

**ABUSIVE SUPERVISION AND PSYCHOLOGICAL DISTRESS  
AMONG POSTGRADUATE STUDENTS IN NIGERIA: THE  
MODERATED MEDIATION OF PSYCHOLOGICAL CAPITAL  
AND PERCEIVED SOCIAL SUPPORT**

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**ABSTRACT:** Abusive supervision has been associated with adverse psychological outcomes in academic settings, yet research evidence among postgraduate students in Nigeria remains scarce. This study examined the relationship between abusive supervision and psychological distress, assessing psychological capital (PsyCap) as a mediator and perceived social support as a moderator. Using a cross-sectional survey design, data were collected from 251 postgraduate students in public universities in southwestern area of Nigeria. Reliable and validated measures were used to assess abusive supervision, PsyCap, perceived social support, and psychological distress. Hypotheses were tested using Hayes' PROCESS macro analysis. Findings showed that abusive supervision was positively associated with psychological distress. PsyCap mediated this relationship, such that reduced psychological resources partially explained the effect of abusive supervision on distress. Perceived social support moderated the indirect effect by mitigating the negative effects of abusive supervision on PsyCap. This study extends conservation of resources theory by revealing how internal psychological resources and external social support jointly counteract resource loss associated with abusive supervision among postgraduate students in an academic setting. The findings have implications for university policies, supervisor training, and student support systems aimed at safeguarding postgraduate students' psychological well-being.

**Keywords:** Abusive Supervision, Psychological Distress, Psychological Capital, Social Support, Postgraduate Students

## **INTRODUCTION**

Postgraduate education is widely recognized as a critical pathway for advanced human capital development, innovation, and national competitiveness (Casey et al., 2022; Wang et al., 2024). Nevertheless, for many postgraduate students, particularly in developing countries such as Nigeria, the pursuit of postgraduate degrees takes place within structurally constrained and psychologically demanding academic environments (Nwoye & Chukwuma, 2024). Factors, such as prolonged degree timelines, high performance expectations, financial constraints, and asymmetric power relations between supervisors and students jointly create fertile ground for psychological strain (Nwoye & Chukwuma, 2024). Among these challenges, abusive supervision, defined as sustained displays of hostile verbal and non-verbal behaviours by supervisors, excluding physical contact

(Tepper, 2000; Milicev et al., 2021), has emerged as a salient yet under-examined stressor in postgraduate education contexts.

Supervisors play a vital role in postgraduate education, wielding considerable influence over students' academic progress, research opportunities, evaluation outcomes, and future career trajectories (Casey et al., 2022). However, some supervisors often use their authority to mistreat postgraduate students (Ni et al., 2015; Zhang & Yu, 2022). This is clearly evident in the Nigerian higher education, where supervisory misconduct is normalised, underreported, or rationalised as a pedagogical strategy due to high power distance, weak institutional grievance mechanisms, and intense competition for scarce academic resources (Nwoye & Chukwuma, 2024). Such abusive behaviours, including public humiliation, intimidation, excessive criticism, neglect, and threats, have the potential to erode students' psychological well-being and academic engagement (Hermana et al., 2025; Zhang & Yu, 2022). Consistent with stress-based frameworks, prolonged exposure to abusive supervision is likely to trigger psychological distress, manifested in symptoms such as anxiety, depression, emotional exhaustion, and reduced life satisfaction.

Extant empirical research has established a robust association between abusive supervision and adverse psychological outcomes across organisational and educational settings (Tepper, 2007, 2020). Studies among employees have consistently linked abusive supervision to emotional exhaustion, depressive symptoms, anxiety, and diminished mental health (Mackey et al., 2017; Milicev et al., 2021). Within academic contexts, emerging evidence reveals that abusive supervision is associated with burnout, academic disengagement, and psychological strain among graduate students (Hobman et al., 2009; Hong, et al., 2024; Meng et al., 2017; Levecque et al., 2017; Yao et al., 2023).

Nonetheless, most of these existing studies were conducted in Western or East Asian contexts, with limited attention to Sub-Saharan Africa, where sociocultural norms, institutional dynamics, and coping resources may fundamentally shape both exposure to and consequences of supervisory abuse. More critically, existing research has predominantly adopted direct-effects models, focusing on whether abusive supervision predicts psychological distress, while paying insufficient attention to the psychological mechanisms and boundary conditions that explain when and for whom such effects are most pronounced (Liao & Liu, 2015). This limits theoretical precision and undermines the development of targeted interventions. From a resource-based perspective, not all postgraduate students exposed to abusive supervision experience equivalent levels of distress, suggesting the presence of internal and external buffering processes.

One such internal resource is psychological capital (PsyCap), a higher-order positive psychological construct comprising hope, self-efficacy, resilience, and optimism (Luthans et al., 2007). PsyCap has been shown to function as a crucial psychological resource that enhances individuals' capacity to appraise stressors adaptively and recover from adversity (Balogun, 2025). Empirical studies in organizational settings demonstrate that PsyCap mediates the relationship between workplace stressors and mental health outcomes by mitigating resource loss and fostering adaptive coping (Moreno-Montero et al., 2024). Despite its relevance, PsyCap has received scant attention in postgraduate education research, particularly as a mediating mechanism via which abusive supervision translates into psychological distress among students.

In addition to personal resources, social support constitutes a vital contextual buffer against stress. Social support from peers, family members, academic colleagues, and institutional networks can provide emotional reassurance, informational guidance, and instrumental assistance, thereby attenuating the harmful effects of stressors (Acoba, 2024; Cohen & Wills, 1985; Hobfoll, 2011). Previous studies have shown that social support moderates the impact of academic stress and supervisory strain on mental health outcomes (Wilcox et al., 2005; Hefner & Eisenberg, 2009). However, the moderating role of social support in the abusive supervision–psychological distress relationship remains underexplored, particularly in postgraduate settings in Nigeria where isolation and dependency on supervisors are often pronounced.

The present study addresses these critical gaps by proposing and testing an integrated model, in which PsyCap mediates, and social support moderates, the relationship between abusive supervision and psychological distress among postgraduate students in Nigeria. Drawing on conservation of resources (COR) theory (Hobfoll, 1989), this study conceptualizes abusive supervision as a chronic stressor that depletes students' psychological resources, thereby increasing distress. PsyCap is positioned as a key personal resource that explains how resource depletion occurs, while social support is examined as a contextual resource that buffers the adverse effects of supervisory abuse.

By focusing on postgraduate students in Nigeria, this study contributes to the literature in several important ways. Firstly, it extends abusive supervision research beyond traditional employee samples and enriches COR theory by integrating both personal (PsyCap) and contextual (social support) resources within a higher education context. Secondly, it provides much-needed evidence from a Global South setting, where power asymmetries and institutional vulnerabilities may intensify the psychological costs of supervisory abuse. Although previous studies in the Nigerian context have focused on academic stressors and general student mental health (Bolu-Steve & Fadipe, 2024; Henry et al., 2024), empirical investigations specifically exploring the effects of abusive supervision within postgraduate training remain scarce. This gap limits understanding of how students respond to hostile supervisory behaviour and underscores the need for focused empirical research within the Nigerian postgraduate education context. Thirdly, the findings offer actionable insights for universities, policymakers, and mental health practitioners by highlighting the importance of fostering supportive academic climates and strengthening students' psychological resources to safeguard well-being and promote sustainable postgraduate training.

