little training, unclear policies, a lack of support from fellow correctional staff or the public, and constant risk of danger (Blau *et al*., 1986; Worley, Lambert, & Worley, 2018; Worley & Worley, 2016). Similarly, inmates are deprived of many freedoms, uncertainty of what rights they do maintain, and little economic standing (Worley & Worley, 2016). In a higher state of anomie, professional boundaries became distorted and created a subculture of COs favorable towards deviance (i.e. corruption, abuse of inmates). On the other hand, inmates became more hostile towards COs in response to their own state of anomie. As a result of anomie, increased rates of inappropriate sexual relationships or notable rises in number of COs attacked, injured, disciplined, and termination followed (Blau *et al*., 1986; Worley & Worley, 2016).

Furthermore, higher levels of strain have often led many COs to resort to more dysfunctional behaviors and studies have related COs' behaviors to Merton's (1938)

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adaptations to strain. For instance, Worley and colleagues (2018) contended that most COs fit the ritualist adaptation to strain by abandoning culturally valued wealth, but still enforced institutional rules. As previously mentioned, many COs are unpaid for having to deal with an unruly population (Blau *et al*., 1986; Lambert *et al*. 2007). As a result, many COs became innovators and discovered new methods to obtain further wealth, such as smuggling drugs and technology to inmates (Worley & Worley, 2016). However, COs involved with the distribution of drugs would also be introduced to engaging in drug use. Subsequently, they would become more distracted and at risk of termination, which aligned with the retreatism adaptation to strain (Worley & Worley, 2016).

Under the rebellion adaptation to strain, COs are no longer worried about wealth and have developed a sense of invincibility (Ashforth, Rogers, Pratt, & Pradies, 2014). Ashforth and colleagues (2014) noted some COs were no longer interested in obtaining added wealth, but instead, how they could gain further control, status, and respect. COs, who were classified as rebels, threatened further punishment (Blau *et al*., 1986), used acts of physical force (Worley & Worley, 2016), or gained a sense of power and control through the performance of unwanted sexual acts against an inmate (Ashforth *et al*., 2014). For those classified as rebels or innovators, COs were also able to avoid any detection, based on their rank and seniority among fellow COs (Ashforth *et al*., 2014; Worley & Worley, 2016).

According to Agnew (1992), there are three primary types of strain. First, strain occurs when one is blocked from the achievement of a positively valued goal. For example, administrations have blocked access to certain COs' ability for promotion, which has increased strain (Ferdik & Smith, 2017). Secondly, strain is developed through the removal

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of a positively valued stimuli. For instance, COs can appreciate the leadership and guidance of a supervisor. However, a change in leadership can increase levels of strain (Tewksbury & Mustaine, 2008). In another example, a CO would experience strain by losing support of valued friends or family members (Chae & Boyle, 2012; Erdogan *et al*., 2012). The last form of strain occurred through the introduction of a noxious or negatively valued stimuli (Agnew, 1992). For example, a CO who has witnessed an inmate suicide was impacted mentally and emotionally, and as a result, the CO experienced an increased level of strain (Christiansen, 2018).

Most importantly, Agnew (1992) suggested that criminal behavior can be used as a coping mechanism. As previously mentioned, COs have evidenced criminal behavior in coping with levels of strain, such as substance abuse (Lambert *et al*., 2014; Toker & Biron, 2012) and domestic violence (Lambert et al., 2009; Valentine et al., 2012). However, several scholars have found that a significant amount of the literature has focused on strain of inmates and the application of strain on COs has been scarce (Lambert, 2003; Moon & Jonson, 2012; Swatt, Gibson, & Piquero, 2007). In addition, multiple studies of strain in the correctional milieu have focused on organizational factors of strain, such as limited access to community resources (Lambert, Altheimer, & Hogan, 2010), ineffective management and policy (Triplett *et al*., 1996), and income discrepancies (Lambert, 2003); while individual factors have remained ignored.

More recent studies have continued to examine how strain impacts COs working in an institution (Hogan, Lambert, Jenkins, & Wambold, 2006; Lambert, Hogan, & Cheeseman, 2013; Lambert, Hogan, & Griffin, 2017). The factors of strain for COs identified the most seemed to align more with Agnew's (1992) general strain theory. COs

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suffered from three major sources of strain: role strain, commitment strain, and family strain (Hogan *et al*., 2006; Lambert *et al*., 2013). Frontline COs, who oversee direct custody and control of inmates, experienced the highest levels of role strain (Hogan *et al*., 2006; Lambert *et al*., 2013). For example, COs may have used the role of being aggressive and authoritative at work but are expected to be cordial and compassionate among family members and peer groups outside of work (Lambert *et al*., 2013). Conversely, administrators experienced more time-based strain as supervisors are required to maintain an effectively operating workforce (Hogan *et al*., 2006). Both frontline COs and administrators have experienced family strain, in which strain from work has a spillover effect to home life (Hogan *et al*., 2006; Lambert *et al*., 2013; Lambert *et al*., 2017). Collectively, COs who are influenced by higher levels of strain suffered negative outcomes (i.e. avoidance, substance abuse, turnover), and added further strain to COs and the organization (Lambert *et al*., 2017). Hence, this study further added to the literature on how critical incidents directly influenced strain experienced by COs and how it impacted their associated levels of resilience.

Sampson and Laub (1993) examined the life course to understand significant trajectories that explained why individuals engaged in or desisted from criminal behavior. Specifically, a trajectory is a "pathway or line of development over a life span that refers to long-term patterns of behavior and is marked by a sequence of transitions (Sampson & Laub, 1993, p. 22). Notably, critical incidents do not always result in a negative outcome but reinforces their life path (Plough *et al*., 2013; Sampson & Laub, 1993). The theory also considered the influence of social bonds had on trajectories and is relevant to COs' sources of support (Adger, 2000; Brodie & Eppler, 2012). Most importantly, Sampson and Laub

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(1993) determined that trajectories can change with changes in life events. This fact is crucial for studying COs, as a critical incident could serve as a change in trajectory and lead a CO towards engaging in criminal behavior (i.e. substance abuse).

However, not all critical incidents have resulted in negative outcomes for COs, but rather are explained as transitions or turning points (Elder, Johnson, & Crosnoe, 2003; Walters, 1991). From a social psychology perspective, critical incidents have allowed for immediate emotional adaptation (Stewart, 1982). For example, COs who have experienced a critical incident (i.e. inmate suicide) may seek support from fellow peers or try to separate themselves from the incident (Stewart, 1982). Similarly, quality of training has improved in some areas and allowed for personal growth and a certain level of predictability, when overcoming a similar critical incident (Tomlinson Baird, Berg, & Cooper, 2018; Walters, 1991). Responses to critical incidents have constantly evolved among COs based on the age, role, level, and other contexts related to the time a CO encountered a critical incident (Burton, Lux, Cullen, Miller, & Burton, 2018; Tomlinson *et al*., 2018; Wright & Cullen, 2004). From a public administration standpoint, a critical incident can be explained as a "redefining moment," and empowered COs "to re-construct how they think of themselves in their career" (Sugiyama, Ladge, Modestino, & Kenney, 2018, p. 124).

Lambert and colleagues (2017) highlighted there are four stages over the course of a CO's career: "entry/exploration, establishment, maintenance, and disengagement" (p. 411). From a life course perspective, each stage featured several milestones during a CO's career (Elder *et al*., 2003; Lambert *et al*., 2017). In the entry/exploration stage, COs experienced the milestone of completing training at the academy and beginning a long-term career path, after overcoming the stresses related to training (Burton *et al*., 2018;

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Tomlinson *et al*., 2018). Also, during the entry/exploration stage, a CO may have begun marriage and building a family, which represented another positive milestone (Wright & Cullen, 2004). Another milestone during this stage, a CO may have received a positive job performance evaluation (Lambert *et al*., 2017). From there, the CO felt a sense of accomplishment and believed that they are valued by the organization (Blau *et al*., 1986; Lambert *et al*., 2014; Lambert *et al*., 2009).

After achievement of these milestones, COs moved towards the establishment stage of their career (Lambert *et al*., 2017). During establishment, COs attained positive associations with fellow COs, which created an access to information and an agreed upon set of habits and work procedures to minimize conflict with inmates. In addition, obtaining solidarity with fellow COs enhanced organizational commitment (Stewart, 1982). COs continued to gain more career advancement by attending periodic quality training programs (Burton *et al*., 2018; Tomlinson *et al*., 2018). By increasing work skills, COs could accomplish the next milestone of promotion (Elder *et al*., 2003; Tomlinson *et al*., 2018). Conversely, if a CO perceived a sense of alienation, then work performance declined and could lead towards disengagement (Lambert *et al*., 2017).

Mentorship is another positive milestone reached during establishment and worked with both fellow COs and inmates (Burton *et al*., 2018; Elder *et al*., 2003; Wright & Cullen, 2004). For example, a CO can take the experience of working with a struggling inmate (i.e. engaging in self-injurious behavior) and helped them to achieve rehabilitation, which strengthens the CO's sense of purpose (Tewksbury & Mustaine, 2008). Frontline COs spend the most time with inmates, while developing professional relationships and can witness repeatedly certain inmates' achievement of rehabilitation (Burton *et al*., 2018).

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Here, a CO's sense of purpose comes to mind and explains why they remain with the job, after experiencing a critical incident (Burton *et al*., 2018; Castleden *et al*., 2011; Tyron & Radzin, 1972). As an individual CO gained seniority, they are able to mentor fellow COs, who may have recently started a career and experienced a similar critical incident (Wright & Cullen, 2004).

As seniority and possible promotion have increased, COs enter the maintenance stage of their career (Lambert *et al*., 2017). In the duration of this stage, COs worked towards maintaining certain management roles, work performance, or further promotion towards a more administrative role (Elder *et al*., 2003; Sugiyama *et al*., 2018). Lastly, COs enter the disengagement stage of their career (Lambert *et al*., 2017). After serving many years in the career, COs have reached the final milestone of retirement and separation from the job (Elder *et al*., 2003; Stewart, 1982; Sugiyama *et al*., 2018). Disengagement can also be a negative outcome, when a CO resigned or was terminated from the job (Lambert *et al*., 2017; Tomlinson *et al*., 2018; Walters, 1991).

Similar to Agnew (1992), studies applying Sampson and Laub's (1993) life course theory have remained nearly nonexistent to the direct examination of COs (Lin, 2017; Nelson, 2010; Sutton, 2010). In fact, a significant number of studies have investigated events that led them to be incarcerated and the reasons why inmates desisted from criminal behavior (Burnett, 2009; Loeffler, 2013; Petit & Western, 2004; Uggen, 2000; Wooldredge, 1994). Lin's (2017) study shared the closest link to life course theory and COs. The study featured 860 COs throughout various correctional institutions in Taiwan. Findings revealed many COs were introduced to the path of being a CO through their formal education or had a family member who worked as a CO. In addition, family

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endorsement, recognition, and financial stability were each viewed as major reasons that kept COs on the job (Lin, 2017). As evinced by the literature, life course and strain can be integrated into further understanding of resilience. Most importantly, studies of each theory have supported that resilience can change over the course of one's career as a CO.

Current State of Resilience Programs in Corrections

Several disciplines and professions struggle with developing programs geared towards promoting resilience in staff. This paper will explain the current state of programs and support designed to foster resilience among COs. In conjunction, the paper will explore and describe analogous programs that foster resilience within other difficult or dangerous milieus, such as clinical psychologists and the military. In the last segment, suggestions will be offered for future training and support in order to address some of the current gaps in prison administration approaches.

In review of the corrections literature over roughly the past five years, an argument can be made that the current state of programs and support to foster resilience is almost nonexistent. The current state raises a dire need for further evaluation and implementation of resilience programs to offer support and address the needs of COs (Olson & Wasilewski, 2017; Trounson & Pfeifer, 2016). Despite the narrow scope of research available in corrections, recent findings in comparable professions (i.e. first responders) suggest a promising outlook in constructing future resilience training programs (Dugan *et al*., 2016).

Scholars are still debating what factors comprise the broad concept and process of resilience. Given this dilemma, studies are still being designed to try and build strong evidence and arguments for what contributes to resilience and how to sustain it. Ojedokun and Idemudia (2014) examined how gender differences relate to mental and emotional

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resilience. A total of 146 male and 76 female COs, at a maximum-security level prison facility in southwestern Nigeria were included in the sample. In terms of mental resilience, there were no distinct gender differences. On the other hand, gender differences were observed for emotional resilience. Male COs valued higher levels of self-esteem and social approval. Comparatively, female COs sought more social support. Interestingly, female COs had better coping skills, in terms of adaptability, problem-solving, and positive outlook. Overall, it appeared female COs coped better in a stressful environment (Ojedokun & Idemudia, 2014).

Similarly, Burdette, Gouliquer, and Poulin (2018) conducted semi-structured interviews with 36 female COs in Ontario, Canada. For the most part, female COs had to be more assertive and stand their ground, in working with male COs. In addition, most used positive coping mechanisms, including physical exercise, positive thinking, and self-efficacy. Oppositely, several mentioned more repressive coping (i.e. avoidance) and became so isolated that they resorted to self-medicating and other dysfunctional behaviors (Burdette *et al*., 2018).

Hope/Optimism. Many studies have explored the themes of hope and optimism to verify their effects with resilience. Liu, Hu, Wang, Sui and Ma (2013) developed a cross-sectional survey to examine changes between frontline and non-frontline COs. A sample of 1,428 male COs (953 frontline and 475 non-frontline) were randomly surveyed in northeast China. Interestingly, they found rates of depressive symptoms between the two groups were nearly identical. However, frontline CO's demonstrated higher levels of hope and optimism, compared to non-frontline COs. COs with more hope and optimism were more motivated, had an increased perception of support, possessed a positive outlook, and

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had overall improved levels of emotional and mental resilience (Liu, 2013). Law and Guo (2016) found, in a survey of two prisons in Taiwan, that hope had a direct effect on a CO's organizational commitment, job satisfaction, and a negative association with job stress. In addition, female COs displayed higher levels of hope. Differing from the prior study, optimism was not significant (Law & Guo, 2016). Separately, Klinoff, Van Hasselt, Black, Masias, and Couwels (2018) examined hope and optimism among 300 male COs, across three shifts and five detention facilities, in Broward County, FL. They found male COs' levels of hope and optimism had an indirect effect with job burnout but a direct effect with resilience. Additionally, a racially diverse sample was included in the survey (Klinoff, *et al*., 2018).

Scholars have continued to investigate other dimensions of resilience in relation to COs. For example, James *et al*. (2017) examined the frequency of critical incidents' impact on sleep quality and resilience. A particular point of interest was that nearly half of the 355 COs included in the sample at a Washington correctional facility reported having sleep disturbances. As a result, lack of sleep had an effect on COs' physical resilience, and in time, the immense fatigue worked against mental focus and emotional stability (James *et al*., 2017).

For centuries, spirituality, also referred to as religiosity in some contexts, has held a dominant role in corrections (Giordano, Longmore, Schroeder, & Seffrin, 2008). The premise of spirituality is that it would help to reform offenders, desist from committing future crimes, and be able to endure being reacclimated to the community (Shroeder & Frana, 2009). Correctional staff members (i.e. prison chaplains or fellow correctional staff) often have shared a role in providing spiritual guidance to inmates (Giordano *et al*., 2008;

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Schroeder & Frana, 2009). For instance, in 2001, President George W. Bush enacted legislation designed to, “support faith-based programming and community partnerships” (Schroeder & Frana, 2009, p. 722). As a result of this legislation many faith-based prisons emerged throughout the Southeastern U.S. (Schroeder & Frana, 2009). Studies found that institutional religious programs have addressed some of the mental health needs and morale of inmates, reduced anxiety levels for COs, and that COs were better prepared to withstand critical incidents (Giordano *et al*., 2008; Schroeder & Frana, 2009).

More recently, Williams (2017) examined the effect spirituality had on resilience and job burnout among COs. In this study, resilience was conceptualized as one’s religious faith. This definition differs from McCraty and Atkinson’s (2012) definition of spirituality, relating to the commitment of goals in an organization. This study featured a mixed-methods approach, which included 84 prison chaplains and 111 COs from Oregon and Wisconsin for the quantitative portion, and six qualitative interviews with each group in Oregon. Chaplains demonstrated higher levels of resilience, compared to COs, and experienced less burnout. Comparably, increases of resilience were only found among COs who identified as religious. Although religious affiliation is more difficult to measure in the social sciences, the study aligns with the previous literature and demonstrated spirituality as a protective factor (Werner, 1989; Williams, 2017).

All the studies discussed, thus far, agree that there is a great need for clinical interventions that can foster resilience. Dugan *et al*. (2016) attempted a study to examine the implementation of several clinical interventions. They selected two correctional facilities in separate geographic locations in Connecticut. Both facilities were matched on work-related factors, such as number of inmates, level of security, and staff size. The

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interventions were designed to improve physical resilience through promoting fitness, proper nutrition, risk reduction, and altering the environment of each facility. The researchers collaborated with prison administrators to gain support of developing these interventions at each prison site; using a top-down approach. Prison administrators gained interest, and as a result, levels of participation increased from lower correctional staff (Dugan *et al*., 2016).

At each site, the researchers achieved two of the four interventions: a fitness center and stress lounge. Shortly after, the programs had ceased to continue at both sites, when the levels of participation from administrators and COs had suddenly vanished. Unfortunately, no measures were ever recorded on individual levels of resilience. This failed exercise offered a few lessons for future studies. The researchers found that the program still had a benefit on workplace safety. In addition, the study revealed the feasibility of developing interventions but are contingent upon levels of participation and sustainability. This outcome proved that organizations and teamwork will be the only way to achieve resilience (Dugan *et al*., 2016).

To restate, recent experimental tests, evaluating the efficacy of resilience programs, are absent in the correctional milieu. Scholars are still attempting to unravel the mystery of what attributes to resilience. Ferdik and Smith (2017) offered that evaluation of programs working in other law enforcement agencies can be better applied to policies and practices of COs. Several parallels exist between law enforcement and COs, such as frequent interactions with dangerous offenders. Resilience programs for police officers reveals strong results, as will be discussed, and offers hope for corrections.

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In review of other difficult or dangerous milieus, including police, nurses, doctors, first responders, clinical psychologists, and military; progress has been reached but with mixed or inconclusive results. Studies of programs to foster resilience are still preliminary, and researchers remain persistent at understanding what factors demonstrate resilience. For some milieus, resilience has gained strong support, whereas in others, significance seemed to be marginal at best. Most studies have attempted to apply the process of resilience in different professional contexts. However, some studies have measured different attributes to make an argument of fostering resilience, as will be discussed in greater detail. In some milieus, the concept and process of resilience need major refinement, demonstrating the need for further research.

Police. Brodie and Eppler (2012) conducted a qualitative study, in a large metropolitan area in the Northeastern US, consisting of 14 individuals (7 married couples). They aimed to develop themes of resilience and how it impacted the work-home life. At work, the constant demands from superior officers decreased the individual officer's sense of control on the job. However, effective communication worked as a buffer, which included support and feedback; enhancing sense of purpose. At home, support from family also increased resilience. In fact, officers viewed their family as a reward to return to, after experiencing a frustrating day on the job (Brodie & Eppler, 2012). Similarly, Sollie *et al.* (2017) supported, in a qualitative study of 33 crime scene investigators (CSIs) in the Netherlands, effective communication, proper training, and teamwork increased resilience. Sources of support helped to reduce physical and mental burnout. CSIs also engaged in emotional distancing when arriving at a death scene. This tactic required self-regulation, another theme of resilience, which involves relaxed breathing, self-reflection, and

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remembering you have no bond with the victim (Sollie *et al*., 2017). Both studies did not feature any clinical intervention but looked at coping techniques.

In terms of quantitative research, McCraty and Atkinson (2012), provided one of the first studies, using an experimental design. 65 officers in Santa Clara County, CA were randomly assigned to a resilience training group (n = 29) and control group (n = 36). The program involved an 11-week course, where officers viewed virtual simulations of traumatic events in progress (i.e. domestic violence, armed robbery), followed by a debriefing, and skills-training to foster resilience during stressful events. The control group received a book and notepad to reflect on what they read. Measures of resilience and physical conditions between groups were recorded at three points: baseline (before program), at the conclusion of the program, and a month after. Officers in the treatment group showed a major reduction of stress and increase of resilience among all four domains. Officers in the program noted experiencing better focus, reductions in anger, anxiety, and sleep disruption; improved relations in the department and at home and operating at an optimum level (McCraty & Atkinson, 2012). Comparably, Ramey, Perkhounkova, Hein, Bohr, and Anderson (2017) determined, using the same method among 34 police officers, that the resilience program improved self-regulation and decreased depression/anxiety symptoms.

Nurses/Doctors. Doctors and nurses are frequently exposed to death, disability, graphic sights, aggressive encounters with patients' loved ones, long hours, rotating shifts, and sexual harassment (Garcia-Izquerdo, de Pedro, Rios-Risquez, & Sanchez, 2017). In addition, each profession had to overcome years of extensive education to be able to perform under immense pressure; when a patient's life may be in the balance (Lim *et al*.,

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2016). In a meta-analysis, Balme (2015) observed that doctors do not need resilience training but rather strong support groups. In return, it will support intellectual interest and provide a better doctor-patient relationship. Moreover, Balme (2015) reviewed resilience among five health professions, including doctors, psychologists, counselors, social workers, and nurses. Two consistent factors of resilience emerged: being female and balancing a work-life schedule.

More recently, only a handful of studies have been conducted to examine resilience. Lim *et al*. (2016) observed a one-week continuing education program to build resilience among 180 nurses in a Singapore hospital. Each session lasted two hours and featured skills training and small group assignment. Measures of resilience were taken at baseline and two-months after completing the program. The program had a moderate effect on fostering resilience through self-regulation. However, there was weak support for demonstrated stress reduction (Lim *et al*., 2016). In a separate study, Garcia-Izqueirdo *et al*. (2017) surveyed 537 nurses among three hospitals in Murcia, Spain. Using the Brief Resilience Scale (BRS) they found resilience had a moderating effect with emotional exhaustion and depersonalization but no effect on sense of purpose (Garcia-Izquierdo *et al*., 2017). Notably, each study had no control group to compare findings. As Balme (2015) strongly argued, within this milieu, programs to enhance resilience have offered a “lukewarm maybe” (p. 4709).

First Responders. In an earlier study, 47 police officers and 22 firefighters, at a city in the pacific northwestern region of the US, were selected to participate in an 8-week, mindfulness-based resilience training program (Kaplan, Bergman, Christopher, Bowen, & Hunsinger, 2017). Two points were measured: baseline and program completion. The study

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found that the program partially mediated the relationship between mindfulness and burnout; however, the outcome was of marginal significance and had weak statistical power (Kaplan *et al*., 2017). In order to gain further understanding of how resilience operates, 125 firefighter paramedics at a department in South Florida were evaluated to determine there was a link between resilience and post traumatic stress disorder (PTSD). Measures were recorded through the BRS and found no association. However, resilience demonstrated an indirect effect of reducing symptoms of PTSD, as it decreased both anxiety and insomnia (Straud, Henderson, Vega, Black, & Hasselt, 2018).

Following up on the evidence of resilience, 60 individuals were divided into equal groups comprised of paramedics, firefighters, and college students. All groups were measured on emotional and physical resilience by using moral dilemma videos. In both videos, participants had to select between a decision where there would be a loss of one life or loss of multiple lives. All participants made similar decisions; however, firefighters and paramedics experienced less regret and had lower heart rates measured (Francis, Gummerum, Ganis, Howard, & Terbeck, 2018). More recently, Joyce *et al*. (2019) conducted an experimental design, with the same program as Kaplan *et al*. (2017) among 143 firefighters in Sydney, Australia. Respectively, baseline, completion, and six-month follow up measures were recorded. No major differences were observed between groups at completion of the program. Interestingly, at the six-month follow up, the intervention group displayed a moderate increase in adaptability and resilience, while the control group had a decrease in same items (Joyce *et al*., 2019).

Clinical psychologists. This milieu has been more challenging to assess resilience, based on smaller sample sizes (Edelkott, Engstrom, Hernandez-Wolfe, & Gangsei, 2016;

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Hanna & Pidgeon, 2018) and lack of awareness of their own resilience (Kemper, Mo, & Khayat, 2015; MacKay, 2012). The biggest stressor is known as "vicarious traumatization," where clinical psychologists (will be referred to as therapists) end up sharing in the suffering and grieving of a client's traumatic experience (MacKay, 2012 p. 637). Most studies have examined "vicarious resilience," where therapists take time to self-regulate and acknowledge they are separate from the client's situation (Edelkott, *et al*., 2016). In the largest study, Kemper, Mo, and Khayat (2015) surveyed 213 therapists and trainees at a large midwestern health center. Applying BRS and sleep, researchers wanted to look at how both were ordered and related to self-regulation. They found that resilience directly had a significant effect on self-regulation, while sleep had no direct effect with self-regulation buy could build resilience (Kemper *et al*. 2015). In another study, Roden-Foreman *et al*. (2017) reviewed 118 therapists with the BRS and found resilience had negative correlation with burnout but little effect with PTSD. Relatedly, Hanna and Pidgeon (2018) implemented an experimental design finding the same results as Roden-Foreman *et al*. (2017); treatment group had a decrease on burnout and no effect on PTSD. On the other hand, Edelkott *et al*. (2016) conducted 13 qualitative interviews and found therapists were unaware of their own resilience but felt empowered by their clients' resilience.

Military. This milieu has also experienced some challenges in examination of resilience. Perhaps, difficulty in measuring resilience among service members is related to functioning under a constantly demanding structure and being regularly exposed to violent and gruesome traumatic incidents. Much work has focused on the effect resilience has with coping, anxiety, depression, PTSD, and reintegrating into normal life (Crane *et al*., 2019).

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Baccman, Hjarthag, and Almqvist (2016) captured resilience of 129 navy members in Sweden at pre- and post-deployment. They determined that anxiety was high among all service members at pre-deployment, which is a normal response in facing the unpredictable. Six-months after post-deployment, rank had an impact on resilience. Surprisingly, officers exhibited high resilience compared to sailors with more anxiety. In explanation, service members with higher rank are further removed from the frontlines (Baccman *et al*., 2016). Crane *et al*. (2019) decided to examine service members at the beginning. 226 cadets at the Royal Military College in Australia, were randomly assigned to either self-reflecting (same as self-regulating) or a coping-skills course for a month. Baseline, completion, and six-month follow up measures were recorded on resilience, anxiety, and depression. The self-reflecting group (n = 130) showed an increase in resilience and decrease in symptoms of depression and anxiety. The coping-skills group (n = 96) showed similar changes but were considered marginal. However, at the three-month follow up, both groups showed a major increase in anxiety and depression symptoms. This outcome is likely attributed to the controlled and combative nature of the military (Crane *et al*., 2019).

