

EFFECT OF MACHIAVELLIANISM ON COMPASSION FATIGUE AMONG POLICE OFFICERS: MODERATING ROLE OF EMPATHY

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DOI: <https://doi.org/10.5281/zenodo.20676517>

Keywords

Machiavellianism, Compassion Fatigue, Empathy, Trauma exposure, Police officers

Article History

Received: 12 June 2025

Accepted: 22 August 2025

Published: 04 September 2025

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Abstract

Police officers are generally exposed to violent crimes and traumatic incidents, which affect them adversely. This study examines the relationship between dark personality trait, Machiavellianism and compassion fatigue among police officers, with moderating role of empathy. The participants of the study were police officers (n=382) from Khyber Pakhtunkhwa, Pakistan. Data were collected using self-administered structured questionnaires and analyzed using regression and moderation analyses. The results of the study indicated significant relationship between Machiavellianism and compassion fatigue. Empathy's moderating role was also found to be significant, as the significant effect of Machiavellianism on compassion fatigue is buffered at high levels of empathy. These results point out the critical role of empathy as emotional and psychological resource of resilience in emotional exhaustion among police officers employed in extreme-traumatic environments. Based on Affective event theory and emotional dissonance theory, this study provides theoretical and practical implications for the wellbeing of police officers and reducing the consequences of trauma exposure.

Introduction

Police job is widely recognized as most psychologically demanding and stressful profession due to continuous exposure to crimes, domestic violence, human sufferings, trauma and terror attacks (Foley & Massey, 2021; Violanti & Aron, 1995). Unlike many other professions, police officers frequently respond to such incidents while maintaining public order and supporting the victims (Harms et al., 2022). Such repeated exposure to traumatic incidents often results in psychological distress, emotional exhaustion and compassion fatigue (Davies et al., 2023; Velasco et al., 2023). Compassion fatigue refers to psychological and emotional exhaustion

caused by repeated exposure to suffering of others and trauma (Figley, 1995).

Psychological burden of police job becomes more severe in conflict-prone and terrorism-affected regions (Imran et al., 2023). Police officers in the province of Pakistan, Khyber Pakhtunkhwa, have faced thousands of terror attacks and bombing incidents since post-9/11 war on terror (South Asia Terrorism Portal, 2025). Most disrupting incidents included terror attacks on educational institutions such as attack on Army Public School, Bacha Khan University, Agriculture Training institute (Shah et al., 2024; Rahman et al., 2023). Police officers have faced these incidents and got exposed to emotional trauma and psychological strain (Shah et al., 2024). Contrasting police

officers of many Western countries who normally deal with routine crimes, police officers of Khyber Pakhtunkhwa continuously perform counterterrorism operations in extreme traumatic conditions (Shah et al., 2024; Warraich et al., 2023).

Therefore, along with maintaining law and order, Khyber Pakhtunkhwa's police officers are expected to display compassion, empathy, and emotional control while dealing with communities and interacting with victims (Shah et al., 2024; Papazoglou et al., 2019). According to emotional dissonance theory, emotional distress occurs when individuals feel inconsistencies between genuinely felt emotions and professionally required emotional expressions (Hochschild, 1983; Grandey, 2000). Repeated trauma exposure and continuous emotional regulations result in Compassion fatigue (Papazoglou et al., 2019). Compassion fatigue is a serious occupational threat to care-givers, helping professions, and first responders (Davies et al., 2023; Ondrejková & Halamová, 2022).

While occupational stressors significantly contribute to compassion fatigue, personality traits also effect the responses of individuals to workplace traumatic incidents (Chaote et al., 2025; Papazoglou et al., 2019). Among various personality traits, Machiavellianism is a dark trait that got attention in behavioral and psychological studies (Davies et al., 2023). Machiavellianism is characterized by manipulation, self-interest, and emotional detachment (Christie & Geis, 1970; Paulhus & Williams, 2002). Individuals high in Machiavellianism generally exhibit low interpersonal trust and limited emotional sensitivity (Jones & Paulhus, 2011). Though emotional detachment may seem valuable in high risk professions, Machiavellianism has been linked with psychological strain and emotional detachment (Miao et al., 2023).

