

SELF-EFFICACY AND BURNOUT IN LAW ENFORCEMENT

By

George Gabriel Garza

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Committee Members:

Laure Brimbal, Chair

Sean Roche

Lucia Summers

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LIST OF ABBREVIATIONS

Abbreviation	Description
PTSD	Post-traumatic Stress Disorder
PTSS	Post-traumatic Stress Syndrome

ABSTRACT

Law enforcement is often seen as a selfless profession where individuals protect the community by preparing for physical dangers. However, officers are not prepared for the potential dangers to their mental health. This thesis examined individual characteristics that might predict self-efficacy and burnout in law enforcement. The characteristics that I focused on are gender, race, veteran status, rank, and years of experience. I analyzed responses ($n=464$) to a survey conducted in a large city police department in the Southwest United States. I found that there was a strong negative correlation between self-efficacy and burnout rate. The demographic characteristics were not significant predictors for self-efficacy. Additionally, veteran status, rank, years of experience, and race were statistically significant predictors of burnout. Furthermore, the interaction of self-efficacy and race was a significant predictor of burnout. Specifically, race moderated the effect of self-efficacy on burnout. It is important to identify potential risk factors to help maintain officers' mental health because officers often encounter emotionally charged stressors while on the job and those stressors could negatively affect their mental health over time.

Keywords: law enforcement, self-efficacy, burnout, resilience

I. Introduction

Law enforcement is often seen as a selfless profession where officers serve the public by maintaining order (Brereton, 1961). Officers may encounter dangerous situations that involve people carrying a variety of weapons. Law enforcement officers are aware of the potential physical danger (Fejdys et al., 2022) and there is training to help them be prepared if and when these situations arise (e.g., Blair & Duron, 2022; Fejdys et al., 2022). However, there is another danger that law enforcement does not usually fully prepare for: the potential for the job to affect officers' mental health.

Poor mental health hygiene can cause issues among police officers such as depression, posttraumatic stress disorder (PTSD), and suicidal tendencies (Kaplan et al., 2017; Yoo & Franke, 2013). It is especially important to identify potential risk factors (e.g., race and veteran status) and protective factors (e.g., self-efficacy) to help professionals in law enforcement maintain their mental health. This study examined the relationship between self-efficacy and burnout, while also taking into account characteristics such as race, veteran status, gender, and years of experience.

According to Bandura and colleagues, "self-efficacy refers to the individual's capability to organize and execute the course of action required to produce given attainments" (1999, p. 159). Self-efficacy is associated with individuals' motivation, maintenance of social relationships, and resilience against stress and potential setbacks. Researchers believe that self-efficacy can help individuals overcome stressors and maintain their mental stability (Rutter, 1987). If the officer has high self-efficacy, then they should be able to work effectively after experiencing negative stressors (e.g., an emotionally charged case). On the other hand, if the officer's self-efficacy is low, then

they may experience anxiety, depression, and unhealthy coping mechanisms (e.g., alcohol and drug abuse). The mental health issues that are caused by low self-efficacy could start to negatively affect the officer's personal relationships (Perez et al., 2010). For example, low self-efficacy can create strained relationships in the family household. If the officers do not seek mental health treatment, their mental health could worsen. Low self-efficacy can also affect the officer's work. For instance, Holt et al. (2011) found that officers with low self-efficacy often experience high burnout rates.

As the name suggests, burnout is when employees get too stressed to the point where they leave their current employment (Maslach et al., 2001). Some studies support the notion that individuals with low self-efficacy are most likely to experience high rates of burnout (Holt et al., 2011; Perez et al., 2010). However, there is limited research on employees who experience low self-efficacy and burnout, especially police officers. This study will examine officers' self-efficacy and burnout and their relationship, and consider the differences between ranks (e.g., patrol officers and sergeants) and specific demographics such as whether or not the officer is a veteran and the officer's race. Observing which characteristics are risk factors for low self-efficacy and burnout could create more training and awareness with law enforcement agencies.

In this study I will answer four research questions:

- (1) Are self-efficacy and burnout correlated?
- (2) What demographic characteristics predict self-efficacy in police officers?
- (3) What demographic characteristics predict burnout in police officers?
- (4) Do self-efficacy and demographic characteristics interact to predict burnout in police officers?

The demographic characteristics that will be investigated are race, gender, veteran status, rank, and years of experience. Next, I review the literature on resilience, how self-efficacy relates to resilience, burnout and how self-efficacy is correlated with burnout, and how demographics affect self-efficacy and burnout.

Resilience

Law enforcement officers can experience physical and mental anguish. Examples of mental anguish include depression, PTSD, and unhealthy coping mechanisms (e.g., alcohol abuse; Kaplan et al., 2017). When this occurs, officers can increase their mental resiliency to improve their mental health (Taylor, 2021). Resilience is a difficult concept to fully define. It is a broad term with several competing definitions (Cicchetti & Garmezy, 1993). Some define resilience as the ability to develop healthy, adaptive behavior after a negative life event (Southwick et al., 2014). Resilience is an interactive concept that combines serious negative life events and positive coping mechanisms (Rutter, 2006). According to Cicchetti and Garmezy (1993), the diverse definitions are often associated with the individual's mental health or how they recovered from a stressful life event (e.g., how the individual is coping after their traumatic injury). The definition of resiliency this study will focus on is one's ability to continue to have a healthy lifestyle after a negative life-changing event.

Research on resilience as a distinct concept began in the 1970s. Garmezy (1971) focused on individual resiliency in those who had mental illness (e.g., schizophrenia). Garmezy wanted to evaluate how modifying the environment can affect individuals who have schizophrenia. More specifically, he wanted to observe how vulnerable children

who were labeled high-risk of developing schizophrenia could endure their volatile environment. Children who had schizophrenia in their family, being raised in an unstable household or being raised in an unstable environment were classified as being at high-risk on developing schizophrenia (Garmezy, 1971). The research used different control groups that involved the participant's genetic history (schizophrenia or depression), notable behavior in clinics (disruptive or docile behavior), and social class. Garmezy discovered that there were a group of children who were deemed invulnerable to their environment and thrived compared to the other children in the study. This discovery revealed that there are individuals who possess strong resiliency while living in an unstable environment.

Rutter (1987) focused on how resiliency affected the individual's outcome to specific events such as traumatic injuries and sudden deaths. More specifically, Rutter wanted to observe how coping mechanisms protected individuals. Coping mechanisms are strategies individuals use to overcome stressors. According to Rutter (1987), there are four main stages to a coping mechanism: reduction of risk impact, reduction of negative chain reaction, establishing and maintaining self-esteem and self-efficacy, and accepting new opportunities.

Reduction of risk impact is believed to be the most important process and has two different paths: alteration of the risk or alteration of exposure. Alteration of the risk implies that the individual changes the meaning to the danger (e.g., fear of hospitals as a juvenile vs. as an adult) while alteration of exposure involves the coping mechanisms the individual uses. Reduction of negative chain reaction relates the continuation of negative life events. For example, if a child lost one of their parents, a negative chain reaction

could occur if the other parent begins to abuse/neglect the child. However, if the child establishes and maintains self-esteem (e.g., recognizes their strengths and values themselves), then self-efficacy will develop. Self-efficacy is the ability to control their lives after the situation and potential other situations that could arise. Lastly, accepting new opportunities is the final stage where the individual is thriving or not after their ordeal (e.g., the individual willing to make new friends and pursuing a career).

The researchers found that boys were more often exposed to family issues compared to girls, but girls were more resilient towards family issues than boys (Rutter, 1987). The researchers noted that resiliency could be an individualistic characteristic. Investigating which demographic characteristics are associated with resiliency can help us understand why officers may or may not experience burnout. This study will examine a trait that is one of the most important components of resilience: self-efficacy.

