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Self-Confidence and Psychological Hardiness on Psychological Capital Among Commissioned Officers in the Indian Armed Forces

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ABSTRACT

This study investigates the relationship between self-confidence, psychological hardiness, and psychological capital among commissioned officers of the Indian Armed Forces. Using a quantitative, correlational research design, data were collected from a stratified random sample of 203 officers. The study examines the influence of self-confidence and hardiness on psychological capital and explores gender differences in self-confidence. Results indicate significant positive correlations between self-confidence, hardiness, and psychological capital, with self-confidence emerging as a significant predictor of psychological capital. No significant gender differences were found in self-confidence, hardiness, or psychological capital. The findings highlight the critical role of psychological resources in enhancing resilience and mental toughness in military personnel, offering valuable implications for training and leadership development programs within the armed forces.

Keywords: *Self-confidence, Psychological Hardiness, Psychological Capital, Commissioned Officers, Indian Armed Forces, Resilience, Military Psychology*

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1. INTRODUCTION

In the demanding and often high-stakes environment of military service, psychological resilience and positive mental resources are essential for sustaining performance, maintaining well-being, and fostering effective leadership. Commissioned officers of the Indian Armed Forces operate under intense pressure, requiring them to consistently demonstrate adaptability, emotional stability, and cognitive flexibility. Consequently, understanding the psychological factors that contribute to their mental toughness and positive functioning is critical. This study focuses on three interrelated constructs self-confidence, psychological hardiness, and psychological capital to elucidate how they interact and influence the psychological health and operational effectiveness of military officers.

Self-Confidence

Self-confidence is defined as an individual's belief in their ability to successfully execute specific tasks or handle situations (Bandura, 1997). It plays a pivotal role in motivation, decision-making, and coping with adversity. In military settings, self-confidence enables officers to take decisive action, lead teams under uncertainty, and manage stress without succumbing to anxiety or doubt (Williams, 2010). According to Bandura's social cognitive theory, self-confidence or self-efficacy is a key personal resource that influences cognitive, affective, and behavioral functioning. High self-confidence is associated with greater persistence, resilience, and goal achievement (Bandura, 1997; Maddux, 2002).

In empirical studies, self-confidence has been linked to better stress management and lower burnout rates among soldiers and first responders (Bliese, Edwards, & Sonnentag, 2017). Furthermore, self-confidence is often considered a prerequisite for the development of other psychological strengths, including hope and optimism (Luthans, Youssef, & Avolio, 2007).

Psychological Hardiness

Psychological hardiness, introduced by Maddi (2002), is conceptualized as a personality characteristic encompassing three core components: commitment (engagement with life activities), control (belief in one's ability to influence events), and challenge (perception of change and stressors as opportunities for growth rather than threats). Hardiness functions as a buffer against stress and is positively correlated with resilience and mental health (Kobasa, 1979; Bartone, 2006).

Military research has repeatedly underscored the importance of hardiness in promoting stress tolerance and psychological well-being. Bartone (2006) highlighted that hardy individuals are better equipped to maintain operational effectiveness during prolonged deployments and high-stress missions. They display lower rates of post-traumatic stress symptoms and greater psychological endurance. Clough, Earle, and Sewell (2002) also identified hardiness as a foundational element of "mental toughness," crucial for military success. Given the similarity of hardiness components to those found in psychological capital, exploring their interplay offers valuable insight.

Psychological Capital (PsyCap)

Psychological capital (PsyCap) is a higher-order construct that integrates positive psychological states of development: hope, efficacy, resilience, and optimism (Luthans, Youssef, & Avolio, 2007). PsyCap represents a core psychological resource that transcends mere personality traits, emphasizing states that are open to development and intervention (Avey, Reichard, Luthans, & Mhatre, 2011).

Extensive research has linked PsyCap to numerous beneficial outcomes such as enhanced job satisfaction, performance, well-being, and reduced turnover intentions (Luthans et al., 2007). Within military populations, psychological capital supports soldiers in coping with operational stress and uncertainty, promoting quicker recovery from setbacks and sustained motivation (Tugade & Fredrickson, 2004). The malleability of PsyCap makes it an attractive target for training programs aimed at improving psychological resilience in armed forces personnel.

Interrelationship among Self-Confidence, Hardiness, and Psychological Capital

Although each construct self-confidence, hardiness, and psychological capital has been extensively studied independently, research exploring their interrelations is relatively sparse, especially in military contexts. Conceptually, self-confidence overlaps with the efficacy component of PsyCap, while hardiness shares similarities with resilience and optimism (Maddi, 2002; Luthans & Youssef-Morgan, 2017). Empirical studies suggest that self-confidence is positively correlated with PsyCap dimensions (Avey, Luthans, & Jensen, 2009), and hardiness has been shown to enhance psychological capital by fostering a growth-oriented mindset (Clough et al., 2002).