In police and law enforcement professions, officers with high Machiavellianism may experience emotional conflict as they are required to display empathy despite having tendencies of emotional detachments (Miao et al., 2023). Emotional dissonance theory also suggests this mismatch between felt emotions and displayed emotions

(Grandey, 2000). The study on hand, also draws on Affective Event Theory, which explains how negative events affect emotions and psychology of individuals over time (Weiss & Cropanzano, 1996). In extreme traumatic environments, repeated exposure to traumatic events increase emotional exhaustion and psychological strain (Chaote et al., 2025; Papazoglou et al., 2019). Personality traits influence how individuals responds to such events, Machiavellianism is an important trait that may predict emotional well-being among police officers.

Despite the negative effects of dark personality traits and trauma exposure, psychological resources may reduce emotional exhaustion and compassion fatigue. One important psychological resource is empathy, which refers to the ability to understand and share the feelings and emotions of others (Davis, 1980; Hoffman, 2000). In police context, empathy improves interactions with community, communication with victims, and overall coping abilities (Papazoglou et al., 2019). Previous studies proposed empathy as protective factor against emotional exhaustion (Duarte & Pinto-Gouveia, 2017; Wagaman et al., 2015). In their study, Papazoglou et al. (2019) suggested a moderating role of empathy between dark triad traits and compassion fatigue. Therefore, buffering effect of empathy between Machiavellianism and compassion fatigue needs to be examined.

Although literature on compassion fatigue has examined the police context in Western countries, where police officers normally deal with routine crimes and community activities (Harms et al., 2022). In contrast, Khyber Pakhtunkhwa police department operate in persistent terrorism and extreme traumatized environment (Imran et al., 2023). Therefore, based on affective event theory and emotional dissonance theory, this study examines the relationship between Machiavellianism and compassion fatigue with moderating role of empathy.

Literature review

Machiavellianism is a dark personality trait characterized by self-interest, manipulation, strategic thinking, and emotional detachment

from interpersonal relationships (Paulhus and Williams, 2002). Individuals high in Machiavellianism usually exhibit limited empathy, reduced emotional sensitivity, and low interpersonal trust (Jones & Paulhus, 2011). Though such traits may appear helpful in high-risk professions that require emotional control (O'Boyle et al., 2012). Previous literature on dark personality traits suggests that Machiavellianism is associated with psychological tension, emotional maladjustment, and dysfunctional job outcomes (Miao et al., 2023).

In police jobs, officers frequently face traumatic incidents which make them psychologically strained and emotionally exhausted (Davies et al., 2023). Police officers employed in Khyber Pakhtunkhwa face even terrorism-exposed incidents such as militant attacks, bombings, and counter-terrorism operations (Shah et al., 2024). Their duties are under severe psychological stress as compared to police officers employed in western countries (Imran et al., 2023). According to emotional dissonance theory, police officers are expected to display empathy and controlled emotions towards communities and victims (Papazoglou et al., 2019; Grandey, 2000). Police officers high in Machiavellianism may face more emotional dissonance because they face conflicts between emotional job demands and their detached personalities. Such dissonance make them more prone to compassion fatigue.

Compassion fatigue is emotional exhaustion resulting from prolonged exposure to trauma and sufferings of others (Figley, 1995). Extant literature has shown that caregivers and first responders are continuously exposed to trauma that make them vulnerable to compassion fatigue and emotional withdrawal (Sinclair et al., 2017). Previous studies also suggests that negative personality traits significantly influence emotional coping in trauma-exposed occupations (Duradoni et al., 2023). Individuals high in Machiavellianism possess maladaptive emotional coping styles that increases their vulnerability to compassion fatigue (Duradoni et al., 2023).

Affective event theory further explains that emotionally demanding workplace events generate emotional reactions that accumulate over time and

psychological outcomes (Weiss and Cropanzano, 1996). In police profession, repeated exposure to terror attacks, bombings, and human sufferings act as negative affective events that contribute to emotional stress (Chaote et al., 2025). High Machiavellianism officers may respond to such affective events in maladaptive way. Based on this relationship, the following hypotheses is proposed: **H1:** Machiavellianism is significantly related to compassion fatigue.