Other studies have focused more on the impact of sources of support. In one study, 434 service members, at 14 military installations throughout the US, participated in the families overcoming under stress (FOCUS) resilience program (Saltzman, Lester, Milburn, Woodward, & Stein, 2016). The program focused on 8-12 sessions with the parents, followed by three sessions with the entire family. Skills taught included, communication, sense of purpose, and self-regulation. Measures were taken of parents' resilience and children's outcomes (i.e. educational performance) to demonstrate cohesiveness. Military

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families who attended more sessions demonstrated a significant decrease in symptoms of depression, anxiety, and PTSD. The study discovered that the civilian parents had a higher level of resilience and had a direct influence on child's outcomes (Saltzman *et al*., 2016). Similarly, O'Neal *et al*. (2018) simply looked at frequency of communication with family's effect on resilience and transitioning back to home. Among 642 service members, frequency of communication had a marginal effect on resilience and transitioning back to home; while other variables were not considered (O'Neal *et al*., 2018).

As revealed in these studies, evidence of resilience exists but needs further exploration and examination. The consensus among researchers is that resilience is a multifaceted process. Studies varied on how to measure resilience. Further, research on the efficacy of programs fostering resilience is still in the earliest stage. Many studies indicated potential evidence of resilience but are weak in design. This resulted from small sample sizes, lack of a control group for comparison, limited longitudinal measures, and broad measures of resilience (Balme, 2015; Crane *et al*., 2019). Most importantly, researchers supported the use of more clinical interventions to foster resilience and need for refinement (Baccman *et al*., 2016; Joyce *et al*., 2019; O'Neal *et al*., 2018).

In conclusion, this discussion began with recognition of the emergence and development of resilience. Further, the paper explored several major risk factors and protective factors that can influence levels of resilience, while considering at both individual and organizational levels. As revealed, the complexities of resilience are constantly evolving, and based on a balance of protective factors to mitigate risk factors. Resilience allows organizations to endure disastrous events, while still operating at an efficient level. As for individual COs, resilience enables them to manage and overcome a

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disruptive, stressful, or even life-threatening event. In terms of the current state of resilience programs in corrections, the opportunities to study and explore how resilience operates are broad, given the uncertainty of how resilience operates and what outcomes are determined. Regarding the correctional milieu, programs designed to foster resilience remains to be a work in progress.

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CHAPTER 3

THE PRESENT STUDY: STATEMENT OF MODELS, KEY RESEARCH QUESTIONS, METHODS, AND DATA ANALYSIS

Purpose of Current Study

According to the Bureau of Justice Statistics (2018), there is currently an approximate 1.5 million prisoners in state and federal prisons, which equivalates to 582 per 100,000 US citizens. Specifically, in South Carolina, current figures represent correctional institutions are operating at a 91 percent capacity rate (Carson, 2018). Today, many institutions operate with greater demands and lesser resources, which adds burden to administrators and further stress to COs. Many correctional institutions are struggling to keep a correctional staff that can adapt to internal and external forces. Given the growing cost to house inmates, it is crucial to sustain a strong, well-trained, and resilient correctional staff. Limited fiscal resources must allocate for proper equipment, training for COs, and provide adequate needs to the inmates detained. Thus, this study is critical, as only a paucity of empirical evidence exists to support the concept of resilience in the purview of corrections. In addition, assessments of resilience have been performed infrequently. This stands in stark contrast to the need for such a study in the correctional environment.

Bonanno (2004) contends that, "there are multiple and sometimes unexpected pathways to resilience" (p. 20). As noted above, resilience is defined differently among several disciplines. In psychology, resilience is termed as the ability to overcome an adverse event and regain a state of normalcy (Balmer *et al*., 2014; Caldwell *et al*., 2018;

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Schwarz, 2018; Tyron & Radzin, 1972). Public health defined resilience as the ability to endure critical events, while maintaining function at an efficient level (Alarid, 2009; Castleden *et al*., 2011; Cloninger, 2013; Randall, 2013). In social-psychology, resilience is specified as the behavior of individuals when combatting adversity (Chae & Boyle, 2013; Frazier *et al*., 1999; Riolli & Savicki, 2014). In sociology, resilience is delineated as the accessibility of social support systems, while sustaining finite resources and distributing them adequately (Adger, 2000; Erdogan *et al*., 2012; Suliman & Einat, 2018). Lastly, public administration identified resilience as the ability for organizations to become self-regulating, while minimizing risk (Duit, 2012; Brough & Biggs, 2015; Plough *et al*., 2013). In terms of career type, Richardson's (2002) resilience model served as a theoretical linkage of how resilience operates in similar professions related to corrections (i.e. military and policing).

This dissertation contributed to the literature by providing an exploration of pathways by which COs had achieved resilience. Particularly, no study has ever attempted to assess COs in relation to levels of resilience and other related factors. Working in collaboration with SCDC administrative officials allowed an exploration of several pathways by examining critical incidents, coping strategies, and the effect they have on a CO's resilience. This dissertation investigated the following research questions:

RQ1: Is there a direct effect between critical incidents and resilience?

RQ2: How do COs respond when confronted with a critical incident?

RQ3: What is the relationship between different coping strategies and associated levels of resilience?

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RQ4: Does strain have an effect among the frequency and magnitude of critical incidents, different coping strategies, and associated levels of resilience?

RQ5: What factors contribute towards COs remaining in the profession?

Methods

Presently, the South Carolina Department of Corrections (SCDC) operates 21 institutions, while employing approximately 5,700 workers to serve approximately 20,000 inmates (SCDC, 2018). Moreover, the annual cost per housed inmate has reached over 21,000 dollars (SCDC, 2018). The career of a CO includes a stressful, demanding, and unpredictable work environment. A significant portion of the literature regarding corrections highlights the negative factors (i.e. role conflict, fear of danger) and outcomes (i.e. substance abuse, burnout) related to the job. In fact, Ferdik, Smith, and Applegate (2014) found nearly one third of COs, working within SCDC, expressed high levels stress and low job satisfaction. However, research begs the question of what makes a correctional officer resilient? With support from SCDC, this study will develop a research agenda that categorizes COs by levels of resilience. This paper focused on how the concept of resilience was measured among COs, identified the antecedents to COs having more or less resilience, and discussed the strengths and weaknesses of this design's approach.

Generally, resilience is defined as the ability to recover from a critical incident (Werner, 1989). At first, resilience was often identified as an individual or organizational trait and later became a process (van Breda, 2018; Werner, 1989). All concepts and measures need to be carefully tailored to the context of corrections, in order to provide a better understanding of the application of resilience (Lasswell, 2010). Figure 2 was adapted from Richardson (2002) and provides a conceptual model of the resilience process.

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Importantly, no previous study has examined pathways used by COs to achieve resilience. Therefore, this study was more exploratory compared to confirmatory of Richardson's (2002) theory. However, the conceptual scheme of Richardson's (2002) theory was used to develop the measurement instrument.

In collaboration with SCDC administrative officials, this study also provided an assessment of where COs stand in terms of levels of resilience in working for SCDC. Further, findings were used to support programs that foster resilience. Items in the survey exhibited an overlap between empirical and vocational factors that influence levels of resilience. As a working definition for this study, resilience was defined as how individuals "bounce back" from a negative event. The term bounce back was developed by correctional experts directly affiliated with SCDC. Throughout pre-survey discussions, the SCDC correctional experts stated that COs have generally dismissed questions related to their own mental health. Hence, the term bounce back provided an alternative way that would be more useful for COs to explain some of the critical incidents and the toll or impact they may have experienced.

Research Design

This dissertation employed an embedded design, using a mixed-methods approach. The embedded design includes quantitative and qualitative data collection, concurrently (Babbie, 2012). For both qualitative and quantitative aspects, the study setting focused on SCDC Correctional Officers working throughout the entire State of South Carolina. The quantitative portion of the study featured a survey design and comprised of 67 items. Following Richardson's (2002) conceptual model, the survey adapted several questions to

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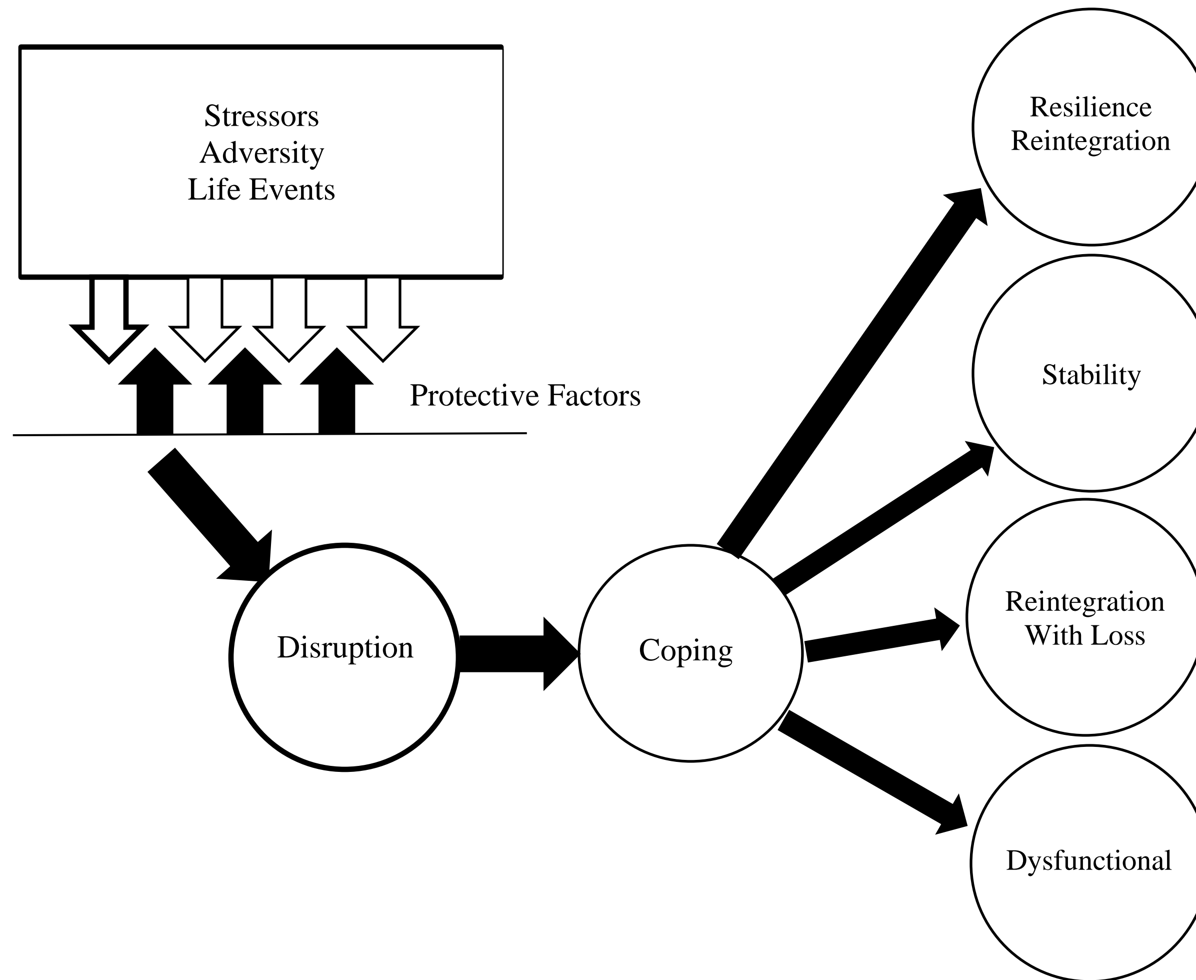

Figure 3.1. Resilience process and categories. **Adapted from:** Richardson, 2002.

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address the theoretical framework. Various demographic and organizational variables were collected to examine what effect they may have on resilience. The survey featured questions derived from James, Todak, and Best's (2017) critical incident history questionnaire; Carver's (1997) brief COPE scale; and Dennis and Vander Wal's (2010) cognitive flexibility inventory. Additionally, each scale adapted from these sources will be modified for the prison milieu and based upon recommendations from SCDC administrative officials. A more detailed description of each scale used in the study will be discussed below. Application of these scales allowed researchers to better understand the link of exposure to critical incidents, participants' coping processes, and the exhibited level of resilience.

Within the survey instrument, a brief qualitative element featured multiple open-ended questions. Responses to the open-ended questions were reviewed using a grounded theory approach. This approach allowed researchers to determine how the correctional institution functions and how relationships are with fellow staff and inmates. Moreover, grounded theory includes how intersections of race, age, and gender affect how COs perceive, cope, and respond to job stressors. The grounded theory approach allowed for discovering general themes that existed and generated new theories grounded in the data from participants who had experience working in the correctional institution (Strauss & Corbin, 1990).

Data

During September 2019, SCDC administrative officials, affiliated with the Division of Victim Services, met with the principle investigator multiple times through the month via phone, email, and in-person meetings. The Division of Victim Services is responsible

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for providing training, resources, and support to all employed by SCDC, when individuals are confronted with a critical incident on the job. These meetings served five key purposes: 1)- To gain support to conduct the study at statewide correctional institutions; 2)- Add insights and feedback to questions related to common critical incidents SCDC employees experience; 3)- Provide any modifications of the survey instrument; 4)- Delegate data collection protocols; 5)- Determine eligibility for the study and 6)- Collaborate on ways to improve overall well-being of SCDC employees.

To provide some background on the sixth key purpose, in August 2018, a 3-day critical incident stress management seminar was created by the Division of Victim Services and offered to all members employed by SCDC. Initial feedback of the seminar and how it helped individuals to manage stress was received by some of the participants who attended the seminar. Since its inception, no further participant reviews of the seminar or other vocational interventions (i.e. Crisis Management) provided by SCDC have been collected. Questions were added to the survey to examine how often SCDC employees used available vocational interventions and the option to provide their experiences of each. These answers would help improve current interventions that can aid in fostering resilience.

In October 2019, the principal investigator attended the SCDC Peer Team meeting, which consisted of approximately 30-40 Critical Incident Stress Management (CISM) Peer members. Additionally, this meeting served many purposes: 1) Provide context and gain further support from SCDC members of the study; 2)- Allow CISM Peer members to review the survey instrument and provide feedback; and 3)- Recruit members to assist in data collection at each correctional institution. Many of the CISM Peers expressed frustration and challenges in addressing staff trauma issues. CISM Peers voiced support

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and feedback to conduct this type of study, as they actively wanted and needed external research to better explore this problem. A finalized version of the survey instrument was submitted to SCDC's Institutional Review Board and approved on October 25, 2019 (see Appendix for approval letter). In addition, the Institutional Review Board at the University of South Carolina approved the project in July 2019 and a final amendment was approved in February 2020 for data storage to be secured electronically.

A total of seven institutions were visited to collect data between November 2019 to February 2020, based upon each warden, CISM peer and the principal investigators' schedules. All seven correctional institutions were visited by the principal investigator a minimum of two times during the data collection period. The principal investigator met with the warden at each institution first and met with COs during shift changes. If available, the principal investigator was joined by CISM Peers or were followed up CISM Peers after surveys were delivered to the designated correctional institution.

Surveys were distributed using a paper and pencil delivery method. In consideration of the job assignment for some COs, a scanned copy of the survey was also emailed by the warden to all employed at the institution. This allowed participants to print and complete surveys at their convenience. A secured, wooden lock box was left at each institution for a minimum of one week in a location that was accessible to all employed (i.e. break room). This guaranteed that the survey would be made available to all individuals employed at the institution for at least one shift. Using the lock box approach to collecting data has been used before successfully to protect respondents and help maximize response rates (Ferdik, 2014; Smith, King, Renner, & Gist, 2016). Accompanying every survey was a cover letter, which outlined the identity of the investigator, the purpose of the research, that the study

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was voluntary, and would take 30-45 minutes of their time to be completed. Further, addressed in the cover letter was how participants would not be required to provide any identifying information, could stop at any point in the survey without penalty, and that no incentive was being offered for their participation (see Appendix for survey instrument and cover letter).

Sampling

Dating back to the September 2019 meetings with SCDC administrators, it was determined that all members would be eligible for the study. The sample focused more on frontline COs as will be discussed below. Specifically, frontline COs experience transactions with inmates on a daily basis, which can be more consequential to life, health, and levels of resilience (Lambert, 2003). Therefore, frontline COs encompassed the majority of the sample. The purposive sample simply required all participants must have been currently employed through SCDC. There were a couple justifications for this selection criteria. As previously mentioned, resilience is something that one learns they may have, after experiencing a critical incident that requires them to overcome a challenge (Masten *et al*., 1990). Secondly, several studies have underscored that job length of COs can experience critical incidents during training (Hogan *et al*., 2006; Lambert *et al*., 2013; Lambert *et al*., 2017; Tomlinson *et al*., 2018; Stewart, 1982; Walters, 1991) and while serving as a frontline CO (Blau *et al*., 1986; Dowden & Tellier, 2004). Two items in the survey instrument differentiated between frontline COs and other staff members that worked directly with inmates in some capacity. By using this selection criteria, we justified that participants had experience working directly with SCDC and had not yet left the job.

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In the beginning of the study, the principal researcher first determined which correctional institutions have been permitted to participate in the research. Based on the recommendations of SCDC administrative officials, all maximum-security correctional facilities and Camille Graham Correctional Institution were allowed to participate. Although Camille Graham is a medium security correctional facility, it is the single correctional facility to house only female inmates in South Carolina. Ideally, a multistage cluster sampling with stratification would greatly reduce sampling error and selection bias (Babbie, 2012; Shadish, Cook, & Campbell, 2002). However, the design of this study was exploratory, and a purposive sample maximized participation and yielded a better response rate. Shadish *et al*. (2002) stated the following with regards to purposive sampling:

Purposive sampling of typical instances requires clearly defining the characteristics of the typical persons, settings, times, treatments, or outcomes to which one wants to generalize and then trying to select a sample that matches this target. If this can be done, the researcher increases the likelihood that the causal inference may generalize to typical instances (p. 375).

In order to maximize the sample, several steps were taken into consideration. First, SCDC administrators introduced the principal investigator to employed members at each correctional institution. Secondly, wardens and senior ranking COs reminded fellow staff of the study at roll call and via email about the study and reinforced that the study was voluntary in participation and guaranteed anonymity. Thirdly, follow up visits were made by CISM Peers and principal investigator to provide friendly reminders and provide any further resources (i.e. hardcopies of the survey). Finally, the survey instrument was

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open to all shifts and made available through a scanned or hardcopy format. Collectively, each of these strategies attempted to yield a maximized response rate (Babbie, 2012).

Response Rates

Breakdowns of total and institutional-level response rates are provided in Table 3.1 below. Overall, of the 960 maximum security personnel employed throughout the sampled institutions at the time of the study, 201 successfully completed the survey, producing a response rate of 20.1 percent. Percentages of successfully completed surveys ranged from a high of 46.3 percent (Lieber) to a low of 9.2 percent (Lee). Notably, it has been a challenge in many corrections studies to collect data, as correctional staff are resistant to participate in survey research (Lambert, 2003; Taxman & Gordon, 2009). While the anticipated sample size is low, several studies have supported that an overall response rate of 20 percent have still produced meaningful findings (Hausam, Lehmann, & Dahle, 2020; Lambert *et al*., 2007; Taxman & Gordon, 2009). Table 3.2 outlines respondent demographics and coding schemes for several of the variables used in later regression models for the quantitative portion of the study. Table 3.3 highlights respondent demographics presented in the qualitative portion of the study.

Antecedent Variables

Given the complexity of the concept of resilience, there are a plethora of variables that could be used as antecedents and were given consideration. Several studies have argued that organizational factors are more important than individual attributes. For example, Lambert, Hogan, and Barton (2002) found that individual attributes had no significant relationship with job satisfaction. Similarly, Lambert *et al*. (2007) observed that individual attributes had no effect on organizational commitment. While these findings

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Table 3.1: Response Rates by Institution

Institutions[a]	Total Staff	Total Respondents	Response Rate
Broad River (L3)	247	38	15.4%
Camille Graham (L2)	137	21	15.3%
Kirkland (L3)	190	44	23.2%
Lee (L3)[b]	152	14	9.2%
Lieber (L3)	106	49	46.3%
McCormick (L3)[c]	81	2	2.4%
Perry (L3)	147	35	23.8%
Total	960	201	20.1%

[a]Updated records as of December 2019 regarding the total number of staff per institution were provided by the Research and Development team of the South Carolina Department of Corrections. [b]Lee Correctional Institute is a unique institution and responses were kept in the final sample. [c]Given the small response rate by McCormick; the cases were thrown out of the final sample (N = 201).

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hold true for looking at how stress can impact organizational outcomes, there are several justifications for why individual attributes should be considered as possible antecedents in determining categorical levels of resilience.

First, antecedent variables are considered to have occurred prior to another variable (Babbie, 2012). Secondly, to our knowledge, no prior studies of COs have categorized them by level of resilience. Thirdly, organizational outcomes are not of importance to this study, but we may find organizational factors (i.e. prison goals) can have an influence over individuals. Most importantly, individuals experiencing a similar critical incident may have different perceptions, processes, and reactions (Elder *et al*., 2003; Hogan *et al*., 2006; Lambert, 2003; Lambert *et al*., 2017; Plough *et al*., 2013; Tomlinson *et al*., 2018; Tyron & Radzin, 1972). Several studies have argued that demographic variables should also be considered as antecedent variables (Erdogan *et al*., 2012; Lariviere, 2001). As such, regressions provided a further understanding of significance among control variables and aided in the development of new hypotheses in a future study.

Control Variables

All the control variables included in the study were of importance in reference to the extant literature (see Appendix A for variables). *Gender* of the CO was coded as (0 = Male, 1 = Female). *Race* of the CO was coded as (0 = White, 1 = Black, 2 = Asian, 3 = Multi-Racial, 4 = Other). *Hispanic* examined the ethnicity of a CO and was coded as (1 = Yes, 0 = No). Importantly, *Hispanic* was mutually exclusive from the variable *Race*. *Marital status* of the CO was coded as (0 = Single, 1 = Married, 2 = Separated, 3 = Divorced, 4 = Widowed). *Education* of the CO was coded as (1 = Less than High School, 2 = high school/GED, 3 = Some College, 4 = 2 Year/Associate's, 5 = 4 Year/Bachelor's, 6

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= Graduate Degree). *Age* was coded as an ordinal variable and group years of age (1 = 18-25, 2 = 26-33, 3 = 34-41, 4 = 42-49, 5 = 50 or older). *Tenure* was coded as the number of months of experience an individual has working in a correctional institution. Importantly, proper adjustments were made to control for differences in time employed and unequal exposure of critical incidents by using months instead of years for *Tenure* (Williams, 2012).

In addition, other variables were given consideration that were considered important by the literature. *Level of Security* had originally been included but was eliminated after recommendations from SCDC administrative officials and CISM Peers wanted the study to focus primarily on maximum security correctional institutions, classified as Level 3 correctional institutions by SCDC. Maximum security correctional institutions seemed to be the areas where major critical incidents had previously occurred and where many COs reported some form of victimization. Based on further recommendations from both SCDC administrative officials and CISM Peers, Camille Graham Correctional Institution was also included in the sample. Camille Graham differed from the rest of the correctional institutions in two ways: 1) it is the only Level 2 (medium security) correctional institution in the sample and (2) it is the only correctional institution that housed only female inmates. *Officer Shift* was coded after determination was made as to which shifts COs reported they were normally scheduled. Unfortunately, there was too much variability to accurately measure shift schedules, such as “7 am to 4 pm,” “Night,” or “E4.” As a result, this variable was excluded from this study. The last two variables handled identifying information. Correctional institutions were assigned a value to look at differences among COs within each institution. COs were also assigned a case identifying number to guarantee each respondent remained anonymous.

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Primary Variables of Interest

Critical Incident Frequency was one of the primary antecedent variables and included specific critical incidents considered as traumatic events that can shock the psyche, compared to minor nuisances or acute stressors (Richardson, 2002). As discussed in the original resilience process, Werner (1989) indicated one must experience an adverse event to learn resilience. In highlighting that point, James *et al*. (2017) developed the critical incident history questionnaire (see Appendix B), which featured 14 questions about critical incidents that are geared towards COs. Several studies have looked at the relationship between stress and job outcomes for COs (Alarid, 2009; Allard *et al*., 2003; Biermann, 2007; Blau *et al*., 1986; Dowden & Tellier, 2004; Ferdik & Smith, 2017; Griffin *et al*., 2010; Lambert *et al*., 2009; Lariviere, 2001; Lasswell, 2010; Lazarus, 1995; Lazarus & Folkman, 1984; Tewksbury & Mustaine, 2008; Toker & Biron, 2014).

This questionnaire is unique, as it examined the frequency and severity of critical incidents over a CO's entire career. In conjunction with James *et al*.'s (2017) scale, SCDC administrative officials provided feedback of specific critical incidents COs face on the job. Importantly, some items in the original scale were modified in relation to critical incidents commonly experienced by COs in the context of working for SCDC. For instance, it would be extremely rare and highly unlikely for a CO to be threatened by use of a gun. As a result, this item was eliminated from the scale. In total, 20 items focused on critical incidents directly related to the correctional milieu, such as assault by an inmate, witnessing a fellow CO being attacked, and handling a large disturbance. Respondents could select from the following options for each item (0 = Never, 1 = Rarely, 2 = Often, 3 = Always).

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Critical Incident Strain was another variable used to examine the effect of each critical incident experienced by COs. As discussed in the literature, COs respond differently when a critical incident occurs (Cloninger, 2013; Riolli & Savicki; Sandler *et al*., 2007). Thus, levels of strain can influence the likelihood that an individual resorted to maladaptive coping mechanisms (Swatt *et al*., 2007). Hence, examination of COs' levels of strain will help to reinforce the linkage among critical incidents, coping mechanisms, and levels of resilience. Along with each critical incident item, a subsequent question was asked to rate how bothersome experienced critical incidents were (Ferdik, 2014; Swatt *et al*., 2007). Responses were coded as (0 = Not Experienced, 1 = Somewhat Bothersome, 2 = Moderately Bothersome, 3 = Extremely Bothersome). Collectively, these 20 ratings helped to provide a subjective strain index.