Understanding how these constructs relate and influence each other can inform integrated psychological training interventions. For example, increasing an officer's self-confidence may bolster their hardiness, which in turn enhances overall psychological capital, creating a virtuous cycle of mental toughness and positive functioning.

Gender Differences in Psychological Constructs

Gender differences in self-confidence and resilience have been widely debated. Meta-analyses suggest that men often report higher self-confidence in traditionally male-dominated domains (Eagly & Karau, 2002), yet military studies indicate that gender disparities diminish significantly after accounting for shared experiences and training (Bartone, 2006). Williams (2010) found female military officers to demonstrate psychological resilience comparable to their male counterparts, attributed to rigorous selection and socialization processes.

Examining gender differences in the Indian Armed Forces provides valuable cultural and contextual insights and informs gender-sensitive support and development programs, particularly as the roles of women in the military continue to expand.

Research Gap

Despite the rich body of literature on self-confidence, hardiness, and psychological capital in organizational and military psychology, there is a notable paucity of research specifically addressing how these constructs interrelate within the Indian Armed Forces. While Western and some Asian military contexts have been studied, unique cultural, structural, and operational factors within the Indian military may influence the expression and interaction of these psychological constructs. Furthermore, there is limited empirical evidence regarding the predictive power of self-confidence on psychological capital in commissioned officers—a critical gap given the potential of PsyCap to be developed through training. Additionally, mixed findings about gender differences in these constructs within military settings call for further investigation in the Indian context to support effective, gender-sensitive psychological interventions.

2. SIGNIFICANCE OF THE STUDY

This study is significant for several reasons. First, it addresses a critical need to understand the psychological resources that underpin resilience and leadership effectiveness in the Indian Armed Forces—a strategic national institution. By exploring the relationships between self-confidence, hardiness, and psychological capital, the research offers insights into key mental attributes that sustain officers in challenging operational environments. Second, the study's focus on gender differences provides data to inform equitable training and support programs as women's roles in the military continue to expand. Third, by examining the predictive role of self-confidence on psychological capital, the study identifies actionable targets for psychological interventions that can enhance mental toughness and performance. Ultimately, the findings can guide military psychologists, trainers, and policymakers in designing evidence-based programs that promote psychological well-being, reduce attrition, and improve leadership capabilities among Indian Armed Forces officers.

Objectives of the Study

Based on the above rationale and identified gaps, the study aims to:

1. Investigate the relationships among self-confidence, psychological hardiness, and psychological capital in commissioned officers of the Indian Armed Forces.
2. Examine gender differences in self-confidence, hardiness, and psychological capital.
3. Analyze the predictive influence of self-confidence on psychological capital.

Research Design

This study employs a quantitative, descriptive-correlational research design to explore the relationships among self-confidence, psychological hardiness, and psychological capital among commissioned officers of the Indian Armed Forces. This design allows for an examination of the strength and direction of associations between the variables and the predictive influence of self-confidence on psychological capital. Furthermore, it facilitates group comparisons, such as gender differences, through inferential statistical analysis. The approach is suitable for studying naturally occurring relationships without manipulation, enabling generalization to the broader military officer population.

Population and Sampling

The target population includes all commissioned officers currently serving in the Indian Army, Navy, and Air Force. To ensure representativeness across branches and gender, a stratified random sampling technique will be used. This sampling method divides the population into strata based on service branch and gender, then randomly selects participants proportionally from each stratum to reduce sampling bias. The sample size was 203 officers, with an expected distribution of around 115 males and 88 females. This sample size is based on power analysis to detect medium effect sizes in correlation and regression analyses at a 0.05 significance level with adequate statistical power (0.80).

Inclusion and Exclusion Criteria

Participants must be currently commissioned officers with a minimum of two years of service, ensuring sufficient exposure to military life and related stressors. Officers on extended leave, medically unfit, or non-commissioned officers will be excluded to maintain focus on the relevant population. Participation will be voluntary and contingent upon informed consent.

Data Collection Procedure

The data were collected using standardised questionnaires distributed to commissioned officers of the Indian Armed Forces. Participants were informed about the purpose of the study and assured that their responses would remain confidential and used only for research. The questionnaires were completed either on paper or electronically, based on the convenience of the officers. All collected data were anonymized to protect participant privacy.

3. DATA ANALYSIS

The collected data were analyzed using statistical software (SPSS). Descriptive statistics such as means, standard deviations, and frequencies were calculated to summarize demographic details and scores on self-confidence, hardiness, and psychological capital. Pearson's correlation coefficients were computed to examine the relationships among the variables. Independent samples t-tests were conducted to assess gender differences. Multiple regression analysis was used to determine the predictive effect of self-confidence on psychological capital. A significance level of $p < .05$ was used for all analyses.