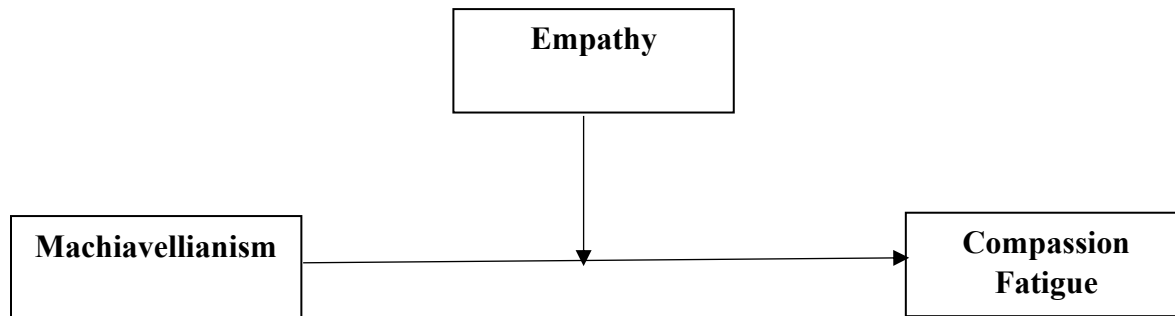
Moderating role of empathy

Empathy refers to the ability to understand, respond, and share the feelings and emotional experiences of others (Davis, 1980; Hoffman, 2000). Empathy plays important role in regulation of emotions, interpersonal relationships, and pro-social behavior (Preston & De Waal, 2002). In the context of police, empathy refers to improved communication with communities and victims, enhanced emotional understandings and buildup coping abilities in traumatic situations (Rosenbaum & Lawrence, 2017). Previous research studies have recommended empathy as a psychological resource that improves emotional resilience and reduces emotional exhaustion (Duarte & Pinto-Gouveia, 2017). Individuals with high empathy are better in processing emotional experiences and regulating emotional responses in trauma situations (Weisman Openheim et al., 2024). On the other hand, low empathy has consistently been associated with negative personality traits (Weisman Openheim et al., 2024).

Individuals high in Machiavellianism trait often show reduced concern for others and emotional detachment that may intensify emotional dissonance in emotionally demanding professions (Weisman Openheim et al., 2024). According to emotional dissonance theory, individuals with high level of emotional understandings and regulation abilities are capable of handling emotional stress (Grandey, 2000). Empathy may reduce negative effects of Machiavellianism by strengthening regulations and coping mechanisms. In police context, officers with higher empathy may experience lower emotional exhaustion even though operating in traumatic

situations. Recent studies have also suggested buffering role of empathy in reducing the negative effects of dark personality traits (Shukla and Upadhyay, 2025). Based on this buffering role of empathy, following hypothesis is proposed:

H2: Empathy moderates the relationship between Machiavellianism and Compassion fatigue.



Research methodology

Based on research onion framework (Saunders et al., 2019) this study employed a quantitative research design. A deductive approach with positivist philosophy were used to examine the proposed relationships between Machiavellianism and compassion fatigue and investigate the moderating role of empathy. Using cross-sectional research design and mono-method, data were collected through self-administered structured questionnaire at single point in time. The target population of the study comprised of police officers employed in Khyber Pakhtunkhwa, a terrorism-affected province of Pakistan. The estimated population of police force was 63,163 (Khyber Pakhtunkhwa Police, 2024). A stratified random sampling was employed to ensure the representation of police officers across the province. The province comprises 34 administrative districts after merger with Federally Administered Tribal Areas (FATA), and each district was treated as a separate stratum. To minimize the sampling bias, respondents were randomly selected from each district. The sample size was determined using Krejcie and Morgan (1970) formula at a 95% confidence level and 5% margin of error, and resultant sample was 382 respondents. To mitigate the potential low-response rates and incomplete questionnaires, 432 questionnaires (50 extra questionnaires) were distributed that exceed the minimum required sample size of 382.

Study variables were measured using validated scales with 5-point Likert scale ranging from 1 to 5 (strongly disagree to strongly agree). Machiavellianism was measured using 9-items scale extracted from Short Dark triad scale developed by Jones and Paulhus, (2014), which assessed manipulating tendencies. Compassion fatigue was measured using 16-items scales adopted from Professional Quality of Life scale developed by Stamm (2010), which assessed emotional exhaustion caused by prolonged exposure to human sufferings. Empathy was measured using 20-items Basic Empathy Scale Brief developed by Jolliffe and Farrington (2006), which assessed emotional understandings and responses towards others' sufferings.

The data were analyzed using Statistical Package for Social Sciences (SPSS) to test the hypothesized relationships and psychometric properties of instruments. Reliability analysis was carried out through Cronbach's alpha and composite reliability to assess internal consistency. Construct validity was checked using convergent and discriminant validity procedures. Regression analysis was used to examine relationship between Machiavellianism and compassion fatigue. Hayes PROCESS Macro Model 1 (Hayes, 2018) was used to test moderating role of empathy between Machiavellianism and compassion fatigue. Bootstrapping procedures with 5,000 resamples and 95% confidence intervals were used to

examine the interaction effect and estimation of moderation results.