Coping was regarded as another primary antecedent variable. As stated by Sandler *et al*. (2007), coping begins immediately after a critical incident. For example, Christiansen (2018) mentioned that if an event is violent, coping may involve simply escape or avoidance techniques to restore safety. As individuals cope differently during critical incidents, Carver's (1997) brief COPE scale (see Appendix C) allowed for examination of various coping strategies. This scale features 14 subscales (2 questions per scale) that can be modified to fit the context of the sample studied. Examples of subscales included: action-oriented coping, self-blame, denial, and behavioral disengagement (Carver, 1997). In addition, this scale has been used throughout multiple disciplines and is lauded for predictive and construct validity (Carver, 1997; Joyce *et al*., 2019). 14 items total comprised this scale to assess which coping strategies were selected when an individual was confronted with a critical incident.

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Vocational Intervention was another scale measure used in the survey instrument. SCDC provides several options to assist any employed SCDC member who may have experienced a critical incident. Vocational interventions consisted of: Employee Assistance Program, Critical Incident Stress Management (CISM) Peer, Group Debriefing, Situational Controls (SitCon), Hostage Negotiation Team, and Crisis Management. Other was also provided as an option, and respondents had the opportunity to expound on other interventions used to manage a critical incident. In addition, respondents indicated whether or not they attended the CISM 3-day seminar. This summated variable was used to determine how many work-provided interventions employees used and their effect on levels of resilience.

Home Stress was another important antecedent variable to examine, as stress experienced in each domain often shares a reciprocal relationship (Blau *et al*., 1986; Dowden & Tellier, 2004; Griffin *et al*., 2010; Lambert *et al*., 2014; Triplett *et al*., 1996). Therefore, it is possible that levels of resilience can be affected from sources of outside stress. Borrowing from Triplett and colleagues (1996), three Likert scale measures were included to determine if home life is being reflected among COs at the job. Statements included: (1) "I feel that the demands placed upon me at work make me feel less effective at home," (2) "The role I have at home (i.e. parent, partner, caregiver) conflicts with the role I have as a correctional officer," and (3) "I find it hard to switch from being a correctional officer at work to being a parent and partner at home" (Triplett *et al*., 1996, p. 376).

Work Stress was combined with home stress in the same section of the survey. The empirical literature highlighted that work and home stress are often closely related (Blau

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et al., 1986; Dowden & Tellier, 2004; Lambert *et al*., 2013). Work stress differs slightly from critical incidents, in terms of severity. Work stress is defined as, "a particular relation between the employee and work environment" (Schaufeli & Peeters, 2000, p. 21). More specifically, these job stressors are individual responses related to organizational management behavior that lead to a state of anxiety or frustration (Ferdik *et al*., 2014; Griffin *et al*. 2009; Lambert, 2003; Lazarus & Folkman, 1984; Schaufeli & Peeters, 2000). Six statements total were added to measure work stress and consisted of: 1- I often have to do things at work without adequate resources and materials, 2- I regularly receive conflicting requests from two or more people when at work, 3- I do not always understand what is expected of me at work, 4- I am usually under a lot of pressure when at work, 5- When at work, I often feel tense or uptight, and 6- My job regularly makes me frustrated or upset (Ferdik, 2014; Hogan *et al*., 2006; Lariviere, 2001). Both home stress and work stress provided a 4-point Likert scale for respondents (1 = Strongly Disagree, 2 = Somewhat Disagree, 3 = Somewhat Agree, 4 = Strongly Agree).

Dependent Variables

In this exploration of resilience, there are four categories of resilience that are exhibited in different professions studied: resilient reintegration, stability, reintegration with loss, and dysfunctional (Richardson, 2002). Measures of resilience were determined using the cognitive flexibility inventory (see Appendix D), which comprised of 20 questions in its original form. This questionnaire can be modified to study various age groups, backgrounds, and professions (Gabrys, Tabri, Anisman, & Matheson, 2018). Each question involved the use of a 4-point Likert scale and ranged from: 4 = Strongly Disagree, 3 = Somewhat Disagree, 2 = Somewhat Agree, 1 = Strongly Agree. The scale has been

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replicated in multiple studies and directly measures how individuals confronted a negative life event (Zhou, Meng, Schmitt, Montag, Kendrick, & Becker, 2020). Higher scores are indicative of more resilience, while lower scores demonstrate more dysfunction (Gabrys *et al.*, 2018; Zhou *et al.*, 2020). This scale would reveal how CO's resilience levels were classified, based on factor loadings (Dennis & Vander Wal, 2010).

Resilient Reintegration is the status where an individual is considered "excellent" and has mastered all domains of resilience. A CO with this classification, demonstrates they are thriving within the organization, maintaining a positive outlook, is motivated, and has a desire to continue to build their career (Richardson, 2002).

Stability is the category that most individuals will stay in. They are functioning "good" but may react more to acute stressors. Generally, they feel in control and have accepted what they cannot change. For example, an older CO realizes they may no longer have the same level of physical mobility, compared to being young, but are still able to perform the job (Richardson, 2002). In addition, McCraty and Atkinson (2012) point out that someone may still be in recovery to a recent incident but is stable.

Reintegration with Loss grows concerning, as individuals in this category are becoming more "at risk" and are starting to negatively react to chronic stressors. They are classified as "fair," but chronic stressors are working against the individual. This results in low morale and performing at a minimum effort, but behavioral change is easier to achieve with sources of support or other interventions (Richardson, 2002; Riolli & Savicki, 2014).

Dysfunctional is the category of most concern, as individuals are classified as "poor" in terms of performance. In this category, individuals are clearly "high-risk" and are engaging in more destructive behaviors (i.e. substance abuse). At this point,

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interventions are critical to try and gain back any job-related stability (Dennis & Vander Wal, 2010; Richardson, 2002).

Analytic Plan

For the quantitative section (see Appendix E for final version of survey), all data were entered and analyzed using the Statistical Package for the Social Sciences (SPSS) version 27. After data entry was completed, frequency distributions were performed to check for any data errors (O'Rourke, 2000). Values were monitored to ensure each ranged between the minimum and maximum values and associated with variable code (i.e. 1 = female). This controlled for any human error in data entry (Babbie, 2012; O'Rourke, 2000).

Next, attention was given to any missing data that existed in the dataset. The primary independent variables of interest, critical incidents and associated levels of strain, had no missing data. However, some of the data related to demographic variables was missing. This likely occurred if someone was concerned they could somehow be identified. For example, if someone worked at a correctional institution for 30 years, then they may be easier to identify. Schlomer, Bauman, and Card (2010) argued, "when more than 10% of data is missing, statistical analyses are likely biased and problematic" (p. 2). The missing data fell well below the cutoff of 10 percent, so analyses were performed with certain values omitted in variables (Dong & Peng, 2013). Moreover, SPSS by default applies listwise deletion to account for missing data (Dong & Peng, 2013; Schlomer *et* al., 2010). *Officer Shift* was a variable that confused many respondents. This question was adopted from a previous SCDC questionnaire and allowed an open response for officer's shift. However, responses did not coordinate with any measurable time increments, and resulted in the variable being eliminated from any analyses completely.

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Table 3.2: Descriptive Statistics for Variables Used in Analysis

Variables	Code or Min-Max	M or N	S.D. or Percentage	Factor Loadings
Resilient (ω = 0.65; mean inter-item = 0.40)	11-20	17.15	2.33	---
I consider multiple options before making a decision	1-4	3.38	0.77	.75
It is important to evaluate tough situations from different angles	1-4	3.57	0.71	.63
I am good at putting myself in other peoples' shoes	1-4	3.21	0.84	.52
I am capable of overcoming life's difficulties	1-4	3.48	0.64	.78
I stop and think of multiple ways to resolve tough situations	1-4	3.48	0.69	.89
Dysfunctional (ω = .82; mean inter-item = .40)	5-20	9.52	3.49	---
I have a hard time making decisions about difficult situations	1-4	3.26	0.86	.63
When encountering tough situations, I feel like I'm losing control	1-4	3.11	0.91	.89
When encountering tough situations, I just don't know what to do	1-4	3.29	0.85	.72
I feel like I have no power to change difficult situations	1-4	2.86	0.98	.55
I find it troublesome that there are myriad ways to solve problems	1-4	2.96	0.99	.43

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Critical Incident Frequency (ω = .88; mean inter-item .30)	0-33	15.72	6.67	---
Being verbally threatened by an inmate	0-3	1.52	0.92	.69
Fearing physical harm by others	0-3	1.22	0.90	.65
Managing a resisting inmate	0-3	1.36	0.90	.62
Encountering serious self-injurious behavior by inmate (e.g., cutting)	0-3	1.54	1.04	.56
Responding to inmate complaints	0-3	2.49	0.72	.50
Experiencing conflict with fellow staff	0-3	1.41	0.95	.58
Detecting contraband of an inmate	0-3	1.74	0.93	.65
Sensing loss of control over inmates	0-3	0.97	0.84	.65
Responding to large disturbances by inmates	0-3	0.99	0.79	.44
Suspecting another co-worker of engaging in acts of misconduct	0-3	1.05	0.93	.52
Critical Incident Strain (ω = .85; mean inter-item = .53)	0-27	9.80	7.17	---
Witnessing attack of fellow co-worker	0-3	1.24	1.32	.87
Being seriously injured at work	0-3	0.84	1.17	.79
Being beaten by inmate	0-3	0.60	1.11	.65
Seeing someone dying	0-3	1.28	1.21	.56
Detecting contraband of an inmate	0-3	1.06	1.00	.51
Sensing loss of control over inmates	0-3	1.30	1.15	.50
Responding to large disturbances by inmates	0-3	1.48	1.23	.45
Handling the escape of an inmate	0-3	0.72	1.13	.44
Suspecting another co-worker of engaging in acts of misconduct	0-3	1.05	0.93	.41

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Home Stress (ω = .80; mean inter-item = .35)	3-12	6.79	2.76	---
Work demands make me feel less effective at home[a]	1-4	2.55	1.10	.58
My work and home roles often conflict	1-4	2.20	1.08	.89
I find it hard switching from being a CO to being any role at home	1-4	2.04	1.08	.66
Work Stress (ω = .88; mean inter-item = .56)	6-24	15.95	5.09	---
I often at work have to do things without adequate resources	1-4	3.02	1.03	.55
I regularly receive conflicting requests from two or more ppl. at work	1-4	2.72	1.11	.61
I do not always understand what is expected of me at work	1-4	2.09	1.07	.64
I am usually under a lot of pressure when at work	1-4	2.71	1.07	.78
When at work, I often feel tense of uptight[a]	1-4	2.72	1.07	.85
My job regularly makes me frustrated	1-4	2.70	1.06	.90
Action-Oriented Coping (ω = .73; mean inter-item = .58)	8-24	19.35	3.63	---
I take action to improve a stressful situation	1-4	3.41	0.76	.46
I try to devise a strategy to handle stress	1-4	3.19	0.94	.49
I look for something good in a stressful event	1-4	3.00	0.95	.70
I do something to think less about a stressful event[a]	1-4	3.22	0.96	.63
I accept the reality that a stressful event took place	1-4	3.40	0.79	.41
I pray or meditate	1-4	3.13	1.15	.59
Race	0 = White	67	34.7%	---
	1 = Non-White[b]	126	65.3%	---
Hispanic	0 = No	183	94.8%	---
	1 = Yes	10	5.2%	---

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Age	1 = 18-25	21	10.9	---
	2 = 26-33	55	28.5%	---
	3 = 34-41	39	20.2%	---
	4 = 42-49	31	16.1%	---
	5 = 50 or older	47	24.4%	---
Months Worked	0-456	93.03	97.10	---
Gender	0 = Male	95	49.2%	---
	1 = Female	98	50.8%	---
Marital Status	0 = Married	79	41.1%	---
	1 = Non-Married[c]	113	58.8%	---
Education	1 = High School/GED	31	16.1%	---
	2 = Some College	82	42.5%	---
	3 = Associate's Degree	28	14.5%	---
	4 = Bachelor's Degree	37	19.2%	---
	5 = Graduate Degree	15	7.8%	---
Job Category	0 = Security	165	85.5%	---
	1 = Non-Security	28	14.5%	---
Supervisory Status	0 = Supervisory	91	47.6%	---
	1 = Non-Supervisory	100	52.4%	---

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Political Orientation	1 = Very Conservative	26	14.5%	---
	2 = Conservative	39	21.8%	---
	3 = Moderate	91	50.8%	---
	4 = Liberal	18	10.1%	---
	5 = Very Liberal	5	2.8%	---

Note: Min = Minimum Value; Max = Maximum Value; N = Total in Category; S.D. = Standard Deviation; M = Mean, or Average; [a]Reverse Coded; ω = McDonald's Omega coefficient of reliability; [b]Non-White category consisted of 101 officers self-reporting as Black or African American, along with 3 Asian, 8 Multi-Racial, and 14 reporting as Other. Due to minimal variance in this racial classification, the decision was made to collapse these categories. Age was measured as an ordinal, categorical variable due to SCDC requests. Valid percentages are reported for categorical measures. [c]Non-Married officers consisted of those self-reporting as either Single (89), Separated (6), Divorced (16), or Widowed (2). Similar to the race variable, these non-married officers were collapsed to form one category.

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Table 3.3: Descriptive Statistics for Variables Used in Qualitative Analysis

Variables	Code	N	Percentage
Race	White	64	35.4%
	Black/African American	93	50.0%
	Asian	3	1.6%
	Multi-Racial	8	4.3%
	Other	13	7.0%
Hispanic	0 = No	171	94.5%
	1 = Yes	10	5.5%
Age	1 = 18-25	21	11.6%
	2 = 26-33	54	28.5%
	3 = 34-41	35	20.2%
	4 = 42-49	29	16.1%
	5 = 50 or older	42	24.4%
Gender	Male	89	49.2%
	Female	92	50.8%
Marital Status	Married	75	41.7%
	Separated	5	2.7%
	Divorced	14	7.5%
	Widowed	2	1.1%
	Single	84	45.2%

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Education	1 = High School/GED	30	16.6%
	2 = Some College		
	3 = Associate's Degree	78	43.1%
	4 = Bachelor's Degree	26	14.4%
	5 = Graduate Degree	35	19.3%
		12	6.6%
Institution	1= Broad River	34	18.3%
	2 = Camille Graham	21	11.3%
	3 = Kirkland	43	23.1%
	4 = Lee	14	7.5%
	5 = Lieber	44	23.7%
	6 = Perry	30	16.1%
Job Category	0 = Security	155	85.6%
	1 = Non-Security	26	14.4%
Supervisory Status	0 = Supervisory	86	47.8%
	1=Non-Supervisory	94	52.2%

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Political Orientation	1 = Very Conservative	23	13.7%
	2 = Conservative	36	21.4%
	3 = Moderate	88	52.4%
	4 = Liberal	17	10.1%
	5 = Very Liberal	4	2.4%

Note: N = Total in Category. Some percentages may not equal 100, due to rounding. Age was measured as an ordinal, categorical variable due to SCDC requests. The qualitative portion consisted of 186 officers and are listed by institution.

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Most of the conceptual variables featured in the survey were adopted from various scales and were comprised of multiple items (i.e. strain, work stress, and coping). Many of the items used to measure concepts were ordered categorical variables, which were possible to use for the development of a continuous scale measure (Norman, 2010; Samuels, 2017). Subsequently, a principal axis factor analysis, using promax rotation was performed to address measurement validity for each variable. This method is a common practice within the literature (Alarid, 2009; Lambert *et al*., 2007; Klinoff *et al*., 2018; Norman, 2010). Samuels (2017) recommended, "as a rule for a sample size of at least 200, the factor loading cutoff score is .40" (p. 4). Items included in each construct loaded between .40 and .90. Factor loadings are addressed in Table 3.2 (above).

McDonald's Omega was used to evaluate the internal reliability of each scale used in the analyses and was performed using Hayes and Coutts' (2020) Omega macro in SPSS. Many studies have previously relied on Cronbach's alpha to estimate internal reliability and accepted it as a conservative measure (Hayes & Coutts, 2020; Peters, 2014; Watkins, 2017). However, the use of Cronbach's alpha has been widely criticized (Hayes & Coutts, 2020). The major concern is that the Alpha coefficient is flawed and can sometimes overestimate or underestimate internal reliability (Peters, 2014; Watkins, 2017). Scales produced an omega of at least .65 or above, which suggested at least adequate internal consistency (Hayes & Coutts, 2020; Watkins, 2017). Mean inter-items were provided and ranged between .30 and .58, which also supported an adequate internal consistency (Peters, 2014; Watkins, 2017).

Ordinary Least Squares (OLS) regression models were conducted to examine the relationships of each independent variable on the dependent variable, while controlling for

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all other independent variables featured in each model (Long & Freese, 2006; Shadish *et al*., 2002). Diagnostic tests were conducted to ensure there were no major violations to the assumptions of using OLS regression (Long & Freese, 2006).

Tests were performed to look at the distribution of dependent variables to confirm normality (Long & Freese, 2006; Williams, 2012). The distribution of each outcome variable of resilience was graphed on a histogram and demonstrated a normal, symmetric distribution. The distribution of error terms, referred to as unknown parameters about the population, each exhibited a normal and symmetric distribution (Long & Freese, 2006). Scatterplots revealed a linear relationship existed between independent and dependent variables. Consideration was given for the effect of influential observations (e.g., observations with large leverage and residual values). Robust standard errors were used that adjusted for both heteroskedasticity and within facility correlated errors (Long & Freese, 2006). In order to make meaningful comparisons among facilities, at least 50 observations would have been needed (Long & Freese, 2006; Williams, 2012). Given the smaller sample size, we could only conduct examinations at the individual level (Long & Freese, 2006).

Regarding multicollinearity, several checks were performed to make certain this was not an issue. First, variance inflation factors were inspected to detect any signs of multicollinearity, with cutoffs of 4 and 10 indicating that collinearity may be an issue (Long & Freese, 2006). Variance inflation factors ranged from 1.092 to 3.341, which indicated collinearity was likely not an issue. An additional step was taken by looking at conditional index values. There are instances in which variance inflation factors suggest no problem (i.e. all variance inflation factors are less than 4, but condition index variance proportion

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values can be very large, indicating a potential problem) (Callaghan & Chen, 2008). "Condition index values that are less than 10" indicate that collinearity is not a problem (Callaghan & Chen, 2008, p. 3). Further, condition index values of 15 indicate a potential problem, and condition index values of 30 provides evidence there is a problem (Callaghan & Chen, 2008). All variables loaded within the model fell below 10, which indicated collinearity was not a problem (Callaghan & Chen, 2008). Collinearity only became a concern when the variable *vocational intervention* was included in the model. Therefore, vocational interventions were only assessed in the qualitative analysis.

Qualitative Analysis

For the qualitative portion of the study, the principle investigator used open and axial coding process. The open-coding process allowed for the development of common themes. Demographic variables for each participant were divided into subcategories, which helped to identify differences among gender, race, education, marital status, and months of experience of the respondents. Questions included followed the same theoretical linkages of Richardson's (2002) resilience model. In addition, questions were asked in a neutral, non-obtrusive manner, which allowed respondents to freely consider their own interpretations and experiences of various theoretical constructs (Suri, 2011). The emergence of common themes in the data presented a logical chain of evidence among critical incidents, coping processes, and resilience, which allowed for theory build (Strauss & Corbin, 1990).

Following a grounded theory approach, questions for the qualitative element of the study were derived from Sollie, Kop, and Euwema's (2017) study of crime scene investigators and Evans, Pistrang, and Billings' (2013) study of police officers. Combined,

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their questions were in accord with the conceptual process of resilience by the examination of both critical incidents and coping's effect on resilience (Lazarus & Folkman, 1984; Masten *et al*., 1990; Richardson, 2002; Werner, 1989). The use of open-ended questions allowed the participants to answer open and freely about their background and personal experiences (Strauss & Corbin, 1990).

Questions included for the qualitative portion of the study were framed to support concepts already highlighted in the literature and were replicated from previous studies that have examined similar, challenging professions. In addition, questions followed a logical sequence moving from general to more specific. The first set of questions were based more on the abstract concept of resilience and featured 2 parts: (Q1a) What makes a correctional officer resilient?, and (Q1b) What makes them "bounce back" after an event? These questions combined the basic form of what resilience is and tailored to address COs, as recommended by SCDC correctional experts. Furthermore, these questions each allowed COs consider on an individual level how they defined and identified the concept of resilience.

The next question focused on coping strategies for someone newly hired to work at SCDC. (Q2) What ways to cope with stress at work would you recommend to a new employee? (Brodie & Eppler, 2012; Joyce *et al*., 2019; Werner, 1971). This provided more of a hypothetical situation, where COs would feel more comfortable in answering openly, and it was not personally directed but COs may refer from their own experiences or training of coping strategies. Separately, COs were asked if they used any interventions (or their own) that were offered through SCDC and to briefly discuss their experiences of any selected interventions. This question was asked earlier on and allowed respondents to

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simply check on a list which interventions they used and provide any further details they wanted. The question was formed in collaboration with SDCD correctional experts to be broad and move towards more personal and specific (Wolter & Preisendörfer, 2013).

At this point, questions began to shift from more basic towards more personal types of questions. (Q3) Would you describe yourself as resilient? and to explain (Bonanno, 2004; Tyron & Radzin, 1972; Williams, 2012). This question moved towards each respondent's own label and assessment of resilience. The next two questions asked respondents to look at both risk factors and protective factors related to their job (Lazarus & Folkman, 1984; Masten *et al*., 1990; Richardson, 2002). The next two questions were: (Q4a) What are your largest sources of stress at work? (Griffin *et al*., 2010), and (Q4b) What are you most proud of as a correctional officer at SCDC? (Evans *et al*., 2013; Sollie *et al*., 2017). This pair of questions asked for respondents to express both their personal risk factors and protective factors.

The last questions asked was related to individual behaviors of respondents to help understand current policies and to help develop future policies. As referenced by Ferdik & Smith (2017), job turnover in correctional institutions roughly averaged 30 percent per year. (Q5) What makes you stay on the job? (Sollie *et al*., 2017). Also, this question was of importance to applying Sampson and Laub's (1993) life course theory. For example, a CO's reasons for staying on the job may include certain milestones or specific events that can add explanatory power to why the CO has remained with the job (Nelson, 2010). As a result, the findings allowed for the discovery of new themes and coping mechanisms of resilience, not already discussed in the empirical literature, and considered additional areas of inquiry for future studies (Babbie, 2012). All qualitative analyses were conducted using

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Excel and ATLAS/ti. Programs (Williams, 2012). Most importantly, these questions were sequenced and structured to handle the sensitive nature of the questions and for the well-being of respondents (Wolter & Preisendörfer, 2013). Given the sensitive nature of certain questions, respondents were permitted to stop answering the qualitative questions at any time without penalty.

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CHAPTER 4

RESULTS

The results of this study will now be presented by (1) Quantitative Analysis and (2) Qualitative Analysis. This follows a mixed methods approach as articulated in the Methods section.

Quantitative Analysis

Responses from the cognitive flexibility inventory scale used to measure resilience produced two classifications: resilience and dysfunctional. Output from Table 4.1 (below) displays the results for the frequency distribution for COs' associated levels of resilience. Overall, COs seemed to judge themselves as very resilient and not that dysfunctional.

Table 4.2 (below) presents the results of COs classified as resilient. One significant finding in model 2 is that COs who had exposure to higher rates of critical incidents shared a statistically significant positive association with resilience ($B = .17$, $p \leq .10$). Another significant finding in Model 2 is that COs who responded to action-oriented coping shared a statistically significant stronger association with resilience ($B = .42$, $p \leq .001$). Lastly, age shared a statistically significant association with resilience ($B = -.16$, $p \leq .05$). This indicates as COs increase in age, their level of resilience decreases. Overall, Model 2 was significantly different from zero ($F = 7.75$, $p \leq .001$) and accounts for 15 percent of the variance in level of resilience

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Table 4.1: Frequency Distribution for Correctional Officer Resilience

Scales and Items	Agreement	Disagreement
Resilience		
I consider multiple options before making a decision	88.00%	10.50%
It is important to look at difficult situations form many angles	90.60%	07.50%
I am good at putting myself in others' shoes	82.10%	15.90%
I am capable of overcoming the difficulties of life	94.50%	05.50%
When encountering difficult situations, I stop and think of several ways to resolve them	91.00%	09.00%
Dysfunctional		
I have a hard time making decisions when facing difficult situations	17.40%	81.10%
When encountering difficult situations, I feel like I am losing control	25.90%	72.60%
When encountering difficult situations, I just don't know what to do	14.00%	84.60%
I feel I have no power to change things in difficult situations	33.80%	64.60%
I find it troublesome there are so many ways to resolve difficult situations	19.30%	80.70%

Note: Valid percentages are reported. Agreement-Disagreement percentages are collapsed from original response categoriesthat consisted of Strongly Agree, Somewhat Agree, Somewhat Disagree, and Strongly Disagree.