Self-efficacy

Self-efficacy and self-esteem can help the individual overcome and be more resilient to negative life events (Rutter, 1987). Self-efficacy is believed to be the ability to successfully overcome situations while self-esteem is the ability to maintain a positive perception on oneself (Chandna et al., 2022). The current study will focus on self-efficacy, using the definition that centers on the ability to successfully persevere situations because it is well suited towards officer's ability to continue to work after dealing with stressors.

The duties of being an officer can be stressful and dangerous at times. It is important for the officer(s) to continue performing their tasks and manage the potential

stressors. According to Vancouver et al. (2002), self-efficacy is associated with confidence. Obviously, it is good to have confidence when performing difficult tasks such as dealing with armed suspects, suicide prevention, interviewing victims, and interrogating suspects. If officers are experiencing low self-efficacy, it can affect their mental health and personal relationships (Perez et al., 2010).

Low self-efficacy can also affect the officer's work. For instance, Holt et al. (2011) found that officers with low self-efficacy often experience a high burnout rate. As the name suggests, burnout is when employees get too stressed to the point where the employees will leave their current employment (Maslach et al., 2001). Over the years, officers have been experiencing an increase of occupational stress which has led to increase of mental health issues and burnout (Queirós et al., 2020).

Burnout

Burnout is a phenomenon where an employee experiences exhaustion, cynicism and work inefficacy after being constantly exposed to emotional stressors at work (Maslach et al., 2001). Exhaustion typically occurs when the employee is too tired (physically and/or mentally) to do their tasks. Cynicism is when the employee starts to believe that their contribution (either towards a business or society) is a waste and it does not matter. Work inefficacy is when the employee, either because of exhaustion and/or cynicism, is underperforming. Burnout has been a growing issue in occupations where employees normally encounter emotionally charged events, such as law enforcement (Kaplan et al., 2017). Some studies examined the burnout rate among law enforcement and found that officers are experiencing high levels of burnout (Kaplan et al., 2017; Perez, et al., 2010; Seigfried-Spellar, 2017). For example, investigators who deal with

child pornography, as either primary or secondary investigator, are at a higher risk of burnout and mental health degradation compared to other investigators (Perez et al., 2010; Seigfried-Spellar, 2017). The current study will investigate which officer demographic characteristics predict burnout.

Self-efficacy and burnout

There could be a correlation between low self-efficacy and burnout especially in stressful workplace environments that cause great occupational stress. According to Rees and colleagues (2015), occupational stress is a common issue that can cause physical and mental health problems, including burnout. The researchers used characteristics of resiliency (i.e., self-efficacy, coping, neuroticism and mindfulness) to help determine the individual's resiliency (Rees et al., 2015). The researchers measured resiliency by using three different scales: the CD-RISC, Resilience Scale for Adults, and Brief Resilience Scale. The researchers found that if the participants had high self-efficacy, then they would have low anxiety and other negative emotions. Observing if there is a correlation between self-efficacy and burnout in law enforcement agencies can help promote further training on combating those issues (i.e., high anxiety and other negative emotions that developed). As previously mentioned individuals with higher self-efficacy levels tend to have little or no negative emotions (e.g., anxiety). If officers are experiencing low self-efficacy, then there is a possibility that officers are experiencing high levels of negative emotions (e.g., anxiety) which could lead them to experience burnout.

Studies have assessed stressful work environments, specifically in law enforcement. For example, research has investigated officer's rank, years of experience and gender when investigating self-efficacy and burnout (Kwak et al., 2018; Perez et al.,

2010; Soravia et al., 2021). However, there is limited research on whether the officer's race and veteran status could predict self-efficacy and burnout. It is important to investigate these characteristics in law enforcement because these characteristics could be predictors to self-efficacy and burnout.

II. CHARACTERISTICS

Veteran status, self-efficacy, and burnout

Some studies examined the resiliency of veterans after their deployment. In a study conducted by Pietrzak and Cook (2013), their prime focus was the psychological resiliency of elderly veterans and the potential negative outcomes the elderly veterans endured. The research consisted of three groups: a control group of veterans with the lowest lifetime traumas and psychological issues, the resilient group which included veterans who experienced high lifetime trauma but had low psychological issues, and the distressed group with veterans who experienced high lifetime trauma and high psychological issues. The researchers found that more than sixty percent of veterans who experience high lifetime trauma were psychologically more resilient than other veterans who did not (Pietrzak & Cook, 2013).

According to Pietrzak and Cook (2013), veterans who had a higher education, a healthy attachment style, strong emotional stability, and who lacked disabilities increased their chances of resiliency. The reason veteran status will be investigated is because the officer who is a military veteran could have already performed/experienced difficult tasks (e.g., emotionally charged situations) prior to becoming a law enforcement officer. Therefore, is it possible that military veterans will have higher self-efficacy and low burnout levels compared to officers who are not military veterans. To answer this question, the current study will also assess whether or not veteran status predicts self-efficacy and burnout.

Gender, self-efficacy, and burnout

There is limited research on self-efficacy and burnout rates comparing female and male police officers. In a study conducted by Kwak et al. (2018), the researchers wanted to examine how emotional labor and stressors affected police officers and whether or not it caused burnout. Even though their study focused on professional efficacy, the items they used to measure professional efficacy are similar to the current study's items to measure self-efficacy (e.g., "I feel confident that I am effective at getting things done;" Kwak et al., 2018). The researchers found that female officers were more likely to report low professional efficacy (Kwak et al., 2018). However, they did not state if female officers experienced more emotional labor and stress compared to male officers.

Additionally, Soravia et al. (2021) found that gender was a strong, negative predictor for posttraumatic stress syndrome (PTSS) among first responders (e.g., police officers) and psychiatric nurses. The researchers found that females were at a higher risk of developing PTSS. PTSS can damage the individual's ability to cope when managing stressful situations and increase suicidal tendencies (Mukherjee et al., 2022). This is a risk factor for burnout especially for females once they experience PTSS. In another study conducted by McCarty et al. (2007), the researchers examined if female officers reported more emotional stress and burnout compared to male officers. After reexamining secondary data that was obtained from a survey of sworn officers, they found that there was no difference in emotional stress and burnout between female and male officers (McCarty et al., 2007). Given the discrepancy in findings, it is important to investigate the gender differences in law enforcement and observe if female officers experience a

higher burnout rate and lower self-efficacy scores compared to male officers (Soravia et al., 2021). The current study will examine whether that pattern still exists.

Race, self-efficacy, and burnout

There is limited research on whether an officer's race might predict self-efficacy and/or burnout. Somers and Terrill (2022) used race, gender, military experience, and education as control variables in their study. They conducted their study by giving sworn officers a survey that had items concerning the officer's self-efficacy and the police officer's ability to perform tasks. They found that officers who worked more shifts and completed in-service training had higher self-efficacy than officers who did not (Somers & Terrill, 2022). In another study conducted by Miller et al. (2022), data about the officer's race was also gathered via a survey that was given prior and after training. The researchers examined the burnout rate among correctional officers. The researchers noted that there is limited data about the correlation with self-efficacy and personal characteristics (e.g., race and gender). They found that low self-efficacy does predict burnout. Neither study discussed if race was a predictor of low self-efficacy and high burnout. Race was not the main focus of the study, however, the researchers did note that a vast majority of the officers were White.

Race is an important characteristic to investigate because officers who are minorities could experience different levels of self-efficacy and burnout compared to White officers. For instance, Ba et al. (2021) found that Black and Hispanic officers make fewer arrests, stops, and usage of force. The presence of Black officers increases the perception of police legitimacy among Black citizens especially when Black officers tend to rely on factors (e.g., age and race) as guidelines for arrest (Brown & Frank, 2006).

