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The Assessment of Burnout and Resilience in Correctional Officers

Vera A. Klinoff
Nova Southeastern University, veraklinoff@gmail.com

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The Assessment of Burnout and Resilience in Correctional Officers

by

Vera A. Klinoff

A Dissertation Presented to the College of Psychology
of Nova Southeastern University
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

NOVA SOUTHEASTERN UNIVERSITY

2016

APPROVAL PAGE

This dissertation was submitted by Vera A. Klinoff under the direction of the Chairperson of the dissertation committee listed below. It was submitted to the College of Psychology and approved in partial fulfillment of the requirements of the degree of Doctor of Philosophy in Clinical Psychology at Nova Southeastern University.

Approved:

6/23/16
Date of Defense

Vincent B. Van Hasselt, Ph.D., Chairperson

Lenore E. Walker, Ed.D.

Ryan A. Black, Ph.D.

6/23/16
Final Date of Approval

Vincent B. Van Hasselt, Ph.D., Chairperson

ACKNOWLEDGEMENTS

There are a number of individuals and institutions that have provided me with great assistance and motivation over the past six years, without whom this project would not have been possible. Dr. Van Hasselt has provided me unwavering support and dedicated guidance throughout my years of training, and is an enduring role model for what I strive to become academically, professionally, and personally. His mentorship and standards of excellence have made this a challenging and extremely rewarding journey. I would also like to sincerely thank Dr. Walker for igniting my passion for the junction between psychology and the criminal justice field, and her years of supervision and personal support. In addition, I am extremely appreciative of Dr. Black's invaluable round-the-clock statistical advice and patience. I would not be where I am today without the direction and wisdom of my undergraduate mentor, Dr. Ma, who inspired me to pursue my graduate studies. I am also sincerely grateful for the extensive help, liaison work, and comic relief of Judy Couwels, who made the collaboration with Broward Sheriff's office and data collection possible. Numerous research assistants were essential to data collection and timely data entry: Estefania Masias, Marina Sarno, Alexandra Crouch, Sarah Henderson, Sarah Gaumer, and Adrianna Philpot.

The President's Faculty Development and Research Grant generously funded this project; I am sincerely thankful to Nova Southeastern University and the committee that considered our project deserving of this honor.

My decision to pursue this career would not have been possible without my mother and father, who are my pillars of strength, and have never failed to provide me unconditional love, support, and inspiration to become the best individual I can be. I would like to thank my loyal

feline son, Gustav, for patiently sitting next to me throughout the entirety of the writing process, without complaint or objection.

  Finally, I would like to thank my best friend and husband, Alexander, whom this dissertation is dedicated to. We have achieved this together, as his unrestricted love, patience, impromptu therapy, and delicious dinners have carried me through the hills and valleys of this journey. You lift me to great heights, and make me want to keep achieving.

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Abstract

Correctional Officers are responsible for responding to emergency/crisis situations in correctional settings. Research shows that their work is characterized by numerous psychological stressors that vary by degree and intensity, which can lead to compromised job performance and, ultimately, job burnout. Despite the increased attention directed to the problem of occupational stress in first responders among other professions over the past several years, virtually no investigations have focused on correctional officer resilience. The purpose of this study was to: (a) identify whether select positive personal variables (i.e., hope, optimism, social support) are associated with increased resilience, (b) determine the extent to which individual resilience acts as a protective factor against job burnout, (c) ascertain whether resilience serves as a significant mediator between hope, optimism and social support and reduced burnout, and (d) utilize the findings to make suggestions for future interventions and research in this area. By identifying specific individual characteristics that increase resilience and protect correctional officers against job burnout, it is expected that more efficacious approaches can be identified to enhance stress reduction and management. It is anticipated that this study will examine issues that will be of interest to first responder, administrative, and mental health professionals working in correctional/detention settings.

CHAPTER 1

Statement of the Problem

Correctional officers (COs) experience a variety of stressors both within and outside their occupational role (Auerbach, Quick, & Pegg, 2003; Summerlin, Oehme, Stern, & Valentine, 2010). It has been asserted that correctional work is more stressful than numerous other occupations (Armstrong & Griffin, 2004; Cheek & Miller, 1983; Finn, 1998). Indeed, there is evidence that the levels of job-related stress and burnout in COs eclipse other first responder groups, including police officers (Keinan & Malach-Pines, 2007). It has been stated, "few other organizations are charged with the central task of supervising and securing an unwilling and potentially violent population" (Armstrong & Griffin, 2004, p. 577). The unique level of stress in this this occupation contributes to a variety of challenges that permeate COs' professional and personal lives. Most notably, there are indications of high rates of mental health problems (e.g., depression, suicide, anxiety, posttraumatic stress) in correctional officers (Dollard, Winefield, & Winefield, 2001; Thurston-Snoha & Mora, 2011), and compensation-related psychological stress complaints submitted by COs to supervisors is on the rise (Brough & Williams, 2007) as a consequence of their environmental, duty-related, and organizational stressors.

Environmental/Duty-Related Stressors

The occupational environment is a driving influence in job-related stress for COs (Lambert, 2008). Several investigations found that notable factors related to job stress were amount of inmate exposure, confrontations, and perceived dangerousness on the job (Launay & Fielding, 1989; B. Moon & Maxwell, 2004; Triplett & Mullings, 1996; Wright, Saylor, Gilman, & Camp, 1997). COs undergo consistent contact with interpersonal violence, adverse or hostile

interactions, and a sense of personal endangerment that often endures on a long-term basis

(Armstrong & Griffin, 2004; Bourbonnais, Jauvin, Dussault, & Vezina, 2007; R. Burke, 1994).

Further, COs work in an environment containing a disproportionate risk of exposure to infectious

diseases, ranging from airborne illnesses like tuberculosis, to blood-borne pathogens such as

hepatitis B, C, and HIV (Alarid, 2009). Contrary to these findings, Xanthakis (2009) found that

inmate exposure was not necessarily related to job-related stress, but the quality of interactions

with inmates was (Triplett & Mullings, 1996; Wright et al., 1997).

In addition to acute stressors, COs also experience milder forms of daily stress that are

inherent in the occupation and considered more insidious. This form of lower magnitude stress is

termed "malevolent environment" (King, King, Gudanowski, & Vreven, 1995, p. 185) and can

have adverse long-term consequences for the individual experiencing it. These duty-related

stressors experienced by correctional officers include: (a) role conflict, where the correctional

officer is pressured to maintain cooperation and certain rapport with the detainees, while

enforcing unit security and order (Finn, 1998); (b) complex situations that require a high level of

interpersonal and management skills that surpass any training received (Shamir & Drory, 1982);

(c) absence of duties that provide enrichment and job satisfaction (Shamir & Drory, 1982); (d)

limitations of movement on duty, which result in physical restriction during work and rest period

(Shamir & Drory, 1982); (e) inmate crowding in units, leading to stressful work-conditions

(Martin, Lichtenstein, Jenkot, & Forde, 2012); (f) forced overtime due to understaffing (Finn,

1998); (g) a reduced sense of purpose due to the high rate of recidivism in inmate populations

(Finn, 1998); (h) a poor public image, low pay, (Finn, 1998); (i) low potential for

growth/promotion (Ghaddar, 2008); and (j) shift work, which often disrupts normal sleep

patterns and a healthy social life (Armstrong & Griffin, 2004). Shift work has also been found to

negatively affect attention, reaction time, and efficiency on the job, as well as incite

physiological, psychological, and behavioral changes (Swenson, Waseleski, & Hartl, 2008).

Organizational Stressors

Organizational stressors have often been described as the primary stressors for Cos

(Cheeseman, 2012; Senol-Durak, Durak, & Gencoz, 2006; Swenson et al., 2008). Some of the

organizational stressors described in the literature include: working under an authoritarian

management style (Auerbach et al., 2003), interdepartmental politics (Lambert, Hogan, &

Barton, 2002), and a lack of autonomy in performing job-related tasks (Auerbach et al., 2003;

Lambert, Hogan, & Barton, 2002; Lambert, Hogan, Cheeseman, Jiang, & Khondaker, 2012). It

was found that COs have the lowest level of organizational commitment, highest level of

skepticism regarding organizational change, and lowest level of job satisfaction when compared

to other occupations employed in corrections (e.g., case managers, administrative staff, and

supervisors) (D. Robinson, Porporino, & Simourd, 1996).

As a consequence of continuous high job stress and little prospects of change, a high

proportion of COs experience low job satisfaction, which has been found to impact correctional

agencies significantly (Cheeseman, 2012). Low job satisfaction has been linked to increased

absenteeism, job turnover (Byrd, Cochran, Silverman, & Blount, 2000), and burnout (Whitehead,

1989). When examining the impact of length of service on stress, Launay and Fielding (1989)

found that the relationship is curvilinear: COs who have served for an intermediate number of

time (7-15 years) endorsed the highest stress levels.

Consequences of Stress

Job-related stress has been found to be the primary factor in many health and mental health-related problems prevalent in COs. Cheek (1983) reported that COs have an average life span of 59 years compared to the national average at the time of 75; this disparity was partially attributed to chronic job-related stress in corrections (Keinan & Malach-Pines, 2007; Woodruff, 1993). COs are at higher risk of hypertension, heart attacks, and other stress-related physical conditions (Lambert, Hogan, & Allen, 2006). Additionally, it has been found that suicide rates among correctional officers are twice as high than those of police officers (Thurston-Snoha & Mora, 2011). Despite the prevalence of stress-related conditions in COs, they have limited resources designed to help them cope with the stress of the correctional environment (Morgan, Vam Haveren, & Pearson, 2002); this often leads to job burnout, which has been identified as a salient problem in correctional occupations (Vladut & Kallay, 2010).

Burnout

Practitioners and individuals in the work force identified burnout as a social problem long before it became a research focus. Early in burnout research, Freudengerger (1975) articulated the concept of burnout by describing how he and his colleagues experienced a loss of motivation and commitment along with emotional exhaustion in their workplace. Subsequently, the burnout construct was conceptualized as a psychological syndrome in response to chronic work-related stressors (Maslach & Schaufeli, 1993). The most cited burnout research was conducted by Maslach (1993), who focused her early investigations on human-service populations. She identified three dimensions in burnout: emotional exhaustion, depersonalization, and lack of personal accomplishment (Maslach, 1993). As the scope of burnout research broadened, other populations were examined and the construct of burnout was applied to the general population

(Maslach & Jackson, 1996; Schaufeli, Leiter, Maslach, & Jackson, 1996). Although largely the same, the dimensions of burnout were slightly modified for the general population to: exhaustion, cynicism, and personal efficacy. The first dimension, exhaustion, is considered "the root of burnout" (Leiter & Maslach, 2005, p. 14), and is commonly associated with an excessive workload and relational conflicts in the workplace. Cynicism, follows the advancement of emotional exhaustion, when the individual adopts a cynical or removed attitude toward issues that may emotional affect him/her (Maslach, 2005). The last dimension, reduced professional efficacy, refers to where the individual possesses feelings of incompetence, inadequacy, and lack of self-efficacy at work (Maslach, 2005). This may be exacerbated by a real or perceived lack of resources and opportunities at work (Maslach & Leiter, 2008; Maslach, Schaufeli, & Leiter, 2001).