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Table 4.2: OLS Regression Models for the Correctional Officer Resilient Scale

Variables	**Model 1**		**Model 2**	
	b (Beta)	t-ratio (robust s.e.)	*b* (Beta)	t-ratio (robust s.e.)
Critical Incident Frequency	---	---	.06 (.17)	1.88† (.04)
Critical Incident Strain	---	---	.01 (.05)	.38 (.04)
Home Stress	---	---	-.10 (-.12)	-1.20 (.08)
Work Stress	---	---	-.05 (-.11)	-1.00 (.05)
Action-Oriented Coping	---	---	.27 (.42)	5.71*** (.05)
Race	.05 (.02)	.26 (.19)	-0.05 (-.03)	-.29 (.18)
Hispanic	-.52 (-.05)	-.59 (.88)	.06 (.01)	.08 (.80)
Age	-.23 (-.13)	-1.24 (.18)	-.28 (-.16)	-1.98* (.17)
Months Worked	.01 (.03)	.30 (.01)	.01 (.06)	.58 (.01)
Gender	.16 (.04)	.41 (.40)	-.07 (-.02)	-.20 (.37)
Marital Status	.19 (.08)	.80 (.24)	.08 (.03)	.35 (.22)
Education	.02 (.01)	.08 (.19)	.07 (.04)	.40 (.17)

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Job Category	.71 (.11)	1.20 (.60)	.83 (.13)	1.42 (.59)
Supervisory Status	-.40 (-.09)	-.97 (.41)	-.35 (-0.08)	-.92 (.38)
Political Orientation	-.10 (-.04)	-.50 (.20)	-.07 (-.03)	-.36 (.18)
Adjusted R^2	.04		.15	
F-Test	.55		7.75***	
N	193		188	

Note: *b* = unstandardized regression coefficient; Beta = standardized regression coefficient; robust standard errors were estimated to account for heteroskedasticity; † =p≤ .10,* = p ≤ .05,** = p ≤ .01, *** = p ≤ .001

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Table 4.3 presents the results of COs who were classified as dysfunctional or having less resilience. Estimates of COs' demographic characteristics of being classified as dysfunctional in Model 1 provided a couple of noteworthy findings. Hispanic is a significant predictor of dysfunction (B = .16, $p \leq .05$). This indicates that Hispanic COs, compared to non-Hispanic COs, are statistically more likely to exhibit lower levels of resilience. In addition, age is a significant predictor of dysfunction (B = -.20, $p \leq .05$). This implies that as COs increase in age, their level of dysfunction decreases. Only a modest 3.0 percent of the variance in COs' level of resilience is explained by the predictors in this model. However, for dysfunction analyses, both Hispanic and age control variables were no longer significant following inclusion of the main independent variables.

Model 2 of Table 4.3 displays a couple of key findings. Home stress significantly and positively influences increases in dysfunction (B = .42, $p \leq .001$). Secondly, increases in months worked shared a decrease in dysfunction (B = -.17, $p \leq .10$). This suggests that as COs increase in months of experience, their level of dysfunction decreases. Largely, Model 2 was significantly different from zero ($F = 7.99$, $p \leq .001$) and accounted for 21 percent of the variance of COs' level of resilience explained in this model.

Qualitative Analysis

186 respondents answered partially or all the qualitative questions to provide a better contextual and thematic understanding of resilience. The experiences discussed by the respondents greatly varied in terms of race, age, gender, education, marital status, and years of service. Many responses were detailed and demonstrated multiple key findings that easily reached a saturation point. The following sections are organized by qualitative

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Table 4.3: OLS Regression Models for the Correctional Officer Dysfunctional Scale

Variables	Model 1		Model 2	
	b (Beta)	t-ratio (robust s.e.)	*b* (Beta)	t-ratio (robust s.e.)
Critical Incident Frequency	---	---	-.02 (-.04)	-.35 (.06)
Critical Incident Strain	---	---	-.03 (-.06)	-.52 (.05)
Home Stress	---	---	.52 (.42)	4.25*** (.12)
Work Stress	---	---	.09 (.13)	1.23 (.08)
Action-Oriented Coping	---	---	-.07 (-.07)	-1.04 (.07)
Race	-.10 (-.03)	-.34 (.29)	.26 (.08)	.97 (.27)
Hispanic	2.37 (.16)	2.20* (1.3)	1.78 (.12)	1.55 (1.2)
Age	-.53 (-.20)	-1.99* (.27)	-.17 (-.070)	-.67 (.26)
Months Worked	-.01 (-.01)	-.19 (.01)	-.01 (-.17)	-1.67† (.01)
Gender	.62 (.09)	1.06 (.58)	.34 (.05)	.63 (.54)
Marital Status	.03 (.01)	.09 (.35)	.01 (.01)	.01 (.33)
Education	-.04 (-.01)	-.14 (.27)	-.12 (-.04)	-.47 (.25)

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Job Category	1.26 (.13)	1.41 (.90)	1.37 (.14)	1.58 (.87)
Supervisory Status	.01 (.01)	.02 (.60)	-.05 (-.01)	-.09 (.56)
Political Orientation	.24 (.07)	.82 (.29)	.23 (.06)	.84 (.27)
Adjusted R^2	.03		.21	
F-Test	1.83†		7.99***	
N	192		188	

Note: *b* = unstandardized regression coefficient; Beta = standardized regression coefficient; robust standard Errors were estimated to account for heteroskedasticity; † =p≤ .10,* = p ≤ .05,** = p ≤ .01, *** = p ≤ .001.

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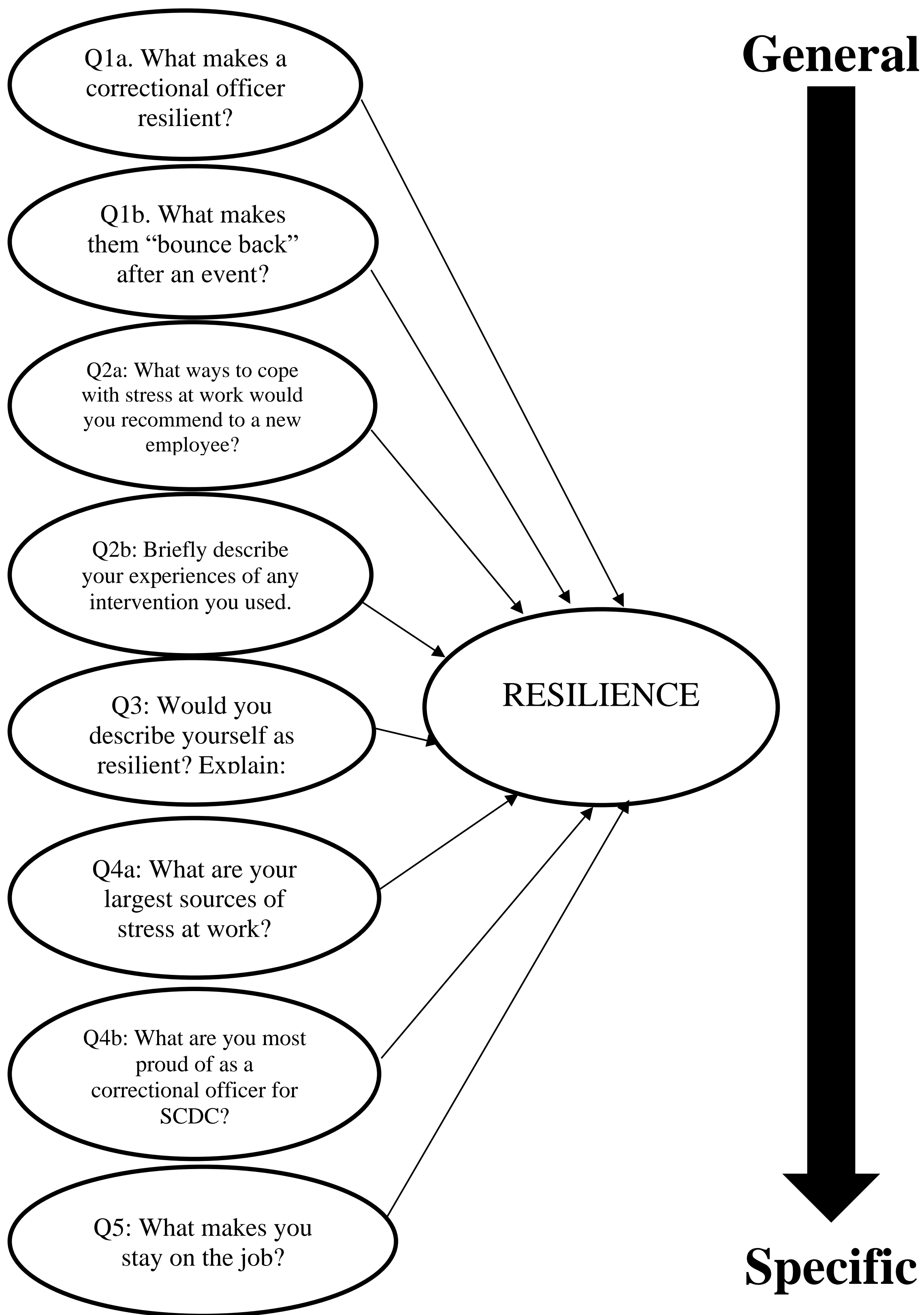

Figure 4.1. Theoretical Approach of the Qualitative Questions Regarding Resilience.

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question, along with themes that emerged. Figure 4.1 provides a graphical illustration of how qualitative questions were grounded.

Resilience Conceptualized

The sample offered many candid insights as to how they conceptualized what made a CO resilient, along with combining what made them bounce back from a critical incident. The following section combined themes that appeared from the following qualitative questions: (1a) What makes a correctional officer resilient? and (1b) What makes a correctional officer "bounce back" after an event? Major themes included sources of support, sense of purpose, individual characteristics, maintaining balance and successful coping strategies.

Coworker Support

Approximately 30 percent of the sample (55/186) believed that what made a CO resilient involved having a strong internal support system. Particularly, relying on fellow coworkers helped make someone resilient. Many themes symbolized an association with coworkers such as "comradery with peers," "teamwork," or "knowing someone has their back." Many respondents felt coworkers can help someone identify and relate that they are not alone in this profession, have already experienced a similar event, and could be nonjudgmental. Often, support of coworkers was viewed as mutually reinforcing and respondents provided "each day in a prison is never the same."

Given this point, respondents believed a CO could help another fellow CO overcome a critical incident that have similarly overcome and vice versa. Mutual support from fellow COs was a common theme and seemed to be most important, regarding age. Younger respondents valued the experience of older COs and often looked up to them for

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mentorship. This finding is akin to the relationships examined among police officers with regards to "rookies" and more experienced officers. Additionally, more experienced COs assist in providing institutional knowledge. On the other hand, older respondents were relieved to have younger COs assist them with more physical interactions (i.e. managing resisting inmate). An example is provided: "It depends on how they handle the aftereffects of whatever event took place. Not all correctional officers are equally resilient, but if they reach out for help from experienced officers, I think that can help." The relationship between younger and older COs provided a tradeoff that is clear: younger COs provide more strength (physical resilience) and older COs provide more knowledge (mental resilience).

Many respondents indicated that COs work together as a cohesive unit when they encounter a critical incident. Many respondents reported they will receive or have undergone the same training together, encounter the same unit of inmates together, and will deal with the same stresses or incidents together. Working together can also increase "positive morale" and increased levels of resilience. "You do not want to let your teammates down. Every situation we overcome and makes us stronger to be ready for the next situation." Another theme that developed among respondents is that fellow support from coworkers could effectively and rapidly deescalate a contentious situation with an inmate.

As a situation escalated, coworkers could aid in "humanizing the moment." This allowed less experienced COs to learn what went right or wrong in the handling of the event. In addition, fellow coworkers could aid in the humane treatment of an inmate to quell the altercation. Some respondents learned traits such as "compassion" and "empathy"

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for others after enduring critical incidents. Coworkers can also help a CO "destress" a fellow CO after the work shift was over. Several respondents reported there were certain rules of behavior that had to be followed at work. For instance, many respondents appreciated a sense of humor but jokes and laughter were considered offensive by management and would be viewed as a sign of disrespect to an inmate or visitors of an inmate. If a respondent was caught engaging in acts of humor (i.e. joking or laughing), then the result would be some form of verbal or written disciplinary action, up to and including termination. As a result, many respondents provided it was necessary to gather with fellow coworkers outside of the normal work environment to destress from a difficult situation or workday. The current sample also implied that external sources of support were of equal importance to making a CO resilient, such as "friends outside of work, family, and God."

Sense of Purpose

Another major theme embraced by many respondents was developing a sense of purpose in a CO's work. Several responses offered examples related to sense of purpose that focused on themes of providing stability and service to the community, responsibilities of supporting a family, and managing bills or other financial expenses. While longer shifts can be more draining for respondents, remembering they had the freedom to leave the correctional institution and enjoy a life outside of work was of importance to sense of purpose.

Respondents acknowledged the "unstable" and "unpredictable" atmosphere of a correctional facility can offer a sense of purpose. This can be seen here:

> It's about taking a step back from an event and finding meaning. You don't start off that way (resilient). You grow stronger through each event in your career and learn patience and forgiveness. Learning from each and every incident and how you can forward others.

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A significant portion of the sample believed their sense of purpose was directly related to the inmates they were assigned to supervise and monitor. For many respondents, the themes of maintaining order, stability, and control over inmates was important. Moreover, personal pride and reputation among coworkers was associated with control over inmates and indirectly linked to sense of purpose. If respondents demonstrated control over an inmate they were viewed as a leader, which influenced sense of purpose within the correctional institution. Other respondents believed a sense of purpose involved being a source of support for inmates. An example is provided:

> It is about the path that each of us take prior to accepting the position we applied for. The inmates that each of us are responsible for make us resilient because to some inmates, we as correctional officers, are all they have and if we don't keep "bouncing back" or coming back, then they won't have anyone at all (O.57).

Individual Characteristics

In contrast to group level attributes, other respondents believed individual attributes made COs resilient. Some respondents voiced COs need physical strength to be resilient. Generally, this individual factor was reported by male COs and they believed this was the most important factor. For male respondents, physical strength yielded the respect of coworkers. In addition, physical strength signified a CO would be ready to fight at any moment and would also allow an individual to bounce back easily from a critical incident. Comparably, respondents found that emotional strength was another important factor to make a CO resilient. One respondent wrote, "Being able to endure any situation that is very stressful without showing how much it affects you. Being able to bounce back has a lot to do with willpower. Don't let any situation define you."

Approximately one third of the respondents (56/186) referenced COs need some form of "mental fortitude" to be resilient. This involved "adaptability" and that COs have

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to "recognize how to handle an evolving situation with an inmate." Many found that adequate training and knowledge of the job could help with adaptability. More specifically training provided "a plan to handle a chaotic situation at any time." Another respondent described adaptability as, "the ability to see what is ahead and the power to do something about it." A few other key themes that were mentioned in relation to mental fortitude included, confidence, awareness, and being driven or motivated.

Other respondents focused on what the job and what they were signing up for as factors that explained a CO's ability to become resilient. For example, dedication or commitment to the job were themes of important factors related resilience. Many respondents felt policy and procedure were not only to be followed but additionally a sense of protection. Additionally, adherence to policies and procedures of the correctional institution symbolized respect for the job. It became evident that some respondents were able to fully function with little support from others, as one respondent wrote:

> A correctional officer is resilient by simply coming to work every day. This job is not for the weak. Standing in integrity and having confidence when coming to this institution is resilient in itself. We bounce back by functioning with little to no staff and still managing to get our job done.

Many respondents believed a CO becomes resilient by the combination of group and individual factors. These themes are evident in the following:

> A correctional officer becomes resilient when they have support from their coworkers. Most correctional officers are not willing to fight one on one, but they will step up when someone comes to help. They will leave the job to eliminate stress in life. This career requires heart also, meaning each individual cannot be afraid of confrontation. If the job becomes a matter of survival, then most people will say losing my life for this pay is not worth it.

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Life Balance

Nearly 25 percent of the sample (42/186) described a CO being resilient by being able to maintain some sort of life balance, which involved balance of both individual and organizational stressors or factors. Respondents viewed "balance" as only being concerned with factors you can control (i.e. individual job performance), and not become stressed over factors you cannot control (i.e. coworker's behavior). Furthermore, "life balance" became an equation of "acceptance" and "separation" for many respondents. Several stated "acceptance" allowed for "life balance" and demonstrated another factor of resilience.

Several responses provided examples of individual balance that focused on themes of resetting the next day, accepting personal limitations, and maintaining psychological distance from the job. This can be seen here, "Many inmates are just angry and feel oppressed. I try to come to work each day with the same mindset. If something major occurs, I intend to have a "blank page" the next workday."

Comparably, individuals who exhibited an achievement of balance at the personal level, seemed to have better preparation to balance themselves in the equation with organizational factors. For example, respondents acknowledged that working in corrections is not very pleasant and each day will be different. One account by a respondent states, "You have to stay true to yourself and not let this place change you. There will be much stress and politics involved with this job. Don't let politics change you and you have to stay true to who you are."

A significant portion of respondents described "separating home and work," as another primary factor of maintaining life balance. This theme is evident in the following:

What makes a correctional officer resilient I believe is being able to withstand all territories of the job from dealing with the inmates, being able to tolerate different

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backgrounds of our peers, as well as personalities dealing with the politics when it comes to promotion, and have to be well balanced. What happens here you have to leave at the gate and do not take it home. To me, that takes resilience.

Successful Coping

Lastly, respondents stated "successful coping" strategies can help a CO become resilient. Many of these coping strategies will be discussed in greater detail through the subsequent questions that were asked. Importantly, these strategies varied in terms of demographics. Female respondents believed in seeking external or professional methods, while male respondents focused on more individual or personal coping strategies.

Recommendations to Cope with Stress

In the following section themes are derived from the second qualitative question: What ways to cope with stress at work would you recommend to a new employee? Respondents recommended several outlets to a new employee on how to cope with stress. Some themes start to overlap among different questions but provide a different perspective on theoretical constructs. Themes for coping featured: finding support, detachment, prayer, self-care, and alternative strategies that began to differ by demographics. Separately, questions began to become more personal and specific about the personal experiences of interventions selected for coping by respondents.

Finding Support

One-third of the total respondents (65/186) emphasized the importance of finding support, and this must occur from the onset of employment. This was evident as respondents inferred there will be frequent moments of isolation, where a CO may be the only worker at an assigned post and is surrounded by a large group of inmates. In addition, "trust" is an important factor in finding support. One respondent wrote:

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> If you see/experience something that bothers you, say something, talk to a supervisor or coworker you trust. Don't bottle up things or "normalize" traumatic events. It is okay to not be okay sometimes and you shouldn't desensitize yourself, seek help.

Several respondents reported seeking a senior officer as a source of support and "mentor." This form of support was particularly important in helping to provide guidance, direction, and help to understand what is expected on the job, in terms of policy and procedure. As a result, a senior officer can build confidence in a new CO and properly train them to minimize committing mistakes at work. Many valued the wisdom of senior officers and this specific source of support helped improve the overall safety for both fellow coworkers and inmates. Consequences of not finding support were also highlighted as one respondent wrote:

> I would tell a new employee that the best way to cope with stress is to talk to other employees because they have been through the same thing, if not worse. Talking and expressing your feelings versus keeping them balled up inside is not healthy for an individual working in a high stress environment (O.176).

Female respondents believed a CO needs to be "proactive in seeking help," and COs should not be afraid to ask for help when it is necessary. Female respondents added that it takes "courage" for some to accomplish any method of coping. Many female respondents suggested seeking more "professional" interventions to aid in coping if struggling becomes increasingly persistent. Female respondents even referred to some of the vocational interventions offered at SCDC, such as CISM peers and group intervention.

Detachment

One quarter of respondents (43/186) suggested detachment of some degree is an effective coping mechanism. "Emotional detachment" was a major aspect in coping. Emotional detachment can help a new employee with "situational awareness" and allows

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a new employee to “pick battles carefully.” Put simply, new employees could learn which inmates or fellow staff they would need to limit or avoid interacting with to prevent future conflict. Detachment also involved themes of avoiding self-blame or personalizing events, remaining calm during a confrontation with an inmate, and minimizing any harmful outcomes. Several responses of detachment emphasized situations where conflict is unavoidable between a CO and inmate. Detachment can be used as a protective mechanism that can help a new employee to regain control and stability over an escalating situation.

Many reflected on the separation of work and home life as a primary form of detachment. This finding was even linked to sources of support. While family is important and daily part of life, respondents highlighted to proceed with caution in seeking support from family members. Family members are often unfamiliar with or do not understand every aspect related to working in corrections. As one respondent summarizes, “Don’t take work home with you. Realize that the institution will always run when you aren’t there. Your life is not your job. Your job is just a small part of your life.”

Prayer/Meditation

In terms of gender, both groups of respondents agreed with “prayer” as an important coping mechanism (37/186). “Prayer” can be linked to finding support, as many stated it involved “talking with God,” “going to church with other members,” or “speaking with a Pastor.” Perhaps, in part due to different belief systems, many who used the terms of “prayer” or “meditation” found each to be more of a private coping mechanism and a time for “reflection” and to be “thankful.” Several respondents believed that meditation offers a new employee an opportunity to learn from a difficult situation or to “see the big picture.” It allows someone to reflect on why they experienced the situation, how they can learn to

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avoid or minimize the situation from reoccurring, and "learn why they are resilient." Another common theme revealed by many responses related to meditation is that it offers many an opportunity to reflect on what they have already endured or overcome on the job. Respondents also suggested that meditation can improve emotional and physical strength by "learning breathing techniques" and helps in remaining calm.

Self-Care

Most respondents agreed "appropriate self-care" is an important method of coping and varied by many activities related to the term "self-care" (102/186). However, there was a consensus among respondents that it is important to find an activity to deal with stress outside of work (138/186). Many respondents supported a theme of exercising as a particularly important way to "decompress" from any anger or frustration an individual may have experienced on the job. In addition, exercising was a healthy outlet to deal with stress and frustration before returning to home. Thus, exercising worked as a form of stress release that facilitated the separation of work and home. Other responses provided examples of self-care that focused on themes of finding a hobby, any outdoor activity, laughing, listening to music, eating right, and an getting an adequate amount of sleep. In terms of gender, both groups of respondents recommended "annual leave" or "vacation" to separate from work for a temporary period.

Many male respondents provided a different perspective on "self-care" and provided some alternative coping strategies (37/186). Many believed "suppressing your feelings" or to simply "forget about it" were effective behaviors for coping, while others offered that "drinking" and "smoking" were appropriate to handle stress. Lastly, several

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male respondents added this type of work is not for people who are “weak” and that if they could not handle the job then “walk away or quit the job” would be the best resolution.

Experiences of Coping

Approximately 18 months ago, SCDC implemented a three-day critical incident stress management seminar. In the current sample, 14 respondents (seven percent) of the total sample reported attending the seminar. In terms of vocational interventions, approximately one third (71/186) of the sample used vocational interventions provided by SCDC. Moreover, many in the sample reported attending any of the vocational interventions offered by SCDC and the breakdown was the following: Employee Assistance Program (24), Situational Controls (15), CISM Peer (12), Crisis Management (7), Group Debriefing (11), and Hostage Negotiation Team (2). Respondents also had the opportunity to comment on any external interventions they selected to assist with coping and their associated experiences.

Qualitative question 2b asked respondents: Briefly describe your experiences of any intervention you used. Of respondents who used vocational interventions, a significant portion had a favorable experience in attending them and rated them as “good,” or “great” (47/71). Many who attended these interventions were in need of an outlet to process their feelings and emotions. Other respondents sought to gain some form of understanding of a critical incident or how to minimize a similar event from reoccurring (63/186). Several examples are provided:

(Group Debriefing) Very useful as it enlightened me how much stressful the events of 4/15/18 were for very many of security at Lee.

(Group Debriefing) Since I’ve been employed at this institution, I’ve responded to an A-Team Response of two inmates incidents (stabbing), and I was able to be

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a part of the debriefing, which was very informal and we discussed on what could be done better as officers and how we go about handling the situation next time.

(CISM Peer) It helped me a lot in handling my situations; especially after being assaulted. I learned different ways to cope, that there are coworkers here that care, and I have support.

Conversely, there were several mixed reviews of the employee assistance program. More respondents expressed a negative experience compared to a positive one (15/24). Respondents expressed "it was a waste of time," or "they don't understand what we do." Another respondent explained they were "criticized and treated like it was their fault." Respondents did appreciate the fact "I could at least talk to someone about the problem I was dealing with."

A portion of the respondents conveyed interest in attending employer-based interventions, but they were unable to attend for various reasons. For example, some respondents work different shifts that were outside of the normal operating hours of members providing any type of service. Others expressed difficulties in navigating what resources were available or how to contact different services, how to be assigned to any intervention, and that some "ranged 1 to 3 sessions and it was over." Finally, respondents suggested limited accessibility to vocational interventions. This can be seen here:

In my 6 years of correctional work, I have experienced countless critical incidents. However, on December 6, 2017, I experienced my fourth inmate who successfully committed suicide. Three days later, we were able to participate in a group debriefing, which was very helpful. However, this was the first and only time I was even offered any type of intervention in my 6 years.

In terms of other personal sources of coping, a significant portion of respondents stated they resort to God, church, family, and/or friends (96/186). Some respondents were able to access ex-coworkers, who were retired. Respondents found their advice and insights "helpful" or "relatable" since the retired coworker had experienced a similar event.

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Similarly, those who attended church or were spiritual found it helpful to confide in a higher power. Once again, the only caveat was that external friends and family did not fully understand what respondents' jobs were or what struggles they were dealing with. Other respondents reported using a doctor, a life coach, were prescribed medication (mainly resulting from anxiety and/or depression), or found solace in using alcohol.

Another noteworthy finding included the reasoning for why respondents refused or rejected the idea of coping through vocational interventions. Some respondents believed that professionals did not really care about their wellbeing or were labelled professionals as "fake." Other respondents expressed beliefs that their critical incident was "insignificant," or it would just "burden" others. Another theme that emerged for some respondents was that problems that are ignored became would grow in intensity and become overwhelming (17/186). As one respondent states, "I used to just not face it which made me fine, but now I am having problems because I didn't deal with them in the past."

Numerous respondents provided examples relating to concerns of selecting a vocational intervention and confidentiality. Many respondents grew concerned that confidentiality would be compromised. Further, many feared any leaked personal identifying information would invoke some form of "retaliation," especially if an intervention was necessary to deal with an ongoing conflict between management or with fellow coworkers (16/186). One male respondent stated, "I don't talk about what happens here. I find ways to deal with it on my own. There is a stigma about reaching out for help. Many see this as a sign of weakness. This is an issue throughout every public safety agency I have been with."

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Personal Resilience

Qualitative responses in this section were based on the following question: Would you describe yourself as resilient? Explain. A significant portion of the respondents (157/186) articulated they were resilient in some capacity and justifications presented numerous themes, such as being resilient was more of an attitude or personality trait, an ability to endure critical incidents or survivorship, sense of purpose, and separation/detachment. The remaining fifteen percent (29/186) of respondents either were uncertain or did not believe they were resilient and provided reasoning as well.