Increased police legitimacy among Black citizens could lower the stress levels for Black officers while on patrol. Thus, officers who are minorities could experience less stress while patrolling the streets compared to White officers.

On the other hand, minority officers could experience more stress due to the liking-similarity effect. The liking-similarity effect is a social phenomenon where individuals form relationships with others who share the same interests such as social traits and hobbies (Collison & Howell, 2014). The effect could also explain why individuals form enemies due to the fact they have contradicting social traits and hobbies. Minority officers could face social strain if they are employed in a police department that is mostly comprised of White officers. The various cultural backgrounds and beliefs could create social strain within the police department. White officers could face this issue (e.g., the racist police officer stereotype) if they are patrolling a diverse district (Trinkner et al., 2019). There could be a possibility that minority officers also face this issue if they patrol a district that is comprised of White citizens. If race is a risk factor for burnout and low self-efficacy, then finding potential solutions to combat this issue should be prioritized.

Rank, self-efficacy, and burnout

Previous research shows that detectives/investigators can experience low self-efficacy and high burnout depending on how emotionally charged the crime is (Perez et al., 2010; Seigfried-Spellar, 2017). However, patrol officers can also experience many stressors (Paoline III & Gau, 2022). Patrol officers encounter stressful situations including use of force, suicide prevention, crisis intervention and managing citizens with

mental health illness (Engel et al., 2020; Tyuse, 2020). Patrol officers might experience low self-efficacy if they receive little training on the matter (Bahora et al., 2007; Osteen et al., 2020; Torres, 2018). If officers are experiencing low self-efficacy, then they could experience burnout and leave the force. There is a possibility that patrol officers experience the lowest self-efficacy and highest burnout due to fact they are first to the scene (Ermasova et al., 2020). Most of the literature focuses on patrol officers and investigators, but there is limited research on police sergeants/commanders and their self-efficacy and burnout levels. The current study provides more information to address this gap in the literature.

Years of experience, self-efficacy, and burnout

Soravia et al. (2021) found that years of experience was one of the few variables that was a strong predictor for posttraumatic stress symptoms (PTSS). The findings suggested that the longer an individual works in an environment with high stressors, the more likely they are to experience mental distress and potentially experience burnout. This is an issue because officers who have been serving on the force longer could be experiencing this predicament. Similar to officer's race, there is limited research on years of experience and how it could be possibly predict self-efficacy and burnout rates. Most research studies use years of experience as a control variable and do not further explore the relationship.

Hypotheses

For my first research question, I hypothesize that self-efficacy and burnout will be correlated.

For the second research question, I hypothesize that:

- A. Officers who are military veterans will have a higher self-efficacy score compared to officers without a military background.
- B. Female officers will have lower self-efficacy scores compared to male officers.
- C. Officers who are non-White will have higher self-efficacy scores compared to officers who are White.
- D. Officers who are ranked as line-level will have lower self-efficacy scores compared to officers who are ranked as management.
- E. Officers who have more years of experience (e.g., 21 years or more) will have lower self-efficacy scores compared to officers who have fewer years of experience.

For the third research question, I hypothesize that:

- A. Officers who are military veterans will have lower burnout scores compared to officers without a military background.
- B. Female officers will have higher burnout scores compared to male officers.

- C. Officers who are non-White will have lower burnout scores compared to officers who are White.
- D. Officers who are ranked as line-level will have higher burnout scores compared to officers who are ranked as management.
- E. Officers who have more years of experience (e.g., 21 years or more) will have a higher burnout score compared to officers who have fewer years of experience.

For the final research question, I hypothesize that veteran status will moderate the relationship between self-efficacy and burnout. Specifically, the negative relationship between self-efficacy and burnout will be stronger for veterans than non-veterans.

III. METHODS

Sample

This study used data that was previously collected at a large metropolitan police agency in the Southwestern United States during Summer 2022. Researchers created a survey that asked officers about their level of self-efficacy, burnout, and various other characteristics (e.g., rank, gender, race). The survey was distributed via email to all sworn officers in the police department. The survey yielded a large sample size of 544 responses. During the Fiscal Year 2022, the police department had approximately 2,484 personnel, including 1,809 sworn officers. However, this survey was distributed when the police department had only 1,550 active sworn officers. Thus, data collection yielded a 35% response rate. Please note, there is no established survey response rate for law enforcement (Nix et al., 2019). Approximately 80 responses were excluded from analyses because participants did not fully finish the survey. The data was cleaned and prepared for analysis, with a final analytic sample size for this study of $n = 464$.

Measures

The demographic characteristics that were cleaned are officer's rank, officer's race and years of experience. The original data allowed the participants to select one of four rankings: Officer, Corporal/Detective, Sergeant, or Lieutenant/Commander. The officer's rank data was split into two subgroups instead of four to simplify the data. In the data I analyze, Officers and Corporals/Detectives are identified as Line-level (1) while Sergeants and Lieutenants/Commanders are identified as Management (2). Race had seven categories to choose from: White/Caucasian, Black/African American,

Hispanic/Latino, Asian, American Indian/Alaska Native, Native Hawaiian/Pacific Islander, and Other. Participants reporting races other than White were limited (Black/African American ($n = 12$), Hispanic/Latino ($n = 80$), Asian ($n = 8$), American Indian/Alaska Native ($n = 1$), Native Hawaiian/Pacific Islander ($n = 1$), and Other ($n = 44$)). Thus, I dichotomized this variable (White/Caucasian (1) and non-White (2)). Combining all other races into one group created a number substantial enough for comparative analyses (non-White ($n = 146$)). Years of experience had seven options for participants: less than a year, 1-5 years, 6-10 years, 11-15 years, 16-20 years, 21-25 years, and 26 years or more. Since less than a year and 26 years or more had exceptionally small numbers (less than a year ($n = 1$) and 26 years or more ($n = 35$)), I combined the two highest and lowest categories. Years of experience now has five options: 5 years or less, 6-10 years, 11-15 years, 16-20 years, and 21 years or more. The other variables remained the same, with gender being male (1) and female (2) and veteran status as non-veteran (1) and veteran (2).

Self-efficacy and burnout scales

To measure self-efficacy, the new general self-efficacy scale (NGSE) was used. The NGSE scale contains fewer items (8 items) than the general self-efficacy (GSE) scale (11 items) but is able to produce more content and predictive validity (Chen et al., 2001). An example of an item from the NGSE scale is, "I am confident that I can perform effectively on many different tasks." The full list of items is provided in Appendix A. Participants responded to the items on five-point Likert scales (1-strongly disagree to 5-strongly agree). All of the items in self-efficacy scale were averaged to create a scale ranging from 1 to 5, with higher values meaning higher self-efficacy.

To measure burnout, this survey included a burnout scale employed previously by The National Police Foundation (2018) in a survey at the same Southwestern metropolitan police department. The burnout scale included 11 items (e.g., “I am frustrated by my work”). The full list of items is provided in Appendix A. Three of the questions were reverse coded because they appeared to be positive compared to the rest of the burnout questions. Participants responded to the items on five-point Likert scales (1-strongly disagree to 5-strongly agree). All items in the burnout scale were averaged to create a scale ranging from 1 to 5, with higher values meaning higher burnout.