The prevalence of burnout ranges between 4-10% in the working population (Shirom, 2005). Burnout affects a breadth of professions, such as teachers (Simbula, Guglielmi, & Schaufeli, 2011), police officers (Martinussen, Richardsen, & Burke, 2007), software developers (Singh, Suar, & Leiter, 2010), coaches (Hjalm, Kentta, Hassmenan, & Gustafsson, 2007), physicians (Houkes, 2008), and/or lawyers (Tsai, Huang, & Chang, 2009). High job burnout is correlated with the presence of several physical and psychological problems, such as depression, (Ahola & Hakanen, 2007; Melamed, Shirom, RToker, Berliner, & Shapira, 2006) anxiety, suicide (Melamed et al., 2006), alcohol abuse (Melamed et al., 2006; Moustou, Montgomery, Panagopoulou, & Benos, 2010), insomnia (Vela-Bueno et al., 2008), alienation from others, self-neglect (Ahola & Hakanen, 2007; Maslach & Jackson, 1981), and cardiovascular problems (Melamed et al., 2006).

Burnout in Correctional Officers

Numerous studies have revealed high burnout levels among COs over the past 30 years (Castle & Martin, 2006; Cheek & Miller, 1983; Cullen, Link, Wolfe, & Frank, 1985; Keinan & Malach-Pines, 2007; Senol-Durak et al., 2006). Job burnout in corrections has been associated with lowered quality of life both at work and at home (Carlson & Thomas, 2006; Gould, Watson, Price, & Valiant, 2013), decreased work performance (Garland, 2002), increased absenteeism, heightened turnover (Lambert, Altheimer, & Hogan, 2010) and lack of employee cohesion (Maslach & Jackson, 1981). Moreover, it has been associated with depression and psychosomatic symptoms (e.g., chronic pain, stomach ulcers, high blood pressure, heart disease) in correctional personnel (Cheek & Miller, 1983). Compared to other professions in security and penal institutions (i.e., vocational counselors, teachers, and other types of personnel), COs report significantly greater levels of reported burnout, including degrees of emotional and physical exhaustion, and negative perceptions regarding their work (Gerstein, Topp, & Correll, 1987). In an earlier investigation by Whitehead and Lindquist (1986), it was found that one-third of correctional officers experienced significant emotional exhaustion, one-fifth felt a sense of depersonalization, and one-quarter experienced diminished personal achievement.

The effects of burnout can be observed beyond the psychological, social, and physical symptoms found in individual COs. Burnout impacts several facets of the workplace, including staff, inmates, and the institution as a whole, as it has been known to be socially influential in nature (Whitehead, 1989). Swenson et al. (2008) revealed that burnout and frustration can lead to employee turnover as high as 43% in COs, resulting in additional overtime and an increased workload for the remaining employees. This is of great concern, as work performance can decline in terms of communication with fellow staff members and inmates (Garner, Knight, &

Simpson, 2007); therefore posing a safety concern for the CO. Lavoie, Connolly, and Roesch

(2014) examined CO perceptions toward Mentally Disordered Offenders (MDOs). They found

that COs with higher emotional exhaustion reported poorer perceptions of MDOs, which may

lead to more negative interactions. In consideration of all factors affected by job burnout, it is not

surprising that it often generates organizational and financial consequences for correctional

institutions and their employees (Byrd et al., 2000).

CHAPTER II

Review of the Literature

Burnout Reduction

A review by Schaufeli and Peeters (2000) found that many studies recommended the implementation of trainings to reduce stress and burnout among COs. Xanthakis (2009) reported that although COs endorsed high levels of burnout, they expressed willingness to access psychological services; this suggested that interventions (e.g., psychological counseling, training programs) may help reduce the impact of stress on COs and the administration (Gould et al., 2013). Additionally, it was found that emotion-focused coping techniques including positive reframing (i.e., trying to see things in a more positive light) was related to decreased emotional exhaustion and depersonalization, as well as increased personal accomplishment in COs (Gould et al., 2013).

Other factors associated with less job stress and burnout included being involved in higher decision-making, commitment to the organization, (Dowden & Tellier, 2004), self-efficacy, and a sense of purpose (Garland, 2002). Further, job autonomy and a sense of control were linked with lower emotional exhaustion and job-related stress (Lambert, Hogan, Barton-Bellessa, & Jiang, 2012; Stohr, 1994; Wright et al., 1997).

In several investigations, *resilience,* or an individual's ability to maintain healthy psychological and physical functioning when faced with adverse events (Bonanno, 2004; Connor & Davidson, 2003), has been found to serve as a protective factor against burnout (Bartone, 2006; Garcia & Calvo, 2012; Taku, 2014; Zwack & Schweitzer, 2013). In fact, it has been found to have a central role in coping with stressors and trauma (Almedom, 2005; Bartone, 2006;

Bonanno, 2004; Bonanno, Galea, Bucciarelli, & Vlahov, 2006; Collins, 2007; Honig & Sultan, 2004; Owen Richard, 2006).

Resilience

Resilience is a multidimensional construct that has been regarded as one of the most important concepts stemming from positive psychology (APA, 2010); a perspective that aims to promote valued traits in individuals, and posits a shift in the behavioral sciences from one of pathology, to one of strength and wellbeing (Magaletta & Oliver, 1999; Seligman & Csikszentmihalyi, 2000). Although there is no standardized definition of resilience, most explanations include two constructs incorporated within the term: (a) adversity, or a negative life circumstance that requires significant adjustment and associated difficulties; and (b) positive adaptation, or behaviorally manifested success at adjustment (Luthar & Cicchetti, 2000).

Resilience and prevention. Resilience has been described as a critical component in resistance to risk and how individuals "bounce back" and overcome challenges presented to them across the lifespan (Windle, Bennett, & Noyes, 2011). Green and Humphrey (2012) reported that without resilience, people respond to adverse events with stress, which further lowers resilience levels, and leads to additional stress responses, thus, creating a cycle. This finding highlights the importance of promoting resilience in prevention efforts. In fact, Bartone (2006, p. S132) asserted, "if the factors/pathways that lead to human resiliency under stress were better understood, perhaps some of these resiliency factors could be developed or amplified in those who are initially low in resilience and more vulnerable to stress." It has been suggested that developing resilience in high-risk individuals as a preventive measure is far more effective than the implementation of treatment strategies to alleviate existing symptoms (Cowen, 1991; Knitzer, 1996; Luthar & Suchman, 2000). This notion was echoed by Violanti (2006), as he

pointed out the controversial efficacy of post-hoc interventions such as critical incident stress debriefing (Mitchell & Everly, 2000), emphasizing the value of preventative approaches for stress/trauma management.

A primary goal of resilience research is to determine mechanisms by which individuals differ in their stress responses and subsequent adaptations. Resilience is a characteristic that can be intrinsic to the individual, developed through the learning process, or both; individuals can often learn to develop resilience to facilitate coping in difficult times (Bonanno & Mancini, 2012). Resilience has been found to be modifiable and can improve with treatment (Connor & Davidson, 2003). Further, Lumb, Breazeale, Lumb, and Metz (2010) outlined several benefits of resilience training, including the promotion of an individual's social competence, problem-solving, self-sufficiency, and independence, as well as instilment of a sense of purpose. Application of these resilience-promoting factors has demonstrated to be beneficial for individuals across the lifespan, particularly when experiencing environmental stressors (Southwick & Charney, 2012b).

Resilience in Correctional Officers. While a moderate amount of empirical investigation has been conducted on resilience in law enforcement officers (LEOs) (Brodie & Eppler, 2012; K. J. Burke, Shakespeare-Finch, Paton, & Ryan, 2006; Galatzer-Levy et al., 2013; Galatzer-Levy, Madan, Neylan, Henn-Hase, & Marmar, 2011; Pitts, 2012; Provetto, 2011; Shochet et al., 2011; Williams, Ciarrochi, & Deane, 2013), there is a scarcity of literature on resilience in COs. Of particular relevance in the LEO resilience literature, Kates (2008) identified several factors characteristic of resilient LEOs, including goal orientation, problem-solving skills, self-efficacy, strong social support, and good communication skills. This finding overlapped with a review by Miller (2008) on resiliency in LEOs and other high-risk

occupations. Within the limited literature on resilience in COs, Johnson and Price (1981) found that when COs approached inmates with a treatment-orientation rather than in a custodial role, it increased overall institutional resilience to stress. Additionally, higher education and rank in COs was associated with higher resilience to burnout (Morgan et al., 2002).

Resilience-promoting factors. In order to facilitate the development of resilience, it is imperative to identify personal strengths or "competences" that foster an adaptive and successful stress response (Luthar & Cicchetti, 2000), as they often create variance in individual reactions to identical situations (Gould et al., 2013). Evaluation of resilience-promoting processes provides a framework for relevant and effective resilience interventions (Windle et al., 2011). Personal variables, or protective factors that have been associated with resilient responses to adversity and wellbeing, include: positive emotion and optimism, social support, hope, altruism, cognitive flexibility, and spirituality (Bakker, Gieveld, & Van Rijswijk, 2006; Masten, 2001; Reivich & Seligman, 2011; Southwick & Charney, 2012a). These factors correlate with favorable work-related qualities across several occupations, such as the perceived ability to control work environment and achieve greater success (Luthans, Lebsack, & Lebsack, 2008), as well as higher work engagement (Bakker et al., 2006; Mache et al., 2014). Although several resilience-promoting factors have been identified in the literature, hope, optimism, and social support have been heavily cited as essential to resilience (Assad, Donnellan, & Conger, 2007; Frappell-Cooke, Gulina, Green, Hughes, & Greenberg, 2010; Rushton, Batcheller, Schroeder, & Donohue, 2015; Southwick & Charney, 2012a, 2012b).