Attitude/Personality Trait

According to twenty-five percent of the respondents (44/186), they possessed a certain attitude or personality trait that established they were resilient. For example, several respondents reported they had a "never give up" attitude, despite the hardships of the job. Being "faithful" or "committed" to work were major traits of resilience, as many still showed up daily to work regardless of the numerous stressors encountered. Other themes of personality traits included, optimistic, hopeful, thinking critically, flexible, independent, determined, and good communication. Importantly, several respondents indicated that these traits of resilience "had to be learned over the course of their career" through repeated exposure to critical incidents. Some respondents also viewed resilience as a particular mindset. As one respondent wrote, "it's all I know how to do." In another example, one respondent said, "I'm an alpha personality. Nobody can take me down."

Survivorship or Endurance

There was a clear theme of survivorship or endurance relative to being resilient. Twenty-five percent of the respondents (43/186) often identified their resilience with their

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length of service, as one respondent recalled, “Yes, over 30 years in corrections, 27 years from New York State Department of Corrections. 3 years in SCDC teaching you to be open for anything.” Respondents appreciated and valued length of service and was a factor that shared great variability. Similarly, respondents recounted many of the major critical incidents they had overcome over their careers. Some respondents accounted for their resilience being due to the critical incidents they survived that were directly related to the job. In one example, “I’ve survived several assaults on myself, been through several riots, inmate deaths, and survived terrible management and come back to work every day. Resilience is all about coping strategies.” Other respondents reflected on external critical incidents that structured their resilience, “I survived 3 combat zones in the military.” Collectively, respondents’ reflections of “surviving” these events spoke to their levels of resilience.

Sense of Purpose

A significant portion of respondents mentioned that in spite of the adversities they have personally endured, there was a deeper meaning behind them. Some believed it was “a higher calling” and their work was to help “save others.” Many valued serving a purpose in the lives of inmates and trying to prepare some for eventual release back into society. In one account, a respondent said, “I enjoy my career as a correctional officer, and I am resilient. I believe that I make a small difference in the correctional facility. I’m proud of the inmates and their achievement despite their surroundings and the circumstances that got them in.”

Another respondent recalled a difficult incident, where they conducted CPR on a female inmate that they knew was already gone. Notwithstanding the specific outcome, a

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sense of purpose was revealed, “I come back every day because even though I cannot save everyone, everyone can save at least someone. I know when to seek help and when to say enough is enough and take a break.” Many respondents listed the more severe critical incidents they were directly involved in, but many reported trying to “find the positives in a negative situation.” Moreover, respondents believed they changed for the better, after a critical incident, and learned to be more “adaptable” and “patient.”

Other respondents believed experiencing critical incidents helped to “strengthen the bonds with other officers” (32/186). Further, many respondents used each critical incident at work as a “learning experience” (56/186). Several respondents said they would “reflect after a chaotic situation was over” (24/186). This helped many to identify what went right in how they handled the situation versus could have been done differently. This further supported levels of “preparedness” and resilience in facing similar events in the future. Respondents also indicated that they rely on their “support systems” to maintain their resilience. Furthermore, their “greatest purpose” was to “provide stability” and “support their family.”

Separation/Detachment

An overlapping pattern began to emerge across several questions related to resilience, which involved maintaining the separation of work and family. New perspectives were offered concerning emotional attachment. According to some respondents, the repeated exposure of “traumatic events” led some respondents to learn to detach from a traumatic event (i.e. SIB). If a similar event happened again in the future, then it was viewed as “the cost of doing business.” Some respondents knew the event would be “short-lived” or even shared the belief of “this could be worse scenario,” based on

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overcoming similar events in the past. For others, repeated exposure of critical incidents led them to feel more "numb" or "callous" to subsequent events. At this point, respondents felt they were more resilient, were "more focused" and/or "handle chaotic situations better." This was evident in the following reflection:

> I am resilient. I have eight years of service and have seen a lot. I was on two emergency response teams for a total of five years. I was dashed nine times within eighteen months of working lock up unit. I have seen I do not know how many successful suicides. I have witnessed assaults on staff along with staff being taken hostage. I have seen inmates stabbed or beaten almost to death. This is all hard to see and somehow, we have to separate personal emotions from business emotions.

Uncertainty or Not Resilient

The remaining portion of the sample were uncertain if they were resilient or believed they were not resilient. Equally, the respondents provided some unique insights behind their reasoning. Resilience seemed to be "situational," An example is provided, "I try to be (resilient), but it is very difficult. Not always, but sometimes. When you're at post, you feel like nobody else cares about you." Separately, other respondents reported they could handle the challenges at work, but their resilience struggled in other domains, such as "dealing with teenagers" or "always worrying about finances." Coupled with "isolation," other respondents expressed that they were starting to "lose" something, such as the ability to bounce back. This was illustrated below:

> More recently, I've had a hard time bouncing back. I still struggle with things. I just try not to let others know how much I'm struggling. I've reached out to certain higher ups and have only been dismissed. They don't care about you or your well-being. Some don't bounce back when something bad happens to another staff member or a young inmate, it's really hard to accept. Some people resort to drinking, using illegal drugs, and some just quit. Others that may come back sooner have detached themselves from those around them and ignore it.

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Risk Factors

This section provides a variety of responses related to the following qualitative question: What are your largest sources of stress at work? A significant portion of respondents highlighted many stressors related to the job. Some respondents referred to these as “minor annoyances” or stressors that were less in severity compared to critical incidents but did occur almost on a “daily” or regular basis. Similar to critical incidents, respondents said they cannot be ignored, or it becomes “cumulative stress.” Several major themes related to risk factors began to emerge, which included strained relationships with peers, uncertainty of operations and working struggling with resources.

Strained Relationships with Peers

Nearly a third of the sample (61/186) emphasized strained relationships with peers provided the largest source of regular stress. In terms of gender, many female respondents reported “inhumane” treatment through “sexual harassment” or being “treated like an inmate.” Boundaries seemed to blur or diminish with respect to how female respondents were treated by fellow peers. Overall, strained relationships seemed to occur more often between respondents and “members of management” or “fellow coworkers,” compared to inmates. Regarding the conflict with management one account by a respondent states:

My largest source of stress is the way upper-level management treats staff. It annoys me how we, as staff are not trusted much more than inmates are. I also hate the way that once you promote into supervisor’s positions more of your job become political and focused on how to please a captain or a major and not focused on your subordinates (O.190).

Several responses presented a more direct theme of conflict with fellow coworkers. Several examples are provided:

My fellow employees. No one trust anyone. A lot of backstabbing, drama. I keep to myself. Don’t talk to anyone from work outside of work. Fell alone. Scared of

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being assaulted. Don't know if you'll go home the way you came in. His job has really messed my head up. When out of work, I'm constantly looking over my shoulder. Anxiety. Can never get enough sleep. We aren't supposed to know but knowing or not knowing still doesn't make it any easier. Constantly uneasy. Constantly being talked to some kind of way from inmates and employees. Things need to change. I need medication.

My largest sources of stress at work rarely comes from the offenders (inmates) themselves, but from staff. Staff will not perform the job duties required of them, so daily tasks (known tasks) cannot be completed, keep offenders from reporting to areas they have proper authorization to go to so they can handle issues they need to address. Leadership does not mentor or properly support their personnel. Policy is only followed when it is convenient for them. The staff are against each other. No team building or support staff to ensure job duties can be completed per policy. There is so much more, but no matter what is said, nothing is going to be done to fix it.

Uncertainty of Operations

Breakdowns of relationships among fellow coworkers or management presented challenges to performing basic tasks at a correctional institution, along with the application of institutional policy. Many respondents noted the "uncertainty of their actual schedules," which resulted from not being relieved of responsibility at their posts on time (25/186). Additionally, if help was needed to address the behavior of an inmate, respondents found their requests were "ignored" and "left to fend for themselves." This increased perceptions of danger for many in the sample.

"Lack of accountability" was another major theme relating to uncertainty of operations. Lack of accountability provided great confusion for respondents. More specifically, a lack of accountability related to frequently changing rules and policies, constant changes in leadership or no idea of who is rightfully in charge during a shift, and selective application of policy. Some respondents referenced that fellow staff members were "constantly violating policy" but still had a job, while others were being falsely blamed for someone else's wrongdoings. In addition, many voiced the problem with

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excessive “call outs,” which increased the workload and “burdened” available staff (38/186).

“Holding inmates accountable” was another source of stress for respondents. A significant portion of respondents mentioned their relationships with inmates were less stressful compared to coworkers (21/186). However, several respondents found inmates experienced issues related to “entitlement.” Many respondents would be “disrespected” by an inmate and later found out that nothing ever happened to the inmate. “Inmates’ rights are more important than staff’s rights,” many recounted (37/186).

Role conflict represented another theme concerning the uncertainty of daily operations of a correctional institution. One respondent stated “I have 6 (supervisors) that give me direction. It’s very rare the directives/instructions/mandates match. The command structure is extremely muddled. Shift supervisors should have a direct/linear command structure.” In a similar recollection, “We have too many people who think they are supervisors. Upper level management needs to clearly define specific people who are supervisors.”

Resources

In terms of resources, many expressed daily stress from not having access to or “lack of proper equipment” to “safely” and effectively perform their job (17/186). For example, several respondents noted that some institutions did not have a properly working metal detector. As a result, incoming visitors or inmates had an opportunity to smuggle in a weapon or contraband. Additionally, many reported that broken equipment, such as radios (or lack of manpower) often “delayed inmate movement” and would delay other operations at the correctional institution (21/186). This was presented in multiple accounts:

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> The fact that the management doesn't give half a shit about my safety or the safety of any of my coworkers. We regularly work with no A-Team or any back up at all. And this institution has the most violent murderers, rapists, and child molesters in the state. We are regularly expected to operate severely understaffed with no back up at all.

Additionally, respondents continued to struggle with "low staffing" or manpower. This resulted in a large ratio of more inmates per staff member. Several examples are provided:

> Management puts us in a position to share it is dangerous to work in a dorm alone with almost 200 inmates in some cases. They fail to realize that some officers aren't properly trained in a certain area where they are posted to work. If an incident were to happen in a dorm, and there is only 1 officer in there, who is to say that there won't be any casualties or worse, because truth be told A-Team responders are not always going to arrive in a timely manner or are even present. The way I see it, things are not going to change until someone God forbid, gets badly hurt to where they could end up on life support, that's when things may change. By that time, most of the officers would probably leave because of how things are being handled and dealt with and see this isn't safe. It has gotten to the point where we are doing things that should not be done with the amount of officers that are on shift. Not realizing that this is not right and proper way to do this job.

> For quite a while now, the fact that we are regularly understaffed is a source of the most stress. This not only affects the morale of the shift, but also increases security risks. I, for one, do not "call out," so I find myself working twice as hard. Call outs and people leaving the agency is too common.

Combined with the staff to inmate ratio, many respondents said their biggest stress was related to "shift length." Longer shifts were created to ensure at least the legal minimum number of personnel were always provided at the institution. Many respondents voiced the practical consequences that were associated with having to work 12-hour shifts. These themes are evident in the following:

> Supervisors are not approachable at times. Mostly 12 hours is what makes this so stressful to me and home/work balance impossible. Morning shift is too early to drop children off to daycare or school. Briefing begins at 5:45 am. Night shift requires overnight so someone must take care of your children while they sleep. It would be nice for 8 hour shifts because the work/home would be better balanced. As well the intensity of the job would not be for a 12-hour period, allowing more down time, feeling better about returning rather than feeling you

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just left. I work, go home, sleep, and literally shower, pack my bag, get dressed, and drive to work. There is no time for anything unless I trade it for my sleep which happens.

Protective Factors

Qualitative responses in this section are centered on the following qualitative question: What are you most proud of as a correctional officer at SCDC? Pride is considered as a protective factor for many. This allowed for respondents to reflect on specific protective traits and to examine the opposite side of the spectrum. As recalled, resilience involves a daily balance of risk factors and protective factors. Responses elicited several themes related to aspects of the job where pride was exhibited. A significant portion of the sample referenced pride as an internal source (i.e. willpower), whereas others referenced external sources of pride (i.e. family). In addition, a unique and unexpected finding also developed related to individual typologies.

Typologies

Typologies similar to Merton's (1938) adaptations to strain, formed in this question and seemed to relate to how respondents identified with the job. It became evident there was variability in respondents' relationship with the prison system and how committed respondents were to the mission of the department. Interestingly, the qualitative question referring to pride (protective factors) of the job was the only question where many typologies surfaced.

In the first typology, several respondents displayed a high level of commitment and conformed to the mission of the department. In addition, respondents of this group were proud knowing they had earned every part of their income. Several examples are provided:

I am most proud of defending public safety and being a law enforcement officer. I carry the American flag on my shoulder and a badge on my vest (O.86).

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I am most proud of knowing the mission of the agency, the want to continue to service the community, and the love for the job (O.136).

Conversely, many in the sample appeared to be retreating from the correctional institution. As one respondent discussed, “I don’t think I am proud of being a correctional officer. We have bad reputations with the public, long hours, and most of us are depressed in some way.” Another respondent states, “There’s nothing to be proud of about this shit.” Some respondents also believed the organization cared about them. They were “a warm body to fill a post,” and some added, “There is nothing to be proud of. It’s a dangerous job with little pay that nobody cares about unless it’s an inmate then they care.”

Comparably, some respondents supported working hard, were proud of the “paycheck” and that was everything they coveted. This was affirmed by several respondents, “I really have not given any thought about being proud to be a correctional officer, I just come to work and do my job.” Another added, “1st and 16th, this job is to pay bills.” Some respondents were looking forward to life after their career, “I’m proud that at my age I am still able to handle this job. My time in SCDC is drawing even closer to an end. I am in single digits almost to the five years to go mark.”

While many respondents were proud to earn an honest living, some were concerned the pay still did not reach their needs. One respondent states:

When I worked at the local county jail, my checks were way more than what we are getting paid here at the SCDC, and that is ridiculous. The only way to get a good paycheck here is to work overtime.

Some respondents were expecting to be getting a promotion soon and that an increase in rank would provide a “comfortable pay.” Several respondents were seeking innovative ways to make more money or even looking for other part time work. This can be seen here:

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The "legal" money is good. Money will keep me longer or shorter if money is from somewhere else.

Overall, this group represented less commitment to the organization and in some instances not having to work as hard as others. Most importantly, this group expressed a desire to seek more financial resources.

Separate from pay and tasks of the job itself, a significant portion found "status" and to "affect change" (among management and inmates) were of greatest importance. In order to "affect change" some respondents believed in changing inmates through "rehabilitation." This was "the greatest satisfaction" for many respondents. Other respondents voiced that they "wanted respect" from management and found it pleasing that inmates either "feared" or were "intimidated" by them, as it symbolized a form of respect (25/186). Collectively, these groups of respondents had ambitions that differed from material goals. Several accounts highlighted emphasis of these factors:

Being able to get satisfaction out of the job. Being able to rehabilitate inmates to make them better so they can deal with their problems when they leave prison and join the outside workforce.

I am most proud of being able to be a part of elite training to help me with everyday tasks. Most correctional officers do not get elite training. They graduate the academy with basic knowledge and without being pushed to the extreme. I am not proud to be a correctional officer for SCDC because this agency does not believe in the best options for us. Culture needs to change their hearts. They want us to do the job, not complain about inadequate resources, and be a Yes person. I am respected, due to the respect I have given others, even when they weren't deserving of it.

Inmates hate coming to Perry lock up because we follow policies and we never get intimidated or back down from a fight. Compared to Columbia, we abide by the rules and regulations and I am proud we are not conforming to the status quo.

Not falling victim and becoming a part of the hypocrisy that is rooted from the top all the way down in SCDC. Still being part of SCDC after all that has happened and witnessing firsthand how broken the South Carolina Department of

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Corrections really is. I'm proud to be able to influence people to move in the moral direction.

Internal Pride

A significant portion of the sample affirmed various forms of internal pride (41/186). Some embraced their earned rank or title, such as lieutenant, sergeant, or captain. The achieved rank symbolized how many obstacles they had overcome to achieve a certain milestone in their career. In addition, rank represented the continuance of their career. As one respondent wrote, "I rose to Lieutenant in the last 8 years and will keep going" (O.146). Comparably, another respondent aspired to "one day become Warden." Promotion provided vindication for many respondents and helped in fostering both their pride and resilience.

Many female respondents highlighted that the correctional institutions they work in are still male dominated (25/186). Female respondents referred to their own gender as a theme of empowerment and pride. Several examples are provided:

I feel like I have overcome the impossible to be a female officer working in this prison.

Being able to overcome rumors as a female officer and sexist employees. And was put on a post (forced) that does require much inmate interaction. Female officers have a much harder time/job than that of a male officer!

In a third account, the female respondent was proud of several roles she had earned, "I am a Mother as well as a successful officer."

Working against external forces also presented a source of pride for many respondents. One respondent referenced the degree of probable danger, "I am proud I can do a job that most people could not work." Separately, external forces worked as a motivating factor and a source of pride for multiple respondents. One respondent exampled

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this theme, "I started here when I was 18 years old and I've made many accomplishments. I had people say I wouldn't last long when I started here."

Another theme of internal pride was directly related to "self." Many respondents reflected on their years of service and recounted significant events they overcame. Multiple examples are provided:

> I have been employed in SCDC close to 9.5 years. I've had some memorable experiences along the way, but I've come through basically unscathed.

> I have been in some serious conflicts, but I am proud I am able to go home to my family with no extra holes or major injuries.

Many respondents believed they remained "true to self" despite negative organizational characteristics (35/186), as provided in these accounts:

> Through all the corruption, lying, backstabbing, and overwhelming dishonesty that is so prevalent in SCDC and its management. I have been able to maintain my personal honesty, integrity, and character, never allowing myself to be dragged down to the level of despicability so prevalent in the organization!

> I have kept my morals and honesty even through all the lying and bullshit that I have put up with through coworkers and inmates. Despite the backstabbing and dishonesty of the administration, I have been able to maintain my integrity, honesty and work ethic, and not allowed myself to be dragged down by the administration's total lack of honor.

External Pride

Many respondents indicated their source of pride was to an external source (49/186). For some, that source was a higher power, if respondents identified with being spiritual. as seen in this discussion, "That I am who my God has made me to be. Having an overseer in your life always helps. I like what I do for a living, not where and not my post." Another respondent stated, "Each day is a gift and I am thankful to come to work. I pray every day to remain a positive person, to help encourage and support others, and for the safety of inmates and coworkers."

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While focusing on sources of external pride, appeal to higher loyalties was another theme that emerged. As one respondent states:

> What makes me proud I see all of us as one team, and that's from a street officer, a court deputy, staff deputy, detention deputies, state patrol, to SCDC. We are all law enforcement officers and we are protecting the public.

Moreover, several respondents expressed a form of allegiance in their profession, as many held deference to community, "I am proud to work for the State" or "I love to provide services for South Carolina!"

Staying on the Job

In this last section, responses were based on the following question: What makes you stay on the job? This question provided two different perspectives: personal and policy related outcomes. Given that respondents are constantly going through an almost daily cycle of adversity and accomplishment, respondents considered the culmination of all stressors, risks, and critical incidents to decide: why have they remained in this profession? Many themes and noteworthy findings were obtained and expanded on in greater detail.

Commitment to Inmate Behavioral Reformation

Nearly one third of the sample (77/186) expressed they were passionate about making a positive difference in the lives of inmates. Many respondents felt connected to the inmates they served and found it "rewarding" that inmates used their time at the prison for personal growth and improving conditions of their life to "earn a second chance." Many respondents perceived inmates "leaving this place and never coming back" as related to accomplishment. Many responses centered around themes of dedication, determination, and commitment, when referring to inmate behavioral reformation. For many respondents, changing the behaviors of many inmates was "more important than a paycheck."

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Respondents received positive reinforcement from both the inmates they were responsible for and from fellow coworkers. Separately, some respondents focused on the theme of serving a higher power. Collectively, these factors added further support to many respondents desiring to help inmates with behavioral reformation. Several examples are provided:

> Knowing that the inmate/staff need someone who cares and will show support no matter what. Be there for each other to encourage inmates and to encourage us (correctional officers) they care too.

> Knowing what to do and seeing it work out well for everyone. Being there for inmates to make any positive difference in their life, giving them hope or telling them they matter. Seeing good come from doing these things is why I stay at SCDC. Helping inmates while they are incarcerated is a day to day schedule, but also to encourage education, prayer, putting their children in front of themselves when they go home, to lead by example- I feel God has me at SCDC for a reason and a purpose to encourage peace and bettering themselves any way they can or interest they can become progressive.

A portion of the sample were responsible for surveillance of the inmates and worked in the frontlines. In addition to providing control and custody of inmates, others in the sample had the opportunity to provide further instruction. For respondents identifying as spiritual or religious, it would be "praying with the inmate." Other respondents helped instill inmates with a certain skill set to assist in preparing inmates for release. Examples of skill sets featured woodworking or helping inmates to obtain a GED. Several commented on the value to educate inmates: "I am passionate to educate the residents (inmates) who can benefit from the instruction we provide. I enjoy the fact that I can help an inmate to hopefully not return to SCDC and just needed some proper guidance." Equally, respondents reported the value of learning from the inmates as well: "I get the chance to improve on my people skills by dealing with different personalities constantly."

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Career/Advancement

Almost a third of the sample (56/186) respected the career and looked forward to opportunities for advancement within the organization. Furthermore, many responses provided examples focused on themes of experiences, challenges, and pressures that were related directly to their career. Another major theme that emerged was valuing each day on the job and valuing each day as a new learning experience. These themes are evident in the following:

> Me personally I enjoy the thrill of the job, and the challenges I face as a man. Finding myself in the job and developing myself in a way to be proud of, and probably could not find and build in another job" (O.54).

Other respondents related a career choice in corrections to previous experiences they had in other professions. One respondent states, "Corrections is less stressful than public school or being a firefighter."

Opportunities for advancement or promotion was another important factor that kept respondents on the job. As one respondent states, "Money comes and goes, but goals last a lifetime. Honestly, looking forward to moving up in the near future." Interestingly, career advancement was also a defense mechanism for older respondents. As one respondent wrote:

> My current position (promotion) allows me limited access to inmates because they have become increasingly disrespectful and uncaring of their actions, which makes an officer's job hard.

Stability/Security

Despite sometimes experiencing unstable and unpredictable conditions of the correctional institution, several respondents described the career gave them a certain degree of "stability" or "security" in their personal lives. The "paycheck" and "benefits" gave

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many respondents "stability in providing for their family." Many respondents reported having a "regular schedule," "short travel" and a sense of "personal control and responsibility" gave them a sense of stability. When it came to overtime, there were mixed reviews. Some respondents appreciated the higher paycheck and the allowance for overtime. Other respondents despised overtime, were displeased with being away from their family more, and disliked being placed on mandatory overtime.

"Job security" was another common theme mentioned by respondents but varied by reasoning (43/186). Several responses provided examples of job security that focused on themes of acknowledging there will always be inmates and a need for officers, securing of family's personal goals (i.e. house or vacation), and recognizing it would require an illegal or catastrophic action to lose their job. Importantly, the term family was used by some respondents interchangeably to symbolize the sense of "family" with fellow members of SCDC (23/186). For some respondents, this was their first job out of public school and were living on their own (24/186). SCDC was their family, and they provided a sense "security" for one another.

A unique finding also emerged in that "job security" worked the opposite direction for a portion of the sample. Many revealed they "had no college experience" and "never worked any other job besides this one." Several responses provided a different perspective on job security and centered on themes of recognizing the difficulties related to going back to a civilian job, noticing the job changes people in ways that are not conducive to normal life, acknowledging it was too late to change career paths. Many respondents also reported there was a lack of replacement jobs available in South Carolina that were comparable to the pay, schedule, or benefits they received through the State (40/186).

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Lastly or most importantly, “securing a retirement” or “nearing retirement” was the greatest achievement for older respondents. Many respondents reflected on the many challenges they had overcome throughout their career and were motivated that years left on the job had been reaching the “single digits.” As one respondent states, “I am close to the finish line. I have my head in the clouds, but I have my feet planted on the ground. I don’t have long to go.” For many respondents, to safely finish a rewarding career, this was their “finish line.”

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CHAPTER 5

DISCUSSION

As evidenced throughout this dissertation, the working life of the correctional officer includes a range of stressors and a need for resilience. Each day for a correctional officer provides a cycle, in which a correctional officer must balance risk factors with more protective factors. At times, encountering a critical incident is completely unavoidable, which warrants further actions to protect both correctional officers and inmates of an institution. While short-term coping mechanisms offer some assistance to correctional staff, especially frontline correctional officers, it is important to provide research, policies, and programming that will help improve the long-term well being of a correctional officer and to foster resilience. As noted by Werner (1971), resilience is best defined as "the ability to overcome and endure a risk(s) or adverse live events" (p. 24), and this is crucial in high risk occupations including a correctional officer. The purpose of this study was to explore the critical incidents correctional officers regularly experience on the job, the responses or actions they take to handle any stressful event, and to assess levels of resilience. To date, no study has previously examined correctional officers directly about what factors make them stay on the job or utilize a mixed-methods approach to explore how resilience can influence job retainment.

The following section provides a discussion of the quantitative and qualitative findings and addresses the strengths and weaknesses of each approach. In addition, this

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section provides suggestions of best practices to promote resilience and offers directions for future research to better inform implications of policy and practice.

Quantitative Discussion

Importantly, this study found the existence of a dichotomy of resilience, in which all correctional officers were either resilient or dysfunctional. This finding greatly differs from previous outcomes of resilience in different professions, where four categories associated with resilience were possible outcomes (Dennis & Vander Wal, 2010; Gabrys *et al*., 2018; Richardson, 2002; Zhou *et al*., 2020). There remained a clear distinction between resilient and dysfunctional correctional officers, and the findings may have resulted, in part, from a smaller sample size. More research is necessary to further examine outcomes of resilience for correctional officers. Many previous studies have highlighted the challenges related to obtaining an adequate sample size of correctional officers from a more resistant population (Lambert *et al*., 2009; Triplett *et al*., 1996; Trounson & Pfeifer, 2016). However, quantitative analyses still yielded meaningful findings that contribute to the literature of corrections.

Action-Oriented Coping

Statistically significant findings offered support that correctional officers exhibited higher levels of resilience, when engaging in action-oriented coping techniques. This style of coping allows correctional officers to consider multiple proactive techniques to minimize the effects of stressful situations at work. Data support that if one activity related to coping did not work, then correctional officers attempted another prosocial form of coping to overcome a critical incident and increase levels of resilience (Duit, 2012; Lazarus & Folkman, 1984). For instance, group counseling may be effective for one correctional

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officer but have no effect for another. At that point, a correctional officer may attempt contact with a CISM Peer or select another intervention to handle a stressful event.