## **Literature Review and Hypotheses Development**

### **Theoretical Background**

This study is grounded in COR theory (Hobfoll, 1989), which provides a robust framework for understanding how stressful experiences, such as abusive supervision, deplete individuals' psychological resources and lead to psychological distress. COR theory is particularly appropriate for this study because it emphasizes the acquisition, preservation, and loss of valuable resources, both psychological (e.g., self-efficacy, optimism) and social (e.g., support networks), which directly align with the constructs of PsyCap and perceived social support examined in this research. Given that postgraduate students operate in resource-demanding academic environments characterized by

power asymmetry and performance pressures (Javadizadeh et al., 2025; Levecque et al., 2017), COR theory offers a strong explanatory lens for understanding how abusive supervision undermines well-being through resource loss and how supportive factors can offset these effects.

According to COR theory, individuals strive to obtain, retain, and protect resources that they value, such as personal characteristics, conditions, or energies (Hobfoll, 2001, 2011). When these resources are threatened or lost, individuals experience stress and psychological strain. Conversely, access to sufficient resources enables individuals to cope with adversity and maintain psychological well-being. Resource loss is particularly harmful because it can trigger a loss spiral, in which initial losses increase vulnerability to further depletion (Hobfoll, 2001).

Empirical evidence supports COR theory's propositions in both workplace and academic contexts. Studies have shown that exposure to abusive supervision depletes employees' psychological resources, resulting in burnout, anxiety, and reduced engagement (Akram & Akram, 2019; Harms et al., 2017; Wu & Hu, 2009). Conversely, PsyCap has been identified as a key resource reservoir that mitigates the negative effects of stress and promotes psychological well-being (Avey et al., 2010; Luthans et al., 2007). Similarly, perceived social support functions as a contextual resource that buffers individuals against stress and prevents resource loss by fostering emotional stability and adaptive coping (Cohen & Wills, 1985; Halbesleben et al., 2014).

In line with COR theory, this study proposes that abusive supervision represents a resource-depleting stressor that erodes postgraduate students' psychological capital, thereby increasing their risk of psychological distress. Abusive supervision diminishes individuals' self-efficacy, optimism, and resilience by creating a hostile academic climate characterized by fear, uncertainty, and reduced self-worth (Sun et al., 2025). This depletion of internal psychological resources weakens students' capacity to cope effectively with academic demands, leading to heightened anxiety, depression, and emotional exhaustion.

At the same time, perceived social support serves as a protective resource that can moderate this indirect pathway. When students perceive strong support from peers, family, or colleagues, these external resources can replenish or safeguard their internal PsyCap, enabling them to reinterpret or withstand the negative effects of supervisory hostility. Conversely, low perceived social support exacerbates the loss spiral, amplifying the impact of abusive supervision on PsyCap and, consequently, on psychological distress.

By applying COR theory, this study extends existing research beyond workplace settings to the academic domain, particularly in resource-constrained contexts, such as Nigeria. The study illustrates how psychological and social resources jointly shape postgraduate students' resilience to supervisory abuse and their mental health outcomes in Nigeria.

### **Abusive Supervision and Psychological Distress**

In this study, abusive supervision is defined as a postgraduate student's perception of sustained hostile, demeaning, or undermining behaviours exhibited by their academic supervisor, excluding physical contact (Draz et al., 2022). Although originally conceptualized within organizational

settings (Tepper, 2000), this construct can be meaningfully extended to the supervisor–student relationship, which mirrors hierarchical workplace dynamics characterized by power asymmetry, evaluative dependence, and control over essential academic resources (Liao & Liu, 2015). Academic supervisors hold significant authority over students’ research progress, evaluation outcomes, funding opportunities, and future career advancement. Consequently, behaviours such as public criticism, ridicule, social exclusion, intimidation, or deliberate withholding of feedback or guidance may constitute abusive supervisory practices within academic environments (Yao et al., 2023).

Abusive supervision in this context is not defined by isolated incidents but by the persistence and perceived intent of such behaviours (Tepper, 2007; Zhang & Bednall, 2016). These actions communicate disrespect, diminish students’ sense of competence and autonomy, and erode the trust fundamental to effective supervision (Zhang & Yu, 2022). For postgraduate students, repeated exposure to supervisory hostility can create an emotionally unsafe learning environment, heightening stress, self-doubt, and psychological strain (Yao et al., 2023). Such experiences may ultimately undermine motivation, creativity, and engagement with academic tasks (Wang et al., 2024), thereby contributing to psychological distress and impaired academic performance.

When situated within the supervisor–student relationship, abusive supervision reflects interpersonal toxicity that arises when supervisory authority is exercised in a coercive or belittling manner (Tepper, 2020). This dynamic transforms an intended mentorship relationship into a source of chronic psychological threat and resource depletion, impeding students’ academic growth and mental well-being (Hong et al., 2024).

Based on the COR theory (Hobfoll, 1989), abusive supervision functions as a persistent stressor that fosters an environment of continuous threat. As students invest emotional and psychological resources in their academic endeavors, the anticipation or experience of resource loss can generate substantial stress and anxiety (Hobman et al., 2009). For instance, a student who receives harsh or demeaning feedback may perceive a threat to self-esteem, a critical personal resource, leading to heightened anxiety and depressive symptoms. Likewise, when students devote considerable effort and resources to their research but face excessive criticism or lack of acknowledgment, they may feel undervalued, experience diminished motivation, and suffer reduced self-worth, which further increases vulnerability to psychological distress (Yao et al., 2023). Consistent with the resource depletion principle of COR theory, sustained supervisory hostility may culminate in emotional exhaustion, disengagement from academic responsibilities, and a higher risk of anxiety and depression.

Empirical evidence across cultural contexts supports these theoretical assertions, although the strength and focus of findings vary. In Western settings, studies among college and graduate students consistently show that abusive supervision heightens academic-related anxiety, undermines mental health, and reduces satisfaction with educational experiences (Hobman et al., 2009). Research from East Asian contexts extends these findings by highlighting motivational and behavioural pathways, demonstrating that abusive supervision suppresses intrinsic motivation, impairs academic creativity (Meng et al., 2017), and promotes maladaptive behaviours such as procrastination (Ni et al., 2015). More recent Asian evidence further indicates that abusive

supervision directly depletes PsyCap (Liao & Liu, 2015) and elevates severe mental health risks, including suicidal ideation among graduate students (Yao et al., 2023). By contrast, empirical evidence from African academic contexts remains limited and fragmented, constraining understanding of how abusive supervision operates in settings characterized by different supervisory norms and resource constraints. Drawing on COR theory, which emphasizes resource loss as a central driver of stress, the present study addresses this gap by examining the psychological processes linking abusive supervision to psychological distress among postgraduate students. Accordingly, the following hypothesis is proposed:

*H1: Abusive supervision will positively predict psychological distress among postgraduate students.*

### **Abusive Supervision and Psychological Capital**

PsyCap is fundamental personal resources that can enable postgraduate students thrive in challenging situations (Luthans et al., 2015). It is characterized by self-efficacy, optimism, hope, and resilience (Luthans et al., 2007). Self-efficacy refers to an individual's belief in their ability to accomplish tasks and overcome challenges (Bandura, 2001). It empowers students to feel competent in handling demanding tasks, thereby boosting their confidence, resilience, and overall academic performance (Afolabi & Balogun, 2017). Optimism fosters positive expectations for future outcomes, hope enables students to devise strategies to achieve their academic objectives, and resilience equips them to recover from failures or setbacks. Each element of PsyCap can be bolstered by and reinforces positive emotions (Fredrickson, 2001).