Results

Demographic profile of respondents

The sample of the study comprised 382 respondents, only male police were drawn, which reflect the demographic reality of police profession in the region where female representation is minimal in first-responders roles. The distribution

of age indicated that majority of the respondents were younger officers engaged in field duties. In education, majority had completed intermediate education (48.8%), followed by matriculation, and a smaller proportion held bachelor's degrees. In work experience, 46.4% had 1-5 years of experience, while others had more than 15 years of service. Table 1 presents the demographic profiles of the respondents.

Table 1 demographic profiles of respondents

Demographic variable	Category	Frequency	Percentage
Gender	Male	382	100%
Age	20-24	143	37.4%
	25-29	95	24.9%
	30-34	66	17.3%
	35-39	47	12.3%
	40-44	31	8.1%
Education	Matriculation	155	40.4%
	Intermediate	186	48.8%
	Bachelor's	41	10.8%
Work experience	1-5 years	177	46.4%
	6-10 years	135	35.6%
	11-15 years	56	14.5%
	More than 15 years	14	3.5%

Descriptive analysis

Descriptive statistics of Machiavellianism, compassion fatigue, and empathy are summarized in Table 2. The results show moderate to high

levels of Machiavellianism and compassion fatigue among officers, while empathy levels comparatively low.

Table 2 Descriptive Statistics of Variables (N = 382)

Variable	Mean	Standard deviation
Machiavellianism	3.67	0.66
Compassion Fatigue	3.77	0.79
Empathy	2.87	1.22

Reliability and Validity

Reliability and validity analyses were carried out to assess the psychometric properties of measurement scales. Cronbach's alpha values for all the three variables exceeded the threshold of 0.70, showing internal consistency. Convergent validity was assessed through factor loadings, composite reliability (CR), and Average Variance Extracted (AVE). All factor loadings exceeded the

threshold of 0.60, AVE values were greater than 0.50, confirming acceptable convergent validity. Discriminant validity was assessed through Fornell-Larcker criterion and Heterotrait-Monotrait (HTMT) ratios. The square-roots of AVE values exceeded inter-construct correlations, and HTMT values remained below the threshold of 0.85, indicating adequate discriminant validity.

Table 3 Reliability and Validity of Variables

Variable	Cronbach's α	CR	AVE
Machiavellianism	0.83	0.90	0.56
Compassion fatigue	0.92	0.94	0.63
Empathy	0.88	0.92	0.58

Correlation Analysis

Pearson correlation analysis was carried out to examine the relationship among variable of the study. The results showed that Machiavellianism was positively associated with compassion fatigue

and empathy was negatively associated with both Machiavellianism and compassion fatigue. The correlation values were within acceptable limits, assuring the absence of multicollinearity issues.

Table 4 Correlation Matrix

Variables	1	2	3
Machiavellianism	1		
Compassion fatigue	0.47**	1	
Empathy	-0.29**	-0.34**	1

Note: $p < 0.01$

Hypotheses testing**Direct effect**

Results of the regression analysis revealed that overall regression model was significant $F(1,380) = 61.63$, $p < 0.001$, explained 22% variance in compassion fatigue ($R^2 = 0.22$). Machiavellianism

significantly effects compassion fatigue ($\beta = 0.362$, $t = 7.851$, $p < 0.001$), which supported Hypothesis 1. This shows that police officers with high levels of Machiavellianism tendencies are more expected to experience emotional exhaustion in traumatic environments.

Table 5 Direct Effect of Machiavellianism on Compassion Fatigue

Relationship	β	T	F	R^2	P
Machiavellianism $\rightarrow$ Compassion Fatigue	0.362	7.851	61.63	0.22	< 0.001

Moderation analysis

The moderating role of empathy between Machiavellianism and compassion fatigue was examined using Model 1 by Hayes' PROCESS Macro (Hayes, 2018). The results showed that interaction-term between Machiavellianism and empathy significantly predicted compassion fatigue ($\beta = -0.161$, $t = -2.781$, $p = 0.005$, CI [-0.281, -0.052], indicating a significant moderating

effect of empathy. The negative sign in interaction coefficient suggests that empathy buffers the positive relationship between Machiavellianism and compassion fatigue. Police officers with high level of empathy showed lower level of emotional exhaustion or compassion fatigue despite the manipulative tendencies. This moderating result support Hypothesis 2 by highlighting the buffering role of empathy in police force.