Moreover, correctional officers engaging in action-oriented coping techniques were more likely to accept that a critical incident happened and were better able to move forward and let go of dwelling on the critical incident (Christiansen, 2018). This style of coping also led correctional officers to look for a positive meaning in a stressful event, were more likely to participate in a prosocial activity (i.e. exercise or read) to minimize stress, and depending upon religious identification, were involved in prayer or meditation (Bonanno, 2004; Cloninger, 2013). Collectively, action oriented coping techniques are highly effective in fostering resilience. Furthermore, a significant portion of correctional officers were proactive in trying to minimize negative effects of critical incidents and daily work stressors (Castleden *et al*., 2013). Reactive coping strategies have demonstrated a higher level of dysfunction in past studies, and proper training can support risk awareness (Fraser *et al*., 1999). This signifies that correctional officers were more aware and focused of potential risks related to the job (Plough *et al*., 2013).

In contrast, action-oriented coping is only one method of coping. The findings did not address the level of efficacy among other styles of coping techniques, including emotional coping (Mignano *et al*., 2016), clinical coping (Adger, 2000), and use of professional resources to cope (Plough *et al*., 2013). Therefore, more research is necessary in other trends of coping and the influence they have on levels of resilience.

Age

The control variable of age provided some mixed outcomes for correctional officers, in terms of resilience and dysfunction. Older correctional officers demonstrated a

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significant decrease in levels of resilience. This supports the findings of several previous studies (Griffin *et al*., 2010; Riolli & Savicki, 2014; Schwarz, 2018). Decreases of resilience may result in decreases of physical abilities and other physiological responses to stress and trauma (i.e. increase in blood pressure or anxiety level), as referred to in the literature as vulnerabilities. Combined, these vulnerabilities can impact overall job performance (Schwarz, 2018). In addition, older correctional officers are working with a younger inmate population (Balmer *et al*., 2014) and share a growing concern they can be taken advantage of by inmates or experience an increase perception of danger on the job (Griffin *et al*., 2010; Lambert *et al*., 2009).

Although weaker, in terms of significance, age also shared an inverse relationship with dysfunction. This finding also supported previous literature (Blau *et al*., 1986; Dowden & Tellier, 2004; Tewksbury & Mustaine, 2008). Most importantly, the findings of this study support that age of a correctional officer shares a linear relationship with years of experience. In fact, age and length of service for correctional officers both present a negative association with dysfunction. Therefore, older correctional officers and correctional officers with more length of service are more prepared to deal with turbulent situations, given higher frequencies of exposure to critical incidents. These factors should be valued to support training and mentorship of incoming or correctional officers with less job experience, as well as providing support for struggling inmates (Burton *et al*., 2018; Tyron & Radzin, 1972).

In terms of policy implications, little attention has been given on how to promote an increased wellbeing for older correctional officers and how that can improve resilience (Hogan *et al*., 2006; Klinoff *et al*., 2018). Most of the literature focuses on the older inmate

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population and what policies can be implemented to improve their wellbeing at prison (Burdett, 2009; Lin, 2017). Therefore, much more research is needed in this area. In borrowing from studies of policing, we can adopt certain policies to foster resilience among older correctional officers. Particularly, further education and training programs have assisted older police officers in how to manage conflict and escalating situations. Furthermore, an annual fitness test can help ensure that correctional officers have the necessary mental and physical capacities to effectively perform the job (Hesketh & Tehrani, 2019; Padilla, 2016). Adopting these strategies for older correctional officers would protect the safety of an individual correctional officer, as well as the safety of fellow staff, inmates, and operations of the correctional institution (Hesketh & Tehrani, 2019; O'Shea, 2000).

Hispanic Correctional Officers

Perhaps one of the most unique findings of this study denoted that Hispanic correctional officers exhibited more dysfunction or lower levels of resilience. Only a handful of prior studies have examined the ethnicity of correctional officers and the types of stressors they have experienced related to the job (Farkas, 1999; Garcia, 2008; Gil-Monte, Figueirdo-Ferraz, & Valdez-Bonilla, 2013). Previous studies also have found that Hispanic correctional officers typically experience less stress at work compared to non-Hispanics (Farkas, 1999; Lambert *et al*., 2009; Lariviere, 2001). Moreover, many prior studies that have included ethnicity as a variable, typically have collapsed the category to symbolize nonwhite correctional officers (Lambert *et al*., 2007; Lasswell, 2010; Triplett *et al*., 1996).

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Conceivably, one explanation of why Hispanic correctional officers have less resilience is in part to higher levels of perceived danger (Garcia, 2008). Many other factors can contribute to why Hispanic correctional officers reported dysfunction, but research on the experiences, challenges, and perspectives of Hispanic correctional officers remains scarce in the literature (Farkas, 1999; Garcia, 2008; Gil-Monte *et al*., 2013). For example, the region itself where data were collected and levels of community support may influence stress for Hispanic correctional officers (Garcia, 2008; Gil-Monte *et al*., 2013). In addition, the likelihood for promotion and overall job satisfaction may have produced a dysfunctional outcome (Blau *et al*., 1986; Farkas, 1999; Gil-Monte *et al*., 2013). Lastly, the proportion of inmates who are Hispanic and the philosophy or style of punishment may support this finding (Farkas, 1999; Lambert *et al*., 2008; Tewksbury & Mustaine, 2008). To date, no previous study has ever directly looked at the relationship between ethnicity and resilience, as well as Hispanic correctional officers' perspectives of working in corrections.

Home Stress

While many studies highlight the relationship between home stress and work stress (Blau *et al*., 1986; Lambert *et al*., 2014; Valentine *et al*., 2012), a particularly salient finding of this study is that only home stress increases dysfunctionality. There seems to be a disconnect in the relationship between home stress and stress at work. However, correctional officers who reported higher conflict at home are experiencing more dysfunction at work. Put differently, there is an imbalance at work and home, where conflict is occurring more at in the home life of correctional officers. When conflict occurs more frequently at home versus work, this is what has been referred to as "behavior-based

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conflict" (May, Lambert, Leone, Keena, & Haynes, 2020 p. 458). This form of conflict may not be as easy to detect in the workplace. Correctional officers typically can remain focused on the job and are able to have control over inmates and other job-related tasks. Yet, as home conflict continues to increase, it can have a detrimental effect on levels of morale and resilience at work (May *et al*., 2020). As conflicts at home worsen and become long-term, this builds pressure to focus while at work, which leaves many correctional officers with fatigue and declining mental cognitions (Ricciardelli, Czarnuch, Carleton, Gacek, & Shewmake, 2020). Additionally, long-term home conflict can intensify difficulties in organizational commitment, when breakdowns in communication at work occur along with a rapid decline in job performance (May *et al*., 2020; Ricciardelli *et al*., 2020).

As previous research has supported, home conflict has a reciprocal effect with work conflict (Blau *et al*., 1986; Dowden & Teller, 2004; Griffin *et al*., 2010; Lambert *et al*., 2014; Lambert *et al*., 2009; May *et al*., 2020; Ricciardelli *et al*., 2020; Triplett *et al*., 1996; Trounson & Pfeifer, 2017; Valentine *et al*., 2012; Vickovic & Morrow, 2020). Moreover, studies have often supported the notion that being stressed, in general, can deplete an individual's mental faculties and reduce their abilities to solve problems (Blau *et al*., 1986; Trounson & Pfeifer, 2017). Given the sometimes unpredictable and tumultuous environment of working in corrections, it is important to minimize areas where stress can appear in other domains (Dowden & Tellier, 2004). A potential policy to remedy this is having correctional officers seek family counseling to resolve stress at home, thereby improving levels of resilience (Lambert *et al*., 2009; Vickovic & Morrow, 2020). In addition, there remains very little research on any evaluation or effectiveness of clinical

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interventions (i.e. family counseling) directly related to correctional officers and their levels of family conflict (Vickovic & Morrow, 2020).

Actual Experience versus Strain

Another interesting finding was discovered in the descriptive statistics. There seems to be a disconnect between critical incidents correctional officers actually experienced and associated levels of strain, compared to the level of strain a correctional officer would experience, if they were to encounter an intense critical incident. Put differently, correctional officers frequently experienced minor stressors or were only exposed indirectly to a critical incident that was considered more severe. For example, many correctional officers reported less strain, when responding to something minor (i.e. inmate's complaints) or detecting something minor (i.e. contraband). In addition, if a correctional officer experienced a more intense critical incident, secondhandedly, (i.e. fellow staff member attacked) less strain was reported. However, correctional officers reported more strain for many critical incidents they reported never experiencing (i.e. inmate death or being beaten by an inmate).

Strain's relationship with critical incidents needs further examination. When critical incidents and strain were factored together, loadings were spurious and incoherent. However, when the critical incident scale and strain scale were factor loaded separately, correctional officers were bothered more by critical incidents that have yet to experience. The only two critical incidents that overlapped between experiencing and extremely bothersome were experiencing a riot and suspecting a coworker engaging in misconduct. This finding demonstrates more fear of the unknown or the fear of danger related to the job.

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There remains no clear answer between fear of danger and associated levels of strain, which warrants further research to investigate. The environments of maximum level security institutions have operated under what can be best described as "high threat, low control" for correctional staff (Lambert, Minor, Gordon, Wells & Hogan, 2018, p. 217). Attention to fear of danger has only recently began in the literature. For example, Taxman and Gordon (2009) found that frontline correctional officers experienced higher levels of fear of danger compared to supervisors. On the other hand, Lambert and colleagues (2018) discovered supervisors have higher levels of fear of danger compared to frontline correctional officers. As a policy implication, weekly meetings need to be held between managers and frontline correctional officers to discuss daily relations between correctional officers and the inmates they handle. Furthermore, if a frontline correctional officer feels isolated from management, they may experience higher levels of fear (Lambert *et al*., 2018; Taxman & Gordon, 2009).

Qualitative Discussion

As referenced and expected to a certain degree, several responses provided throughout the qualitative questions began to overlap and intersect among multiple questions. Major themes will be discussed in further detail, along with reference to subthemes that support salient theme groups. In addition, the findings will be compared with their standing in the empirical literature and what policy implications can be inferred.

Theme 1: Sources of Support

An overlapping theme throughout many of the qualitative questions involved the importance for correctional officers to have sources of support to combat critical incidents and maintain resilience. Conceptually, sources of support are a major factor of resilience

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(Richardson, 2002; Werner, 1989). Many correctional officers reported sources of support are necessary and beneficial to a new employee. In addition, correctional officers expressed sources of support were used as a coping mechanism and were a protective factor of individual resilience. Future policies should include establishing multiple avenues to achieve sources of support for both new and current correctional officers.

The theme of sources of support is consistent in a significant number of studies (Adger, 2000; Bonanno, 2004; Brodie & Eppler, 2012; Randall, 2013). However, there remains disparity on when each category of support is appropriate to use, the frequency of each category, and the duration of each category among both correctional officers of this study and previous literature. For example, several correctional officers discussed family as the most important source of support but cautioned that family can understand very little about the dangers and intensities of the job (Erdogen *et al*., 2012; Randall, 2013).

On the contrary, other correctional officers believed support of fellow coworkers was of greatest importance (Brodie & Eppler, 2012; Chae & Boyle, 2012). This was especially important for a new correctional officer for many reasons. For instance, some correctional officers used this job as the first step to adulthood and were living on their own. Similarly, they were single and had no other family to directly interact with daily except for their coworkers (Chae & Boyle, 2012). In terms of coping, some correctional officers in this study even suggested clinical sources of support are of most importance (Adger, 2000, Suliman & Einat, 2018; Richardson, 2002). Lastly, some correctional officers indicated that all sources of support are important (Balmer *et al*., 2014).

Conversely, strained relationships with peers was a subtheme mentioned by many correctional officers and was more of a persistent risk factor. Put simply, strained

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relationships often intensified and impacted the atmosphere of the correctional institution on a daily basis. As a result, many correctional officers described a heightened sense of isolation and a more hostile work environment. Strained relationships also negatively impacted the quality of relationships with fellow coworkers, inmates, and even carried over to family members. This finding corresponds with prior literature (Balmer *et al*., 2014; Biermann, 2007). Open lines of communication and transparency are necessary to diminish strained relationships with peers and reverse areas of dysfunction (Blau *et al*., 1986). Weekly or even daily meetings can help to alleviate tension among fellow correctional staff members and help support external relationships (Balmer *et al*., 2014; Griffin *et al*., 2010).

Undoubtedly, more research is needed on the influence of various sources of support. Sources of support research can positively affect several domains, and even provide balance for work and home stress (Lambert *et al*., 2009; Vickovic & Morrow, 2020). Alternatively, coworker support can help a fellow correctional officer become familiar with work expectations, the culture of the correctional institution, and help support job performance and morale (Castleden *et al*., 2011). More recently, studies have found that female correctional officers also have stronger coworker support and organizational support, which demonstrated significant decreases of stress on the job (Butler, Tasca, Zhang, & Carpenter, 2019). More research is needed to examine how gender can influence both sources of support and levels of resilience for correctional officers.

Given the findings of this current study, along with support from several prior studies, there is evidence that sources of support are a factor and can foster resilience (Butler *et al*., 2019). A major policy implication involves the use of formal or informal mentorship (Farnese, Barbieri, Bello, & Bartone, 2017; Ricciardelli & Power, 2020). Many

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correctional officers in the current study said they sought a mentor to help offer advice or support in relation to a critical incident experienced on the job. Correctional officers reported their mentor was typically a senior ranking officer or a recently retired correctional officer. Younger correctional officers found this type of mentor was more relatable, given that most already experienced a similar critical incident that caused discontent for the younger correctional officer. In addition, having a mentor who works or has worked at the correctional institution was not judgmental, which greatly differed from having a source of support through a family member. Research has also shown mentorship among younger correctional officers helps promote their sense of belonging (Farnese *et al*., 2017). As a result, this can increase organizational commitment and a sense of allegiance to the organization. In turn, mentorship can enhance external pride (one of the subthemes in the findings), by increasing a sense of belonging, and improving resilience (Farnese *et al*., 2017; Ricciardelli & Power, 2020).

The use of a formal mentorship program would assist correctional officers to team up with a mentor at the correctional institution who may be more introverted or resistant to seeking a source of support (Butler *et al*., 2019; Ricciardelli & Power, 2020). Importantly, mentorship alone is not a guarantee of enhancing resilience, as qualities of mentorship can vary. However, implementing a formal mentorship program is a step towards expanding organizational commitment, decreasing job stressors, and improving resilience (Ricciardelli & Power, 2020).

An unintended outcome of mentorship is that advancements can be made in improving the mental health of inmates; symbolizing a vicarious relationship (Butler *et al*., 2019; Farnese *et al*., 2017). Mentorship between correctional officers has recently proven

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decreases in rates of inmate suicides, which would also decrease exposure to that particular form of a critical incident (Farnese *et al*., 2017). Most importantly, mentorship programs display a better work environment and stronger bonds among correctional officers. Programs that can improve relations for correctional officers will help with job retention (Butler *et al*., 2019).

Theme 2: Resilience is a Mindset/Personality Trait

Conceptually, many correctional officers in this study reported specific individual characteristics that influence resilience in some capacity. Collectively, correctional officers identified many individual attributes that support the four domains of resilience referenced in the literature: physical, emotional, mental, and spiritual resilience (McCraty & Atkinson, 2012; Richardson, 2002). Several male correctional officers regarded resilience as the physical domain, as many believed they could physically withstand any challenge or conflict with an inmate. While physical resilience is an important factor, other domains are equally important for the job of corrections. Correctional officers with longer lengths of service evidenced other important individual characteristics that attribute to resilience, including compassion, adaptability, optimism, hope, and resolve. These characteristics support emotional, mental, and spiritual domains of resilience underscored in the literature (Cloninger, 2013, Klinoff *et al*., 2018; McCraty & Atkinson, 2012).

Training programs to develop domains of resilience are particularly important for newer correctional officers (Trounson & Pfeifer, 2016). Although a correctional officer may have physical strength and agility, they are not fully prepared mentally and emotionally for some of the critical incidents they may witness while working in a correctional institution (Ferdik & Smith, 2017; Smith & Kaminski, 2011). Newer

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correctional officers need to prepare for regular interactions with inmates, which can lead to verbal and/or physical conflict. Control of a correctional officer's emotions and proper social cues can help to deescalate and minimize conflict with inmates (Allard *et al*., 2003; Dowden & Tellier, 2004). Compared to encountering a critical incident, the use of virtual simulation programs is the next best step to addressing other domains of resilience (Ramey *et al*., 2017).

Still, there remains no single program, "to psychologically prepare all officers to enter a correctional facility" (Trounson & Pfeifer, 2016, p. 60). Programs designed to improve emotional and mental cognitions are in the infancy stage and more evaluations of programs are needed (Lambert *et al*., 2014; Law & Guo, 2016; Trounson & Pfeifer, 2016). Organizational factors will be crucial to providing programs that will help foster mental and emotional resilience (Lambert *et al*., 2014; Randall, 2013). Additionally, experience itself will improve resilience for correctional officers (Plough *et al*., 2013). Many correctional officers indicated through their experience at work they have had the opportunity to work with people of many diverse backgrounds. Tolerance for others is a major facet or spiritual resilience (McCraty & Atkinson, 2012; Plough *et al*., 2013).

Theme 3: Successful Coping

Correctional officers believed that successful coping is a major component of resilience and is crucial for all correctional officers. Tracing back to some of the earliest studies of resilience, successful coping is a fundamental concept directly related to resilience (Lazarus, 1995; Masten *et al*., 1990; Werner, 1971; Werner, 1989). As many correctional officers specified, appropriate short-term coping strategies promoted long-

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term resilience. However, challenges still exist regarding which methods of coping are most effective and how cultural acceptance can influence coping strategies.

The findings suggest there is a consensus among correctional officers that there is value in successful coping, when recommended for fellow correctional officers. However, personal selections of coping greatly differed, and a significant portion of correctional officers believed actively coping was ineffective or provided a negative connotation. The data also revealed that after correctional officers experienced a critical incident, all correctional officers were attempting to regain a state of normalcy in an abnormal environment. This finding has been confirmed across different professions and disciplines (Chae & Boyle, 2012; MacKay, 2017; Sandler *et al*., 2007).

Female correctional officers were more open to clinical or therapeutic techniques, when faced with a difficult stressor or experienced a critical incident (i.e. inmate suicide). In addition, the data evidenced that female correctional officers were more open to sharing their personal struggles with fellow coworkers and there was more acceptance from the culture of the correctional institution. These findings aligned with available literature (Burdette *et al*., 2018; Butler *et al*., 2019). However, Toker and Biron (2014) found that females used more passive-aggressive or they use avoidance techniques, when dealing with stress or trauma. On the other hand, male correctional officers believed ignoring, suppression of feelings or more maladaptive forms of coping were appropriate to use in handling stress. These gender distinctions are consistent with prior literature (Lazarus & Folkman, 1984; Werner, 1971).

Gender-based stereotypes were evident in the findings, in terms of cultural acceptance and forms of coping employed. For example, many female correctional officers

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reported self-care is important in coping and involved activities, such as getting a pedicure or having a night out with the girls. Conversely, male correctional officers referenced more engagement in outdoor activities or drinking a beer to deal with the issue. The findings also present that a negative stigma is still attached to males seeking help to cope with stress, as alluded to in prior literature (Burdette *et al*., 2018; Liddon, Kingerlee, & Barry, 2018; Ricciardelli *et al*., 2020; Shochet *et al*., 2011). Male correctional officers viewed seeking help as a major threat to their masculinity or a perceived it as a sign of weakness in front of fellow correctional officers at the workplace. As a result, many male correctional officers tried to keep personal feelings hidden from others, only to have further breakdowns later. For example, male correctional officers discussed having issues of anxiety and depression that had not been dealt with prior, while other male correctional officers resorted to self-medicating techniques.

In contrast, there was very little difference, related to demographics, for correctional officers who used prayer/meditation as a form of coping. However, there were mixed results for among correctional officers identifying as spiritual or religious compared to those not identifying as spiritual. This finding is constant in studies of various disciplines and professions (Masten *et al*., 1990; Plough *et al*., 2013; Werner, 1971; Williams 2017). Non-white correctional officers compared to white correctional officers used prayer more than meditation. However, females reported being using meditation more, compared to male correctional officers. Yet, a majority of the correctional officers sampled indicate that they used prayer over meditation. Importantly, spiritualism was a factor for coping and a source of external pride. Further, correctional officers identifying as spiritual also believed

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they were more resilient. Many correctional officers reasoned that the triumphs and tragedies they frequently experienced at work were to serve a higher being.

There are multiple policy implications for the effects of spiritualism. More research is needed to examine spiritualism or religiosity's effect on resilience (Cherry, Sampson, Galea, Marks, Stanko, Nezat, & Baudoin, 2018; Williams, 2017). In addition, more studies are needed to examine whether differences exist for correctional officers identifying as spiritual versus those who are non-spiritual, and their associated levels of resilience. Recently one study found that spiritualism assisted in coping and had a profound effect on resilience for nurses identifying as spiritual (Cherry *et al*., 2018). In another policy implication, correctional institutions could begin to have a chaplain visit weekly at each correctional facility (Denney, 2018; Williams, 2017). The chaplain could be nondenominational and volunteer directly from the community (Denney, 2018). This would serve many objectives: (1) correctional institutions would save costs of employing a chaplain, (2) correctional institutions would receive more support from the community, (3) the chaplain could serve both inmates and correctional officers in separate sessions, and (4) more correctional officers may be introduced to spiritualism and levels of resilience should improve (Denney, 2018; Williams, 2017).

Collectively, there was little difference in terms of age, race, or gender when correctional officers reported they relied on three groups to help them to cope during stressful situations: friends outside of work, family, and God (Cherry *et al*., 2018; Giordano *et al*, 2008; Shroeder & Frana, 2009; Williams, 2017). While these groups are certainly important and useful for coping and support, they are not unique to the correctional milieu. This is not meant to be a criticism, as each of these groups are certainly important.

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However, individuals of all backgrounds and professions also have access to friends, family and God, and they are not unique.

In addition to differences in gender and spiritualism, there is a need to further consider which vocational interventions are available to all correctional staff and which interventions are the most appropriate. Given the variation of resilience in the data, there remains the need for interventions to be available to correctional staff that are tailored more towards the risks and needs staff regularly face at a correctional institution, as the environment is often dangerous and unpredictable (Dugan *et al*., 2016; James *et al*., 2017; Lasswell, 2010).

Also important for correctional officers and coping is more of a practical note directly tied to this study. South Carolina Department of Corrections has continued efforts to provide many vocational interventions, available to any member affiliated with South Carolina Department of Corrections, in order to assist in coping with internal and external forms of stress or trauma. The responses of many correctional officers demonstrated support for most vocational interventions. More recently, South Carolina Department of Corrections began the three-day CISM seminar, to inform and provide different strategies on how correctional officers can handle critical incidents. In this study's follow up of the seminar, very few correctional officers indicated attendance. It is possible that many correctional officers are not identifying or recognizing the intended purpose of the seminar and/or vocational interventions.

More open dialogue from South Carolina Department of Corrections administrators can help to reduce the stigma attached to seeking help. In the principal researcher's observations of this study, South Carolina Department of Corrections administrators are

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making forward progress. In addition, male correctional officers were more receptive to vocational interventions, when they are operated by someone affiliated directly with South Carolina Department of Corrections. This finding is supported in the literature (Liddon *et al*., 2018; Trounson & Pfeifer, 2016), and explains more of the variance in approval of the employee assistance program. As vocational interventions continue to be supported and promoted by administrative officials, attendance from staff will increase and help to improve resilience (Liddon *et al*., 2018).

Theme 4: Life Balance

Another major finding of this study is that correctional officers often discussed the theme of life balance. This theme was presented in many responses throughout every question and provided many subthemes. Primarily, life balance involved correctional officers balancing risk factors with protective factors they identified that were related to the job, as well as life outside of work. In this daily balancing act, many correctional officers recalled lack of resources and uncertainty of operations. For some correctional officers they were able to develop a skill set of knowing when to separate or detach themselves from a stressor or critical incident. Lastly, a significant portion of the sample expressed difficulty in maintaining a life balance, which resulted in feelings of uncertainty and the formation of some typologies.

The term "life balance" used by many correctional officers is somewhat unique and has only been seen more recently in the corrections literature, which is a finding on its own (Burdette *et al*., 2018; Ricciardelli & Power, 2020). For some correctional officers, life balance simply meant to balance life and work, as underscored throughout the literature (Erdogen *et al*., 2012; Lambert *et al*., 2009; Lim *et al*., 2016; Vickovic & Morrow, 2020;

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Werner, 1971). Mainly, correctional officers viewed family as a protective factor and could even represent coworkers in their unit. When correctional officers were encountered a critical incident, remembering that they get to see their family helped them to overcome the stress.

Another interesting finding among correctional officer responses involved subthemes of separation/detachment. For a portion of correctional officers detachment presented more of a risk factor, including separation from family, separation from any coping intervention, or thoughts of total separation from the job, which is consistent with a few empirical studies (Elder *et al*., 2003; Steward, 1982; Walters, 1991; Werner, 1971). For a significant portion of correctional officers, detachment was more of a protective factor, and was aligned with other research studies (McCraty & Atkinson, 2012; Sugiyama *er al*., 2018). As a protective factor, many correctional officers reported psychological and emotional separation from a critical incident. This helped to maintain mental resilience, and correctional officers were able to avoid self-blame or reliving the trauma (McCraty & Atkinson, 2012). The availability of mental health resources and further evaluations can allow detachment to be more of a protective factor for correctional officers and help foster resilience (McCraty & Atkinson, 2012; Sugiyama *et al*. 2018).

Correctional officers identified many of the same risk factors that are related to limited resources (Lambert *et al*., 2010) and uncertainty of policies or operations (Allard *et al*., 2003) all of which are regularly found in the literature. Risk factors included: role conflict (Ferdik & Smith, 2017), role strain (Hogan *et al*., 2006), income discrepancies (Lambert, 2003), and ineffective management and policy (Triplett *et al*., 1996). Similar to

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risk awareness, many correctional officers were already aware that these stressors were common and did not evince any major setbacks or dysfunction (Plough *et al*., 2013).