Social support

Social support is characterized as "an exchange of resources between at least two individuals perceived by the provider or the recipient to be intended to enhance the well-being of

the recipient" (Shumaker & Brownell, 1984, p. 13). It is a relationship with other human beings that provides emotional and/or practical support to an individual. According to Zimet, Dahlem, Zimet, and Gordon (1988), several studies have suggested the association between social support and reduced severity of psychological and physical symptoms. It has been posited that social support is associated with reduced stress (Armstrong & Griffin, 2004; Gould, Watson, Price, & Valliant, 2012; Southwick & Charney, 2012a). In fact, social support during deployment can lessen the effects of exposure to traumatic events (Frappell-Cooke et al., 2010).

Additionally, high levels of social support are associated with a range of psychosocial and health-related benefits, such as: (a) a sense of control and predictability in life; (b) higher self-esteem; (c) active problem-focused coping; (d) motivation; (e) optimism; (f) resilience; (g) lowered depression; (h) enhanced immune function; and (i) dampened neuroendocrine and cardiovascular responses to stress (Gould et al., 2012; Southwick & Charney, 2012a). Further, Sun and Shek (2013) found that high social support contributed to increased resilience in adolescence, and thus, reduced emotional-behavioral problems.

The benefits of social support have been documented across several workplace settings. Coworker support has been found to improve self-perceptions of employees (Horton & Wallander, 2001), promote problem solving, and, in in turn, reduce feelings of ineffectiveness (Lambert, Altheimer, & Hogan, 2010). Similarly, an investigation by Lambert, Altheimer, et al. (2010) proposed that social support in the workplace helped mitigate feelings of ineffectiveness and difficulties that led to emotional exhaustion, although family support had no effect on burnout. Contrary to this contention, various investigations observed a significant relationship between perceived family support and burnout, suggesting that as social support increases, levels of burnout decrease (Cheek & Miller, 1983; Dekel, Mandl, & Solomon, 2011; Lambert,

Altheimer, et al., 2010; Paoline, Lambert, & Hogan, 2006; Shamir & Drory, 1982). Additionally, it has been demonstrated that reinforcement of social support through training has positive effects on social networks and prosocial behavior, which has been linked to improved job performance and overall wellbeing (Gooding, Hurst, Johnson, & Tarrier, 2012; Southwick & Charney, 2012b).

Several studies reported positive outcomes related to social support in healthcare settings. In a study by Zwack and Schweitzer (2013), one of the aspects found in resilient physicians was maintenance of supportive relations, which included positive personal relationships, effective professional relationships, and good communication. Further, Earnshaw, Lang, Lippitt, Jin, and Chaudoir (2015) examined the role of social support and perceived community support on HIV stigma and symptoms in people living with HIV. Results revealed that instrumental social support and perceived community support acted as a buffer against HIV stigma and symptoms, and thus, promoted resilience in this population. Similarly, social support has been found to improve psychosocial health among HIV-seropositive individuals (Malcolm, Marcoulli, Augustin, & Lopez, 2009). Additionally, Sells (2009) conducted a qualitative investigation in adults with multiple chronic illnesses, and revealed that social support was reported as a noteworthy benefit within their experiences of chronic illness.

Just as high levels of social support correlate with positive outcomes, low levels of social support are associated with unfavorable consequences. A lack of social support has been linked to depression, PTSD, medical morbidity (Southwick & Charney, 2012b), feelings of isolation, and job burnout (Iliffe & Steed, 2000). Among COs, low social support has been associated with psychotropic drug use (Lavigne & Bourbonnais, 2010).

Optimism

Optimism is defined as a tendency to attribute the causes of negative events to temporary, changeable, and specific factors (Reivich & Seligman, 2011). Two of the most theoretically-developed and empirically cited variations of the optimism definition are attribution (Seligman, 1998) and dispositional (Carver & Scheier, 1998) optimism. Seligman (1998) described attribution optimism as an explanatory style, where positive events are attributed to internal, stable causes, and negative events are attributed to external, unstable causes. On the other hand, Scheier and Carver (1985) defined dispositional optimism as a trait-like disposition to expect that good things will happen, leading to more effective problem solving and the development of positive emotions despite adversity.

Optimism is associated with positive mood, effective coping, high morale, improved social functioning, and positive mental and physical health outcomes (Carver, Scheier, & Segerstrom, 2010; Srivastava, Bartol, & Locke, 2006; Vollman, Antoniw, Hartung, & Renner, 2011). Individuals with optimistic thinking styles have been found to be at a lower risk for depression and are more likely to attain their goals successfully (Assad et al., 2007; Carver et al., 2010). Additionally, optimism has been identified as a valuable resource in relationship health; optimism has been linked to marital satisfaction (Terveer & Wood, 2014), and successful romantic relationships (Assad et al., 2007). Further, optimistic individuals demonstrate higher resilience when faced with stressful or traumatic events (Assad et al., 2007; Southwick & Charney, 2012b).

While there is no question that optimism is linked with psychological well-being in the general population, the healthcare literature has heavily cited the benefit of optimism among medically ill patients (Scheier & Carver, 1985). Optimism has been found to serve as a protective factor against physical illness (Hafen, Karren, Frandsen, & Smith, 1996). Specifically, maintaining an optimistic attitude is positively associated with enhanced immune system functioning, quicker surgery recovery, elongated lifespan, and improvement of the overall lifestyle of individuals, including those suffering from serious illnesses, such as cancer (Hafen et al., 1996). Similarly, Applebaum, Stein, Lord-Bessen, Pessin, and Rosenfeld (2014) found evidence for the importance of optimism in the quality of life of patients with advanced cancer; optimism was significantly associated with fewer anxiety and depression symptoms, reduced hopelessness, and better quality of life. Additionally, higher levels of optimism yielded greater academic and social self-efficacy in adolescent cancer survivors (Foster et al., 2014). Further, optimism was linked with lowered distress and positive outcomes in individuals with chronic illnesses, as a optimistic outlook promoted positive illness perceptions and adaptive coping mechanisms (Eiser, Hill, & Blackray, 2000; Gavrilov-Jerkovic, Jovanovic, Zuljevic, & Brdaric, 2014; Graham et al., 2014). In patients with terminal illness, optimism was associated with an improved end-of-life expectancy, along with reduced anxiety and depression (Winterling, Wasteson, & Sidenvall, 2006). It was also revealed that aging individuals who were optimistic despite age-related physical losses, exhibited better physical functioning and lower depressive symptoms (Wurn & Benyamini, 2014).

Although the health benefits of optimism have been demonstrated in health care settings, a limited amount of research has examined the role of optimism in other areas, such as the workplace (Lumb et al., 2010). The exception was a study conducted by Seligman and Schulman

(1986), where he examined the relationship between optimism levels as measured by the Attributional Style Questionnaire (ASQ), sales productivity, and attrition rates in sales insurance agents, an occupation known for high stress and burnout levels. He found that optimistic agents sold more insurance and survived at higher rates than pessimistic agents.

Hope

According to Snyder, Irving, and Anderson (1991), *hope* is defined as a "positive motivational state that is based on an interactively derived sense of successful (a) agency (goal-directed energy), and (b) pathways (planning to meet goals)" (Snyder et al., 1991, p. 287). Hope's agency component refers to the determination to achieve goals, while its pathways component supports the creation of alternative paths when pursuing goals. Behaviors associated with hope involve planning and engaging in effective actions to attain results (Snyder et al., 1991). Additionally, research has indicated that individuals endorsing higher levels of hope evaluate their goals in terms of challenges, potential for success, and positive emotions, allowing them to take on larger amount of goals that are higher in difficulty, without perceiving them as such (Snyder et al., 1991).

The literature has identified hope as a resource in the face of adversity (Park, Peterson, & Seligman, 2004; Snyder et al., 1991) and an essential predictor of life satisfaction and well-being (Magaletta & Oliver, 1999). Individuals with high levels of dispositional and state hope tend to have higher feelings of self-worth, life satisfaction, and low levels of depression (Ojala, 2005; Snyder & Lopez, 2002), which, in turn, leads to higher levels of positive experiences and lower levels of negative experiences (Demirli, Türkmen, & Arık, 2014). On the other hand, individuals with low hope tend to have an external locus of control, compounded with the belief that good things will not happen to them, as they lack self-confidence (Ojala, 2005; Snyder & Lopez,

2002). A lack of hope has also been associated with low resilience in both young and older adults (Gooding et al., 2012).

Hope has been shown to be a predictor of performance in several settings, including in academia and the workplace (Adams et al., 2002; Luthans, Avolio, Walumbwa, & Li, 2005; Youssef & Luthans, 2005). Higher hope is linked to greater psychological well being and academic performance among high school and college students, even when controlling for innate ability (Snyder et al., 1991). Likewise, Feldman, Davidson, and Margalit (2014) found that college students who endorsed higher levels of hope following an academic workshop achieved higher grades following the intervention, albeit their grades not being statistically different before the intervention. Considering the cited benefits of hope, the authors suggested the development of interventions that encourage hope in individuals as a way to improve their work-related performance.

Hope has also been found to be an asset for caretakers in health care settings. Specifically, hope was: (a) negatively associated with maternal distress in a sample of mothers providing care to their children who have a chronic physical condition (Horton & Wallander, 2001), (b) positively related to quality of life of male spouses of women with breast cancer (Duggleby, Doell, Cooper, Thomas, & Ghosh, 2014), (c) correlated with reduced depression in mothers of children with intellectual disabilities (Lloyd & Hastings, 2009) and Type I diabetes (Mednick et al., 2007), and (d) associated with diminished stress reactivity in older adults (Ong, Edwards, & Bergeman, 2006).

Optimism and Hope

An interest in the association between optimism and other constructs from positive psychology has developed in recent years. Namely, investigators have been interested in the relationship between optimism and hope, as they contain conceptual overlap (Snyder & Lopez, 2002). While some research posits that hope and optimism are interchangeable (Bryant & Cvengros, 2004), the majority of investigations indicate that hope and optimism are highly interrelated, yet independent constructs (Alarcon, Bowling, & Khazon, 2013; Snyder, 2002; Wong & Lim, 2009). This finding was paralleled by researchers who proposed that although optimism and hope share significant overlap in that they are goal-based cognitive processes that relate to an esteemed outcome, hope comprises competence and control beliefs, while optimism exclusively refers to expectation of the outcome (Magaletta & Oliver, 1999; C. Robinson & Snipes, 2009). The interaction of hope and optimism as it relates to well-being has been articulated by Gavrilov-Jerkovic et al. (2014) as follows: individuals who possess both hope and optimism regarding the future engage in an interactive system of beliefs, leading to proactive behavior which results in greater accomplishments, positive emotions, adaptive coping strategies and greater subjective well-being.

