



OPEN The interplay of incivility, peer support, and psychological capital in higher education

Minh Pham¹, LanAnh Thuy Nguyen¹✉, Anh Tram Tuong Nguyen² & Anh Van Nguyen²

In the context of increasing incivility in university environments, especially in Asian countries such as Vietnam, this study was conducted to clarify the mechanism of incivility's influence on students' academic performance from the conservation of resources theory perspective. The study constructed a mediation-moderation model in which psychological distress and perceived peer support played mediating roles, and psychological capital was a moderator. Data were collected from 266 university students in Vietnam and analyzed using the PLS-SEM method. The results showed that incivility had a direct negative impact on academic performance, while this impact increased through psychological distress and was mitigated by the presence of perceived peer support. In addition, psychological capital played a moderating role in the relationship between incivility and psychological distress, suggesting a protective role for individual psychology in stressful situations. However, psychological capital did not moderate the relationship between perceived peer support and academic performance. The study contributes to COR theory in the context of higher education and suggests interventions to mitigate the negative effects of incivility and enhance student learning outcomes.

Keywords Incivility, Academic performance, Psychological capital, Psychological distress, Higher education

Higher education is when students encounter many problems and stress in life. This can negatively affect their career and social life later¹. Concurrently, incivility is becoming increasingly prevalent². Numerous studies indicate that incivility has become a growing concern recently, particularly in educational settings^{3–5}, and this increase is an urgent problem^{4,6}. Concerned about this problem, the need to address and mitigate these “incidents” is increasing^{7,8}. Most research on incivility has been conducted in Western countries, especially in the United States, Canada, and Europe⁹.

In contrast, in Asia, where incivility in school environments is rising, relatively little scholarly attention has been given to it¹⁰. In Vietnamese higher education, the influence of the culture of hierarchy often causes students to endure silently when encountering inappropriate behavior from classmates, especially from lecturers or school staff¹¹. Meanwhile, modern students have strong egos and rarely accept concessions, leading to increasingly common communication conflicts. The contradiction between the traditional culture of tolerance and the contemporary self-expression trend creates an environment where incivility is challenging to recognize and properly evaluate¹². Moreover, previous studies also indicate that prolonged exposure to stressors, incivility, and negative behaviors can lead to depleted performance, compromised mental health, and exhaustion^{5,13}. Long-term outcomes include diminished academic achievements and failure to attain educational goals.

According to the conservation of resources theory (COR), a prominent framework for describing pressure and burnout, environmental cases usually endanger or deplete individuals' resources. During the phase when students face the adverse effects of the environment on their mental well-being, peer support is a fundamental aspect and one of the primary social support sources for mental health². It can help enhance academic achievements and improve social skills¹⁴, while lacking peer support can reduce motivation, diminishing academic performance¹⁵. Perceived support from friends is a vital resource that individuals need to alleviate negative emotions. Consequently, recent studies highlight a growing interest in positive psychology and emotions in the learning process.

According to the conservation of resources theory (COR), a prominent framework for describing pressure and burnout, environmental cases usually endanger or deplete individuals' resources. Psychological stress ensues when personal resources are threatened¹⁶. Perceived support from friends is a resource individuals need, mediating incivility and efficiently studying. Furthermore, the negative psychological theme has garnered

¹Faculty of Business Administration, Ho Chi Minh City Open University, Ho Chi Minh City, Vietnam. ²School of Advanced Study, Ho Chi Minh City Open University, Ho Chi Minh City, Vietnam. ✉email: anhnhtl.238b@ou.edu.vn

considerable attention from researchers worldwide¹⁷. Consequently, recent studies highlight a growing interest in positive psychology and emotions in the learning process.

Yet, in addition to external resources like peer support, students' internal resources, such as psychological capital, also play a crucial role in coping with environmental threats. Incivility is considered a threat to individuals, leading to emotional dysregulation and psychological issues¹⁸. On the other hand, high psychological capital instills confidence, promotes rapid goal attainment, and contributes to a positive organizational state. Carmona-Halty et al.¹⁹ examined and found that psychological capital is a persuasive predictor of academic performance and noted that psychological capital is "[only] beginning to be assessed in educational settings." Therefore, more research is needed about psychological capital in the context of academic performance and its impact on the influence of negative factors on students' psyche.

Stemming from the research gap on incivility and its negative impacts in the educational context in the Asian region, along with the growing interest of researchers and psychologists in the field of positive psychology, this study aims to apply COR to analyze the impact of incivility on students' academic performance²⁰. Specifically, the study focuses on the mediating role of psychological distress and peer support factors. In addition, the study also explores the moderating role of psychological capital in the relationship between incivility and academic performance, thereby expanding the application of COR in the educational context. The study strengthens the theoretical foundation by employing the PLS-SEM method, an advanced data analysis technique that combines theory testing and complex relationship modeling. It contributes to a deeper understanding of the interaction mechanisms between factors related to incivility in the university environment.