Drawing upon the COR theory (Hobfoll, 2001), abusive supervision represents a considerable interpersonal stressor that has the potential to weaken positive emotional foundations, thereby diminishing PsyCap (reducing self-efficacy, compromising hope and optimism, and impairing resilience), which makes it increasingly difficult for individuals to recover from challenges and achieve success in their academic endeavors. In the context of postgraduate education, abusive supervision can elicit negative emotional responses, such as fear, anxiety, helplessness, and diminished self-worth (Hong et al., 2024). These negative emotional states constrict cognitive and behavioural responses, rendering individuals more reactive, less resilient, and more susceptible to psychological distress (Hobman et al., 2009; Yao et al., 2023). In this state, postgraduate students might have difficulty thinking clearly, remaining hopeful, or adapting positively to the challenges they face in their academic pursuits. Consequently, abusive supervision can directly reduce PsyCap, undermining students' capacity to adapt and succeed in a demanding academic setting. Previous research has corroborated this perspective by demonstrating that abusive supervision reduces PsyCap among students in China (Liao & Liu, 2015). Drawing from this body of literature, along with the tenets of the COR theory, we proposed the following hypothesis:

*H2: Abusive supervision will negatively predict PsyCap among postgraduate students.*

### **The Mediating Role of Psychological Capital**

Based on the principles of the COR theory (Hobfoll, 1989), it is posited that PsyCap serves as a key psychological mechanism through which the stressful and hostile environment created by abusive supervisors affects postgraduate students' mental well-being. According to COR theory, individuals strive to acquire, protect, and retain valuable resources (Xu, et al., 2015), including psychological resources such as hope, resilience, efficacy, and optimism. When exposed to persistent supervisory abuse, postgraduate students are more likely to experience resource loss in the form of heightened stress and burnout (Hong et al., 2024), which may impede the development and sustenance of PsyCap. Under such conditions, students may feel less hopeful, confident, resilient, and optimistic, thereby diminishing their capacity to cope effectively with academic and interpersonal challenges.

Extant research evidence supports this reasoning. For instance, Liao and Liu (2015) found that abusive supervision was negatively associated with PsyCap among graduate students in Chinese universities. Similarly, Pervaiz and Malik (2025) reported that lower levels of PsyCap were linked to higher psychological distress among female students in Islamabad, Pakistan. Hermana et al. (2025) reported that PsyCap mitigates the negative effects of toxic supervision on doctoral students' academic performance. Consistent with the COR theory, initial losses of psychological resources resulting from supervisory hostility can trigger further resource depletion, thereby weakening coping abilities and heightening vulnerability to psychological distress. This process may manifest through symptoms such as anxiety, depression, and helplessness, illustrating the cascading effects of resource loss.

Therefore, PsyCap may function as a psychological conduit in the relationship between abusive supervision and psychological distress. Its depletion under abusive conditions helps explain the mechanisms through which supervisory mistreatment may contribute to students' adverse mental health outcomes. Based on this theoretical framework and prior empirical evidence, the following hypotheses are proposed:

*H3: PsyCap will negatively predict psychological distress among postgraduate students.*

*H4: PsyCap will mediate the relationship between abusive supervision and psychological distress.*

### **The Moderating Role of Perceived Social Support**

Perceived social support encompasses individuals' perceptions of being valued, cared for, and connected to a network that provides mutual assistance and a sense of belonging (Acoba, 2024; Wills, 1991). It includes several dimensions, such as emotional, instrumental, and informational support (Ford et al., 2007). Emotional support involves empathy, trust, and encouragement; instrumental support refers to tangible aid or services that help individuals cope with challenges; and informational support includes advice and guidance that assist in problem-solving and decision-making (Bedaso et al., 2021).

In academic environments, perceived social support may originate from peers, faculty members, student organizations, or faith-based groups. Assistance from these sources can help alleviate the

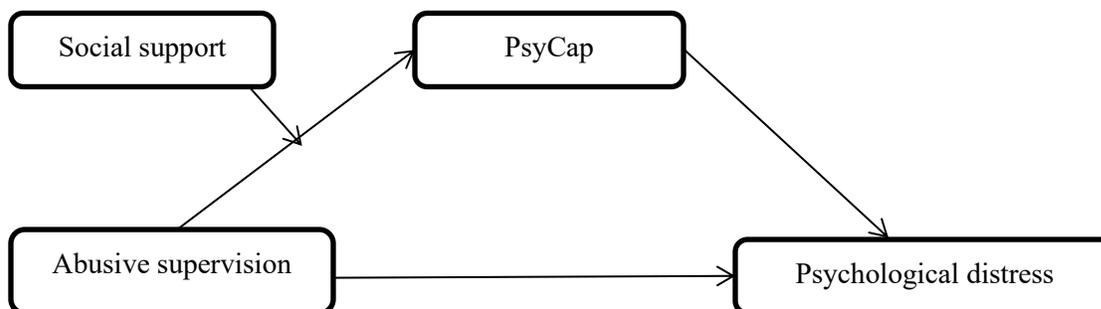
adverse effects of abusive supervision. According to the COR theory (Hobfoll, 2011), perceived social support can counteract resource depletion by providing emotional and practical assistance. It replenishes depleted psychological resources, thereby reinforcing students' confidence, optimism, and resilience, even when faced with a toxic supervisory relationship (Cobo-Rendón et al., 2020; Watson et al., 2019). Moreover, belonging to a nurturing community fosters a sense of connection and offers coping strategies for managing difficult supervisory experiences. This sense of belonging can mitigate the isolate often associated with abusive supervision (Liao & Liu, 2015), thereby enhancing PsyCap and reducing the likelihood of psychological distress. Conversely, individuals with lower levels of perceived social support tend to experience greater challenges in recovering from depression and maintaining effective social functioning (Wang et al., 2018).

Consistent with COR theory (Hoboll, 2011), perceived social support can also interrupt cycles of resource loss by helping students maintain functionality and perspective. In line with the buffering model of stress (Cohen & Wills, 1985), higher levels of perceived social support may lessen the perceived severity of abusive supervision by providing external validation and alternative sources of encouragement and belonging. Consequently, when perceived social support is abundant, the resource loss triggered by abusive supervision is less likely to culminate in psychological distress, as students can rely on external resources to compensate for what has been lost (Liao & Liu, 2015). Based on this theoretical rationale and prior empirical evidence, the following hypotheses are proposed:

*H5a: Perceived social support will moderate the relationship between abusive supervision and PsyCap.*

*H5b: Perceived social support will moderate the indirect effect of abusive supervision on psychological distress through PsyCap*

**Figure 1: The moderated mediation model showing the moderating role of perceived social support in the indirect effect of abusive supervision on psychological distress through PsyCap**



## METHODS

### Participants and Procedure

This quantitative, cross-sectional study was conducted among postgraduate students enrolled in public universities in Southwestern Nigeria. The region comprises six states, Ekiti, Lagos, Ogun, Ondo, Osun, and Oyo, and is a major academic hub hosting several of Nigeria's oldest and most prestigious universities. These institutions offer diverse postgraduate programs across disciplines such as the humanities, social sciences, education, engineering, and health sciences. Supervisory relationships in these universities often reflect hierarchical academic structures, where supervisors exercise considerable authority over students' research progress and evaluation. Structural challenges such as limited funding, heavy supervisory workloads, and inadequate institutional support may further influence the quality of supervisory relationships and students' well-being.

Data were collected through an online questionnaire designed using Google Forms. A convenience sampling approach was employed, with the survey link distributed via WhatsApp to postgraduate students within the researchers' networks. Participants were encouraged to share the link with other eligible students, creating a snowball effect that facilitated wider participation across public universities in the region. Eligibility criteria required that participants had spent at least one semester under the supervision of an academic advisor. Participation was voluntary, and informed consent was obtained electronically before respondents could access the questionnaire. Only participants who provided consent were included in the study. The online survey method allowed the researchers to reach a geographically diverse sample across multiple universities in Southwestern Nigeria.