IV. RESULTS

Demographic characteristics of the police officers

Among the 464 police officers, the sample was predominantly male (88%), White/Caucasian (69%), non-veterans (64%), and line-level officers (75%). For years of experience, the sample was nearly equivalent across categories, with frequencies increasing along with years of experience. There was a small number of officers who served 5 years or less (14%), a slightly larger group of officers who served 6-10 years (19%), another slightly larger group of officers who served 11-15 years (20%), another slightly larger group of officers who served 16-20 years (21%), and a quarter of officers served 21 years or more (25%). See Table 1 for a more detailed description of sample demographics.

Table 1. Sample demographics

Demographic characteristic	Count	Percentage
Gender		
Male	408	88%
Female	56	12%
Race		
White	318	69%
Non-white	146	31%
Veteran Status		
Non-veteran	295	64%
Veteran	169	36%
Rank		
Line-level	346	75%
Management	118	25%
Years of experience		
Five years or less	65	14%
6-10 years	90	19%
11-15 years	95	20%
16-20 years	98	21%
21 years or more	116	25%

Note. Due to rounding some percentages do not total 100%.

Self-efficacy and burnout scales

To assess reliability of the scales, two unidimensional reliability tests were conducted for both self-efficacy and burnout scales. Cronbach's α for the self-efficacy ($\alpha = 0.92$, 95% CI [0.91, 0.93]) and burnout ($\alpha = 0.83$, 95% CI [0.80, 0.85]) scales were high. According to Taber (2017), if Cronbach's alpha is 0.7 or higher the scale has high internal reliability. Overall, police officers who responded to the survey reported relatively high self-efficacy levels ($M = 4.2$, $SD = .60$). Interestingly, officers reported moderate levels of burnout ($M = 3.1$, $SD = .70$). Please note that the self-efficacy scale had normality and heteroskedasticity issues. The data for self-efficacy was slightly

negatively skewed but given the nature of the distribution, transformations were not able to resolve the skew.

Research question 1: Is self-efficacy correlated with burnout?

The hypothesis for this research question was that self-efficacy would correlate with burnout. A Pearson's correlation test indicated that there was a moderate, negative correlation ($r(463) = -.314$, 95% CI [-0.40, -0.21], $p < .000$). These results supported the hypothesis because the data implied that the participants experienced low burnout if they had high self-efficacy levels (see Figure 1). A linear regression was used to further evaluate the extent to which self-efficacy predicted burnout. The results indicated that self-efficacy significantly negatively predicted burnout ($F(1,462) = 50.50$, $r^2 = .10$, $p < .000$ see Table 2).

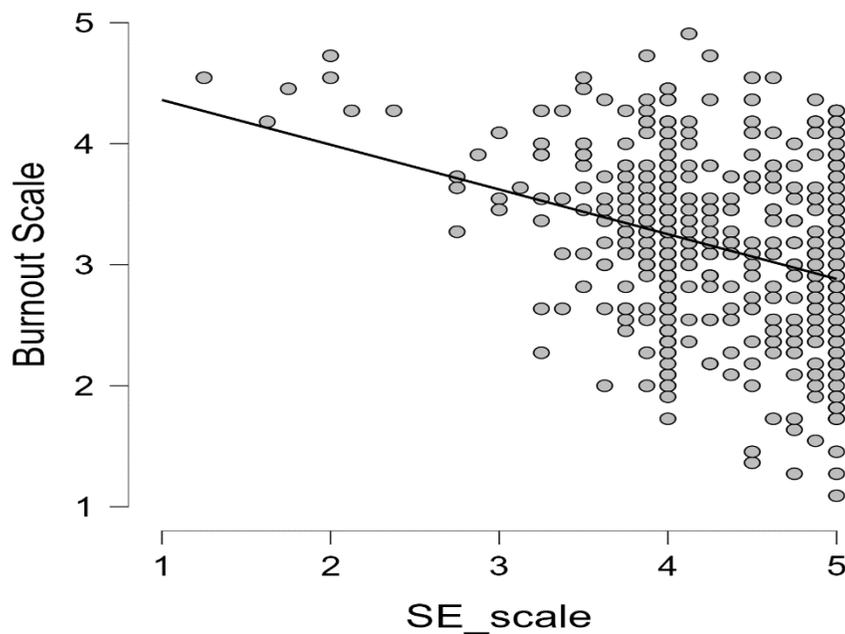


Figure 1. Burnout and self-efficacy correlation.

Table 2. Linear regression self-efficacy on burnout ($N=464$)

	Unstandardized (<i>b</i>)	Standard Error (<i>E</i>)	<u>Standardized Beta (β)</u>	<u>95% CI</u> LL, UL	<i>p</i> value
Self-efficacy	-.370	.052	-.314	-.472, -.267	.000

Research question 2: What demographic characteristics predict self-efficacy in police officers?

The hypotheses for research question 2 was that the officers who are female, non-White, ranked as line-level, and have higher years of experience will have lower levels of self-efficacy compared to officers who are White, ranked as management, and have lower years of experience. Officers who are military veterans will have a higher self-efficacy score compared to officers who are not military veterans.

A linear regression was conducted to answer research question 2. Results showed that none of the demographic characteristics significantly predicted self-efficacy ($F(5, 458) = 1.1, r^2 = .01, p = .37$; see Table 2). Officer's rank was the only variable that marginally predicted self-efficacy ($b = .12, p = .09$). Police officers who are sergeants and commanders reported to have higher self-efficacy levels ($M = 4.3, SD = .50$) compared to line-level police officers ($M = 4.2, SD = .60$; see Table 3 for a breakdown of self-efficacy scores by demographics). The other four observed demographic characteristics were also not predictors for self-efficacy. Specifically, there was no difference between officers who were military veterans or non-veterans, male or female, white or non-white and those with higher or fewer years of experience, contrary to my hypotheses.

Table 3. Linear regression results of demographic characteristics on self-efficacy ($N=464$)

	Unstandardized (<i>b</i>)	Standard Error (E)	<u>Standardized</u> <u>Beta (β)</u>	<u>95% CI</u> LL, UL	<i>p</i> value
Years of experience	-0.33	0.22	-.078	-.077, .011	.139
Veteran	-0.54	0.59	-.044	-.170, .063	.368
Male	.014	.087	.008	-.157, .185	.871
Non-White	.042	.060	.033	-.075, .159	.482
Line-level	.120	.072	.089	-.020, .261	.093

Note. Years of experience was the only ordinal variable all others were dichotomous.

Table 4. Descriptive statistics of demographic characteristics and self-efficacy ($N=464$)

	Mean (M)	Standard Deviation (SD)
Years of experience		
5 years or less	4.242	0.592
6-10 years	4.301	0.584
11-15 years	4.272	0.632
16-20 years	4.232	0.549
21 years or more	4.208	0.600
Veteran Status		
Non-veteran	4.274	0.540
Veteran	4.206	0.670
Gender		
Male	4.244	0.605
Female	4.290	0.475
Race		
White	4.239	0.612
Non-White	4.272	0.542
Rank		
Line-level	4.229	0.626
Management	4.307	0.472

Research question 3: What demographic characteristics predict burnout in police officers?

The hypotheses for this research question were that officers who were military veterans, male, non-white, management positions, and fewer years of experience would have lower scores of burnout compared to officers who are not military veterans, white, female, line-level positions, and had higher years of experience.

The linear regression was significant ($F(8,455) = 4.83, p < .001, r^2 = .08$; see table 3). Veteran status ($b = .22, p < .001$), rank ($b = -.22, p < .008$), and race ($b = -.14, p < .04$) were significant predictors of burnout. To be more specific, officers who were veterans ($M = 3.3, SD = .71$), in line-level positions ($M = 3.2, SD = .72$) and white ($M = 3.1, SD = .67$) were more likely to experience high burnout levels compared to their counterparts. Figures 1, 2, and 3 further illustrate the relationship. The results validated the hypotheses that officers who were White and in line-level positions would have higher levels of burnout. The hypotheses of military veterans having low burnout was disproven. These results hinted that military veterans could encounter additional stressors compared to non-veterans. As well as white officers encountering additional stressors compared to non-white officers. The officer's years of experience and gender were not significant predictors of burnout.