Summary

A number of investigations have examined the dynamics of correctional officer duty-related stress and job burnout. However, there is limited research on strategies to promote resilience in this population. Although there have been studies involving hope, optimism, social support, and other positive personal strengths, no studies have measured these variables simultaneously in correctional officers. Variables, such as environmental characteristics or organizational structure of an occupation, may be difficult to change, but protective factors such

as hope, optimism, and social support are modifiable and can be taught to individuals to increase

their resilience. Given the prevalence, extensive emotional and physical health costs, and

organizational burden of burnout in this population, it is warranted to further investigate the

dynamics of these beneficial factors as they relate to resilience and burnout reduction in

correctional officers.

Purpose of the Study

This project has three intertwined research objectives:

1. To determine whether optimism, social support, and hope have an association with
   reduced burnout in correctional officers.
2. To determine whether the association between optimism, social support, hope and
   reduced burnout is mediated by resilience.
3. To make recommendations and suggestions to the correctional community and other
   researchers as to the needs of correctional officers.

Hypotheses

H1: Hope, optimism and social support have a negative indirect effect on the burnout

domain of emotional exhaustion, which is mediated by resilience.

H2: Hope, optimism, and social support have a negative indirect effect on the burnout

domain of cynicism, which is mediated by resilience.
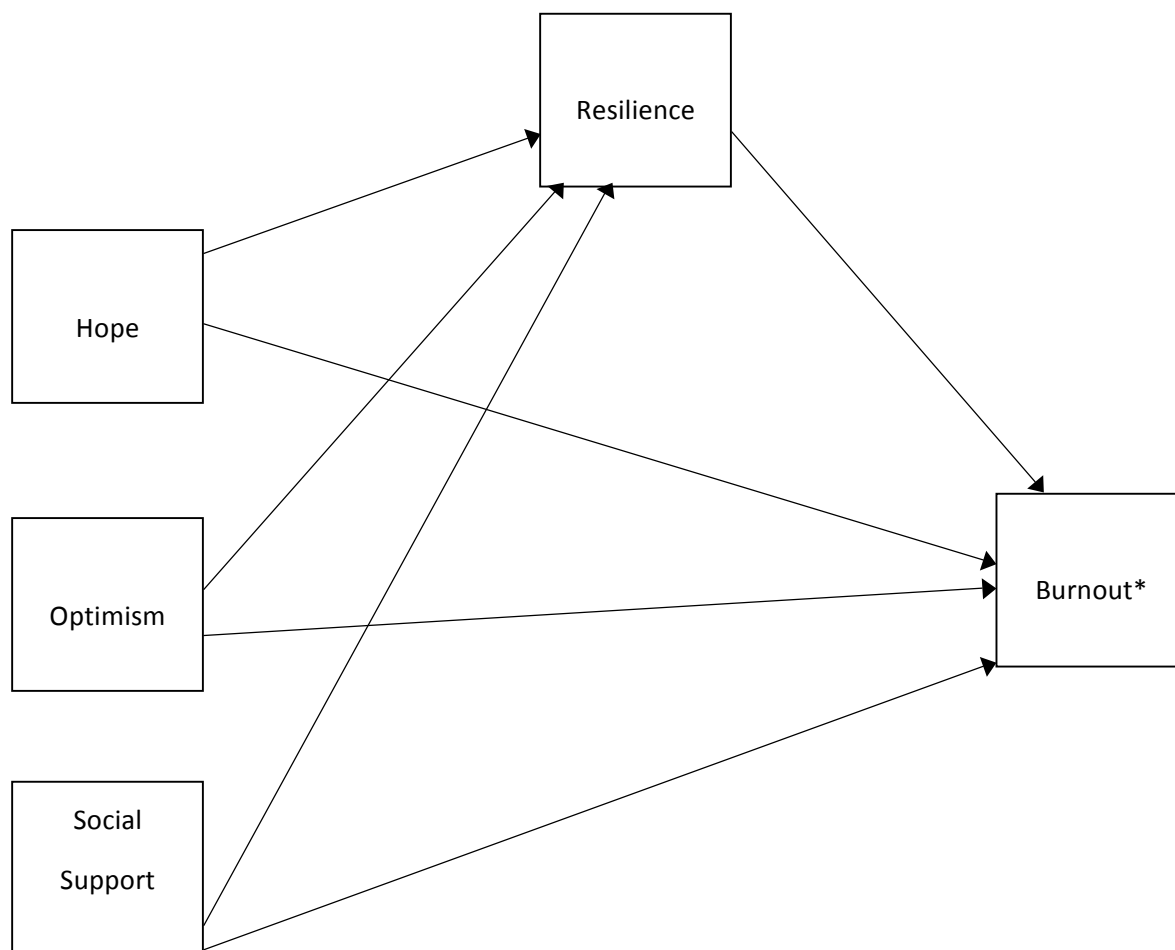
Figure 1. A proposed conceptual model where resilience mediates the negative relationship between protective factors and burnout in correctional officers.

CHAPTER III

Methodology

Participants

The present study included 301 participants who were randomly selected across Alpha (11pm-7am), Bravo (7am-3pm), and Charlie (3pm-11pm) shifts in five Broward Country Detention facilities (Main Jail, Central Intake, North Broward, Joseph Conte, and Paul Rein). Inclusion criteria included being 18 years of age or older and being a sworn Correctional Officer (CO) in one of these five facilities. Given the high degree of demographic diversity in Broward County, participants represented a wide breadth of ethnic, religious, and cultural backgrounds. Demographic characteristics of the sample are presented in Table 1. There were a higher number of men than women represented within the current sample. The majority of the participants were between the ages of 43 and 47. No participants were under the age of 23. Additionally, the ethnicity most greatly represented in this sample was Black/African American, followed by White/Caucasian. Further, the majority of the sample identified as married with children. Most participants endorsed having worked as a CO for 11-15 years, making the majority of this sample experienced, but not necessarily close to retirement. Participants were divided among the Broward County Detention facilities in the following way: Main Detention = 23.9%; Conte = 19.6%, Central Intake = 16.9%; Paul Rein = 19.3%; and North Broward = 20.3%. Additionally, the sample was nearly equally divided across the three work shifts.

Table 1

Demographic Profile of the Sample

Variable	n	Percentage
Gender		
Female	98	32.6
Male	179	59.5
Missing	24	8.0
Age		
<23	--	--
23-27	5	1.7
28-32	26	8.6
33-37	58	19.3
38-42	49	16.3
43-47	70	23.3
48-52	51	16.9
53+	29	9.6
Missing	13	4.3
Ethnicity		
Asian	2	.7
Black/African American	175	58.1
Hispanic	43	14.3
Native Hawaiian/Pacific Islander	5	1.7
White/Caucasian	62	20.6
Other	7	2.3
Missing	7	2.3

Variable	n	Percentage
Marital status		
Married	163	54.2
Engaged	14	4.7
Single	70	23.3
Divorced	46	15.3
Separated	6	2.0
Widowed	1	.3
Other	1	.3
Missing	18	6.0
Have Children		
Yes	241	80.0
No	52	17.3
Missing	8	2.7
Years served as Deputy		
0-5	20	6.6
6-10	65	21.6
11-15	71	23.6
16-20	51	16.9
21-25	40	13.3
26-30	28	9.3
31+	4	1.3
Missing	22	7.3

Variable	n	Percentage
Facility of Employment		
Paul Rein	58	19.3
Conte	59	19.6
Main Jail	72	23.9
Central Intake	51	16.9
North Broward	61	20.3
Type of current shift		
Alpha (11pm-7am)	85	28.2
Bravo (7am-3pm)	113	37.5
Charlie (3pm-11pm)	103	34.2

*- Some percentages may not add to 100 due to rounding

The number of potential participants invited to participate, the number of the participants contacted that were identified as absent/out sick, and the number of participation refusals are listed in Table 2. It is suspected that a degree of social pressure/influence was present during participant recruitment, as participants were invited to participate in the presence of the peers in their respective shift. High absentee rates in potential participants were observed during data collection. With the exception of the Central Intake Alpha shift, the number of COs identified as absent always exceeded 20% of the number contacted for participation, and was as high as 50-54% during some role calls. This parallels the high absentee rate in correctional officers identified in the literature (Byrd et al., 2000; Cheek & Miller, 1983; Lambert, Hogan, & Altheimer, 2010).

Table 2

Participant Recruitment

Facility/shift	Potential participants contacted	Absent/out sick		Refused	
	n	n	%*	n	%*
Main Detention Facility					
Alpha	54	21	38.8	11	20.3
Bravo	57	22	38.6	0	0.0
Charlie	21	5	23.8	1	.05
Conte Facility					
Alpha	33	11	33.3	2	6.1
Bravo	28	9	32.1	2	7.1
Charlie	35	10	28.6	3	8.6
Central Intake Facility					
Alpha	7	0.0	0.0	0.0	0.0
Bravo	44	24	54.5	0	0.0
Charlie	35	11	31.4	0	0.0
Paul Rein Facility					
Alpha	42	21	50.0	4	9.5
Bravo	29	6	20.7	3	10.3
Charlie	32	10	31.3	1	3.1
North Broward Facility					
Alpha	30	9	30.0	2	6.6
Bravo	29	8	27.6	0	0.0
Charlie	31	9	29.0	1	3.2

*- Percent of number of participants contacted

Note: Alpha shift = 11pm-7am; Bravo shift = 7am-3pm; Charlie shift = 3pm-11pm

Measures

  Revised Snyder Hope Scale (HS-R2). The revised Snyder Hope Scale (HS-R2) is an 18-item revision of Snyder's (1991) Trait Hope Scale (THS). This instrument assesses an individual's perceived hope. For the Goals Subscale across the four samples, Cronbach's alphas ranged from .80 to .81. Alphas ranged from .76 to .86 for the Pathways Subscale and from .76 to .82 for the Agency Subscale. For the total HS-R2 (reflecting a one-factor solution), alphas ranged from .88 to .91. The HS-R2 also improved upon the THS in that the Pathways and Agency Subscale reliability estimates are highly similar across samples (Shorey, Little, Snyder, Kluck, & Robitschek, 2007).