However, there were a few major risk factors that evidenced more of a damaging effect on resilience and functioning at work and home. In addition, the factors that seem to cause more strain on correctional officers warrant several implications. More research is needed on how to combat burdensome staff to inmate ratios (Varker & Devilly, 2012), as this was a major stressor for correctional officers. Another policy implication involves redistribution of funds to ensure working equipment is available (Alarid, 2009). This will increase accountability and improve functions and morale of correctional institutions, which will also strengthen resilience (Allard *et al*., 2003). The last major risk factor repeatedly accounted by correctional officers involved 12-hour shift lengths. Little research and evaluation have examined changes in shift lengths (Bulman, 2012; Dawson, 2019). Preliminary results indicate that reducing shift lengths can improve sleep patterns and attention at work (Dawson, 2019). The data in this study revealed that many correctional officers often feel drained or experience burnout after working repeated 12-hour shifts.

Accounts from correctional officers and conceptual models in the literature pointed out that life balance is a daily cycle and when risk factors or vulnerabilities increase, negative outcomes result (Richardson, 2002; Werner, 1989). Responses supported evidence of typologies that associated to degrees of imbalance. As recalled, outcomes of resilience in the quantitative portion of the study only produced resilience and dysfunction. In accordance with Richardson (2002) conceptual framework of resilience, correctional officer responses demonstrated all four outcomes of resilience from the original model. Promotion was a theme that surfaced with resilient reintegration, as correctional officers

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are thriving within the organization. Stability was witnessed more by older correctional officers, in which they recognized certain physical abilities but performing the job was no issue. Reintegration with loss was noted as a portion of the correctional officers discussed struggling more or had lower morale. Lastly, a smaller portion of correctional officers represented dysfunctional; they did not believe they had any resilience and had an intention to leave the job (Richardson, 2002).

Moreover, correctional officers provided typologies that connected with Merton's (1938) five adaptations to strain. In addition, some correctional officers' responses provided a semblance of Sampson and Laub's (1993) life course theory and Agnew's (1992) general strain theory. For instance, one correctional officer reported years of service with SCDC, but he was denied leave to go watch his wife graduate from graduate school. This presented a "turning point" in the correctional officer's life, and he reported his intentions of leaving the job (Sampson & Laub, 1993). While this study looked only looked at negative events and was an exploratory design, future research needs to consider positive events and milestones that can serve as a turning point (Sampson & Laub, 1993). Future studies need to examine if aforementioned theories hold consistent or wane across other samples.

In addition, it may be advantageous to examine correctional institutions post-COVID-19. Many correctional institutions have been operating with unusually high levels of anomie, as both correctional officers and inmates are trying to combat, in some cases, a fatal virus (Montoya-Barthelemy, Lee, Cundiff, & Smith (2020). As a result of the pandemic, institutional rules have changed within many prisons. Administrators face the challenge of how to continue safe and optimal operations of the prison, while promoting

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the health and safety of both correctional staff and prisoners. Most importantly, institutional rules have shifted towards survival (Montoya-Barthelemy *et al.*, 2020). Studies after the pandemic may reveal differences related to types and frequencies of critical incidents, changes in coping strategies, and associated levels of resilience.

Theme 5: Sense of Purpose

The last theme encompasses correctional officer responses that were closely related to two perspectives: (1) factors that keep correctional officers on the job and (2) primary theme of what makes correctional officers resilient. The most salient response that kept correctional officers on the job was commitment to inmate behavioral reformation (Lasswell, 2010; Tewksbury & Mustaine, 2008). Correctional officers recognized the human element and considered many of the backgrounds and circumstances that led the inmate to the institution. In alignment with the literature, many inmates enter correctional facilities and struggle to adjust to an institutional setting (Balmer *et al.*, 2014; Blau *et al.*, 1986). Correctional officers perceived behavioral reform of an inmate as a challenge to the job, which made the outcome of the inmate leaving the correctional institution more rewarding (Lazarus, 1995; Lazarus & Folkman, 1984).

In addition, many correctional officers experienced a sense of accomplishment when an inmate left the institution and never reappeared. The regular open dialogue and support between the correctional officer and inmates they supervise are indicative of a more rehabilitative environment (Lambert *et al.*, 2009; Tewksbury & Mustaine, 2008). Woltz (2018) found that humane treatment and open dialogue between correctional officers and inmates greatly reduced prison riots at correctional institutions in Florida and California that experienced a paradigm shift from punishment-oriented to rehabilitative approaches.

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Moreover, when inmates are treated with respect the prison environment improves and correctional officers experience more resilience (Woltz, 2018). Future studies should examine if supportive relationships between correctional officers and inmates exist in more punishment-oriented environments and how critical incidents are impacted (Plough *et al*., 2013; Woltz, 2018).

Internal pride was a subtheme that correlated with themes 4 and 5 (Caldwell *et al*., 2018; Schwarz, 2018; Werner, 1971). A correctional officer's rank was a sense of internal pride and symbolized an increased level of self-esteem (Wooldredge, 1994) and a perception of respect among fellow coworkers and inmates (Worley *et al*., 2018). Internal pride also signified a correctional officer's level of motivation and a self-respect that many maintained integrity, honesty, and fairness among everyone they worked with. Female correctional officers expressed internal pride to be able to persist in male-dominated institutions (Lambert *et al*., 2013). Many female correctional officers viewed employment as a positive challenge, when others around them did not believe they would be able to handle the job (Worley *et al*., 2018). These internal traits represent emotional and mental resilience (McCraty & Atkinson, 2012). Moreover, correctional officers with higher levels of internal pride evidenced lower levels of role conflict. This finding is consistent with the research literature (Allard *et al*., 2003; Wortley & Stewart, 2003). Future studies should continue to explore how demographic variables influence internal pride and associated levels of resilience (Wooldredge, 1994; Wortley & Stewart, 2003).

A paradox was discovered within the data, as a significant portion of correctional officers found a sense of stability and security to maintain employment within an unstable environment. This concept is relatively new in the field, but many correctional officers

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recognize that there will always be a need for correctional workers (Ricciardelli & Power, 2020; Suliman & Einat, 2018; Worley & Worley, 2016). In addition, many correctional officers believed financial provisions were reasonable to support a family. Research has shown that salaries are increasing to make it difficult to find a job that is comparable in pay (Worley & Worley, 2016). Moreover, some jurisdictions are even starting to base salary on highest educational level attained (Ricciardelli & Power, 2020). Furthermore, correctional officers mentioned that the received benefits almost outweighed the paycheck. Unfortunately, little context was provided in relation to what benefits attracted correctional officers to the job and future studies should consider. The only benefit highlighted was the retirement package. In consideration of physical resilience, many correctional officers become eligible to retire after 25 years. Many correctional officers valued this and were aiming to be the first in many generations to enjoy living in a state of retirement. Research has shown that financial income addresses an individual's mental and emotional resilience (van Breda, 2018).

Another finding related to why correctional officers stay on the job was correctional officers' perceptions of promotion and job advancement (Ferdik & Smith, 2017; Lambert *et al*., 2017; Tewksbury & Mustaine, 2008). Many correctional officers reflected on their current rank and viewed a clear path to promotion and career advancement. In contrast to other studies, this study found that correctional officers reporting any form of promotion represented diverse backgrounds. Prior literature has found that race (Ferdik & Smith, 2017; Lambert *et al*, 2009) and education level each have had a major influence on promotion (Allard *et al*., 2003; Lasswell, 2010). From an objective standpoint, future

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research should measure what criteria need to be achieved in order to be considered for promotion (Elder *et al*., 2003; Lariviere, 2010; Tomlinson *et al*., 2018).

The last finding considers all the previous discussion for this theme. Correctional officers have developed a sense of purpose in working for corrections. Several professions and disciplines are in agreement with this finding (Cloninger, 2013; Randall, 2013; Tyron & Radzin, 1972; Werner, 1995). In conjunction with sense of purpose, many correctional officers referenced subthemes of survivorship and endurance. Put simply, correctional officers believed each critical incident they faced in their life was to assist in personal growth, to shape a more positive and optimistic outlook, and supported a belief system that they could help a fellow coworker or inmate in overcoming a similar critical incident. Findings in the data supported that when correctional officers exhibited a sense of purpose, they were more motivated, could adapt to evolving situations, and identified with serving the inmate, organization, and community. This exhibited all domains of resilience (Bonanno, 2004; McCraty & Atkinson, 2012; Richardson, 2002). In addition, many correctional officers reflected on their length of service and many of the challenges and critical incidents they had overcome. The last finding was rather straightforward, but the most powerful theme, "I have persevered."

Strengths & Weaknesses

While this study produced a number of important insights into resilience in correctional officers, it is not without limitations. These strengths and weaknesses of the research design will now be discussed in more detail.

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Strengths

The following study was the first of its kind to use a mixed-methods approach, while also using interdisciplinary theoretical perspectives to test a complex phenomenon. No study has ever directly asked correctional officers questions about factors that helped to comprise their level of resilience. The use of scales and measures have each been replicated and they demonstrated both validity and reliability (Carver, 1997; Dennis & Vander Wal, 2010; James *et al*., 2017). Resilience is a multifaceted process, and it would be reasonable for researchers to include other factors that are attributable to resilience (i.e. staff to inmate ratio). However, each additional variable would contribute to the growth of measurement error and would have increased the complexity of connecting the concepts that each variable represented (Shadish *et al*., 2002). Resultingly, this study was willing to trade-off the contributions of various factors, as an effort to minimize measurement error and avoided turning an already complicated examination of the effects of resilience into an incoherent puzzle of concepts (Abbey & Meloy, 2017; Babbie, 2012). For example, while SCDC asked that I explore the experiences of correctional officers using offered services, vocational interventions was a variable given careful attention in the research. There were several contextual concerns raised including how long vocational programs existed (i.e. situational controls), who were the third parties that operated some (i.e. employee assistance program), and the accessibility of vocational interventions.

While the quantitative portion of the study suffered from a smaller sample size, several steps were taken to improve the strength of the findings. As previously stated, Cronbach's Alpha has been widely criticized for its relation to measurement error, and all internal reliability measures featured McDonald's Omega instead (Hayes & Coutts, 2020;

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Peters, 2014; Watkins, 2017). Omega coefficients are acceptable for studies using an exploratory research design (Peters, 2014). Most importantly, research has reported “little bias in omega coefficients existed when the sample size was larger than 100” (Watkins, 2017, p. 1120). In order for Cronbach’s Alpha to be adequate, a sample size of at least 400 would have been required (Peters, 2014; Watkins, 2017). Thus, the use of McDonald’s Omega greatly improved the detection of measurement errors and addressed major concerns of a smaller sample size (Watkins, 2017).

Importantly, interaction effects were given consideration to detect if any effects among independent variables that were related to an observed change in the dependent variable (Brambor, Clark, & Golder, 2006; Norton, Wang, & Ai, 2004). Both age and length of service negatively predicted dysfunctionality. An interaction means that a variable has a greater impact on the dependent variable, when combined with another (Brambor *et al*., 2006). This study found that the majority of older correctional officers already had more tenure by their sheer age. Therefore, evidence of an interaction effect was not supported (Norton *et al*., 2004).

The use of qualitative methods offered many additional strengths to the study. Perhaps one of the biggest qualitative challenges of this study involved carefully coding and categorizing 186 respondents’ answers to each question. Completing this task alone was a major feat, and the sample size for the qualitative portion stood as a major strength of the study. The inclusion of all correctional officers’ responses from each correctional institution enhanced validity through saturation. A saturation point was easily attained as enough responses had been recorded to the extent that themes appeared quite similar and any new insights had no longer emerged (Strauss & Corbin, 1990; Suri, 2011).

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Relative to the sample size of the qualitative portion of the study, a strategy was employed to encourage more responses to question, while also taking into consideration the psychological wellbeing of participants (Cresswell & Zhang, 2009; Moran & Asquith, 2020). For some individuals it can be quite difficult to have to relive a traumatic experience, when being asked to recall trauma in any form of research (Cresswell & Zhang, 2009). Moran and Asquith (2020) argued that researching trauma can have a different effect on each participant, based on "the amount, duration and type of exposure, as well as a person's life history and current circumstances" (p. 2). Initially, questions were asked in an order that allowed for detachment from personal trauma they might have experienced. Furthermore, each question was asked differently, but all responses were associated with a correctional officer's level of resilience. However, as they continued to think about various concepts (i.e. critical incidents) the thought processes begin to overlap. As a result, questions increased to a more personal level, while participants became more comfortable in recalling a traumatic incident and elicited responses that were experienced personally (Cresswell & Zhang, 2009; Moran & Asquith, 2020). Once again, resources were provided in the cover letter to protect and were informed of the voluntariness in answering any questions to protect the wellbeing of every participant.

Most importantly, the mixed-methods approach utilized the technique of triangulation. Notably, there were some major distinctions, in terms of findings, between the quantitative and qualitative methods employed. Triangulation allowed the researcher to use different methods that complemented each method's strengths and weaknesses and enhanced both internal and external validity. Additionally, analyzing the major themes that developed in each method supported the interpretation of the findings (Babbie, 2012).

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Weaknesses

While this study produced important insights into the resilience of correctional officers, it utilized a cross-sectional approach. Therefore, the design cannot provide causal inferences, as it only depicted resilience at one point of time (Shadish *et al*., 2002). Many scholars have contended resilience is not absolute, but varies over time, when internal and external stressors enter over a person's life (Bonanno, 2004; Christiansen, 2018; Werner, 1989). Given that resilience is not absolute, a future study design should recognize the nested structure of institutions (Shadish *et al*., 2002). Data from prison administrators (i.e. Wardens, Directors at Headquarters) would be valuable in developing an understanding of resilience (Law & Guo, 2016; Taxman & Gordon, 2009). Longitudinal studies would better capture how resilience fluctuates among correctional officers, and at which points do changes of resilience levels occur. From there, it would be of interest to establish which coping style a correctional officer employs, based on the severity of a critical incident. Ultimately, longitudinal studies would enable a better interpretation of how the process among critical incidents, coping mechanisms, and resilience operates (Babbie, 2012).

Regarding internal validity, some questions in the survey instrument might have elicited an inaccurate response, unintentionally. To help minimize this concern, logic checks were conducted on survey responses. For example, if a participant provided a straight line for responses, then the survey would have been excluded from the data. This results when a participant is not interested in taking the survey (Abbey & Meloy, 2017). The only surveys that were excluded from the study were from McCormick Correctional Institution, due to extremely low variance and the surveys provided little to no information.

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Another threat to internal validity includes history. It is important to mention that the last date of data collection concluded on February 28th, 2020. Nearly three weeks later, coronavirus (COVID-19) began to rapidly spread. In response to a heightened public awareness and actions from national and local governments, lockdowns and/or shutdowns of many institutions was enforced. Any threat to internal validity, based on perceptions of the global pandemic were minimal, at best.

However, attention was still given to the threat of internal validity in regard to history. For example, a correctional officer may have had a history of prior trauma or is simultaneously experienced an external stressor (i.e. death of a loved one) that may have influenced the outcome of resilience (Babbie, 2012). Once again, this could have affected the temporal ordering of concepts (Shadish *et al*., 2002). For example, family discord, not a work-related critical incident, occurred and influenced a correctional officer's level of resilience. In addition, there is the possibility of measurement error concerning the critical incident scale. The scale asked correctional officers to select the frequency of several traumatic events over an entire career and some events included a rank in severity (James *et al*., 2017). While some correctional officers may never forget certain tragedies, there remains the issue of memory recall. To control for this in future studies the researcher could provide intervals of time to recall critical incidents (i.e. most recent, in the past year, and lifetime). In addition, the use of a life calendar could help reduce issues of memory recall (Nelson, 2010; Sutton, 2010).

This study did not feature a life calendar after several meetings were held with correctional experts directly affiliated with SCDC. Given the number of correctional institutions the principal researcher had intended to visit, correctional experts

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recommended only asking one question related to time interval. The rationale behind this was that many correctional officers would be taking the survey after their shift ended, which for some may have been up to 14 hours. Furthermore, for correctional officers taking the survey before their shift, some institutions had limited staff, which was partially due to changes in management at some correctional institutions (i.e. McCormick Correctional Institution). An agreement was reached to include the time interval question related to number of months of service. This step would encourage participants to complete more of the survey.

Future studies should include a life calendar to provide different time intervals, where critical incidents may have occurred more often. For quantitative purposes, a life calendar would add a self-report aspect to the questionnaire. Sutton (2010) found that assessments of life calendars were reliable and “over-reporting was not a major issue” (p. 1041). The only setback with using a life calendar is more time for data entry (Nelson, 2010). Lastly, the principal researcher gave consideration to supplementing critical incidents with official records (Babbie, 2012). However, access to such records were not available.

As previously mentioned, the sample size for the quantitative portion suffered and was one of the major weaknesses of the study. Careful steps were followed to maximize the sample as much as possible, but this is one of the major challenges of the social sciences, and specifically related to corrections (Hogan *et al*., 2006; Lambert *et al*., 2009). In addition, other survey distribution methods should be considered, such as a password protected electronic copy of the survey (Babbie, 2012; Griffin *et al*., 2010). However, this study provided several different methods to gain access to participating in the survey. For

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example, a correctional officer could print a copy of the survey, complete it at their convenience, and deposit into the secured lockbox (Ferdik, 2014; Smith *et al*., 2016).

Another limitation of the study was related to funding constraints that perhaps played a role in the smaller sample size. Future studies should consider the use of incentives (i.e. gift card) in order to yield a larger sample size (Abbey & Meloy, 2017). Future studies can further explore and examine interactions effects of variables (Brambor *et al*., 2006). As previously mentioned, all quantitative analyses were conducted through SPSS. However, STATA can also test for interaction in the regression model and permit the calculation of margin effects and associated graphs (Brambor *et al*., 2006). In addition, STATA can perform further advanced quantitative analyses (i.e. polychoric correlations) that could not be performed in SPSS. As mentioned earlier, resilience is achieved after overcoming an adverse event. Therefore, resilience is conditional in nature and may suggest that other conditions (i.e. severity of event) occurred to support a particular effect (Brambor *et al*., 2006; Norton *et al*., 2004). Lambert and colleagues (2009) highlighted the fact that studies need to consider the interaction effects between individual characteristics that influence levels of stress. Given that there were few statistically significant findings, tests of any interaction effects were not performed. However, the principal researcher intends to continue further investigations of resilience in the future.

Concerning external validity, the use of a purposive sample increased the threat to accurately reflecting the population. For example, the number of senior ranking correctional officers included in the sample did not adequately reflect the number in the population. However, the researcher attempted to reduce this issue by maximizing the anticipated sample size (Babbie, 2012). As previously stated, wardens and senior ranking

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correctional officers reminded fellow staff about the study during roll call. Additionally, the survey instrument was made available to correctional officers of all shifts. Lastly, all data collected were only from one state, which impeded the generalizability of the findings to correctional officers in other states. Therefore, replication of this study would add further evidence of how resilience operates in the correctional milieu and add additional support to generalizability (Babbie, 2012).

Best Practices to Promote Future Training

In order to improve future training, scholars and practitioners must begin work together to construct a universal definition of resilience (Bonanno, 2004). Currently, there is no scholarly consensus on how to define and measure resilience. Moreover, scholars often emphasize different dimensions of resilience (i.e. mental, physical), while ignoring other factors. As a result, measures and outcomes of resilience have been scattered; as evidenced in the literature on training programs. In fact, Joyce *et al*. (2019) remarked that no particular study or program stands out as reaching the "gold standard." In developing a universal definition, researchers can begin to agree on how to conceptualize and operationalize appropriate measures. Then collectively, researcher can begin to administer uniform tests of resilience training programs that operate under the context of a given profession (Randall, 2013). Ultimately, the major goal of a resilience training program is to accomplish physiological coherence, that McCraty and Atkinson (2012) describe as, "the degree of order, harmony, and stability in various rhythmic activities within living systems over any given time period" (p. 48).

Before any further evaluation of resilience training programs can begin, researchers face the challenge of winning over the support of an organization. Organizations can be

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both positive and detrimental to individuals; as they can provide supportive resources to help an individual function or cripple and individual with demands towards a state of dysfunction (Lazarus, 1995; Randall, 2013). There are several approaches to achieving the goal of gaining organizational support. Researchers must recognize that certain professions, such as military, policing, and corrections; are still considered as male-dominated professions (Burdett *et al*., 2018). The organizational culture of these professions operates under a "macho" attitude (Randall, 2013, p. 419). This belief prevents many administrators and staff from seeking any form of an intervention, as it threatens the cultural viewpoints of masculinity (Randall, 2013). Therefore, administrators and supervisors need to be approached first. Given their level of leadership, supervisors can minimize barriers for reporting stress and share a vital role in allocating support services to staff. This further helps correctional officers avoid social embarrassment from fellow peers for attending resilience training programs (Suliman & Einat, 2018).

A second approach to gaining organizational support is stressing the financial impact resilience training can have in reducing unnecessary costs (Cotton, 1993). Currently, mental health related costs are estimated to average over one trillion dollars in the global economy (Joyce *et al*. 2019). For organizations, correctional staff are their greatest resource and investment (Griffin *et al*., 2010). Resilience programs can teach correctional officers skills in the development of self-care. Presently, correctional officers experience high rates of multiple stressors, which lead to constant fatigue, depression, anxiety, cardiovascular problems, obesity, self-medicating, and can even lead to fatalities (James *et al*., 2017; Shochet *et al*., 2011). This leaves correctional officers to cope on their own, as many correctional organizations struggle to provide adequate resources to address

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correctional officers' health needs (Ferdik & Smith, 2017). Randall (2013) found that too much stress has led to an increase of more on-the-job accidents, related to the body's response of cumulative stress.

Furthermore, organizations are plagued with an average rate of absenteeism at 20 percent (Klinoff, *et al*., 2018). Absenteeism is indicative of one of two factors; burnout or the correctional officer is trying to avoid the biggest source of stress as much as possible (Christiansen, 2018; Shochet *et al*., 2011). These costs combined, not to mention the cost for providing the care and needs of inmates, should be compelling enough for administrators to try something different. Conversely, Andersen *et al*. (2015) provided a 5-day resilience program and resulted in a major decline of absentee rates, along with a 14 percent deduction in healthcare premiums paid by the organization. Hence, it will be simple for researchers to convince an organization to support trials of a resilience program; especially when using a cost-benefits approach (Cotton, 1993).

A third approach would involve gaining support through government partnership (Cotton, 1993). To achieve this partnership, governmental entities like to see use of evidence-based practices, which are training programs repeatedly tested and have received empirical support (Trounson & Pfeifer, 2016). The government is more willing to invest in a training program, when they know that a program works and will produce more positive outcomes versus a waste of time and expenditure. If correctional officers can be paid for participation in the resilience program, then the organization will yield collective engagement. Also, this joint initiative would help offset the cost and burden to the organization (Shochet *et al*., 2011). Ultimately, an organization supporting a resilience program can become self-regulating (Suliman & Einat, 2018).

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Future Research

Scholars remain uncertain as to what factors foster or discourage resilience. As previously discussed in the literature review, many studies tried to measure a variety of factors to examine how they related to resilience, while each applying a cross-sectional survey instrument (Biermann, 2007; James *et al*., 2017; Mignano *et al*., 2017; Ojedokun & Idemudia, 2014). Through advanced scientific rigor, empirical evidence has supported resilience exists among correctional officers and stimulates positive outcomes.

Now is the time for researchers to collaborate with clinicians and practitioners to begin randomized trials of resilience programs as this presents a major gap in research. Worldwide and among various professions, depression has contributed to major physical health risks including high blood pressure, heart disease, and diabetes (Jaegers, Matthieu, Werth, Ahmad, Barnidge & Vaughn, 2020). Moreover, there is an urgency for experimentations with resilience programs in corrections, given the notable increases of PTSD and rates of suicide among correctional officers (Christiansen, 2018; James *et al*., 2017; Olson & Wasilewski, 2017; Trounson & Pfeifer, 2016). However, this approach needs to be met with some caution. As previously discussed, there is a negative stigma attached to participation in clinical interventions (Burdette *et al*., 2018). While there are advantages to including clinical professionals, resilience programs should be led by a practitioner who has experience working as a correctional officer. Accordingly, research has shown a significant increase in participation of the program will occur (Shochet *et al*., 2011). Correctional officers are more receptive to programs led in this manner, as they will view the researcher as more credible and more relatable. In addition, the researcher can speak from experience about the specific challenges they were able to overcome (Trounson

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& Pfeifer, 2016). This approach has been applied in studies, where police officers expressed eagerness to continue similar programs and yielded more significant levels of resilience (Andersen *et al*., 2015; McCraty & Atkinson, 2012). Another advantage in collaborative efforts will allow a better understanding of how genetic traits overlap with stress responses, leading to a further decline of health conditions (Olson & Wasilewski, 2017; Shochet *et al*., 2011). Clinicians will be instrumental in separating these interrelated factors (Trounson & Pfeifer, 2016)

Another gap in research considers the use of further longitudinal studies. For example, the current empirical literature highlights the relationship between stress and correctional officer resilience. However, there remains an unclear relationship between stress and resilience. We can examine this relationship in two different ways. An argument can be made that those encountering more critical incidents are more resilient. For example, O'Neal *et al*. (2018) discovered military officers are more resilient. They were fully exposed to the challenges in the frontlines, mastered resilience, and continued to thrive and move up in rank. Similarly, doctors, therapists, and nurses, have repeatedly experienced traumatic events. This group of clinicians sustain resilience through the use of problem-solving skills they developed in educational training along with recalling a sense of purpose in their profession (Balme, 2015; Lim *et al*., 2016; MacKay, 2012).

Conversely, Christiansen (2018) reported there can be a threshold where exposure to critical incidents has a deleterious effect on resilience. He used the example of a correctional officer that had experienced 10 inmate suicides and had resilience. However, after observing inmate suicide number 11, the correctional officer began to have a mental breakdown and could no longer tolerate working in the profession. Longitudinal

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assessments would perhaps be better at specifying the tipping point of when the frequency of exposure to critical incidents begins to have a damaging effect on a correctional officer's level of resilience (Christiansen, 2018). Most importantly, longitudinal studies are pertinent for further understanding both short-term and long-term levels of resilience. Manifestations of resilience can be measured at earlier points and will add a further understanding of the patterns that diminish resilience, compared to those behavioral traits that remain relatively stable over time (Werner, 1995). More recent studies of resilience have supported repeated measures of resilience among correctional institutions intermittently, ranging from every six months to two years (van Ginneken, Bosma, Pasma, & Palmen, 2020). They have found intermittent measures have increased response rates amongst correctional staff, as they became more aware of the study, gained a vested interest, and valued any meaningful insights learned. Furthermore, this approach will allow researchers to better understand the waxing and waning of resilience within institutions, while informing future policy (van Ginneken *et al*., 2020).