### Measures

**Perceived abusive supervision:** Abusive supervision was evaluated using a 10-item scale adapted from Tepper's (2000) original abusive supervision scale. This scale serves as a subjective measure of postgraduate students' perceptions regarding persistent hostile verbal or non-verbal supervisory behaviours within the supervisor-student relationship. Sample items include, "my supervisor tells me my thoughts or feelings are stupid" and "my supervisor ridicules me." The 10 items were rated on a 5-point scale, ranging from 1 (never) to 5 (always). The study demonstrated an internal consistency of 0.91. Higher scores on the abusive supervision scale indicate greater levels of abusive supervision.

**Psychological distress:** Psychological distress was evaluated using the 10-item Kessler Psychological Distress Scale (KPDS), which was developed by Kessler in 1996. This tool was specifically created to assess an individual's level of distress and their negative emotional state. Participants were instructed to evaluate their feelings over the past four weeks using a 5-point Likert Scale (1 = none of the time; 2 = a little of the time; 3 = some of the time; 4 = most of the time; 5 = all of the time). Sample items included: "In the past 4 weeks, how often did you feel depressed?" and "In the past 4 weeks, how often did you feel nervous?" Kessler (1996) reported a Cronbach's alpha of 0.93. The internal consistency for this study was found to be 0.91. Higher scores on the KPDS represent elevated levels of psychological distress.

**Psychological Capital:** Psychological capital was evaluated using the English version of the Compound Psychological Capital Scale (CPC-12) as utilized in the research conducted by Lorenz et al. (2022). This 12-item scale measures four key dimensions of psychological capital: self-efficacy, optimism, hope, and resilience. Sample items include, "Overall, I expect more good things to happen to me than bad" and "If I should find myself in a jam, I could think of many ways to get out of it." Lorenz et al. (2022) reported a Cronbach's alpha of 0.94 for the US sample. The items are rated using a 6-point response scale, where 1 represents "strongly disagree" and 6 represents "strongly agree." CPC-12 scale has been used and found to be reliable and valid in Nigeria (Balogun, 2025). In the present study, the internal consistency of the instrument was found to be 0.94. Higher scores on CPC-12 indicate greater levels of PsyCap.

**Perceived Social Support:** Social support was measured using the 12-item Multidimensional Scale of Perceived Social Support (MSPSS) developed by Zimet, Dahlem, Zimet, and Farley in 1988. The tool evaluated perceived support from family, friends, and significant others. Sample items include "My family really tries to help me" (family support), "I can count on my friends when things go wrong" (friends support), and "There is a special person with whom I can share joys and sorrows" (support from significant others). The instrument employs a 5-point Likert scale ranging from 1 = "strongly disagree" to 5 = "strongly agree". Zimet et al. (1988) reported a reliability coefficient of 0.88 for the overall scale. In the present study, we found a Cronbach's alpha of 0.89 for the scale. Higher scores on MSPSS denote greater perceived levels of social support.

### **Ethical Approval**

This research received approval from the Research Ethics Review Committee of the Department of Pure and Applied Psychology at Adekunle Ajasin University, located in Akungba-Akoko, Ondo State, Nigeria. Written consent was obtained online from all participants. They were guaranteed that their privacy and responses would remain confidential.

### **Data Analysis**

Descriptive statistics were used to characterize the participants' socio-demographic variables. Following this, a Pearson's correlation coefficient was utilized to evaluate potential correlations among abusive supervision, PsyCap, perceived social support, and psychological distress. The study moderated mediation analysis was conducted using Hayes' PROCESS macro (Model 14). This model was selected because it allows for the examination of PsyCap as a mediator in the relationship between abusive supervision and psychological distress, while simultaneously testing social support as a moderator of the direct relationship between abusive supervision and psychological distress. Conditional indirect effects were estimated using 5,000 bootstrap samples, with significance determined by bias-corrected confidence intervals. If the 95% CIs did not include zero, the mediating effect was deemed significant.

## RESULTS

### Participants' Socio-Demographic Characteristics

The sample comprised 251 postgraduate students from public universities in Southwestern Nigeria. As indicated in Table 1, 134 (53.38%) participants were male and 117 (46.62%) were female. Participants' ages ranged from 21 to 43 years, with a mean age of 26.34 years ( $SD = 1.98$ ). Regarding marital status, 149 (59.36%) participants were single, 94 (37.45%) were married, and 8 (3.19%) were widowed, divorced, or separated. Participants were distributed across various faculties, including Social Sciences ( $n = 67, 26.69\%$ ), Science ( $n = 53, 21.11\%$ ), Arts ( $n = 49, 18.52\%$ ), Agriculture ( $n = 28, 11.15\%$ ), Law ( $n = 24, 9.56\%$ ), and Medical Sciences ( $n = 30, 11.95\%$ ).

**Table 1:** Socio-Demographic Characteristics of Participants

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	134	53.38
	Female	117	46.62
Age (years)	Range: 21–43; $M = 26.34, SD = 1.98$	—	—
Marital Status	Single	149	59.36
	Married	94	37.45
	Widowed/Divorced/Separated	8	3.19
Faculty	Social Sciences	67	26.69
	Science	53	21.11
	Arts	49	18.52
	Agriculture	28	11.15
	Law	24	9.56
	Medical Sciences	30	11.95

*Note.*  $M$  = mean;  $SD$  = standard deviation.

### Common Method Bias Test

Common method bias was assessed using the full collinearity approach proposed by Kock (2015). In this approach, variance inflation factors (VIFs) are computed for all latent variables in the model. A VIF value exceeding 3.3 indicates potential common method bias, whereas values below this threshold suggest that the model is free from serious common method variance issues. The results in Table 2 showed that all VIF values were well below the threshold of 3.3, suggesting that common method bias was not a significant concern in this study.

**Table 2:** Full Collinearity Variance Inflation Factors (VIFs) for Common Method Bias Assessment

Latent Variable	VIF Value	Threshold ( $\leq 3.3$ )	Interpretation
Abusive Supervision	2.14	$\leq 3.3$	No common method bias
Psychological Capital	1.98	$\leq 3.3$	No common method bias
Social Support	2.27	$\leq 3.3$	No common method bias
Psychological Distress	2.05	$\leq 3.3$	No common method bias

Note. All VIF values are below the 3.3 cut-off, indicating that common method bias is unlikely to distort the study results

### Confirmatory Factor Analysis

A confirmatory factor analysis (CFA) was conducted to assess the adequacy of the measurement model. Model fit was evaluated using multiple indices, including the chi-square ratio ( $\chi^2/df$ ), comparative fit index (CFI), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR). Following conventional cut-off criteria (Hair et al., 2010; Hu & Bentler, 1999), CFI and GFI values of  $\geq .90$ , RMSEA  $< .06$ , and SRMR  $< .08$  indicate acceptable model fit. The results in Table 3 demonstrated a good fit to the data ( $\chi^2 = 1.87$ , CFI = .93, GFI = .95, AGFI = .96, RMSEA = .04, SRMR = .07).