Table 6 Moderating Effect of Empathy between Machiavellianism and Compassion Fatigue

Variables	B	t	95% CI	p
Machiavellianism	0.362	7.851	[0.242,0.481]	< 0.001
Empathy	-0.211	-3.112	[-0.351,-0.071]	0.002
Machiavellianism x Empathy	-0.161	-2.781	[-0.282,-0,052]	0.005

Dependent variable: Compassion Fatigue

Discussion

This study examined the relationship between Machiavellianism and compassion fatigue among police officers employed in extreme traumatic environment of Khyber Pakhtunkhwa, and also examined the moderating effect of empathy in this relationship. The findings revealed that Machiavellianism significantly increased compassion fatigue. This shows that officers with high levels of manipulative tendencies and emotional detachment were more prone to compassion fatigue and emotional exhaustion. This result is supported by previous research studies, which also indicated that dark personality traits leads to poor emotional functioning and coping mechanisms (Miao et al., 2023). This finding also support prior studies showing that police officers facing trauma repeatedly are more vulnerable to emotional depletion and compassion fatigue (Davies et al., 2023; Velasco et al., 2023).

The findings of the study are important in the context of Khyber Pakhtunkhwa, where police officers frequently face terror attacks and traumatic incidents. Such exposure to trauma may intensify emotional strain and offices may struggle

to cope with emotional demands of their occupation. The findings also support Affective Events Theory (Weiss & Cropanzano, 1996), which stated that emotional workplace events influence the employees psychologically and emotionally. In extreme traumatic policing environments, exposure to terrorism, trauma, violence, and human sufferings gradually decrease the emotional resources and increase emotional exhaustion.

The moderating analysis revealed that empathy significantly weakened the positive relationship between Machiavellianism and compassion fatigue. Police officers having high level of empathy showed low emotional exhaustion and compassion fatigue even with Machiavellian tendencies. This result suggests that empathy acts as a protective psychological and emotional resource that help in emotional regulation and resilience. This result is supported by prior studies that indicated protective role of empathy improving coping abilities and reducing emotional exhaustion (Shukla and Upadhyay, 2025; Wagaman et al., 2015). This finding also supports the Emotional Dissonance Theory (Grandey, 2000), which stated that individuals get emotionally exhausted when they experience

inconsistency between their felt-emotions and emotional expressions demanded by their occupations. Police officers are expected to show compassion, empathy, and emotional control while interacting with communities and victims. On the other hand, officer high in Machiavellianism may contradict their emotional expectations. However, empathy acts as a buffering mechanism that reduces the Machiavellian tendencies and improve emotional control and compassion.

Theoretical and Practical Implications

The present study contributes to police psychology literature, dark personality traits, and caregivers' occupational compassion by extending the Affect events theory and Emotional dissonance theory. The findings demonstrate that in extreme traumatic environment, Machiavellianism significantly contributes to compassion fatigue. This study extends the emotional dissonance theory by showing that empathy buffers the negative effects of Machiavellianism by improving emotional regulations and resilience. This study also contributes to compassion fatigue literature, by investigating the variables in extreme traumatic police environment of Khyber Pakhtunkhwa. The findings of the study provide essential implications for policymakers and Police departments. Police departments should integrate personality tests and psychological assessments into recruitment and selection process. Additionally, empathy development programs, counselling services, periodic emotional regulation trainings, and trauma management strategies should be implemented to reduce compassion fatigue and enhance psychological well-being of police force. This study also highlights insights for supportive leadership, stress coping strategies and peer-support systems.

Limitations and Future Research

Despite the contributions of the study, this study has several limitations. First, the cross-sectional design limits the ability of establishing causal relationships among variables. Future studies should employ longitudinal design to examine variables and its changes over time. Second, the

study used self-reported data, which increases the possibility of response bias and common method bias. Future research should incorporate multi-source data collection, including peer-assessments and supervisor-evaluations to improve accuracy of findings. Third, this study focused on police officers employed in Khyber Pakhtunkhwa province, which limits the generalizability of the findings to other occupational contexts and regions. Future research should focus on emergency responders, healthcare workers, and police force from other settled provinces. Finally, future researchers should investigate the relationships by adding emotional intelligence, leadership styles, and organizational support as moderating and mediating variables.

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