

The Effects of Police Stress on Use of Force Decisions

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Introduction

- The physiological and psychological effects of stress are well documented through research (Colligan & Higgins, 2006).
- Primary sources of non-duty related stress for law enforcement officers (LEO) results from family or relationships or from organizational stress (Brunetto et al., 2017; Karaffa et al., 2015; Varhage et al., 2018).
- Research suggests that higher internal stress in officers contributed to increased aggressive reactions when interacting with high stress exhibiting suspects (Varhage et al., 2018).
- Poor management of police departments increased sensitivities to organizational policy barriers, thereby resulting in increased LEO stress and anxiety levels (Brunetto et al., 2017).
- One possible interpretation is that higher baseline stress levels could increase response stress levels thereby negatively impacting LEO decision-making abilities.
- Higher stress perception in suspects equals higher stress reactions in the officer, leading to increased threat perception and possibly increased use of force (Brunetto et al., 2017; Varhage et al., 2018).
- Starting with a higher stress level might denote an increased risk for operational stress to reach critical thresholds at a faster rate than if baseline stress levels were lower pre-shift—contributing to faster impairment of decision-making abilities (Brunetto et al., 2017; Karaffa et al., 2015; Varhage et al., 2018).
- Reducing officers' baseline stress, could, in turn, increase tolerance and non-aggressive reactions to stress stemming from interactions with a suspect, and aid officers in situational reactivity, threat perception, and use of force decisions (Brunetto et al., 2017; Varhage et al., 2018).
- Training could serve as a potential mitigating factor for reducing LEO aggression due to stress when implemented in use of force training models alongside stress management and coping skills training (Colin et al., 2014; Nieuwenhuys et al., 2017; Nieuwenhuys & Oudejans, 2011).
- Russell and colleagues (2014) suggested that implementation of effective coping strategies was better at reducing stress than having many different coping strategies.

Hypotheses

- Hypothesis 1:** Higher stress levels (outside of expected duty-related stress), low support (family and organizational), and poor coping strategies will lead to higher rates of aggressive decision-making.
- Hypothesis 2:** Poor stress management skills equate to increased reactive stress by lowering stress thresholds, resulting in increased frequency of aggressive decision-making.

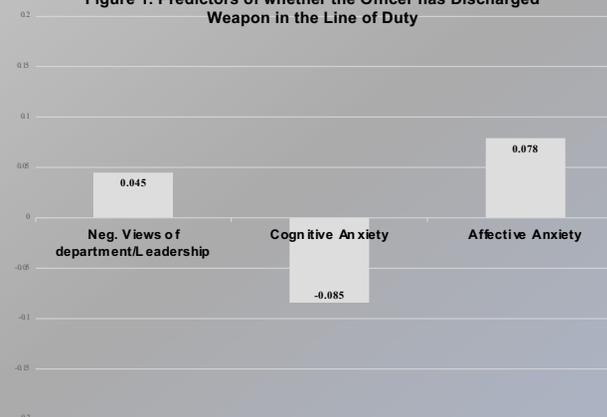
Method

- Personality Assessment Inventory (PAI) and M-PULSE scores were collected from a sample of 1,983 U.S. police recruits. Participants ranged in age from 17 to 69 ($M = 9$ years, $SD = 8.21$). The sample included predominantly male participants (83% male, 17% female). Participants identified primarily as European-American (76.2%) with 21.4% African-American, 1.2% Hispanic, 0.5% Asian-American, and 0.7% other. On-the-job performance was assessed by supervisors after one year as a police officer.
- Regression analyses were conducted with negative views of department or leadership, emotional instability and stress intolerance, reckless impulsivity, cognitive anxiety, affective anxiety, physiological anxiety, non-support, overall stress, and unusual/severe stress as IVs and has the officer discharged his/her weapon in the line of duty, number of times the officer has discharged weapon in the line of duty, has the officer demonstrated inappropriate use of any weapon, number of times the officer has demonstrated inappropriate use of any weapon, has the officer received any citizen complaints for excessive use of force, and number of citizen complaints regarding excessive force as DVs. A separate analysis was conducted for each DV.

Results

- Negative views of the department or leadership, cognitive anxiety, and affective anxiety significantly predicted whether an officer discharged his/her weapon in the line of duty, $F(3, 1348) = 3.14, p = .02, \text{adj. } R^2 = .01$ (Figure 1). Less negative views of department or leadership, lower affective anxiety, and higher cognitive anxiety were associated with weapon discharge in the line of duty.

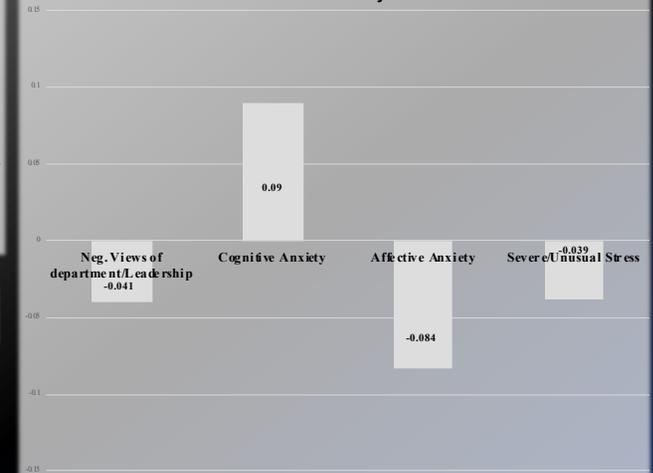
Figure 1. Predictors of whether the Officer has Discharged Weapon in the Line of Duty



- For officers who discharge a weapon, similar predictors significantly predict the number of times the officer has discharged a weapon in the line of duty $F(4, 1346) = 2.95, p = .019, \text{adj. } R^2 = .01$ (Figure 2). Less negative views of department or leadership, higher cognitive anxiety, lower affective anxiety, and decreased severe or unusual stress were associated with more frequent discharge of a weapon in the line of duty.

Results Cont.

Figure 2. Predictors of Number of Weapon Discharges in the Line of Duty



- Similar predictors were found when examining the DVs inappropriate use of a weapon, $F(2, 1348) = 3.59, p = .03$, if the officer has received citizen complaints for excessive force, $F(3, 1348) = 2.67, p = .046$, and the number of complaints received, $F(3, 1347) = 3.19, p = .02$. However, when examining the predictors for number for complaints received, increased emotional instability and stress intolerance, increased cognitive anxiety, and decreased physiological anxiety were associated with a higher number of excessive force complaints made against the officer.

Discussion

- Hypothesis 1 was partially supported. Increased cognitive anxiety was related to weapons discharge and use of force incidents. Increased stress intolerance was also associated with excessive force complaints. However, lower physiological anxiety was also related to increased use of force complaints.
- Hypothesis 2 was partially supported. Poor stress management and increased emotional instability were positively associated with aggression in the form of excessive force complaints. Higher cognitive anxiety was associated with weapons discharge frequency. However, less affective anxiety and decreased severe stress were associated with less frequent weapons discharge and unrelated to use of force.
- One interpretation is that an officer's tendency to worry or experience fear and anxiety, combined with deficits in stress management, increases the likelihood that the officer will use force to resolve a situation.