  Marlowe-Crowne Social Desirability Scale (MCSDS). The MCSDS is a 33-item measure examining the tendency to present oneself in an unrealistically favorable light (i.e., "defensiveness"). This measure was included because it has been found that first responder populations often underreport difficulties (Coman & Evans, 1991; Sewell, 1981) and, therefore, are susceptible to a social desirability bias when answering self-report measures in research. Examples of items on this measure are " I have never intensely disliked someone" and "I never make a long trip without checking the safety of my car." Crowne and Marlowe (1960) reported a Kuder-Richardson internal consistency coefficient of .88 on 39 undergraduates, and a test-retest reliability of .89 for 31 of these students who completed the questionnaire one month later. Validation data for 39 undergraduates include correlations of .40 and .54 with the Minnesota Multiphasic Personality Inventory (MMPI) Correction and Lie scales, respectively (Crowne & Marlowe, 1960).

Connor-Davidson Resilience Scale (CD-RISC). The Connor-Davidson (CD-RISC) is a 25-item measure, which determines level of stress and coping ability (Connor & Davidson, 2003). Each item is rated on a 5-point likert scale (0-4), which higher scores reflecting resilience. The CD-RISC has been tested in the general population, as well as in clinical samples, and demonstrates sound psychometric properties. The measure's internal consistency is $\alpha = 0.89$; its test-retest reliability is $r = 0.87$. It also demonstrated significant convergent validity with measures of similar constructs, and adequate discriminant validity.

Maslach Burnout Inventory- General Survey (MBI-GS). The Malsach Burnout Inventory- General Survey (MBI-GS) is a 16-item measure, which examines experienced job burnout (Schaufeli et al., 1996). The measure was created subsequent to the Maslach Burnout Inventory for human service populations, (MBI-HSS) (Maslach & Jackson, 1981), which focuses on burnout as it relates to the service relationship. Even though the proposal of this dissertation outlined that the MBI-HSS would be used in this study, the author found that the MBI-GS was more suitable to answer the research question with the correctional officer population, as it focuses on the individual's relationship with their occupation, rather than the service relationship. The source of burnout for correctional officers was found to transcend past their interactions with inmates, but rather is associated with many other occupational factors (e.g., organization problems, shift work, polarized work environment).

The MBI-GS contains three subscales: emotional exhaustion, cynicism, and professional efficacy. The reliability coefficients for the subscales are the following: $r = .65$ for emotional exhaustion, $r = .60$ for depersonalization, and $r = .67$ for personal accomplishment. The internal consistencies of the range from $\alpha = .73$ for Cynicism to $\alpha = .91$ for Emotional Exhaustion (Leiter & Schaufeli, 1996). Rothmann and Malan (2002) found the following: Exhaustion: $\alpha = 0.89$,

Cynicism: α = 0.76, and Professional Efficacy: α = 0.85. Hence, the MBI-GS is expected to be sufficiently internally consistent. When scoring, there are no cut-off scores that signify experiencing burnout versus not; it is interpreted in a continuous manner (Maslach & Jackson, 1996).

For purposes of this study, only the emotional exhaustion and cynicism subscales were utilized to measure burnout, as they have been found to be the core of the burnout structure (D. E. Green, Walkey, & Taylor, 1991; Schaufeli & Salanova, 2002, 2007; Schaufeli & Taris, 2005). Although some researchers have supported the three-factor structure of burnout (Boles, Dean, Ricks, Short, & Wang, 2000), the professional efficacy subscale has procured criticism by several researchers (Cox, Tisserand, & Taris, 2005; Schaufeli & Salanova, 2002, 2007; Worley, Vassar, Wheeler, & Barnes, 2008). Specifically, it has been found that the professional efficacy domain is more related to engagement constructs rather than burnout (Schaufeli & Salanova, 2002), the efficacy domain possesses low correlation with the exhaustion and cynicism (Halbesleben & Demerouti, 2005; Lee & Ashworth, 1996) and does not correlate comparatively with the exhaustion and cynicism domains with various work-related variables.

Multidimensional Scale of Perceived Social Support (MSPSS). The Multidimensional Scale of Perceived Social Support (MSPSS) is a 12-item instrument, which was designed to measure the perceived adequacy of support from the following three sources: family, friends, and significant other. The items are rated on a 7-point Likert-type scale ranging from very strongly disagree (1) to very strongly agree (Zimet et al., 1988). The internal reliability for the significant other, family, and friends subscales were α = .91, .87, and .85, respectively. The reliability for the total scale was r = .88. These values indicate good internal consistency for the scale and its subscales. The test-retest reliability for the significant other, family, and friends subscales were

r = .72, .85, and .75, respectively. For the whole scale, the value obtained was .85. The MSPSS

demonstrated good internal reliability and adequate stability over time (Zimet et al., 1988).

Life-Orientation Test- Revised (LOT-R). The Life-Orientation Test-Revised is a 10-

item measure, which assesses for optimism by inquiring about expectancies for positive versus

negative outcomes. It is a revised version of the Life-Orientation Test by Scheier and Carver

(1985). Respondents are asked to indicate their degree of agreement with statements such as "In

uncertain times, I usually expect the best." And "I hardly ever expect things to go my way."

Using a 5-point likert scale ranging from 0 (strongly agree) to 4 (strongly agree). This

demonstrated good internal reliability, as α = .82, (Scheier, Carver, & Bridges, 1994).

Procedures

Potential participants were randomly selected in a stratified manner across shifts and

facilities from a master list of COs employed by the Broward Sherriff's office, using a

computerized random number generator (Haahr, 1998). The corresponding employee names,

facility of employment, and shift were provided to research assistants for scheduled data

collection. Subsequently, Research Assistants (clinical psychology doctoral candidates

specializing in police and forensic psychology) visited each of the facilities during role call (i.e.,

daily briefing before the start of the designated shift), and presented the project summary to the

group of correctional officers. Subsequently, they announced the list of the randomly selected

potential participants, who either accepted or declined to participate in the study. Names were

announced until at least 20 participants accepted, to ensure a stratified spread of participants

across shifts and facilitates. The selected participants who accepted to proceed were asked to stay

after role call and were provided with a letter explaining the following: the purpose and

anticipated benefits of the present research; the identification of the researchers conducting the

study; a statement indicating that permission was granted to conduct this study by Nova Southeastern University's Institutional Review Board, the general purpose of the present study; the expected duration of participation; and a statement indicating the anonymous, and confidential nature of the study, and that refusal or discontinuation at any time involved no penalty. Further, they received clear and thorough directions on how to complete the assessment measures. Participation was completely voluntary and the research commenced once the participant read the cover letter and filled out the demographic questionnaire.

Participants were told that informed consent is assumed by completion of the demographics questionnaire to assure confidentiality. They were instructed to complete the survey during their shift, and to bring the completed battery back to a designated drop-off area in the role call room when completed. A Research Assistant picked up the battery from the drop off area at the end of the participants' shift and compensated them with a $20 Publix Gift Card for their participation.

Individual packets contained an envelope labeled by a 3-digit identification number, a cover letter, a demographic and health questionnaire, and a copy of the previously mentioned instruments. The noted measures were considered for this project because of their brevity, sound psychometric properties, and relevance to correctional officer stress, burnout, and resilience. The battery took approximately 35 minutes to complete.

Statistical Analyses

Data analyses were conducted by employing meditational analyses using a non-parametric bootstrapping approach through PROCESS (Hayes, 2013). A mediation model is any causal system in which an antecedent variable (X) is proposed to affect an outcome variable (Y)

through an intervening variable (M). The size of the indirect effect is determined by two relations: the impact of the antecedent on the mediator (the X- M relation), or the "*a*" path, and the effect of the mediator on the outcome after controlling for the antecedent (the M [X]-Y relation), or the "*b*" path. In this type of analysis, the significance of the indirect effect is tested via the cross product of the *a* and *b* coefficients (*a*b*) (Hayes, 2013), which is recognized as the optimal and most direct test of mediation (MacKinnon, Fritz, Williams, & Lockwood, 2007). A brief description of the statistical procedures is described in the subsequent subsections. More detailed information is addressed in the Results section.

Analyses. Test of hypotheses #1: Hope, optimism, and social support will indirectly negatively influence burnout domain of emotional exhaustion through their effects on resilience. Three separate meditational analyses (using the product of effect [*a*b*] approach) were conducted to examine the indirect effects of each independent variable on emotional exhaustion through resilience.

Test of Hypothesis #2: Hope, optimism, and social support will indirectly negatively influence burnout domain of cynicism through their effects on resilience. Three separate meditational analyses (using the product of effect [*a*b*] approach) were conducted to examine the indirect effects of each independent variable on cynicism through resilience.

CHAPTER IV

Results

Descriptive Data

The sample consisted of correctional officers (N = 301). Participants were 58.1% African American, 20.6% Caucasian, 14.3% Hispanic, 2.3% other, 1.7% Pacific Islander, and .7% Asian. Descriptive data for each of the assessment measure scores are presented in Table 3. It is worth noting that there was a small percentage of missing data (less than 5%). This issue was addressed using mean substitution for cases that were not missing more than 2 data points of items on a particular measure, which was determined after examining missing data frequencies (Helms, 1999). If missing items exceeded this number, the case was excluded from analyses utilizing that measure.

The mean value of the participants on the Connor-Davidson Resilience Scale (CD-RISC) was about the same level as the community sample norm group (M = 80.4, SD = 12.8) (Connor & Davidson, 2003). The mean of the participants' responses on the Perceived Social Support Assessment (PSSA) suggests that the sample endorsed a moderate amount of social support, according to the recommended cut-offs (Zimet et al., 1988). This sample's mean value on the Revised Life Orientation Test (LOT-R) was about the same level a German population norm group (M = 15.2, SD = 3.8) (Glaesmer et al., 2012), and slightly lower than a police officer norm group (M = 18.6, SD = 4.64) (Oginska-Bulik, 2005). The mean value of the female participants' scores on the Marlowe is about the same as the normative group (M = 16.82, SD = 5.5) (Crowne & Marlowe, 1960), and the mean of the males' scores in the sample is about the same as their respective normative group (M = 15.06, SD = 5.58) (Crowne & Marlowe, 1960). The

participants' mean burnout scores on the emotional exhaustion domain was comparable to that of

Canadian military norm group, (M = 2.05, SD = 1.23) (Maslach & Jackson, 1996), but slightly

lower than that of a Canadian nurse normative group (M = 2.98, SD = 1.80). The mean score of

the participants' cynicism domain was about the same level as the same military normative group

(M = 1.63, SD = 1.35), and comparable to the aforementioned nursing normative group (M =

1.80, SD = 1.24).