Findings

The study also explores gender differences in these psychological constructs and examines the predictive influence of self-confidence on psychological capital. The findings are contextualized within the broader literature on military psychology and positive organizational behavior.

Table 1: Gender difference in Self-confidence, Hardiness, and Psychological capital

Variable	Gender	N	Mean	SD	SEM	df	t	Sig.
Self-confidence	Male	115	52.00	2.81	.26	201	1.37	.17
	Female	88	51.44	3.04	.32			
Hardiness	Male	115	166.45	41.82	3.89	201	.70	.48
	Female	88	162.33	40.64	4.33			

Psychological Capital	Male	115	91.24	21.87	2.04	201	-.64	.52
	Female	88	93.16	19.81	2.11			

Table 1 presents the gender-based comparisons in self-confidence, psychological hardiness, and psychological capital among commissioned officers of the Indian Armed Forces. The results indicate that male officers (M = 52.00, SD = 2.81) scored slightly higher on self-confidence compared to their female counterparts (M = 51.44, SD = 3.04). However, the independent samples t-test showed that this difference was not statistically significant (t = 1.37, p = .17), suggesting that both male and female officers possess comparable levels of self-confidence.

Similarly, in terms of psychological hardiness, male officers (M = 166.45, SD = 41.82) had marginally higher scores than female officers (M = 162.33, SD = 40.64). The t-test value (t = 0.70, p = .48) again revealed no statistically significant difference between the two groups. This implies that resilience and the ability to cope with stress core components of hardiness are relatively consistent across genders in the military context.

Interestingly, the trend reversed in the case of psychological capital, where female officers (M = 93.16, SD = 19.81) outperformed male officers (M = 91.24, SD = 21.87), although the difference was small and statistically non-significant (t = -0.64, p = .52). Overall, the findings suggest that gender does not significantly influence self-confidence, hardiness, or psychological capital among commissioned officers. These results reflect the highly trained and psychologically prepared nature of both male and female personnel in the Indian Armed Forces, indicating a strong baseline of positive psychological functioning across genders.

Table 2: - Relationship of Self Confidence, Hardiness and Psychological Capital (and Dimensions of Psychological Capital).

	Self-confidence	Hardiness	Psychological Capital
Self-Confidence	1	.456**	.368**
Hardiness		1	.804**
Psychological Capital			1

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2 presents the Pearson correlation coefficients examining the relationships among self-confidence, psychological hardiness, and psychological capital. The results reveal a statistically significant positive correlation between self-confidence and hardiness ($r = .456$, $p < .01$), indicating that individuals with higher levels of self-confidence tend to exhibit greater psychological hardiness. This relationship suggests that self-belief may play a crucial role in enhancing an individual's ability to cope with stress, maintain control, and remain committed in challenging situations core attributes of hardiness.

Additionally, self-confidence also shows a significant positive correlation with psychological capital ($r = .368$, $p < .01$). This implies that as self-confidence increases, individuals are more likely to report higher levels of psychological capital, which encompasses hope, efficacy, resilience, and optimism. This finding supports the idea that self-confidence serves as a foundational personal resource contributing to broader psychological strengths.

The strongest correlation in the table is observed between hardiness and psychological capital ($r = .804$, $p < .01$), indicating a very strong and significant relationship. This suggests that individuals who are psychologically hardy also tend to exhibit higher psychological capital. Given the conceptual overlap between hardiness and components of psychological capital especially resilience and control this strong association is theoretically sound.

Overall, the results underscore the interconnected nature of these positive psychological constructs and highlight the role of self-confidence and hardiness as important correlates of psychological capital among commissioned officers in the Indian Armed Forces.

Table 3: Regression analysis of self-confidence on Psychological Capital

Independent Variables	Dependent Variable	R	R^2	Adjusted R^2
self confidence	Psychological Capital	.368a	.135	.131
Std. Error of the Estimate	19.56			
B	2.64			
Std.Error	.47			
B	.37			
t-value	5.60			
p-value	<0.001			

Table 3 presents the results of a simple linear regression analysis examining the predictive influence of self-confidence on psychological capital among commissioned officers. The model revealed a moderate positive correlation between self-confidence and psychological capital ($R = .368$), and the coefficient of determination ($R^2 = .135$) indicates that self-confidence accounts for approximately 13.5% of the variance in psychological capital. The adjusted R^2 value of .131 confirms that the model maintains good explanatory power even after adjusting for sample size.