**Table 3:** Model Fit Indices for the Measurement Model

Fit Index	Recommended Threshold	Obtained Value	Interpretation
$\chi^2/df$	$\leq 3.00$	1.870	Good fit
CFI	$\geq 0.90$	0.931	Good fit
GFI	$\geq 0.90$	0.953	Good fit
AGFI	$\geq 0.90$	0.960	Good fit
RMSEA	$< 0.06$	0.040	Excellent fit
SRMR	$< 0.08$	0.070	Acceptable fit

Note.  $\chi^2/df$  = chi-square divided by degrees of freedom; CFI = comparative fit index; GFI = goodness-of-fit index; AGFI = adjusted goodness-of-fit index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual.

### Test of Relationship among Study Variables

The results presented in Table 4 show that age was negatively associated with psychological distress ( $r = -.22$ ,  $p < 0.05$ ). Gender did not have significant relationship with psychological distress. Abusive supervision had a significant positive relationship with psychological distress ( $r = .45$ ,  $p <$

0.01). PsyCap had a significant negative correlation with psychological distress ( $r = -.37, p < 0.05$ ). Perceived social support was negatively associated with psychological distress ( $r = -0.41, p < 0.01$ ).

**Table 4:** Descriptive Statistics and Correlations among Study Variables

Variables	Mean	SD	1	2	3	4	5	6
1. Age	26.34	1.98	1					
2. Gender	-	-	.03	1				
3. Abusive supervision	12.78	2.63	-.21*	.20*	1			
4. PsyCap	17.92	3.19	.55**	-.33*	-.19*	1		
5. Social support	16.56	3.47	.34**	-.53*	-.30*	.44**	1	
6. Psychological distress	21.78	4.89	-.22*	.24*	.45**	-.37*	-.31*	1

**Note:** \* $p < .05$ , \*\* $p < .0$ ; SD = *Standard Deviations*. Gender was coded as follows: 0 = female and 1 = male.

### Hypotheses Testing

The results in Table 5 show that abusive supervision was positively related to psychological distress ( $\beta = 0.44, p < 0.01$ ) and negatively associated with PsyCap ( $\beta = -0.15, p < 0.05$ ). Therefore, hypotheses 1 and 2 were supported, respectively. PsyCap was negatively associated with psychological distress in postgraduate students ( $\beta = -0.36, p < 0.05$ ), thus supporting hypothesis 3.

**Table 5:** Hayes PROCESS results of the relationships between abusive supervision, psychological capital, perceived social support and psychological distress

Variables	PsyCap			Psychological distress			
	$\beta$	SE	t	$\beta$	SE	t	95%CI
<b>Independent variable</b>							
Abusive supervision	-0.15*	0.07	-1.98	0.44**	0.08	2.43	.37, .09
<b>Mediating variable</b>							
PsyCap				-0.36*	0.06	-6.28	-.41, -.91
<b>Moderating variable</b>							
Perceived social support(PSS)	0.40**	0.05	5.43	-0.30*	0.09	-4.91	-.35, -.20
<b>Interaction</b>							
Abusive supervision x PSS	0.11*	0.03	2.18				.12, .07
$R^2$		0.29*			0.46**		

Note: \*\*  $p < 0.01$ , \*  $p < 0.05$ , SE = Standard Error, PSS = Perceived Social Support

Hypothesis 4 predicted that PsyCap will mediate the relationship between abusive supervision and psychological distress. As shown in Table 6, the indirect effect value was 0.27, with the lower limit of the 95% unbiased confidence interval being 0.25 and the upper limit being 0.32, both excluding 0. This indicates that PsyCap mediates the relationship between abusive supervision and psychological distress, thus supporting hypothesis 4.

**Table 6.** Summary of Mediation Effect and Moderated Mediation Effect Results

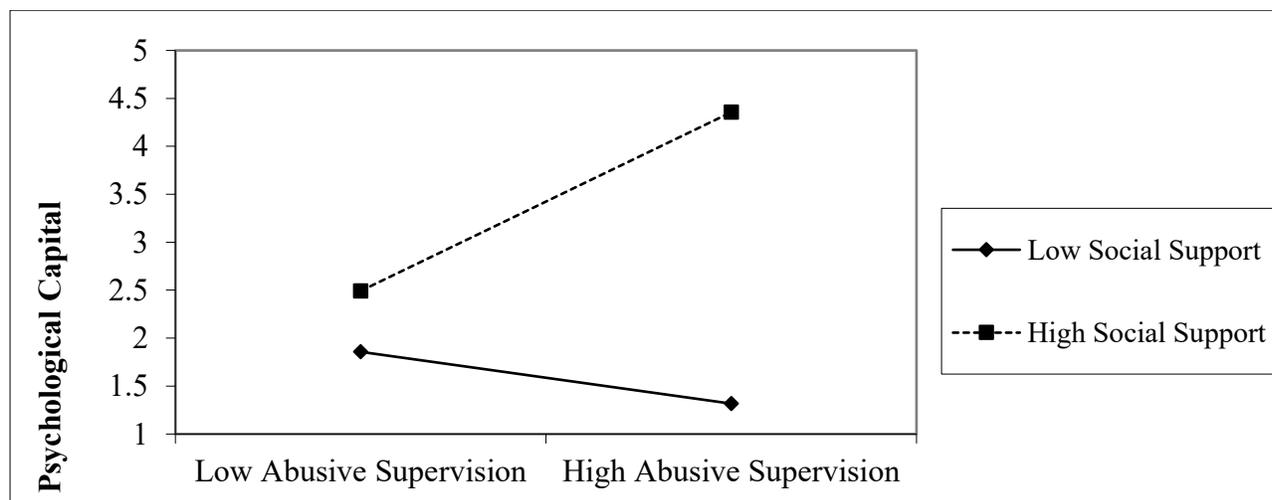
	Effect Value	SE	Indirect effect
			95% Unbiased signal interval
Mediation effect	0.27	0.03	[0.25, 0.32]
Moderated mediation effects			
High perceived social support	0.21	0.04	[0.20, 0.16]
Low perceived social support	0.34	0.05	[0.17, 0.11]
Difference	-0.10	0.07	[-0.18, -0.03]

As shown in Table 5, perceived social support moderates the relationship between abusive supervision and PsyCap ( $\beta = 0.11$ ,  $t = 2.18$ ,  $p < 0.05$ ), such that the negative effect of abusive supervision on PsyCap is weaker among postgraduate students with higher levels of perceived social support. With this result, hypothesis 5a is supported.

To further analyze the moderating role of perceived social support, this study plots the moderating effect of perceived social support, as shown in Figure 2. Figure 2 shows that when perceived social support is higher, the positive relationship between abusive supervision and PsyCap is weaker. Based on Figure 2, hypothesis 5a was further verified.

Hypothesis 5b predicted that perceived social support would moderate the mediating effect of abusive supervision on psychological distress through PsyCap. As shown in Table 6, the difference value between the higher perceived social support condition and lower perceived social support condition was -0.10, and the 95% unbiased confidence interval was (-0.18, -0.03), excluding 0. This indicates that there is a moderated mediation effect. Therefore, hypothesis 5b was supported.

Figure 2 shows that when perceived social support is higher, the negative effect of abusive supervision on PsyCap reduces



## DISCUSSION

The purpose of this study is to examine the impact of abusive supervision on psychological distress among postgraduate students in Nigeria, while also testing the mediating role of PsyCap in this dynamic. Additionally, the study explored the moderating effect of perceived social support on the mediating relationship between abusive supervision and psychological distress through PsyCap.