Table 5. Linear regression results of demographic characteristics on burnout ($N=464$)

	Unstandardized (<i>b</i>)	Standard Error (E)	Standardized Beta (β)	95% CI LL, UL	<i>p</i> value
Years of experience	-0.39	.026	-.077	-0.89, .012	.130
Veteran	.220	.068	.152	.086, .353	.001
Male	.009	.099	.004	-.186, .205	.925
Non-White	-.139	0.68	-.093	-.273, -.005	.043
Line-level	-.236	.082	-.148	-.397, -.075	.004

Note. Years of experience was the only ordinal variable all others were dichotomous.

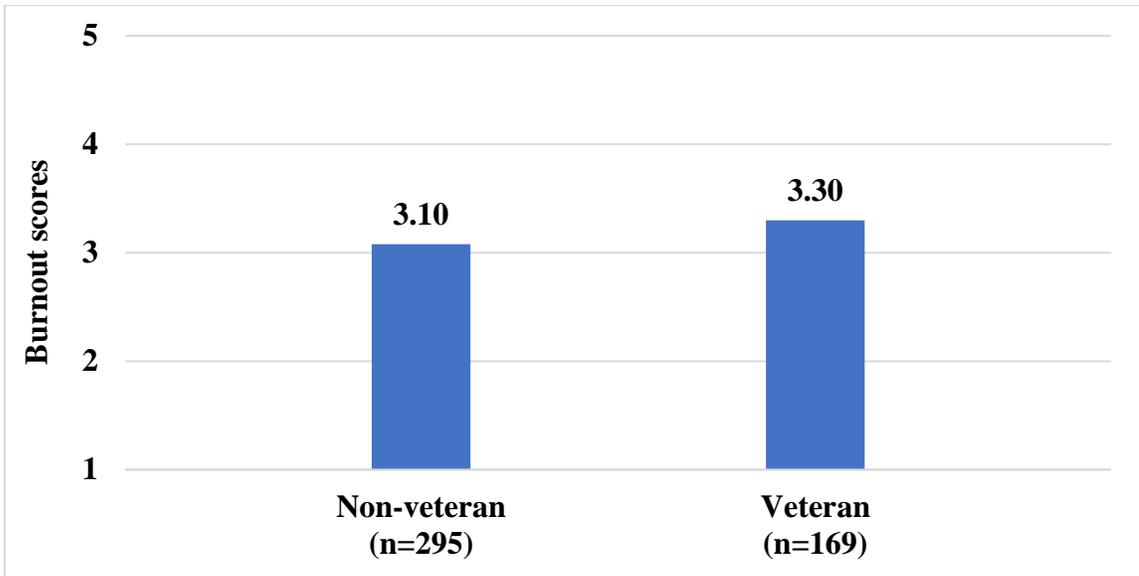


Figure 2. Descriptive statistics for burnout based on veteran status.

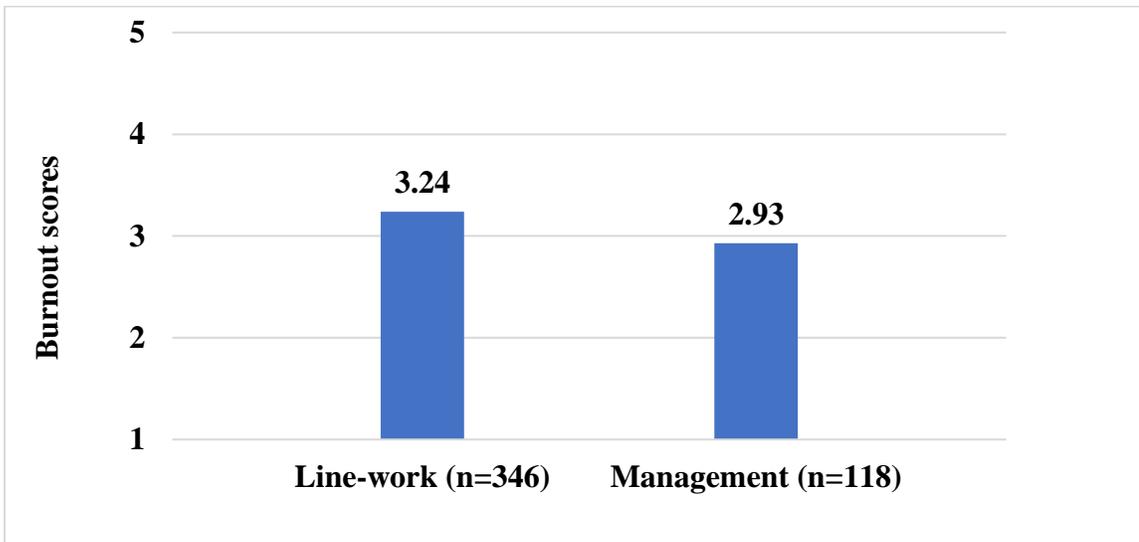


Figure 3. Descriptive statistics for burnout based on rank.

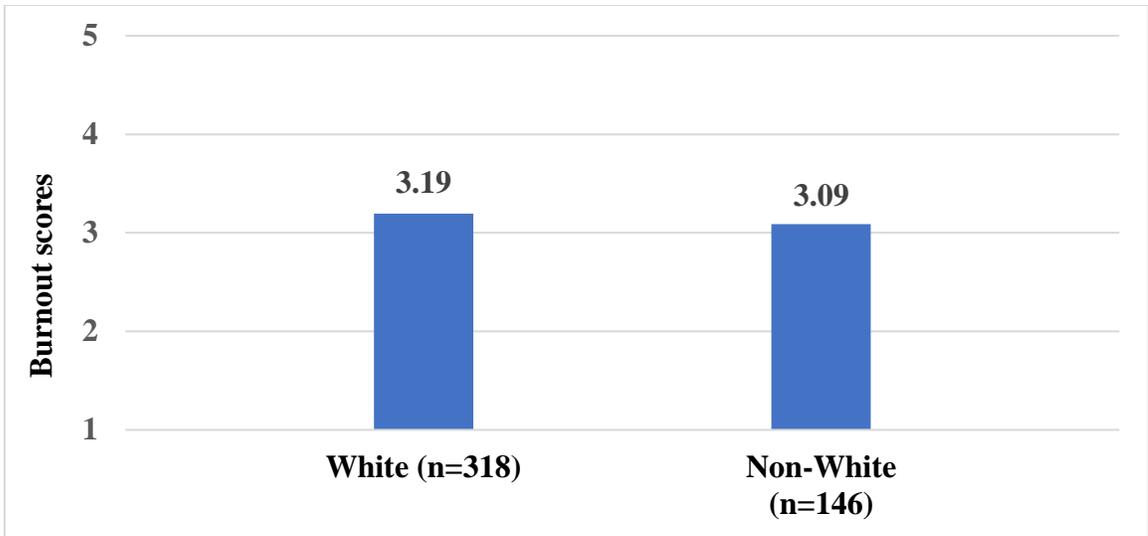


Figure 4. Descriptive statistics for burnout based on race.