Another gap in research involves the major debate of proactive versus reactive resilience programs. Earlier works of resilience argued that one must overcome a critical incident to become resilient (Masten *et al*., 1990). Some studies have even attempted to provide resilience training after being recently hired and found that participants of the program experienced short-term resilience. However, in the long-term, they developed the same levels of anxiety, as their peers not participating in the program, and their resilience seemed to diminish (Crane *et al*., 2019; Ramsey *et al*., 2017). Conversely, Varker and Devilly (2012) argued that many become disoriented, after a traumatic event, and requires more time and effort to help them regain stability. In their opinion, programs that focus

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more on prevention of negative responses has more promise, compared to programs after a traumatic event (Varker & Devilly, 2012).

In order to attempt early initiatives to foster resilience among new recruits, many researchers have applied virtual simulations (Andersen *et al*., 2015; Francis *et al*., 2018; Randall, 2013). The logic behind the use of virtual simulations stems from the evidence of various risks and stressors referenced throughout the empirical literature. In response, many professions have developed action plans and preventative measures to try and reduce the negative responses that are related to experiencing a traumatic event (Varker & Devilly, 2012). Thus, virtual simulations are meant to stimulate physiological responses of viewers, as if they were in reality experiencing the traumatic event. The caveat is that nothing can compare to experiencing a critical incident in real life (Plough *et al*., 2013). Another example involves the number of training sessions offered over different work shifts (Andersen *et al*., 2015). This would contribute to the literature in determining how many resilience training sessions would achieve resilience reintegration (Richardson, 2002). Research will need to continue evaluation of resilience among individuals entering a job in corrections, if resilience training is offered to them.

In terms of policy implications, there remains another gap in the literature in how correctional institutions can enhance resilience. Several scholars have argued that individuals overcome obstacles better when they feel challenged, not threatened (Cotton, 1993; Lazarus, 1995; Lazarus & Folkman, 1984). Challenges can also motivate individuals. Research should investigate the effect that rewards and recognition have on resilience. Trounson and Pfiefer (2016) found that some correctional facilities allowed correctional officers to exercise at the gym during their work shift, as a reward. Thus, they were paid

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for a leisure activity, while also promoting physical resilience. In another example, the use of paid time off or a bonus would reduce levels of absenteeism for correctional officers, compared to threats of termination for being absent. The use of incentives may help correctional officers overlook certain stressors, as they are striving for a reward ore receive recognition. In addition, a rewards system would help support familial bonds and more leisurely activities that are valued by correctional officers (Griffin *et al*., 2010). The use of a rewards system, along with recognition, would help motivate correctional officers, foster resilience, and strengthen loyalty to the organization (Blau *et al*., 1986).

Globally, it is important to foster resilience among correctional officers (Ferdik & Smith, 2017; van Ginneken *et al*., 2020; Jaegers *et al*., 2020). Many correctional facilities are facing similar problems witnessed in this study and nationally, such as limited staffing, unclear policies, and operating with limited resources. In conjunction, inmates have more extensive criminal histories and an array of complex health needs that can drain personnel and fiscal costs of those regulating them (Ferdik & Smith, 2017). As mentioned earlier, international studies have recommended repeating measures of resilience among each correctional institution that is studied (van Ginneken *et al*., 2020; Jaegers *et al*., 2020).

International studies have also offered new directions for future research. For example, future research should continue to monitor the influence of political factors over correctional officers' level of resilience. Politically, a major debate continues on what to do in areas more prone to crime, whether it be to build more prisons or decriminalize certain offenses (i.e. drug offenses), which can impact prison sizes and the staff to prison ratio (Dowden & Tellier, 2004; Jaegers *et al*., 2020; Lambert *et al*., 2017). For example, in Norway and Sweden, reductions in prison size had a positive effect on levels of resilience

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for correctional officers (van Ginneken *et al*., 2020). Separately, Jaegers and colleagues (2020) found that when prison sizes decreased, correctional officers reported being less susceptible to job stressors and burnout.

Future research should continue to analyze the effect of organizational factors that influence correctional officers' level of resilience (Lambert *et al*., 2002; Sandler *et al*., 2007). For instance, studies can look at access to support across different levels of management (Balmer *et al*., 2014). Once again, studies must also be conducted in a cross-national perspective. This would allow researchers to understand the difference in factors of stress that exist and add a more cultural perspective of how individual correctional officers respond to critical incidents (Dowden & Tellier, 2004; Werner 1995).

Conclusion

This study addresses several gaps in the literature. Primarily, it addresses how correctional officers can sustain a level of resilience to endure internal and external forces. Secondly, it offers an opposing viewpoint that is contrary to a significant portion of the empirical literature by identifying the positive factors of this profession. This dissertation provides a starting point in exploring and understanding the broad phenomenon of resilience in corrections, while also applying criminological theoretical contexts. Resilience is a complex concept that necessitates more extensive research. Through proper classification of correctional officers' level of resilience, research can begin examining new areas. Future research can begin studying other factors that help to build resilience (i.e. hardiness). Additionally, future research should consider examining outcome measures that are related to category of resilience (i.e. job satisfaction, absenteeism).

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Importantly, experimental designs, with advanced scientific rigor, can test interventions to investigate if they foster resilience among correctional officers.

In conclusion, there is much work to be done in understanding how resilience operates in the correctional milieu. Further understanding of traits, processes, and programs, must be met with advanced scientific rigor. As noted here, the early findings offer a promising future for individuals across various milieus and disciplines. Regardless of the variance of contextual factors, resilience should be examined as a process: the absence of risk factors, the presence of protective factors, and the sustainability of factors that allow an individual to prosper.

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APPENDIX A

LIST OF SIGNIFICANT VARIABLES

Table A.1: List of Significant Variables for Study

Identifying Variables
Institution ID#
Case ID#
Control Variables
Gender
Race
Marital Status
Education
Age
Tenure
Level of Security
Officer Shift
Prison Location
Independent Variables
Critical Incident Frequency
Strain
Coping
Vocational Intervention
Work-Home Conflict
Dependent Variables
Resilient
Dysfunctional

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APPENDIX B

THE CRITICAL INCIDENT HISTORY QUESTIONNAIRE (CIHQ-C)

Please indicate the number of times the incidents have occurred during your career:

Being seriously injured at work_____

Being present when a fellow employee was seriously injured or killed_____

Being seriously beaten_____

Being seriously bitten_____

Being taken hostage_____

Receiving serious threats against self or loved ones_____

Being threatened with a gun_____

Being threatened with a knife, shank, or other weapon_____

Being trapped in a potentially life-threatening situation_____

Having to kill or seriously injure someone_____

Making a mistake that led to the serious injury or death of an inmate_____

Seeing someone dying_____

Encountering the body of a dead inmate_____

Encountering an inmate committing suicide_____

Encountering sexual assault of an inmate_____

Being ambushed by inmates_____

Managing an aggressive riot_____

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Note. Adapted from Critical Incident History Questionnaire (CHIQ-C), James *et al*., (2017).

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APPENDIX C

BRIEF COPE SCALE

These items deal with ways you've been coping with the stress in your life since you found out you were going to have to have this operation. There are many ways to try to deal with problems. These items ask what you've been doing to cope with this one. Obviously, different people deal with things in different ways, but I'm interested in how you've tried to deal with it. Each item says something about a particular way of coping. I want to know to what extent you've been doing what the item says. How much or how frequently. Don't answer on the basis of whether it seems to be working or not—just whether or not you're doing it. Use these response choices. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

1 = I haven't been doing this at all
2 = I've been doing this a little bit
3 = I've been doing this a medium amount
4 = I've been doing this a lot

1. I've been turning to work or other activities to take my mind off things.
2. I've been concentrating my efforts on doing something about the situation I'm in.
3. I've been saying to myself "this isn't real.".
4. I've been using alcohol or other drugs to make myself feel better.
5. I've been getting emotional support from others.
6. I've been giving up trying to deal with it.
7. I've been taking action to try to make the situation better.
8. I've been refusing to believe that it has happened.
9. I've been saying things to let my unpleasant feelings escape.
10. I've been getting help and advice from other people.
11. I've been using alcohol or other drugs to help me get through it.
12. I've been trying to see it in a different light, to make it seem more positive.
13. I've been criticizing myself.
14. I've been trying to come up with a strategy about what to do.
15. I've been getting comfort and understanding from someone.
16. I've been giving up the attempt to cope.
17. I've been looking for something good in what is happening.
18. I've been making jokes about it.
19. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.
20. I've been accepting the reality of the fact that it has happened.
21. I've been expressing my negative feelings.

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22. I've been trying to find comfort in my religion or spiritual beliefs.
23. I’ve been trying to get advice or help from other people about what to do.
24. I've been learning to live with it.
25. I've been thinking hard about what steps to take.
26. I’ve been blaming myself for things that happened.
27. I've been praying or meditating.
28. I've been making fun of the situation.

Note. Adapted from Brief COPE Scale, Carver, (1997).

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APPENDIX D

COGNITIVE FLEXIBILITY INVENTORY (CFI)

1 = Strongly Disagree
2 = Disagree
3 = Somewhat Disagree
4 = Neutral
5 = Somewhat Agree
6 = Agree
7 = Strongly Agree

1. I am good at “sizing up” situations.
2. I have a hard time making decisions when faced with difficult situations.
3. I consider multiple options before making a decision.
4. When I encounter difficult situations, I feel like I am losing control.
5. I like to look at difficult situations from many different angles.
6. I seek additional information not immediately available before attributing causes to behavior.
7. When encountering difficult situations, I become so stressed that I cannot think of a way to resolve the situation.
8. I try to think about things from another person’s point of view.
9. I find it troublesome that there are so many different ways to deal with difficult situations.
10. I am good at putting myself in others’ shoes.
11. When I encounter difficult situations, I just don’t know what to do.
12. It is important to look at difficult situations from many angles.
13. When in difficult situations, I consider multiple options before deciding how to behave.
14. I often look at a situation from different viewpoints.
15. I am capable of overcoming the difficulties in life that I face.
16. I consider all the available facts and information when attributing causes to behavior.
17. I feel I have no power to change things in difficult situations.
18. When I encounter difficult situations, I stop and try to think of several ways to resolve it.
19. I can think of more than one way to resolve a difficult situation I’m confronted with.
20. I consider multiple options before responding to difficult situations.

Note. Adapted from Cognitive Flexibility Inventory (CFI), Dennis & Vander Wal, (2010).

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APPENDIX E

IRB FORM AND SURVEY INSTRUMENT

Study Title: **Fostering Resilience in a Sample of Correctional Officers**

Principal Investigator Name: Jon Gist

Supervisor: Dr. Hayden Smith

A. SPECIFIC AIMS

The aim of this research is to discover how correctional officers maintain levels of resilience when faced with job-related critical incidents. Specifically, an examination of correctional officer's coping strategies in relation to levels of resilience and functioning at work. Surveys will be administered to correctional officers within the South Carolina Department of Corrections (SCDC). The research will contribute to the existing literature by determining what factors make a correctional officer resilient and reflect the experiences of correctional officers throughout South Carolina. The study will answer several research questions that are relevant to the correctional milieu. Is there a direct effect between critical incidents and resilience? How do correctional officers respond when confronted with a critical incident? What is the relationship between different coping strategies and associated levels of resilience? Does strain have an effect among the frequency and magnitude of critical incidents, different coping strategies, and associated levels of resilience?

B. BACKGROUND AND SIGNIFICANCE

A significant portion of the literature regarding corrections highlights the negative factors (i.e. role conflict, fear of danger) and outcomes (i.e. substance abuse, burnout) related to the job. For instance, Ferdik, Smith, and Applegate (2014) found nearly one third of correctional officers, working within the South Carolina Department of Corrections, expressed high levels of stress, low job satisfaction, and have intentions of leaving the job. However, research begs the question of what makes a correctional officer resilient and functional at work? With support from South Carolina Department of Corrections (SCDC), this study aims to categorize and assess correctional officers by levels of resilience. Today, many correctional institutions are struggling to keep a correctional staff that can adapt to internal and external forces. Using a quantitative perspective, this study will allow for exploration of techniques to sustain a strong, well-trained and resilient correctional staff. This study will also incorporate work from a variety of academic fields to develop an understanding of correctional officers and stressors in one domain can influence another (i.e. work-family conflict).

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D. RESEARCH DESIGN AND METHODS AND DATA ANALYSIS

Location: South Carolina Department of Corrections (SCDC)
South Carolina

The study will feature a mixed-methods approach. The quantitative portion of the study will apply a survey design, presently featuring 84 items (see attached survey instrument). These questions have been adopted from James, Todak, and Best's (2017) critical incident history questionnaire (Section II); Swatt, Gibson, and Piquero's (2007) strain scale (Section II); Triplett, Mullings, and Scarborough's (1996) work-family conflict scale (Section III, Items 24-26); Ferdik's operational and organizational work stressors (Section III, Items 27-34); Carver's (1997) brief cope scale (Section IV); Dennis and Vander Wal's (2010) cognitive flexibility inventory (Section V); and Evans, Pistrang, and Billings (2013) and Sollie, Kop, and Euwema (2017) open-ended questions (Section VI). The principal investigator will determine which correctional institutions have permitted to participate in the study. As the study is exploratory, a purposive sampling method will be employed to maximize participation and yield a better response rate (Shadish, Cook, & Campbell, 2002). The anticipated sample size is approximately 600 surveys.

Surveys will be administered from August through September 2019 and should be approximately 30-45 minutes in length. All survey data will be collected into STATA, a quantitative data management software program.

E. PROTECTION OF HUMAN SUBJECTS

1. TARGET POPULATION:

Any correctional officer currently employed with South Carolina Department of Corrections. Specific institutions within SCDC will be identified with conjunction of administrators at the South Carolina Department of Corrections.

2. CONSENT/ASSENT:

Participation in the project is voluntary. Prior to completing the survey, participants will be provided with a consent form, explaining the purpose of the study and its voluntary nature. This survey will take approximately 30-45 minutes of the participants' time. Participants will sign the form to indicate consent, and they will receive a copy of the IRB consent document with the researcher's name, contact number, and other identification

3. POTENTIAL RISKS:

No physical, social, legal, or economic risks are anticipated. There are no risks to workplace status such as promotion or pay. Some psychological risks are present. It is possible that a correctional officer may have experienced a hostile event with an inmate and will recall this event(s). There are several resources that are available for correctional officers if they are disturbed by recalling previous critical incidents.

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4. POTENTIAL BENEFITS:
Participants will not directly benefit from taking part in this research, but they may enjoy knowing that they are contributing to the development of knowledge on the relationship among correctional officers' exposure and responses to critical incidents, coping strategies, and associated levels of resilience. There will be no direct benefits related to workplace status such as promotion or pay.

5. CONFIDENTIALITY
Participation is confidential. Any identifying information that is collected by the researchers will be immediately replaced with a case identifying number to avoid any risk of exposure to an individual's identity. The data will be stored for three years after the research is completed. Data will be kept locked in principal researcher's office in a locked cabinet, and in a password-protected office computer. The only individuals who will have access to the data will be the principal investigator, Dr. Hayden Smith, and IRB members.

6. COMPENSATION:
Participants will not be receiving any form of compensation for an interview.

7. WITHDRAWAL:
Participants may skip questions at any time. Additionally, a participant may withdrawal from the study at any time and will have no penalty in their job or affect any aspect of their personal life. This will be clearly stated in the consent documents.

F. REFERENCES/LITERATURE CITATIONS

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Triplett, R., Mullings, J. L., & Scarborough, K. E. (1996). Examining the effect of work-home conflict on work-related stress among correctional officers. *Journal of Criminal Justice*, *27*, 371-385.

See attached interview instrument and consent form.

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Hello,

We are from the University of South Carolina and are asking for your participation in a study of correctional officers' coping strategies and levels of resilience when encountering critical incidents at the workplace. Specifically, we are requesting your participation in a brief survey about your overall assessment of the critical incidents you face as a correctional officer, the styles of coping you use, and your overall level of resilience. We would greatly appreciate if you would take a few minutes to answer these questions, all the while keeping in mind that your responses are very important and are the only way we can better understand these issues.

This study is confidential. This means that your responses will be stored at the University of South Carolina and only accessed by the researchers Jon Gist & Hayden Smith. We cannot share any information about a specific individual with anyone else (including anyone from the South Carolina Department of Corrections). Your participation in this project is voluntary and you can stop and/or withdraw from the study at any time. Some of the questions in this interview may be sensitive, and you are under no obligation to answer every item. The study should not present any major risks to individuals who agree to participate. For every question you choose to answer, again, you can know that your answers will never be shared with other employees, administrators, or anyone else (except the researchers). You may choose not to participate in this research, and you may withdraw from taking the survey without consequence. Non-participation will not affect your status as a correctional officer or any other aspect of your life.

We realize this survey may take about 30-45 minutes of your time, but your participation is an important way for us to get insight into what helps correctional officers at work. By obtaining this information, we aim to work with SCDC administrators to better understand the critical incidents that officers encounter and how they develop resilience at work.

If you have any questions or comments about this research, please contact Jon Gist or Hayden Smith, Department of Criminology and Criminal Justice at the University of South Carolina, 1305 Greene St, Columbia, SC 29208. Jon Gist: (803) 777-4240, jgist@email.sc.edu and Hayden Smith: (803) 777-6538, Smithhp@mailbox.sc.edu

Questions or concerns about research participants' rights may be directed at the USCIRB, University of South Carolina Office of Research Compliance (ORC), 1600 Hampton Street, Suite 414, Columbia, SC 29209; (803) 777-7095.

If you find any of these questions upsetting, you can contact:

- EAP (Employee Assistance Program) (866) 327-2400
- The CISM (Critical Incident Stress Management) Peer Program, within SCDC- email: cism@doc.sc.gov or phone: (803) 896-7498

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Sincerely,

Jon Gist and Dr. Hayden P. Smith
Department of Criminology & Criminal Justice
University of South Carolina
1305 Greene St, Columbia, SC 29205

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Fostering Resilience in Correctional Officers Survey

Directions: This survey is used to measure various experiences that you may have had while working as a correctional officer. In this study, your participation is voluntary, and you may stop or withdraw from the study at any time. It is important that you know that all responses will remain confidential, which means that individual answers will not be provided to people outside of the researchers (i.e. Jon Gist & Hayden Smith). Thank you again for your time. Your input is very valuable.

Section I. Please indicate if you have experienced the critical incidents listed, how often the incident occurred, and how stressed you were by each incident during your career at SCDC.

	How often have you experienced?				How stressful was the incident?			
	Always	**Often**	**Rarely**	**Never**	**None**	**Little**	**Somewhat**	**A Lot**
Being verbally threatened by an inmate	☐	☐	☐	☐	☐	☐	☐	☐
Fearing physical harm by others	☐	☐	☐	☐	☐	☐	☐	☐
Managing a resisting inmate	☐	☐	☐	☐	☐	☐	☐	☐
Witnessing attack of fellow coworker	☐	☐	☐	☐	☐	☐	☐	☐
Being seriously injured at work	☐	☐	☐	☐	☐	☐	☐	☐
Being beaten by an inmate	☐	☐	☐	☐	☐	☐	☐	☐
Encountering serious self-injurious behavior by inmate (i.e. cutting)	☐	☐	☐	☐	☐	☐	☐	☐

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Aiding in medical emergency of an inmate	☐	☐	☐	☐	☐	☐	☐	☐
Responding to a sexual assault of an inmate	☐	☐	☐	☐	☐	☐	☐	☐
Encountering an inmate committing suicide	☐	☐	☐	☐	☐	☐	☐	☐
Seeing someone dying	☐	☐	☐	☐	☐	☐	☐	☐
Being exposed to bodily fluids “dashing”	☐	☐	☐	☐	☐	☐	☐	☐
Responding to inmates’ complaints	☐	☐	☐	☐	☐	☐	☐	☐
Experiencing conflict with fellow staff	☐	☐	☐	☐	☐	☐	☐	☐
Being mandated to work overtime	☐	☐	☐	☐	☐	☐	☐	☐
Detecting contraband of an inmate	☐	☐	☐	☐	☐	☐	☐	☐
Sensing loss of control over inmates	☐	☐	☐	☐	☐	☐	☐	☐
Responding to large disturbance of inmates	☐	☐	☐	☐	☐	☐	☐	☐
Handling the escape of an inmate	☐	☐	☐	☐	☐	☐	☐	☐
Suspecting another coworker engaging in acts of misconduct	☐	☐	☐	☐	☐	☐	☐	☐

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Section II. The following section asks questions about stress at work and home.

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
I feel that the demands placed upon me at work make me feel less effective at home.	☐	☐	☐	☐
The role I have at home (i.e. parent, partner, caregiver) conflicts with the role I have as a correctional officer.	☐	☐	☐	☐
I find it hard to switch from being a correctional officer at work to being a parent and/or partner at home.	☐	☐	☐	☐
I often have to do things at work without adequate resources and materials.	☐	☐	☐	☐
I regularly receive conflicting requests from two or more people when at work.	☐	☐	☐	☐
I do not always understand what is expected of me at work.	☐	☐	☐	☐
I am usually under a lot of pressure when at work.	☐	☐	☐	☐
When at work, I often feel tense or uptight.	☐	☐	☐	☐
My job regularly makes me frustrated or upset.	☐	☐	☐	☐

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What are your largest sources of stress at work?

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Section III. How often you engage in these activities as a response to job-related stress?

	Frequently	Occasionally	Rarely	Never
I get emotional support from others.	☐	☐	☐	☐
I take action to try to make a stressful situation better at work.	☐	☐	☐	☐
I pretend a stressful event has not happened at work.	☐	☐	☐	☐
I say things to let my unpleasant feelings escape.	☐	☐	☐	☐
I receive help and advice from other people.	☐	☐	☐	☐
I use alcohol or other drugs.	☐	☐	☐	☐
I try to come up with a strategy about how to handle stress at work.	☐	☐	☐	☐
I've been giving up the attempt to cope.	☐	☐	☐	☐
I look for something good in a stressful event.	☐	☐	☐	☐
I make jokes about stressful events.	☐	☐	☐	☐
I do something to think about a stressful event less. (i.e. exercise, watch tv, sleep, read, so forth)	☐	☐	☐	☐

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I accept the reality of the fact that a stressful event has happened.	☐	☐	☐	☐
I blame myself for stressful events at work.	☐	☐	☐	☐
I pray or meditate.	☐	☐	☐	☐

Have you attended the Critical Incident Stress Management (CISM) 3-day seminar? ☐ Yes ☐ No

When exposed to a critical incident, which of the following options have you chose for intervention? (Check all that apply)

☐ Employee Assistance Program (EAP)
☐ CISM Peer
☐ Group Debriefing
☐ Situation Controls (SitCon)
☐ Hostage Negotiation Team
☐ Crisis Management
☐ Other (i.e. Church, Family) Please List: ______________________________

Briefly describe your experience of these services: ______________________________

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Section IV. How much do you agree with the following statements?

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
I have a hard time making decisions when faced with difficult situations.	☐	☐	☐	☐
I consider multiple options before making a decision.	☐	☐	☐	☐
When I encounter difficult situations, I feel like I am losing control.	☐	☐	☐	☐
When I encounter difficult situations, I just don't know what to do.	☐	☐	☐	☐
It is important to look at difficult situations from many angles.	☐	☐	☐	☐
I am good at putting myself in others' shoes.	☐	☐	☐	☐
I am capable of overcoming the difficulties in life that I face.	☐	☐	☐	☐
When I encounter difficult situations, I stop and try to think of several ways to resolve it.	☐	☐	☐	☐
I feel I have no power to change things in difficult situations.	☐	☐	☐	☐

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I find it troublesome that there are so many different ways to deal with difficult situations. ☐ ☐ ☐ ☐

Section V. Please answer the following questions.

What makes a correctional officer resilient? What makes them “bounce back” after an event?

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What ways to cope with stress at work would you recommend to a new employee?

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Would you describe yourself as resilient? Explain: ____

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What are you most proud of as a correctional officer at SCDC? ____

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What makes you stay on the job?

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Section VI. Personal job-related information.

Which of the following best describes your race?

☐ Black or African American
☐ White or Caucasian
☐ Asian
☐ Multi-Racial
☐ Other (Please specify: ________________________)

Are you Hispanic? ☐ Yes ☐ No

How old are you? ☐ 18-25 ☐ 26-33 ☐ 34-41 ☐ 42-49 ☐ 50 or older

For how many years and months have you worked in SCDC? ___________________

For how many years and months have you worked as a corrections officer? __________________

What is your gender? ☐ Male ☐ Female

What is your marital status? ☐ Single ☐ Married ☐ Separated ☐ Divorced ☐ Widowed

What is your highest level of education received?

☐ Less than High School
☐ High School/GED
☐ Some College
☐ 2 year college/Associate's Degree
☐ 4 year college/Bachelor's Degree
☐ Graduate Degree

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What is your primary shift assignment? ___________________________

In what category is your position? ☐ Security ☐ Non-Security

Are you in a supervisory position? ☐ Supervisory ☐ Non-Supervisory

How would you describe your political orientation?

☐ Very Conservative ☐ Conservative ☐ Moderate ☐ Liberal ☐ Very Liberal

Please Note: Structure of survey instrument changed due to Graduate School dissertation formatting requirement.

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APPENDIX F

FORMAL APPROVAL LETTER

SOUTH CAROLINA
DEPARTMENT OF CORRECTIONS
Safety, Service, and Stewardship

HENRY McMASTER, Governor
BRYAN 12 STIRLING, Director

October 25, 2019

Jon Gist, Ph.D. Student
Department of Criminology & Criminal Justice
University of South Carolina
1305 Greene St
Columbia, SC 29205

Dear Mr. Gist:

Please accept this letter as formal approval of your research study on "Fostering Resilience in Correctional Officers". We hope that your study will provide insight into SCDC's employee retention issues and also benefit the Critical lncident Stress Management (CISM) program at SCDC. We look forward to working with you on this project.

Sincerely,

Trevis Shealy
Director, Division of Resource
and Information Management

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