Table 3

Descriptive Data for Measures

Measure	N	M	SD
CD-RISC-25	298	78.55	13.31
PSSA	300	67.14	15.17
LOT-R	299	16.23	4.03
MCSDS	295	16.13	8.63
MBI- EE	300	1.98	1.65
MBI- Cyn	299	2.07	1.54
HS-R2	300	6.66	.67

Note: MBI-EE = CD-RISC = Connor-Davidson Resilience Scale 25; PSSA = Perceived Social
Support Assessment; LOT-R = Revised Life Orientation Test; MCSDS = Marlowe-Crowne
Social Desirability Scale; Maslach Burnout Inventory- Emotional Exhaustion; MBI-Cyn =
Maslach Burnout Inventory- Cynicism; HS-R2= Revised Snyder Hope Scale

Mediation Analyses

     Mediation Analysis using the bootstrap methodology was utilized to examine the direct

and indirect influence of hope, optimism, and social support on burnout domains (i.e., emotional

exhaustion, cynicism) through their influence on resilience. Six mediation analyses were

performed using PROCESS 2.15 (Hayes, 2013) in SPSS. Type I error was set at the .05 level. So

as to guarantee the replicability of results, the seed was set to a random integer produced by

SPSS when performing all bootstrap analyses. The statistical models constructed to address the

research questions were defined as follows:

$$M = i_1 + a_1X_1 + a_2X_2 + a_3X_3 + e_M$$

$$Y = i_2 + c'_1X_1 + c'_2X_2 + c'_3X_3 + bM + e_Y$$

Where,

M = Resilience

Y = Burnout

i_1, i_2 = intercepts

a, b, and *c'* = residual coefficients given to antecedent variables in estimation of consequents

X_1 = Hope

X_2 = Optimism

X_3 = Social Support

e = standard error

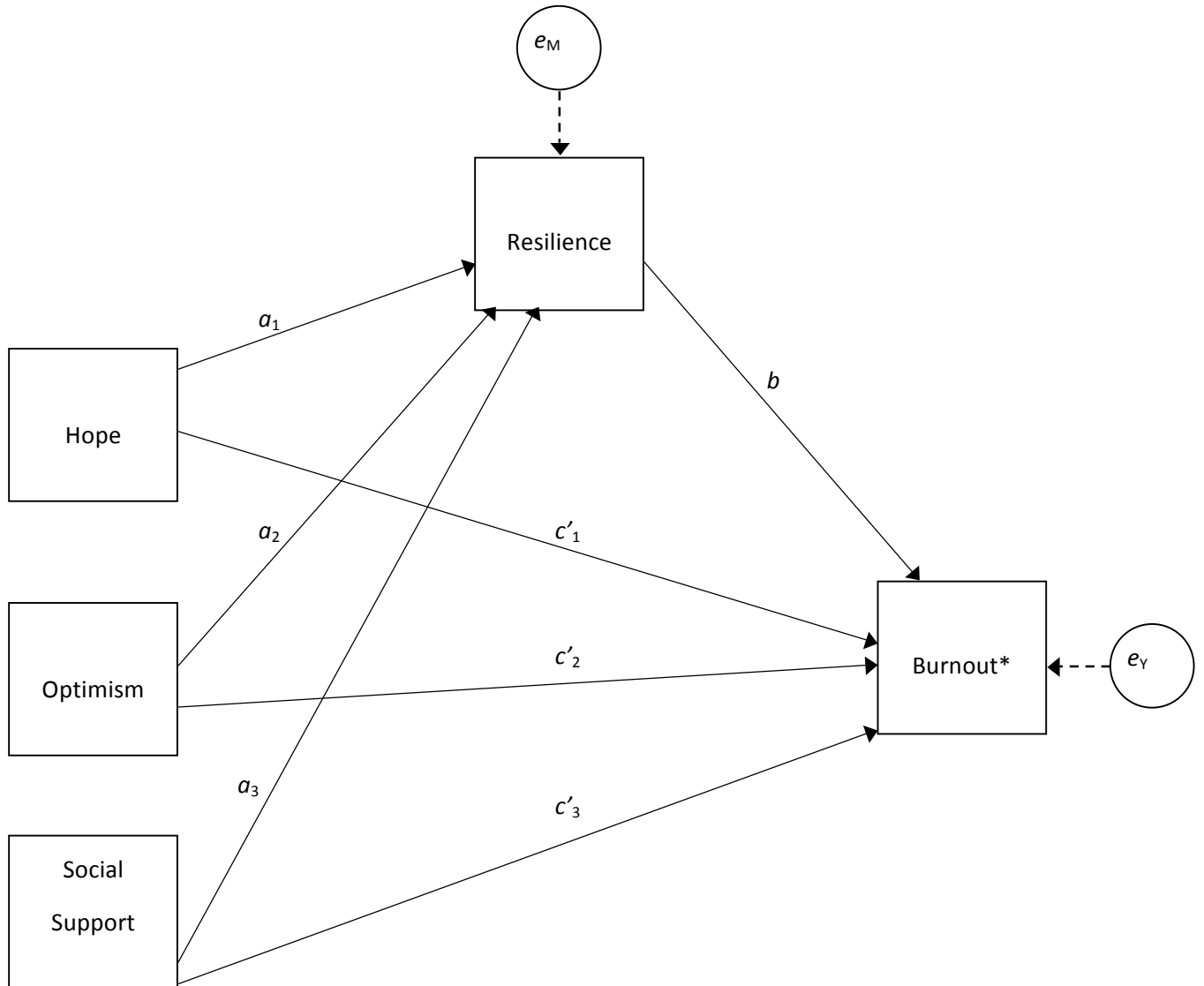Please refer to Figure 2 for a representation of the proposed model

Figure 2. A mediation model with 3 antecedent X variables (hope, optimism, and social support)

*Burnout is measured by two domains: emotional exhaustion and cynicism

Indirect effects of hope, optimism, and social support on emotional exhaustion as mediated by resilience. Mediation analysis revealed that hope indirectly influenced emotional exhaustion through its effect on resilience. Specifically, there was an indirect effect of hope on emotional exhaustion through resilience (ab = - .392), which was significant based on a 95% bias-corrected bootstrap interval (-.652 to -.133), generated from 5,000 samples. Upon examination of the completely standardized indirect effect, it was revealed that a one standard deviation unit increase in hope resulted in a .157 decrease of a standard deviation in emotional exhaustion as a result of the positive effect of hope on resilience, which, in turn, influenced a decrease in emotional exhaustion. There was no evidence that hope influenced emotional exhaustion independent of its effect on resilience (c' = .051, p = .791).

Additionally, it was found that that optimism indirectly influenced emotional exhaustion through its effect on resilience. There was an indirect effect of optimism on emotional exhaustion through resilience (ab = - .010), which was significant based on a 95% bias-corrected bootstrap interval (- .029 to - .001), generated from 5,000 samples. When considering the completely standardized indirect effect, it was indicated that a one standard deviation unit increase in optimism resulted in a .023 decrease of a standard deviation in emotional exhaustion as a result of the effect of optimism on resilience which, in turn, influenced decreased emotional exhaustion. However, there was evidence that optimism influenced emotional exhaustion independent of its effect on resilience (c' = - .075, p = .003).

Further, social support indirectly influenced emotional exhaustion through its effect on resilience. Specifically, there was an indirect effect of optimism on emotional exhaustion through resilience (ab = - .005), which was significant based on a 95% bias-corrected bootstrap interval (- .010 to - .002), generated from 5,000 samples. Regarding the completely standardized indirect

effect, it was indicated that one standard deviation unit increase in social support results in a .048 of a standard deviation decrease in emotional exhaustion as a result of the effect of social support on resilience, which, in turn, influenced decreased emotional exhaustion. However, there was evidence that social support influenced emotional exhaustion independently of its effect on resilience (c' = - .015, p = .018).

Of note, all three analyses partitioned out the two other independent variables when examining the indirect effects. Additionally, the analyses partitioned out the MCSDS measure to control for any potential effects of social desirability. For these analysis, N = 290, as 11 cases were removed due to missing data. Please see figure 3 for a schematic representation of the mediation model, Table 4 for model coefficients and p-values, and Table 5 for the standardized indirect effects and confidence intervals.
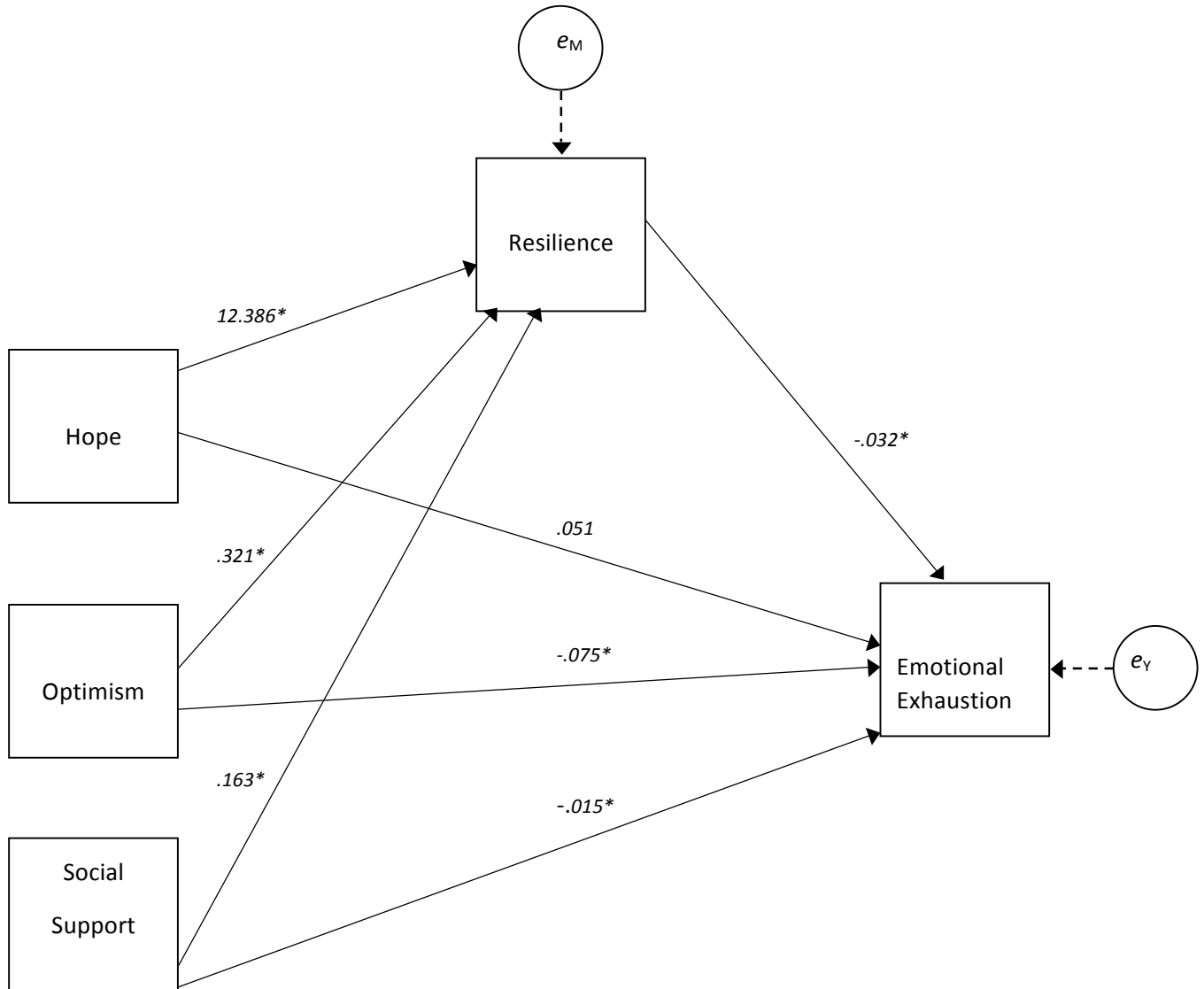
Figure 3. A mediation model evaluating the relationship of 3 antecedent X variables (hope, optimism, and social support) to burnout domain emotional exhaustion, through resilience