This study aims to clarify the current status of incivility in the context of higher education in Vietnam, laying the foundation for further research in the Asian region. This exploration was conducted in the context of an emerging economy with the primary objective of addressing three specific research questions:

(RQ1) What do the consequences of incivility look like in real-life contexts, and do victims of incivility face impacts on academic performance across the board?

(RQ2) To what extent do students' psychological distress and peer support mediate the relationship between incivility and academic performance?

(RQ3) What is the moderating role of psychological capital in the relationship between incivility and psychological distress and between peer support and academic performance?

These results can help universities develop and enhance training programs to enable schools to understand and respond effectively to students, especially under stressful conditions.

Literature review

Conservation of resources theory (COR)

The COR is the foremost approach for describing stress and burnout, providing an alternative perspective for evaluating individuals or approaches to stressful environments²⁰. COR is proposed as a motivational theory, asserting that individuals consistently react to adversity to protect their existing resources and acquire new ones. Resources here can include material possessions, conditions, states, and other entities perceived as valuable or helpful in achieving objectives. The fundamental premise of COR is the understanding that people strive to attain and safeguard their resources²¹. Whenever individuals perceive threats or actual resource losses, they employ faring tactics, such as retreating from resource-intensive actions, to defend themselves and avoid additional resource depletion²². It posits that uncivil behavior acts as a stressor, depleting personal resources.

According to COR, people can cope with the negative effects of stressors by seeking and utilizing other resources to address them, minimizing adverse effects, and avoiding problems that consume more resources²³. When individuals encounter incivility, they are likely to experience negative emotions, such as mood swings and excessive worry, which can waste resources²⁴. Meanwhile, psychological capital, a factor representing a positive psychological state of development, is considered a resource that helps individuals protect existing resources while simultaneously promoting the accumulation of new resources due to its positive psychological characteristics²⁵. In addition, based on COR, perceived peer support functions as an essential external resource that facilitates the development of individuals' positive psychological resources²⁶.

In this case, when individuals face incivility, each individual's psychological capital is activated to protect and prevent emotions from becoming damaging and extreme. Psychological capital is a resource that is concentrated to help oneself cope with negative effects such as overthinking, distraction, or even hate and hostility caused by incivility, thereby preventing. This affects learning outcomes, according to the application principles of COR.

Academic performance

When researching students, learning effectiveness is always a top concern of researchers²⁷. It is considered an important factor, influenced by subjective factors, such as psychology, and objective factors, including the environment. In higher education, the GPA is regarded as the most effective measure of a student's academic achievement²⁸ and is the most commonly used indicator to evaluate academic success and effectiveness²⁹. These indicators represent immediate results and exhibit significant similarities among individuals despite their varying learning experiences. Therefore, a growing consensus is that non-cognitive factors, such as emotions, mood, stress levels, and life satisfaction, can significantly influence academic performance³⁰. In this study, academic performance is assessed based on students' self-assessment of their competence, effectiveness, and the extent to which they meet their expectations.

Incivility

Over the past two decades, incivility has been extensively studied in organizational contexts³¹. Specifically, incivility is becoming increasingly prevalent and causing serious adverse problems in organizations^{32,33}. It has been likened to termites, as it eats away at the organization slowly but severely³⁴. However, there is still

limited research examining the effects of incivility in educational contexts. Considering the context of this study, student-experienced incivility may originate from faculty, school staff, or fellow students. These individuals represent those involved in students' academic lives, and including them allows for a more accurate assessment of how frequently incivility occurs within the educational environment.

Andersson and Pearson³⁵ define incivility as behavior that is disrespectful to others and violates the norms of respect. It includes low-level deviant behavior such as belittling, paying little attention to what others say, caring little about their opinions, or ignoring/excluding them from social relationships³⁶. Additionally, incivility refers to uncertainty about the intention to harm or cause harm to others. It includes low-intensity negative verbal behaviors with unclear harmful intentions³⁷.

The severity of incivility is often underestimated. For this reason, incivility is defined as being less intense than bullying³⁸, but it is more common in life. Bullying is a frequent and intense physical impact or behavior directed at a specific object to cause harm to that person³⁹, and the antecedents of such behavior have also been highlighted in previous studies^{40,41}. Meanwhile, incivility is simply an expression of disrespect, annoyance, contempt, and undervaluing of opinions, as well as an act of expressing dissatisfaction, sometimes unintentionally. Its purpose is vague and not transparent, like bullying³⁶. This behavior can be expressed through intentionally underestimating someone with words, sarcasm, irony, scolding, or using disrespectful and unprofessional language. In the context of this study, incivility is also manifested through nonverbal actions and gestures, such as glancing, glaring, staring, pushing, or issuing commands intended to enforce obedience.