The findings of the study supported Hypothesis 1. The results indicate that abusive supervision is positively associated with psychological distress among postgraduate students. This indicates that when supervisors engage in abusive supervisory behaviours, public criticism, belittling, hostility, demeaning, or intentional withholding of information, postgraduate students are more likely to report increased levels of psychological distress. This finding aligns with previous research revealing that negative interpersonal experiences in hierarchical relationships can significantly impact the mental health of subordinates' (Wang et al., 2024; Yao et al., 2023). Furthermore, the finding partly supports the research conducted by Hobman et al. (2009), which identified a positive correlation between abusive supervision and anxiety among students in educational environments. The reason for this study is not far-fetched. Unlike employees in traditional workplaces in Nigeria, students in Nigerian universities often lack sufficient institutional mechanisms or support systems to address supervisory mistreatment (Nwoye & Chukwuma, 2024). The stress arising from these relationships may manifest as anxiety, depression, or burnout, ultimately impacting students' academic performance and career development.

Furthermore, the findings revealed that abusive supervision negatively predicted PsyCap, thereby validating Hypothesis 2. This indicates that when postgraduate students experience abusive supervision, their PsyCap, such as self-efficacy, optimism, hope, and resilience, diminishes. Such a decrease in PsyCap could further intensify psychological distress, establishing a detrimental cycle where students become increasingly susceptible to adverse emotional consequences. This corroborates the research conducted by Liao and Liu (2015), which indicated a correlation between abusive supervision and PsyCap among students in China. This finding adds a significant aspect to the comprehension of how harmful leadership undermines internal resources.

Moreover, the results supported Hypothesis 3, showing that PsyCap is inversely related to psychological distress. This revealed that postgraduate students with high levels of PsyCap are more likely to report fewer symptoms of stress, anxiety, or depression. This finding aligns with the broaden-and-build theory (Fredrickson, 2001), which posits that positive psychological resources enhance individuals' ability to cope with adversity and recover from difficulties. In the Nigerian postgraduate education context, students tend to face significant workloads, uncertainty regarding research results, and reliance on supervisors (Akingbade et al., 2024; Ekpoh, 2016). Those possessing high PsyCap are likely to perceive challenges as manageable and temporary, utilize adaptive coping mechanisms, and sustain motivation, thereby alleviating the psychological strain associated with academic demands.

Furthermore, the study corroborated Hypothesis 4, which predicted that PsyCap mediates the relationship between abusive supervision and psychological distress among postgraduate students. This suggests that abusive supervision significantly diminishes PsyCap, which consequently

heightens the psychological distress of postgraduate students. This mediational pathway indicates that abusive supervisors not only inflict emotional damage directly through their actions but also undermine students' internal psychological resources, reducing their capacity to handle adversity and sustain psychological resilience. This finding is consistent with the COR theory (Hobfoll, 1989), which posits that individuals endeavour to acquire and preserve valuable resources, including psychological ones. When postgraduate students face abusive supervision, their psychological resources, such as hope and optimism, are depleted, rendering them more vulnerable to stress and psychological injury.

The results also confirmed Hypothesis 5a, thereby emphasizing the protective role of perceived social support in safeguarding students' internal psychological resources from the detrimental effects of abusive supervision. This finding is in line with Cohen and Wills' (1985) stress-buffering hypothesis, which posits that social supports alleviate the adverse psychological effects of stressors. In the context of postgraduate education, students who perceive high levels of emotional, instrumental, or informational support from peers, family, or faculty members may be less susceptible to the draining effects of supervisory abuse. Supportive relationships can affirm students' experiences, offer alternative viewpoints, and foster a sense of belonging and competence, counteracting the demoralizing impact of abusive supervision on hope, optimism, efficacy, and resilience (Liao & Liu, 2015). For instance, a student facing severe criticism or neglect from a supervisor may maintain higher PsyCap if they receive adequate support from their peers or mentors.

Hypothesis 5b expanded the model by introducing a moderated mediation, where perceived social support influences the indirect effect of abusive supervision on psychological distress through PsyCap. The findings validated this hypothesis, indicating that the mediating route from abusive supervision to distress via PsyCap is dependent on the level of perceived social support. This implies that the indirect effect of abusive supervision on psychological distress is more pronounced when perceived social support is low and less significant when support is high. In other words, perceived social support not only directly safeguards PsyCap (as demonstrated in H5a) but also mitigates its subsequent effects on psychological distress. This moderated mediation model aligns with COR theory (Hobfoll, 1989), which argues that individuals aim to maintain and protect valuable personal and social resources. When abusive supervision jeopardizes an internal resource like PsyCap, students who can access external resources such as perceived social support may be better positioned to avert further psychological detriment, such as heightened distress.

### **Theoretical Implications**

This study makes significant theoretical contributions. Firstly, the study contributes to the literature examining the detrimental effects of abusive supervision in higher education. Although a significant amount of previous studies in Nigeria has examined the immediate effects of abusive supervision in professional settings, there is a notable dearth of research focusing on its impact on the mental health of students. As far as the researcher is aware, this study represents one of the first studies to investigate the adverse effects of abusive supervision on postgraduate students within academic contexts in Nigeria, characterized by high and complex power dynamics. The results expand the

principles of COR by showing that postgraduate students subjected to abusive supervision are more likely to report high levels of psychological distress.

Secondly, drawing from the COR theory, PsyCap was introduced as a possible mediating variable. The results indicated that abusive supervision diminishes students' PsyCap (an internal psychological coping resources), which in turn reduces their ability to manage the stress associated with abusive supervision, ultimately leading to elevated levels of psychological distress. These findings, therefore, contribute to the advancement of COR theory by empirically substantiating PsyCap as a mediating mechanism that connects abusive supervision with student psychological distress.

Finally, by introducing perceived social support as a moderating factor, this study further support and validate the resource investment principle of the COR theory by highlighting the importance of perceived social support as a crucial external resource for coping with negative supervision. Consequently, this study suggests that not all postgraduate students who face abusive supervision will necessarily experience psychological distress. Postgraduate students with access to emotional and instrumental support may benefit from enhanced PsyCap, which could subsequently lessen their susceptibility to psychological distress.

### **Practical Implications**

Findings of this study have important practical implications for postgraduate education and supervisory practices. Firstly, university administrations in Nigeria should implement policies that would mitigate and discourage abusive supervision in academic environment in Nigeria. University management should make abusive supervisors aware of the detrimental effects of their behaviour and implement training and counseling programs aimed at mitigating their abusive supervisory actions. Regular intervention programmes that foster a positive organizational climate to diminish abusive supervision should be established. Secondly, when indicators of low PsyCap are observed, university managements can intervene with coaching, workshops, or counseling to avert further deterioration. Universities authorities in Nigeria should also provide skill-building programs (such as resilience training, stress management, and confidence-building) as part of their student development initiatives. Lastly, findings of this study suggest the need for robust support systems, including peers, faculty mentors, family, and counseling centers, for postgraduate students. Therefore, university administrations should cultivate a supportive academic environment and establish both formal and informal support groups for postgraduate students to exchange experiences and advice. Most importantly, institutions in Nigeria should establish a grievance redressal system that allows students who have experienced abuse to report such incidents without fear of further threats or retaliation from their abusive supervisors in the future. This grievance redressal mechanism will empower students facing abusive treatment to voice their concerns and become more assertive and confident in confronting such mistreatment.

### **Limitations and Future Research Directions**

Despite the valuable contributions of this study, it is not without its limitations. Firstly, the cross-sectional survey design adopted in the current study limits the ability to draw causal inferences.