Table 6. Descriptive statistics of demographic characteristics and burnout ($N=464$)

	Mean (M)	Standard Deviation (SD)
Years of experience		
5 years or less	3.290	0.739
6-10 years	3.247	0.767
11-15 years	3.279	0.673
16-20 years	2.970	0.676
21 years or more	3.085	0.611
Veteran Status		
Non-veteran	3.079	0.673
Veteran	3.303	0.714
Gender		
Male	3.172	0.697
Female	3.076	0.691
Race		
White	3.194	0.671
Non-white	3.088	0.746
Rank		
Line-level	3.240	0.727
Management	2.928	0.535

Research Question 4: Do self-efficacy and demographic characteristics interact to predict burnout in police officers?

As previously stated, the hypothesis for the last research question was veteran status will moderate the relationship between self-efficacy and burnout. Specifically, the negative relationship between self-efficacy and burnout will be stronger for veterans than non-veterans. Before conducting the linear regression to assess the interactions of self-efficacy and demographic characteristics on burnout, a linear regression was conducted

assessing the individual effects of self-efficacy and demographic characteristics on burnout. That linear regression was significant ($F(6,457) = 14.4, p < .000, r^2 = .160$). Specifically, self-efficacy ($b = -.35, p < .000$), veteran status ($b = .06, p < .002$), rank ($b = -.19, p < .014$), race ($b = -.12, p < .057$), and years of experience ($b = -.05, p < .039$) were significant predictors of burnout (see Table 7). Officers who have served 5 years or less ($M = 3.3, SD = .74$), 6-10 years ($M = 3.2, SD = .77$), and 11-15 years ($M = 3.3, SD = .67$) reported higher levels of burnout compared to officers who served 16-20 years ($M = 3.0, SD = .68$) and 21 years and more ($M = 3.1, SD = .61$; see Figure 5).

Another linear regression was conducted to examine the data: Five interaction terms were created to investigate whether they predicted burnout. To create these interaction terms, demographic characteristics were multiplied by the self-efficacy scores. This linear regression was significant ($F(11, 452) = 9.16, p < 0.001, r^2 = .176$).

The predicted veteran status by self-efficacy interaction was not significant ($b = -.105, p = .341$), which contradicted my hypothesis. Officers who were veterans reported higher levels of burnout compared to officers who were not veterans, but the interaction with self-efficacy was not significant (regression lines for both groups were parallel; see Figure 4). Race moderated the effect of self-efficacy on burnout ($b = -.30, p < .01$). Specifically, there was a negative relationship between self-efficacy and burnout for both non-White officers and White officers, however it was stronger for non-White officers than for White officers (see Figure 7). No other interaction terms were significant, see Table 6 for all regression coefficients.

Table 7. Linear regression results of self-efficacy and demographic characteristics on burnout (N=464)

	Unstandardized (<i>b</i>)	Standard Error (E)	<u>Standardized</u> <u>Beta (β)</u>	<u>95% CI</u> LL, UL	<i>p</i> -value
Self-Efficacy	-.355	.051	-.301	-.455, -.255	.000
Years of Experience	-.051	.024	-.101	-.099, -.003	.039
Veteran	.201	.065	.139	.073, .328	.002
Male	.014	.095	.007	-.171, .200	.880
Non-white	-.124	.065	-.083	-.251, .004	.057
Line-level	-.193	.078	-.121	-.347, -.040	.014

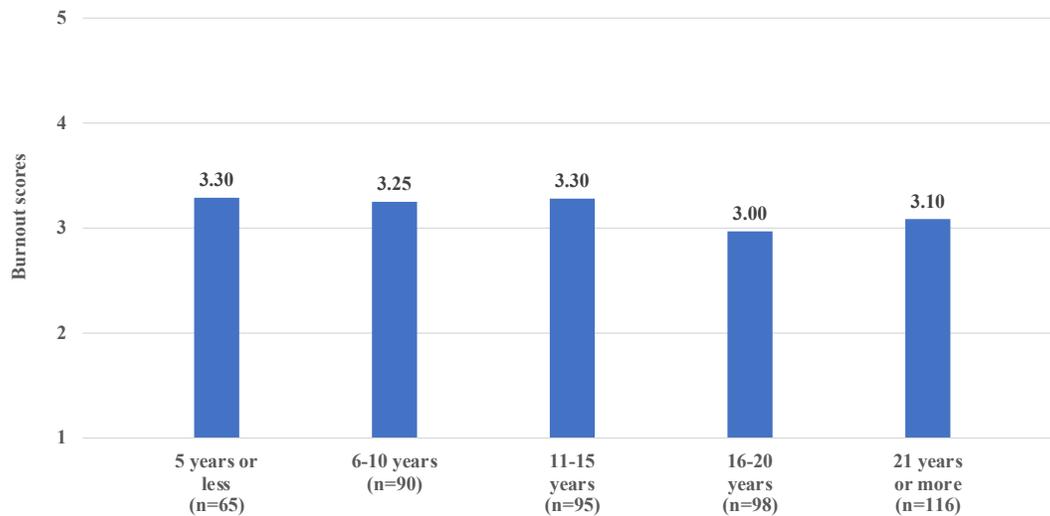


Figure 5. Descriptive statistics for burnout based on years of experience.

Table 8. Linear regression results of self-efficacy interacting with demographic characteristics and demographic characteristics on burnout ($N=464$)

	Unstandardized (<i>b</i>)	Standard Error I	<u>Standardized</u> Beta (β)	<u>95% CI</u> LL, UL	<i>p</i> -value
Self-efficacy scale	-.124	.352	-.105	-.816, .568	.724
NGSE X Years of Experience	.063	.042	.552	-.019, .144	.134
NGSE X Veteran	-.105	.111	-.332	-.323, .112	.341
NGSE X Male	-.005	.195	-.011	-.389, .379	.980
NGSE X Non-White	-.291	.117	-.899	-.520, -.062	.013
NGSE by line-level	.082	.155	.240	-.223, .386	.599
Years of experience	-.317	.178	-.631	-.667, .032	.075
Veteran	.645	.476	.446	-.289, 1.58	.176
Male	.026	.844	.012	-1.63, 1.69	.975
Non-White	1.11	.502	.744	.129, 2.10	.027
Line-level	-.545	.668	-.341	-1.86, .768	.415

Table 9. Results of three regressions of self-efficacy (1), self-efficacy and demographics (2), and the interactions between self-efficacy and demographics (3) on burnout (N=646)

Variables	Model 1: Self-Efficacy Only			Model 2: Self-Efficacy and Demographics			Model 3: Self-Efficacy, Demographics, and Interactions		
	<i>b</i>	SE	β	<i>b</i>	SE	β	<i>b</i>	SE	β
NGSE	-.370***	.052	-.314	-.355***	.051	-.301	-.124	.352	-.105
Years of Experience		-		-.051*	.024	-.101	-.317	.178	-.631
Veteran		-		.201**	.065	.139**	.645	.476	.446
Male		-		.014	.095	.007	.026	.844	.012
Non-white		-		-.124	.065	-.083	1.12*	.502	.744*
Rank		-		-.193*	.078	-.121*	-.545	.668	-.341
NGSE by Years of Experience		-			-		.063	.042	.552
NGSE by Veteran status		-			-		-.105	.111	-.332
NGSE by Gender		-			-		-.005	.195	-.011
NGSE by Race		-			-		-.291*	.117	-.899*
NGSE X Rank		-			-		.082	.155	.240
R-squared	.098			.159			.176		

ABBREVIATIONS: *b* = unstandardized coefficient, SE = standard error, β = standardized regression coefficient. **p* < .05; ** *p* < .01; ****p* < .001 (two-tailed).