The unstandardized regression coefficient (B) for self-confidence was 2.64, with a standard error of 0.47, indicating that for every one-unit increase in self-confidence, psychological capital is expected to increase by 2.64 units. The standardized beta coefficient (β) was .37, reflecting a moderate effect size. The model's t-value of 5.60 is statistically significant ($p < .001$), suggesting that self-confidence is a significant positive predictor of psychological capital.

Overall, the findings indicate that self-confidence plays a meaningful role in the development of psychological capital among Indian Armed Forces officers. While self-confidence alone does not explain all the variance in psychological capital, it contributes significantly, supporting the notion that enhancing self-confidence may foster greater psychological strength in military personnel.

4. DISCUSSION

The present study investigated the relationships among self-confidence, psychological hardiness, and psychological capital in commissioned officers of the Indian Armed Forces, along with gender differences and the predictive role of self-confidence on psychological capital.

Gender Differences: The results indicated no statistically significant differences between male and female officers in terms of self-confidence, hardiness, and psychological capital. These findings align with previous research suggesting that, within high-stress and highly trained professional environments like the military, gender differences in psychological traits tend to diminish (Bartone, 2006; Williams, 2010). Bartone (2006) observed that military training and exposure to uniform challenges tend to equalize psychological characteristics such as resilience and confidence across genders. Similarly, Williams (2010) noted that female officers demonstrate comparable psychological strengths to their male counterparts, reflecting equal preparation and mental toughness. This lack of gender disparity underscores the effectiveness of the Indian Armed Forces' training programs in fostering essential psychological resources uniformly among all commissioned officers.

Relationships Among Variables: The correlation analyses revealed significant positive relationships between self-confidence and hardiness ($r = .456$, $p < .01$), self-confidence and psychological capital ($r = .368$, $p < .01$), and a particularly strong correlation between hardiness and psychological capital ($r = .804$, $p < .01$). These findings support the conceptualization of psychological capital as a higher-order construct composed of resilience, optimism, hope, and self-efficacy (Luthans, Youssef, & Avolio, 2007). The moderate correlation between self-confidence and hardiness suggests that individuals with greater self-belief tend to possess better stress tolerance and control, which are integral components of hardiness (Maddi, 2002). The very strong correlation between hardiness and psychological capital aligns with the work of Clough, Earle, and Sewell (2002), who described hardiness as a resilience resource that closely overlaps with constructs of psychological capital. These associations highlight the intertwined nature of these positive psychological resources and their collective contribution to military personnel's well-being and performance.

Predictive Role of Self-Confidence: Regression analysis indicated that self-confidence significantly predicts psychological capital ($\beta = .37$, $p < .001$), explaining approximately 13.5% of the variance. This finding aligns with Bandura's (1997) social cognitive theory, which posits self-efficacy closely related to self-confidence as a critical determinant of motivation and psychological functioning. It also corroborates research by Luthans et al. (2007), who found self-efficacy to be a core component of psychological capital that enhances resilience and optimistic outlooks in organizational settings. In the military context, higher self-confidence may empower officers to face challenges with greater hope and perseverance, thereby enhancing their psychological capital. While self-confidence alone does not account for all variance in psychological capital, its significant contribution underscores its importance as a target for psychological interventions aimed at strengthening soldiers' mental resources.

Implications: The findings carry important implications for military leadership development and psychological training. Programs designed to enhance self-confidence and hardiness could bolster psychological capital, thereby improving officers' resilience, optimism, and overall psychological well-being. Given the lack of gender differences, such initiatives can be uniformly applied across male and female officers. Furthermore, understanding these relationships aids in the development of tailored interventions that reinforce critical psychological strengths essential for coping with military demands and operational stressors.

Limitations and Future Directions: Although the study provides valuable insights, some limitations must be acknowledged. The cross-sectional design limits causal inferences; longitudinal studies could better elucidate the developmental dynamics of these constructs. Additionally, including other relevant variables such as leadership style, unit cohesion, or combat exposure could deepen understanding of psychological capital in military settings. Future research

might also explore intervention effectiveness in enhancing self-confidence and hardiness, ultimately fostering psychological capital.

5. CONCLUSION

The present study highlights the significant interrelationships among self-confidence, psychological hardiness, and psychological capital in commissioned officers of the Indian Armed Forces. Findings reveal that self-confidence and hardiness are positively associated with psychological capital, with self-confidence emerging as a significant predictor. Importantly, no significant gender differences were observed across these psychological constructs, indicating comparable levels of mental resilience and strength among male and female officers. These results underscore the critical role of self-confidence and hardiness in fostering psychological capital, which is essential for coping with the demands and stresses inherent in military service. The study emphasizes the need for targeted psychological training programs aimed at enhancing self-confidence and hardiness to strengthen overall psychological capital and promote well-being and performance among military personnel.

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