Hence, future research could use longitudinal designs to explore the causal links between abusive supervision, PsyCap, social support, and mental health outcomes. Additionally, discipline-specific or cross-cultural analyses can be employed to determine whether these relationships differ across contexts. Secondly, the sample size used in this study is too small, which restricts the generalizability of the findings. Thus, future research should use larger sample sizes to enhance the external validity of the findings. Thirdly, abusive supervision was measured using a self-report questionnaire. While this questionnaire demonstrates a strong reliability coefficient, it may be susceptible to response bias or common method bias. Therefore, employing a non-self-report approach may yield more accurate results. Lastly, this study focused solely on the moderating role of social resources (i.e., perceived social support) in the interplay between abusive supervision, PsyCap, and psychological distress. Insufficient attention has been given to how individual factors (e.g., emotional intelligence, coping strategies, personality traits, and performance improvement attribution) might moderate this relationship, indicating a need for further investigation. Moreover, other mediators, such as burnout, perceived autonomy, or motivation, could be examined to provide a more holistic understanding of the psychological outcomes of abusive supervision among postgraduate students.

### **Conclusion**

This study advances knowledge on how supervision affects postgraduate students' mental health by highlighting key psychological process via which these effects occur. Drawing upon COR theory, the findings of the study indicated that abusive supervision reduces postgraduate students' levels of PsyCap, which in turn amplifies their psychological distress. Perceived social support mitigated this indirect effect by protecting and reinforcing personal resources. By examining the moderated mediation model, the study extends and further validates the COR theory by clarifying when and why abusive supervision becomes detrimental in academic settings, especially among postgraduate students. Together, findings of this study underscore the central role of psychological and social resources in shaping students' well-being under adverse supervisory conditions.

### **REFERENCES**

- Acoba, E. F. (2024). Social support and mental health: the mediating role of perceived stress. *Frontiers in Psychology, 15*, 1330720. <https://doi.org/10.3389/fpsyg.2024.1330720>.
- Afolabi, O. A., & Balogun, A. G. (2017). Impacts of psychological security, emotional intelligence and self-efficacy on undergraduates' life satisfaction. *Psychological Thought, 10*(2), 247-261.
- Akingbade, O., Faremi, V. O., Eze, C. J., Eze, C. B., Oluwasola, E., Olawoore, S. A. e al. (2024). Needs and experiences of postgraduate nursing students in Nigeria during the COVID-19 pandemic. *Nursing open, 11*(9), e70031. <https://doi.org/10.1002/nop2.70031>
- Akram, Z., Li, Y., & Akram, U. (2019). When employees are emotionally exhausted due to abusive supervision. A conservation-of-resources perspective. *International Journal of Environmental Research and Public Health, 16*(18), 3300. <https://doi.org/10.3390/ijerph16183300>

- Avey, J. B., Luthans, F., Smith, R. M., & Palmer, N. F. (2010). Impact of positive psychological capital on employee well-being over time. *Journal of Occupational Health Psychology, 15*(1), 17–28. <https://doi.org/10.1037/a0016998>
- Balogun, A. G. (2025). Psychological capital as a moderator in the relationship between fear of COVID-19 and sleep quality among frontline healthcare workers. *Romanian Journal of Applied Psychology, 27*(1), 3–11. 10.2478/rjap-2025-0002
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology, 52*, 1-26. doi:10.1146/annurev.psych.52.1.1
- Bedaso, A., Adams, J., Peng, W., & Sibbritt, D. (2021). The relationship between social support and mental health problems during pregnancy: A systematic review and meta-analysis. *Reproductive Health, 18*, 162. <https://doi.org/10.1186/s12978-021-01209-5>
- Bolu-Steve, F. N., & Fadipe, R. A. (2024). Relationship between academic stress and depression among students of federal universities in South-West Nigeria. *Annals of the University of Craiova, Psychology-Pedagogy Series, 46*(2), 256–270.
- Casey, C., Harvey, O., Taylor, J., Knight, F., & Trenoweth, S. (2022). Exploring the well-being and resilience of postgraduate researchers. *Journal of Further and Higher Education, 46*(6), 850-867. <https://doi.org/10.1080/0309877X.2021.2018413>
- Cobo-Rendón, R., López-Angulo, Y., Pérez-Villalobos, M. V., & Díaz-Mujica, A. (2020). Perceived social support and its effects on changes in the affective and eudaimonic well-being of Chilean university students. *Frontiers in Psychology, 11*, 590513. <https://doi.org/10.3389/fpsyg.2020.590513>
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological bulletin, 98*(2), 310. <https://psycnet.apa.org/doi/10.1037/0033-2909.98.2.310>.
- Draz, U., Khan, N. M., & Mehmood, H. (2022). Perspectives of students regarding abusive supervision in their division at secondary education. *Global Educational Studies Review, 7*(3), 11–23. [https://doi.org/10.31703/gesr.2022\(VII-III\).02](https://doi.org/10.31703/gesr.2022(VII-III).02).
- Ekpoh, U. I. (2016). Postgraduate studies: The challenges of research and thesis writing. *Journal of Educational and Social Research, 6*(3), 67-74. <https://doi.org/10.5901/jesr.2016.v6n3p67>
- Ford, M. T., Heinen, B. A., & Langkamer, K. L. (2007). Work and family satisfaction and conflict: A meta-analysis of cross-domain relations. *Journal of Applied Psychology, 92*(1), 57–80. <https://doi.org/10.1037/0021-9010.92.1.57>
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist, 56*(3), 218–226. <https://doi.org/10.1037/0003-066X.56.3.218>

- Halbesleben, J. R. et al. (2014). Getting to the COR understanding the role of resources in conservation of resources theory. *Journal of Management*, 40, 1334-1364. <https://doi.org/10.1177/0149206314527130>.
- Harms, P. D., Credé, M., Tynan, M., Leon, M., & Jeung, W. (2017). Leadership and stress: A meta-analytic review. *The Leadership Quarterly*, 28(1), 178-194. <https://doi.org/10.1016/j.leaqua.2016.10.006>
- Hayes, A. F. (2013). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. New York, NY: Guilford Press.
- Hefner, J., & Eisenberg, D. (2009). Social support and mental health among college students. *American Journal of Orthopsychiatry*, 79(4), 491-499. <https://doi.org/10.1037/a0016918>
- Hermana, D., Ramdahan, R. M., Kisahwan, A., & Winarno, A. (2025). The ripple effects of toxic supervision on academic performance in doctoral programs: Investigating mediation and moderation mechanisms. *International Journal of Doctoral Studies*, 20, Article 3. <https://doi.org/10.28945/5437>.
- Henry, E. B., Bassegy, S. W., Patience, O., & Saamu, K. N. (2024). The Influence of Supervisor's Attitude and Workload on Students' Academic Performance in Postgraduate Research in Cross River State. *East African Scholars J Edu Humanit Lit*, 7(3), 88-97. <https://doi.org/10.36349/easjehl.2024.v07i03.001>
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513-524. <https://doi.org/10.1037/0003-066X.44.3.513>
- Hobfoll, S.E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology*, 50, 337-370. <https://doi.org/10.1111/1464-0597.00062>
- Hobfoll, S. E. (2011). Conservation of resource caravans and engaged settings. *Journal of Occupational and Organizational Psychology*, 84(1), 116-122. <https://doi.org/10.1111/j.2044-8325.2010.02016.x>
- Hobman, E. V., Restubog, S. L. D., Bordia, P., Tang, R. L. (2009). Abusive supervision in advising relationships: Investigating the role of social support. *Applied Psychology*, 58(2), 233-256. <https://doi.org/10.1111/j.1464-0597.2008.00330.x>
- Hong, Y., Chen, M., Chen, C., & others. (2024). Abusive supervision and nursing students' intention to leave the nursing profession: A moderated mediation model of emotional exhaustion and the nurse-patient relationship. *BMC Nursing*, 23, 361. <https://doi.org/10.1186/s12912-024-02025->.