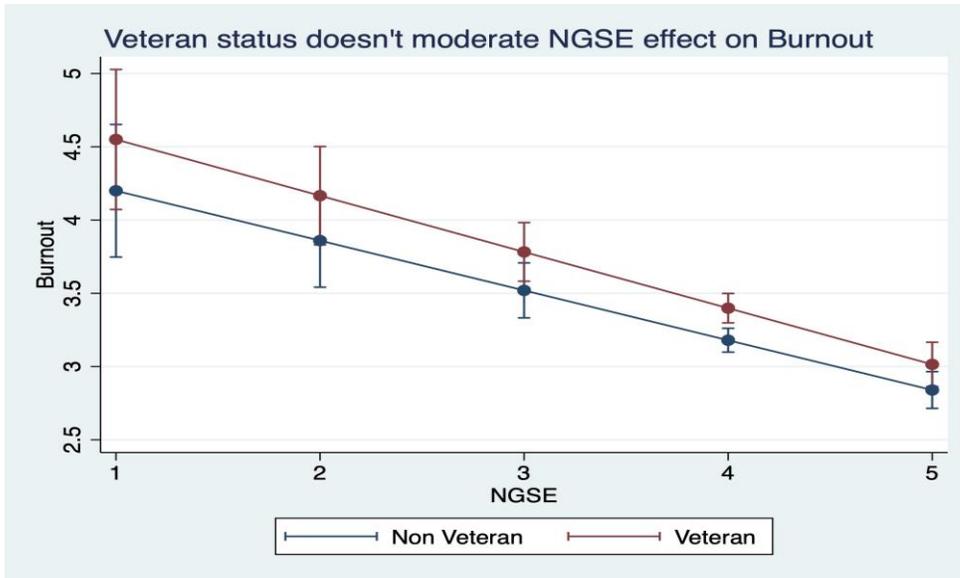


Figure 6. Predicted (but non-significant) interaction of self-efficacy and veteran status on burnout.

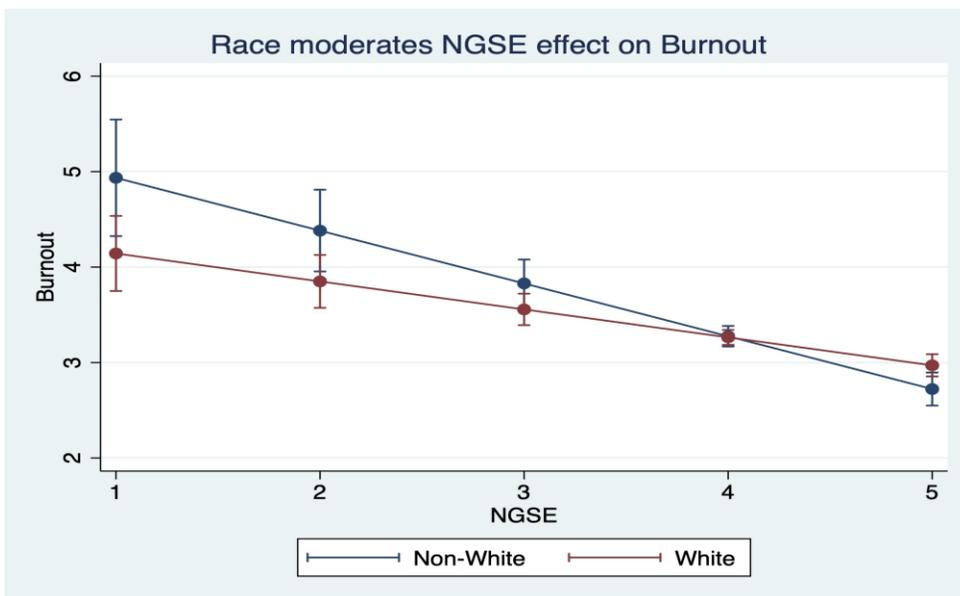


Figure 7. Interaction of self-efficacy and race on burnout.

V. DISCUSSION

The purpose of this study was to examine self-efficacy and burnout among law enforcement personnel. In addition, this study examined whether demographic characteristics such as gender, race, rank, veteran status, and years of experience predicted self-efficacy and burnout. An online survey was distributed to police officers in a large metropolitan police department ($n=464$). I found that self-efficacy was negatively correlated with burnout. That is, if an officer has low self-efficacy, then they might experience high burnout. This research adds to the self-efficacy and burnout literature by providing a bit more insight into how gender, race, rank, veteran status, and years of experience can have an effect on self-efficacy and burnout.

Demographic characteristics, self-efficacy, and burnout

The demographic characteristics did not predict self-efficacy. Only rank marginally predicted self-efficacy. Officers who were in management positions (e.g., commanders and sergeants) reported having slightly higher self-efficacy levels compared to officers in line-level positions. As previously mentioned, patrol officers are exposed to additional stressors such as use of force, suicide prevention, crisis intervention, and managing mentally ill offenders (Engel et al., 2020; Tyuse, 2020). All these stressors could have a negative effect on self-efficacy since patrol officers are usually the ones to encounter these stressors the most. Furthermore, specific conditions (e.g., limited physical evidence and no witnesses) could also negatively affect the officers' self-efficacy. This could explain why line-level officers reported to have low self-efficacy levels compared to officers in management positions.

Only four demographic characteristics predicted burnout and those characteristics were veteran status, rank, and race. Officers who were veterans, in line-level positions, and White were more likely to experience burnout compared to non-veterans, officers in management positions, and non-White officers. Interestingly, the interaction of self-efficacy and veterans was not a significant predictor of burnout, but the interaction of self-efficacy and race was. Therefore, finding possible solutions to prevent rising burnout is needed, with a particular focus on officers who are veterans, served between 5 years or less and 11-15 years, line-level, and White.,

Possible solutions

There are some potential solutions for police departments to implement to help lower burnout levels among police officers. Denk-Florea and colleagues (2020) suggest introducing a specialized training that promotes mental health could be beneficial. The type of training the researchers suggested focuses on cognitive reappraisal. This training helps officers reevaluate negative stressors and promotes mindfulness (i.e., reinforces resiliency when managing negative stressors). According to Denk-Florea and colleagues (2020), this training improves the officer's quality of life and helps lessen the effects of PTSD. As previously mentioned, self-efficacy drastically affected non-White officers and lowered their burnout compared to White officers. Therefore, the cognitive reappraisal training could be beneficial to help reinforce non-White officers' self-efficacy than White officers. However, the cognitive reappraisal training could help White officers build up their self-efficacy.

Changing the organization's structure (i.e., organization's work culture) could help promote mental health hygiene and eliminate the stigma of seeking mental health

services. Several studies found that there is stigma of officers seeking mental health services within law enforcement agencies (Bonner & Crowe, 2022; Daniel & Treece, 2021; Van Hasselt et al., 2019; Velazquez & Hernandez, 2019). Creating an environment where seeking mental health services is acceptable could help officer's find healthier coping mechanisms (e.g., counseling). If an officer is experiencing low self-efficacy, a training that promotes mental health could help that officer overcome issues they are experiencing and regain high self-efficacy. In addition, eliminating the stigma towards seeking mental health treatment might increase the chances of officers seeking treatment to help overcome any negative stressors they might encountered. Thus, rebuilding self-efficacy could lower burnout among officers. My results indicated that officers who were veterans, White, served on the force for 15 years or less, and line-level experienced higher levels of burnout compared to officers who were non-veterans, non-White, served on the force from 16 years or more and management, respectively. Therefore, changing the culture around mental health in law enforcement could benefit officers who are veterans and ranked in line-level positions by encouraging those officers to seek mental health treatment if they are experiencing burnout due to constant exposure of emotionally charged stressors. Especially since line-level officers handle constant stressful situations more head-on than management. In addition, veterans could have some form of PTSD prior joining law enforcement and the constant exposure of emotionally charged stressors could worsen their PTSD. Encouraging mental health treatment within the police department could be beneficial for officers who are veterans and in line-level positions.