Table 4

Model Coefficients for all Predictor Variables and Emotional Exhaustion with One Covariate

Consequent								
		M (resilience)				Y (Emotional Exhaustion)		
Antecedent		Coefficient	SE	p		Coefficient	SE	p
X_1 (Hope)	a	12.386	.848	< .001**	c'	.051	.191	.791
M (resilience)	—	—	—	—	b	-.032	.010	.002*
constant	i_1	-19.394	5.191	< .001**	i_2	6.523	.907	< .001**
X_2 (Optimism)	a	.321	.148	.031*	c'	-.075	.025	.003*
M (resilience)	—	—	—	—	b	-.032	.010	.002*
constant	i_1	-19.394	5.191	< .001*	i_2	6.523	.907	< .001**
X_3 (Social Support)	a	.163	.037	< .001*	c'	-.015	.006	.018*
M (resilience)	—	—	—	—	b	-.032	.010	.002*
constant	i_1	-19.394	5.191	< .001*	i_2	6.523	.907	< .001**
C_1 (Social Desirability)	a	-.038	.061	.531	b	-.009	.011	.379
		Overall model: $R^2 = 0.571$ $F(4, 285) = 94.739$, p < .001				Overall model: $R^2 = 0.197$ $F(5, 284) = 13.932$, p < .001		

* - significant at p < .05
** - significant at p < .001

Table 5

Indirect effects on Dependent Variable: Emotional Exhaustion

Antecedent	Consequent: Emotional Exhaustion							
	ab	SE	LLCI	ULCI	*ab**	SE*	LLCI*	ULCI*
Hope	-.392	.131	-.653	-.133	-.157	.052	-.257	-.052
Optimism	-.010	.007	-.029	-.001	-.023	.016	-.066	-.001
Social Support	-.005	.002	-.010	-.002	-.048	.020	-.095	-.016

* – Completely standardized (i.e., removes scaling from X and Y and expresses effect in terms of standard deviations in Y between two cases that differ by one standard deviation in X)

Note: all significant at p < .05 level

Indirect Effects of hope, optimism, and social support on cynicism as mediated by

resilience. Mediation analysis revealed that hope indirectly influenced emotional cynicism

through its effect on resilience. Specifically, there was an indirect effect of hope on cynicism

through resilience (ab = - .349), which was significant based on a 95% bias-corrected bootstrap

interval (- .579 to - .094), generated from 5,000 samples. When considering the completely

standardized indirect effect, it was indicated that one standard deviation unit increase in hope

results in a .151 decrease of a standard deviation decrease in cynicism as a result of the effect of

hope on resilience, which, in turn, influenced decreased cynicism. There was no evidence that

hope influenced cynicism independent of its effect on resilience (c' = -.041, p = .818).

Additionally, it was found that that optimism indirectly influenced cynicism through its

effect on resilience. Specifically, there was an indirect effect of optimism on cynicism through

resilience (ab = - .009), which was significant based on a 95% bias-corrected bootstrap interval

(- .027 to - .001), generated from 5,000 samples. Regarding the completely standardized indirect

effect, it was found that one standard deviation unit increase in optimism results in a .022 of a

standard deviation decrease in cynicism as a result of the effect of optimism on resilience, which,

in turn, influenced decreased cynicism. However, there was evidence that optimism influenced

cynicism independent of its effect on resilience (c' = - .077, p = .001).

Further, social support indirectly influenced cynicism through its effect on resilience.

Specifically, there was an indirect effect of social support on cynicism through resilience (ab = -

.005), which was significant based on a 95% bias-corrected bootstrap interval (- .009 to - .001),

generated from 5,000 samples. Concerning the completely standardized indirect effect, it was

found that one standard deviation unit increase in social support results in a .046 of a standard

deviation decrease in cynicism as a result of the effect of social support on resilience, which, in turn, influenced decreased cynicism. There was no evidence that social support influenced cynicism independently of its effect on resilience ($c' = -.009$, $p = .114$).

For these analysis, N = 288, as 12 cases were removed due to missing data. Of note, all three analyses partitioned out the two other independent variables when examining the indirect effects. Additionally, the analyses partitioned out the MCSDS measure to control for any potential effects of social desirability. Please see figure 4 for a schematic representation of the mediation model, Table 5 for model coefficients and p-values, and Table 7 for the standardized indirect effects and confidence intervals.
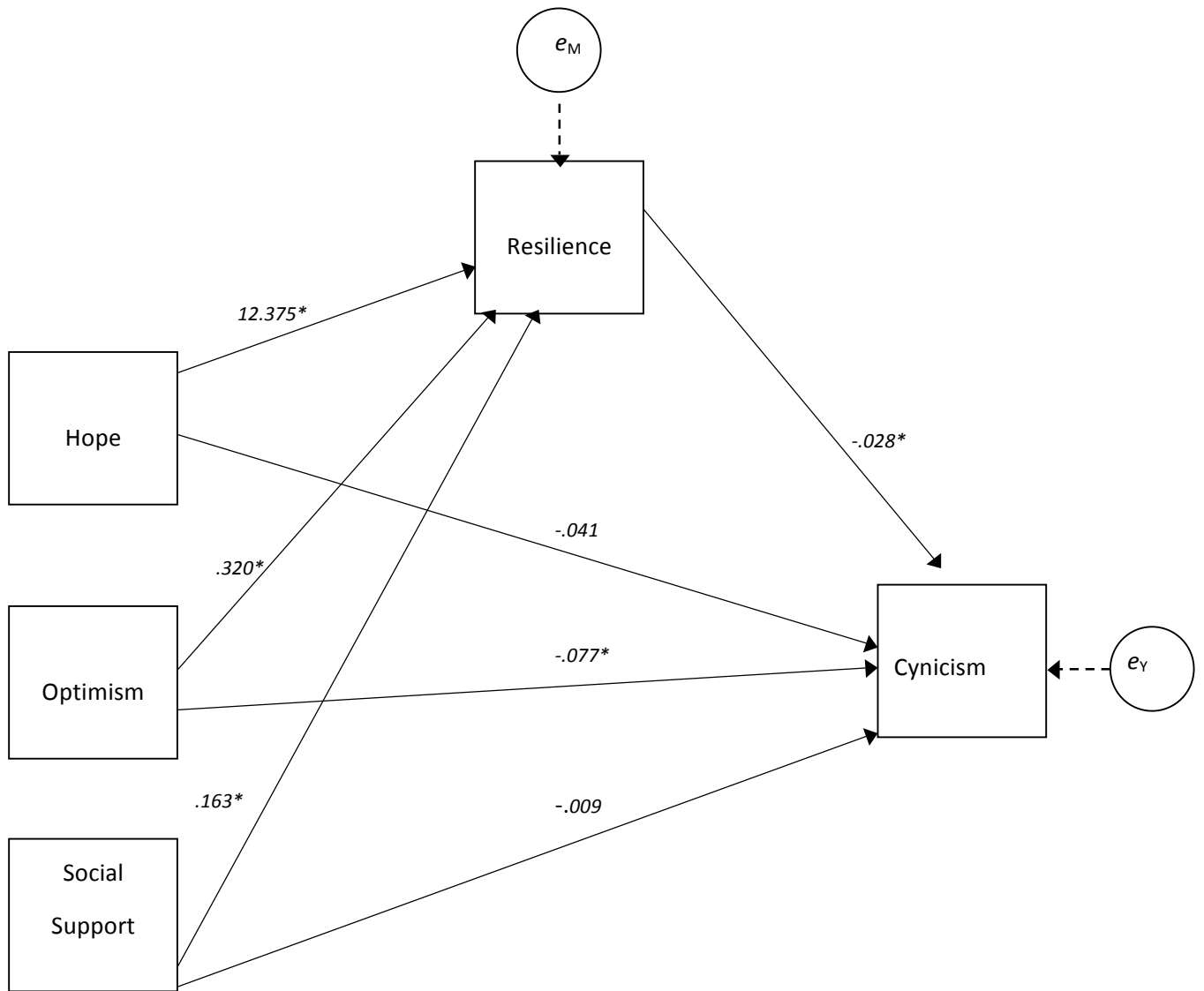
Figure 4. A mediation model evaluating the relationship of 3 antecedent X variables (hope, optimism, and social support) to burnout domain cynicism, through resilience

Table 6.