- Javadizadeh, E., Oudshoorn, A., Letts, L., Barbic, S., & Marshall, C. A. (2025). The mental well-being of graduate students in Canada: A scoping review. *American Journal of Health Promotion, 39*(6), 921–935. <https://doi.org/10.1177/08901171251326308>.
- Kessler, R. C., Barker, P. R., Colpe, L. J., Epstein, J. F., Gfroerer, J. C., Hiripi, E., et al. (2003). Screening for serious mental illness in the general population. *Arch Gen Psychiatry, 60*(2), 184-9.
- Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration, 11*(4), 1–10. <https://doi.org/10.4018/ijec.2015100101>
- Levecque, K., Anseel, F., De Beuckelaer, A., Van der Heyden, J., & Gisle, L. (2017). Work organization and mental health problems in PhD students. *Research Policy, 46*(4), 868–879. <https://doi.org/10.1016/j.respol.2017.02.008>.
- Liao, Z., & Liu, Y. (2015). Abusive supervision and psychological capital: a mediated moderation model of team member support and supervisor-student exchange. *Frontiers of Business Research in China, 9*(4), 576. <https://doi.org/10.3868/s070-004-015-0023-6>.
- Lorenz, T., Hagitte, L., & Prasath, P. R. (2022). Validation of the revised Compound PsyCap Scale (CPC-12R) and its measurement invariance across the US and Germany. *Frontiers in Psychology, 13*, 1075031. <https://doi.org/10.3389/fpsyg.2022.1075031>
- Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). Psychological capital: Developing the human competitive edge. Oxford University Press.
- Luthans, F., Youssef-Morgan, C. M., & Avolio, B. J. (2015). Psychological capital and beyond. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199316483.001.0001>
- Mackey, J. D., Frieder, R. E., Brees, J. R., & Martinko, M. J. (2017). Abusive supervision: A meta-analysis and empirical review. *Journal of Management, 43*(6), 1940–1965. <https://doi.org/10.1177/0149206315573997>
- Meng, Y., Tan, J., & Li, J. (2017). Abusive supervision by academic supervisors and postgraduate research students' creativity: The mediating role of leader–member exchange and intrinsic motivation. *International Journal of leadership in education, 20*(5), 605-617. <https://doi.org/10.1080/13603124.2017.1304576>
- Milicev, M., Fischer, T., Tian, A. W., Lee, A., & Hughes, D. J. (2021). Abusive supervision: A systematic review and fundamental rethink. *The Leadership Quarterly, 32*(6), 101540. <https://doi.org/10.1016/j.leaqua.2021.101540>
- Moreno-Montero, E., Ferradás, M. D. M., & Freire, C. (2024). Personal resources for psychological well-being in university students: The roles of psychological capital and coping strategies.

*European Journal of Investigation in Health, Psychology and Education*, 14(10), 2686–2701.  
<https://doi.org/10.3390/ejihpe14100177>.

Ni, S.-g., Dong, R., Yang, R.-d., & Wang, R.-j. (2015). Abusive supervision and academic procrastination in undergraduates: A multiple mediation model. *Chinese Journal of Clinical Psychology*, 23(6), 1112–1115.

Nwoye, A. V., & Chukwuma, B. O. (2024). Supervisory intimidation in Nigerian tertiary institutions: Causes, manifestations, and impacts. *Journal of Continuing and Development Education*, 4(2), 54–56. Retrieved from <https://journalcde.com/index.php/jcde/article/view/130>

Pervaiz, R., & Malik, T. A. (2025, September). Correlates of psychological distress among university students with a special reference to gender differences (Preprint). bioRxiv. <https://doi.org/10.1101/2025.09.09.25334787>

Sun, N., Zheng, Q., Li, L., Zhu, H., Liu, X., Zhou, S., & Han, H. (2022). A model of abusive supervision, self-efficacy, and work engagement among Chinese registered nurses: The mediating role of self-efficacy. *Frontiers in Psychology*, 13, 962403. <https://doi.org/10.3389/fpsyg.2022.962403>.

Tepper, B. J. (2007). Abusive supervision in work organizations: Review, synthesis, and research agenda. *Journal of Management*, 33(3), 261–289. <https://doi.org/10.1177/0149206307300812>.

Tepper, B. J. (2020). Consequences of abusive supervision. *Academy of Management Journal*, 43(2), 178–190. <https://doi.org/10.2307/1556375>.

Tepper, B.J. (2000). Consequences of abusive supervision. *Acad Manag Journal*, 43(2), 178–90.

Wang, G., Xu, R., Liu, H., & Ghulam Murtaza, K. (2024). The impact of abusive supervision on postgraduate students' team creativity in higher education institutions. *Studies in Higher Education*, 50(4), 917–936. <https://doi.org/10.1080/03075079.2024.2361322>.

Wang, J., Mann, F., Lloyd-Evans, B., Ma, R., & Johnson, S. (2018). Associations between loneliness and perceived social support and outcomes of mental health problems: A systematic review. *BMC Psychiatry*, 18, 156. <https://doi.org/10.1186/s12888-018-1736-5>.

Wang, X., Geng, P., Chen, X., Cai, W., & An, H. (2024) A study on the academic innovation ability and influencing factors of public health graduate students based on nomograms: a cross-sectional survey from Shandong, China. *Frontiers in Public Health*, 12, 1429939. doi: 10.3389/fpubh.2024.1429939.

Watson, R. J., Grossman, A. H., & Russell, S. T. (2019). Sources of perceived social support and mental health among LGB youth. *Youth & Society*, 51(1), 30–48. <https://doi.org/10.1177/0044118X16660110>.

- Wilcox, P., Winn, S. and Fyvie-Gauld, M. (2005) It Was Nothing to Do with the University, It Was Just the People: The Role of Social Support in the First-Year Experience of Higher Education. *Studies in Higher Education*, 30, 707-722. <https://doi.org/10.1080/03075070500340036>
- Wills, T. A. (1991). Perceived social support and interpersonal relationships. In H. O. F. Veiel & U. Baumann (Eds.), *The meaning and measurement of perceived social support* (pp. 31–56). Hemisphere Publishing.
- Wu, T.-Y., & Hu, C. (2009). Abusive supervision and employee emotional exhaustion: Dispositional antecedents and boundaries. *Group & Organization Management*, 34(2), 143–169. <https://doi.org/10.1177/1059601108331217>
- Xu, A. J., Loi, R., & Lam, L. W. (2015). The bad boss takes it all: How abusive supervision and leader–member exchange interact to influence employee silence. *The Leadership Quarterly*, 26(5), 763–774. <https://doi.org/10.1016/j.leaqua.2015.03.002>
- Yao, Y., Dong, F. & Qiao, Z. (2023). Perceived abusive supervision and graduate students' suicidal ideation: from the perspective of interpersonal psychological theory of suicide. *BMC Psychology*, 11, <https://doi.org/10.1186/s40359-023-01136-z>.
- Zhang, Y., & Bednall, T. C. (2016). Antecedents of abusive supervision: A meta-analytic review. *Journal of Business Ethics*, 139(3), 455–471. <https://doi.org/10.1007/s10551-015-2657-6>
- Zhang, X., & Yu, J. (2022). Impact of abusive supervision on psychological engagement and absorptive capacity among students: Mediating role of knowledge hiding. *Frontiers in Psychology*, 12, 818197. <https://doi.org/10.3389/fpsyg.2021.818197>.
- Zimet, G.D., Dahlem, N.W., Zimet, S.G. & Farley, G.K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 52, 30-41.