Limitations

This study had four key issues. The first issue is that only one police department was examined. Therefore, the findings might not be generalized. Different police departments within the same state could have different scores on self-efficacy and burnout. For example, a police department could have experienced specific factors (e.g., an increase of violent crime, layoffs) that might negatively affect the officer's self-efficacy and burnout compared to other departments. On the other hand, self-efficacy and burnout scores could be similar in small and large police departments (Adams, 2019). For instance, tragic incidents such as police killing unarmed citizens could negatively affect all officers' self-efficacy and burnout. One study wanted to examine if small police departments were also being affected by the Ferguson effect (an effect that negatively affected self-efficacy in law enforcement after the Michael Brown shooting in 2012; Adams, 2019). The study found that small police departments were experiencing the Ferguson effect and encountered low self-efficacy levels similarly to large police departments. Unfortunately, there is limited research on small police departments to further validate that small police departments share similar self-efficacy and burnout levels compared to large police departments. However, this study did not examine the difference between small and large police departments, given I only had access to one large police department.

The second issue is that not everyone in the police department responded to the online survey. Although the response rate was high, response rates are not strong predictors of nonresponse bias (Groves & Peytcheva, 2008). There are multiple reasons why this issue might have occurred. One of those reasons is that officers had no time to

respond to the survey. For instance, the officers could have been preoccupied with caseloads, meetings/trainings, etc. The officers could have been exhausted or simply had forgotten to respond to the online survey. Their potential responses could have yielded different self-efficacy and burnout scores. If the officer had been able to respond to the survey after their stressful day, they could have expressed low levels of self-efficacy and high levels of burnout. Their responses could have increased the burnout mean and decreased the self-efficacy mean. Furthermore, the officers could have been irritated from their busy work schedule and felt that the online survey was unnecessary. This could explain why some responses were incomplete. In addition, the officers could have felt that they could have been identified if they completed the survey. For example, if an officer is the only person woman of color in their unit, then they would probably be more hesitant to respond to the demographic questions in fear of being identified. Their potential responses could have created different results for race and veteran status such as increasing the self-efficacy and burnout means.

The third issue is that the survey did not specifically ask military veterans if they experienced high stressor environments (i.e., combat situations) prior joining law enforcement. In addition, the survey did not ask if the military veterans and non-veterans if they experienced traumatic events during their law enforcement career. Some military veterans might not have experienced combat either due to their job assignment (e.g., technician and intelligence analyst) or year of deployment. Military veterans who experienced combat environments could have different self-efficacy and burnout levels compared to military veterans who have not experienced combat. For example, military veterans who experienced combat situations could have developed PTSD and that

disorder could have negatively affected their life after serving (Botero et al., 2020). This could be a reason that the interaction between self-efficacy and veteran status was not significant.

The final limitation is that the self-efficacy scale had normality and heteroskedasticity issues. The normality assumption is an error where there is unequal distribution within the data (Ghasemi & Zahediasl, 2012). Heteroskedasticity is an error where once the predictors are added to the regression model, there is residual variables that indicate a nonexistent variable in the regression model (Astivia & Zumbo, 2019). I was not able to address either of these issues statistically, thus my findings should be interpreted with caution. Social desirability bias could be a possible explanation for these issues. Social desirability bias is when participants provide answers that do not match their actual behavior due to being influenced by strong social norms (Larson, 2018). For instance, the officer could have been experiencing low levels of self-efficacy but reported to have high self-efficacy for fear of being penalized for expressing low self-efficacy. All items in the self-efficacy scale were positively framed (e.g., I am confident that I can perform effectively on many different tasks). It is quite possible that the officers felt pressured to report higher levels of self-efficacy than they actually felt. Future research should address this potential measurement issue by adapting scale items and/or using robust standard errors.

Future research

Researchers should compare officers' self-efficacy and burnout levels at different police departments either within the same state or different states. For instance, it would be interesting to examine if officers in eastern region of the United States experience

diverse levels of self-efficacy and burnout compared to officers in the southern region of the United States. The East Coast of the United States has more large cities compared to the South, since cities on the East Coast are more densely populated compared to the South. Researchers should also conduct a mixed method study. Gathering qualitative data on officers who experience high burnout with semi-structured interviews could allow insight on how those particular officers feel, especially officers who are military veterans. It is unknown if the military veterans experienced high negative stressors (e.g., combat situations) prior to joining law enforcement. It is possible that combat veterans could have already developed PTSD, which could have altered their self-efficacy levels compared to non-combat military veterans. It is possible that military veterans who experienced combat situations could have different self-efficacy and burnout levels compared to military veterans who did not experience combat situations. Therefore, it would be ideal for future researchers to focus on this subject, especially examining officer's veteran status, race, years of experience, and rank and how those characteristics could affect burnout.

In addition, researchers should examine robust standard errors when dealing with the normality assumption and heteroskedasticity errors. Robust standard errors recognizes that there is non-constant variances and offers an alternative approach to estimating variances in the regression coefficients (Astivia & Zumbo, 2019). As previously mentioned, the self-efficacy scale had issues of normality and heteroskedasticity. Using the robust standard errors would allow the researcher obtain more accurate data from the regression model. Another possible approach to gather self-efficacy scores is to give officers specific scenarios and evaluate their self-efficacy by how they answer. For

example, the scenarios could involve highly emotionally charged crimes with specific factors that can alter self-efficacy (e.g., little to no physical evidence, no witnesses, or the presence of strong distrust from the victim or witness). These scenarios could provide a more accurate presentation of self-efficacy scores and could eliminate the presence of social desirability bias.

Conclusion

This study examined the relationship between self-efficacy, burnout, and demographic characteristics. We identified several risk and protective factors that can help guide future research on possible solutions to improve law enforcement officer's mental health. After the tragic police shooting of Michael Brown in 2012, law enforcement officers experienced low levels of self-efficacy (Adams, 2019). Given my findings and the latest stressors to law enforcement such as the George Floyd/Breonna Taylor riots, the mishandling of the Uvalde shooting, and increased criticism from the public (Cobbina-Dungy & Jones-Brown, 2023), this topic is important to continue to investigate.

APPENDIX

Appendix A: Burnout and self-efficacy scales

Burnout scale (National Police Foundation, 2018).

Participants responded on 5-point scales (1 = strongly disagree; 5 = strongly agree). Items were averaged with higher values indicating higher burnout levels.

1. I am considering looking for a job with another law enforcement agency.
2. I am considering quitting law enforcement and seeking a different career altogether.
3. I have a lot invested in this department. *
4. I like working in this department. *
5. I think policing is a noble and honorable profession. *
6. I am frustrated by my work.
7. I am burnt out because of my work.
8. I am drained of energy from working with the public.
9. I am frustrated by working with the public.
10. I am emotionally exhausted by my work.
11. I feel like I give more to the public than I get back.

Note: Statements with * were reversed coded.

Self-Efficacy – New General Self-Efficacy (NGSE) scale (Chen et al., 2001).

Participants responded on 5-point scales (1 = strongly disagree; 5 = strongly agree). Items were averaged with higher values indicating higher burnout levels.

1. I will be able to achieve most of the goals that I set for myself.
2. When facing difficult tasks, I am certain that I will accomplish them.
3. In general, I think that I can obtain outcomes that are important to me.
4. I believe I can succeed at most any endeavor to which I set my mind.
5. I will be able to successfully overcome many challenges.
6. I am confident that I can perform effectively on many different tasks.
7. Compared to other people, I can do most tasks very well.
8. Even when things are tough, I can perform quite well.

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