Model Coefficients for all Predictor Variables and Cynicism with One Covariate

Consequent		M (resilience)				Y (Cynicism)		
Antecedent		Coefficient	SE	p		Coefficient	SE	p
X_1 (Hope)	a	12.375	.855	< .001**	c'	-.041	.176	.818
M (resilience)	—	—	—	—	b	-.028	.009	.003*
constant	i_1	-19.328	5.220	< .001**	i_2	6.875	.835	< .001**
X_2 (Optimism)	a	320	.149	.032*	c'	-.077	.023	.001**
M (resilience)	—	—	—	—	b	-.028	.009	.003*
constant	i_1	-19.328	5.220	< .001**	i_2	6.875	.835	< .001**
X_3 (Social Support)	a	.163	.037	< .001**	c'	-.009	.006	.114
M (resilience)	—	—	—	—	b	-.028	.009	.003*
constant	i_1	-19.328	5.220	< .001**	i_2	6.875	.835	< .001**
C_1 (Social Desirability)	a	-.037	.061	.549	b	-.026	.010	.007*
		Overall model: $R^2 = 0.568$				Overall model: $R^2 = 0.225$		
		$F_{(4, 283)} = 93.365, p < .001$				$F_{(5, 282)} = 16.406, p < .001$		

* - significant at p < .05
** - significant at p < .001

Table 7

Indirect effects on Dependent Variable: Cynicism

Antecedent	Consequent: Cynicism							
	ab	SE	LLCI	ULCI	*ab*[*]	SE[*]	LLCI[*]	ULCI[*]
Hope	-.349	.123	-.579	-.094	-.151	.052	-.246	-.041
Optimism	-.009	.006	-.027	-.001	-.022	.015	-.065	-.002
Social Support	-.005	.002	-.009	-.001	-.046	.020	-.096	-.014

[*] – Completely standardized (i.e., removes scaling from X and Y and expresses effect in terms of standard deviations in Y between two cases that differ by one standard deviation in X)

Note: all significant at p < .05 level

CHAPTER V

Discussion

The purpose of this study was to determine whether protective factors such as hope, optimism, and social support reduce burnout in correctional officers, through resilience. The findings supported the study hypotheses stating that resilience significantly mediates the relationship between hope, optimism, and social support and job burnout in correctional officers. Past studies have demonstrated the positive relationship between these personal strengths and resilience, and the mediating role of resilience in reducing burnout. However, the literature on resilience in correctional officers is extremely scant, and no research has been conducted examining the relationship between positive personal variables with burnout, as mediated by resilience, in correctional officers. The current study addresses the gap in the literature by providing a novel conceptual model describing the mechanism by which personal strengths reduce burnout in correctional officers through resilience.

Results indicated that the indirect effects of hope, optimism, and social support through resilience on emotional exhaustion were significant. Specifically, hope, optimism, and social support significantly increased resilience, which, in turn, reduced emotional exhaustion in correctional officers. However, optimism and social support also possessed significant direct effects with emotional exhaustion independent of resilience. These findings support Hypothesis One in that resilience plays a significant mediating role between hope, optimism, and social support in reducing emotional exhaustion in correctional officers.

Additionally, results indicated that the indirect effects of hope, optimism, and social support through resilience on cynicism were significant. Specifically, hope, optimism, and social

support significantly increased resilience, which, in turn, reduced cynicism in correctional officers. Nonetheless, optimism still possessed significant direct effects with emotional exhaustion independent of resilience. These findings support Hypothesis Two in that resilience plays a significant mediating role between hope, optimism, and social support in cynicism in correctional officers.

Taken together, it may be concluded that a model is confirmed which postulates that certain personal variables (hope, optimism, and social support) reduce burnout in correctional officers through the mechanism of resilience. Regarding the effect sizes of the results, there are currently no accepted guidelines describing what is a small, medium, or large effect size for meditational analyses, particularly in the presence of covariates (Hayes, 2013).

The findings confirmed the extensive literature identifying personal variables, such as hope, optimism, and social support, as resilience-promoting factors (Fang et al., 2015; Frappell-Cooke et al., 2010; Reivich & Seligman, 2011; Rushton et al., 2015). In an investigation by Fang et al. (2015), hope, optimism, and social support were found to be significant predictors of resilience in older people living with HIV/AID, which, in turn, increased their quality of life. Further, hope was found to associated with resilience and job satisfaction in nurses practicing in high-intensity settings; social support was found to be associated with resilience to traumatic events in military veterans (Pietrzak & Southwick, 2011), and optimism was found to influence resilience against depression in adolescents.

In addition, the results of this study support themes in previous research asserting that hope, optimism, and social support aid in reducing burnout across several occupations. Hope was found to have negative associations with emotional exhaustion in nurses (Ding et al., 2015; Rushton et al., 2015). Additionally, optimism has been found to be negatively associated with

emotional exhaustion in retail sales employees (T. W. Moon & Hur, 2011), educators, (Otero-Lopez, Villardefrancos, Castro, & Santiago, 2014), and nurses (Ding et al., 2015) as well as a mitigating effect on emotional exhaustion and cynicism in support staff (Rothmann & Essenko, 2007). Social support was found to have a significant negative impact on emotional exhaustion in domestic violence advocates (Babin, Palazzolo, & Rivera, 2012) and in psychosocial rehabilitation staff (Ditzel & Coursey, 1998).

Additionally, this study's current findings are consistent with a burgeoning body of research demonstrating the role of resilience as a mediating mechanism for protecting individuals against burnout and promoting positive psychological outcomes. Specifically, Otero-Lopez et al. (2014) concluded that resilience mediated reduced job burnout in teacher when faced with classroom stressors in secondary education teachers. Further, resilience was found to mediate the relationship between mindfulness and reduced burnout in business leaders (Roche, Haar, & Luthans, 2014).

When examining the possible reasons for the routes through which resilience channeled the effects of the personal variables on burnout as demonstrated in this study, it can be posited that hope, optimism, and social support influence the initial and continued cognitive assessment of occupational stressors, the corresponding emotional response, and level of effectiveness when approaching challenges. Specifically, the belief in one's capacity to initiate, sustain action, and achieve goals associated with hope; the disposition to make positive cognitive appraisals of situations stemming from optimism; as well as the perceived emotional and practical support of others related to social support gives an individual the tools to interpret stressors as temporary challenges, problem solve effectively, and to perceive that he/she is part of a larger, supportive network.

Being equipped with these emotional, cognitive, and psychosocial strengths encourages a flexible and resourceful adaptation to the adversity at hand; namely, increased resilience. It may be argued, in keeping with the concept of resilience offered by previous authors (Lumb et al., 2010; Southwick & Charney, 2012a) that correctional officers with higher resilience have higher self-efficacy, problem solving, and more confidence to overcome adversities such as organizational problems and low job resources. These characteristics would increase the competencies of the correctional officer in managing potentially threatening events in an adaptive manner. This healthy psychological functioning, in turn, facilitates an individual's continued emotional endurance and sense of control, keeping them from feeling overwhelmed and maintaining their engagement and personal involvement with the task at hand. In other words, it reduces and/or prevents burnout as manifested by emotional exhaustion and cynicism.

This study has several strengths that should be noted. To our knowledge, this is the first study examining the relationship between personal variables and occupational burnout as mediated by resilience in correctional officers. Further, the focus of the study was on participant strengths and protective factors, rather than risk factors, vulnerabilities, and deficits. This study used stratified random sampling across work shifts to ensure a representative sample of the correctional officer population and reduce selection bias. Additionally, this study included diverse a racial/ethnic representation in the sample, which adds literature on a broader demographic base and increases the generalizability of the findings. Also, This study has extended beyond the traditional cause-effect association between positive personal variables and job burnout by placing the relationship between these variables within a new framework that draws attention to the way that resilience channels the effects of these positive variables on burnout. Understanding the role that resilience plays in the underlying dynamics between

personal variables and burnout enhances the recommendations that that can be made for preventive and interventional measures.

Limitations

Several study limitations should be noted. Given the cross-sectional nature of the study design, the temporal precedence of the variables cannot be unequivocally established. This study assumed a direction of causal mediation in which personal strengths lead to higher resilience, which, in turn, reduce burnout domains. One possibility is that highly resilient individuals develop positive psychology factors, which then lead to reduced burnout. If this is true, results of the mediation analyses indicate that positive psychology factors and resilience impact burnout without implying causal primacy of personal variables before resilience. Although these analyses do not guarantee temporality of the variables examined, their proposed order and relationship are based on extensive aforementioned theoretical ground. Hayes (2013) has asserted that temporal precedence between variables in mediation can be, and is often, established by the underpinning theory utilized to draw inferences about their relationship.

Additionally, mean substitution was utilized as way of dealing with missing data, which has been found to have limitations, such as overestimating the sample size and underestimating the variance in the sample (Little & Rubin, 1987). Further, continuous variables (e.g., age, length of service) were truncated into categorical variables. However, this was required by restrictions from the Institutional Review Board (IRB) as a measure to protect participant confidentiality. Also, data were obtained through self-report measures, which are subject to personal bias; however, MCSDS social desirability measure was incorporated and used as a control in analyses for this reason.

Despite these limitations, our findings dovetail with the existing literature and have identified personal strengths that are worth instilling in correctional officers for the enhancement of their career longevity, engagement, and fulfillment.

Clinical Implications

The current results have broad implications for the development preventive measures and clinical interventions. Currently, there are very few documented correctional officer wellness programs. Two existing programs target correctional officer stress through emotion-regulation techniques (McCraty, Atkinson, Lipsenthal, & Arquelles, 2009) and motivational interviewing with peer support (Brower, 2013). While these are valuable existing interventions, a wider effort is needed to design evidence-based preventive and interventional programs that incorporate resilient-promoting factors.

In consideration of the present results, it is recommended that these resilience-promoting factors be incorporated into academy course work and refresher trainings across the career span of correctional officer careers. Programs and trainings should aim to foster hope, optimism, and social support through various techniques, including the following: (a) identifying common cognitive distortions in the occupation, (b) engaging in cognitive reframing and emotional regulation to aid more balanced appraisals of adversity, (c) ascertaining problem solving techniques to aid agency and pathway when dealing with stressors, and (d) promoting social support through a combination of peer support programs and separate trainings/education for the families and significant others of the correctional officer. In addition, the organization can develop routine activities outside of the workplace (e.g., barbecues, employee sports games) to support positive group moral, peer connectedness, and continued commitment to the organization.

First responders are known to be reluctant to seek mental health services and are often resistant to partake in existing resources (Wester, Arndt, Sedivy, & Arndt, 2010). The incorporation of positive protective factors into correctional wellness programs can help shift the emphasis from "pathology and deficits" to "personal strengths," which is anticipated to aid in overcoming officer resistance.

Future Research

There are several recommendations for future research endeavors aiming to examine the reduction of burnout in correctional officers. It would be beneficial to expand the research questions and test more complex models that include additional variables, such as stress, subjective well being, communication competence, and self-efficacy. Additionally, it would be useful for researchers to go beyond the cross-sectional design and carry out studies of a longitudinal nature that allows the establishment of temporal order underlying the dynamics of the various variables involved in correctional officer burnout. Further, revealing the role of demographic data such as gender, age, race, and length of service will contribute to a greater understanding of correctional officer burnout. It would also be useful to conduct future investigations with a broader sample of correctional officers with regard to geographic location, ethnic background, and rank. Moreover, replicating findings using continuous variables for age and duration of correctional officer career would add meaningful results. This study confirmed previously reported links between positive psychology factors, resilience, and reduced burnout. Additional work is required to clarify the nature and determinants of these psychological processes.

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