The relationship between incivility and academic performance

Over the past decade, studies from multiple countries have shown that 70% of students consider incivility a moderate to severe problem⁴². In educational settings, incivility negatively impacts students' learning by inducing psychological distress, dissatisfaction with the academic environment, and a significant decline in academic performance⁴³. This may be attributed to students becoming distracted, emotionally affected, or preoccupied with the perpetrator's behavior. Sometimes, they may experience emotional hurt or develop thoughts of retaliation. Such responses ultimately divert their focus from learning and hinder their academic performance. Studies have also noted the negative consequences of incivility, including poor work performance and emotional exhaustion^{44,45}. Incivility can negatively impact the academic performance of the entire education system⁴⁶, reduce student academic performance, and lead to burnout and physical problems⁴⁷. If the intensity of the incivility increases, it will cause psychological damage to the sufferer. It is detrimental to the learning process. It leads to loss of concentration, psychological stress, dissatisfaction, increased attention to the perpetrator, emotional trauma, or even worse, the intention to take revenge for this behavior.

H1: Incivility negatively influences academic performance.

Psychological distress as a mediator

Psychological distress is the result of being exposed to the negative effects of mental stress, fatigue, and anxiety. It includes a range of symptoms of mental exhaustion, fear, anxiety, and mood disorder⁴⁸. Psychological distress is defined as a negative mental state characterized by emotions related to fear and anxiety⁴⁹. It is also an unpleasant emotional state, especially when an individual experiences it in response to a stressor⁴⁸.

Heffernan and Bosetti⁵⁰ suggested that incivility at school can contribute to increased mental health problems, causing psychological stress. COR theory also posits that when individuals are threatened by the depletion of actual resources or the loss of potential resources, harm is likely to occur^{20,26}. Numerous studies have shown that incivility not only damages physical well-being but also causes significant psychological harm, leading to emotional exhaustion and mental strain^{51,52}. Furthermore, students report stress as the most common health factor affecting their academic performance⁵³.

Previous studies have shown evidence of an inverse relationship between academic performance and psychological distress^{53,54}. Although some stress and pressure are necessary for optimal academic performance, psychological stress can impair academic performance⁵⁵, especially when the stress originates from distracting or demotivating factors, such as incivility. The psychological stress and distress it causes can impair academic performance⁵⁶.

In previous studies, negative emotions have also been found to affect academic performance, increasing the risk of dropping out and poor educational outcomes^{57,58}. These negative emotions often stem from life events, such as personal conflicts, particularly the impact of the learning environment, as most students' time is spent on study-related activities. In the context of this study, the source of negative emotions is incivility, a factor identified as potentially having a detrimental impact on academic performance.

H2: Psychological distress mediates the relationship between incivility and academic performance.

Perceived peer support as a mediator

According to COR, environmental conditions frequently hinder or contribute to the shortage of human resources. At this time, individuals tend to utilize all their remaining resources to cope with those adversities. Meanwhile, support from people around is an external resource but has a positive impact, helping to improve negative psychological factors. Peer support is a crucial source of social support for students and plays a key role in personal development during this stage^{2,59}. Peer support influences students' perceptions, beliefs, and emotional experiences. They are essential for learning, significantly impact students' lives⁶⁰, and serve as a vital psychological resource that helps adolescents cope with psychological problems.

In addition, according to Boud and Cohen⁶¹, perceived peer support refers to identifying and actively using social resources—higher students seeking advice from friends about life problems and coping with stressful situations⁶². When confronted with incivility, students seek empathy and psychological support or share their experiences with their peers. These actions serve as coping mechanisms, helping to alleviate the negative impact

that incivility may have on the individual. Exposure to incivility at school has a negative effect on academic performance. Exposure to incivility at school has a negative impact on academic performance. Accepting peer support can improve and promote academic performance¹⁴. It also has a supportive effect in coping with stress, acting as a valuable resource to reduce the negative impact of threats and alleviate secondary stress caused by these threats⁶³. Peer support is perceived as a valuable resource that people need and is considered to mediate the relationship between university incivility and academic performance. Therefore, the study proposes the following hypotheses:

H3: Perceived peer support mediates the relationship between incivility and academic performance.

The moderating role of psychological capital

Psychological capital has a positive correlation with the essence of each individual, enabling that individual to achieve positive educational outcomes⁶⁴ and providing insight into who individuals are and what they will achieve from a positive development perspective. It is “a positive psychological state manifested in the process of an individual’s maturation and development”⁶⁵. Psychological capital is positively related to academic engagement and learning experiences⁶⁶. It identifies four primary resources: self-efficacy, hope, optimism, and resilience²⁵, which collectively represent a positive psychological inclination toward personal development⁶⁷. This set of capacities serves as accessible resources that enhance individual performance and behavioral outcomes⁶⁸. People with high psychological capital are consistently confident and proactive in overcoming challenges, demonstrate resilience in adversity, and remain optimistic. Psychological capital is being researched more in the academic context and is related to performance⁶⁹.

In recent years, researchers have begun to investigate the impact of psychological capital at both the group and corporate levels⁷⁰. The benefits of high psychological capital have been explored in previous studies^{71–73}. Researchers have suggested that psychological capital can be moderated to help mitigate undesirable outcomes associated with psychological issues^{74–76}. Individuals with higher psychological capital tend to experience lower stress levels and are less likely to abandon tasks⁶⁷. Psychological capital is also associated with reduced stress and psychological exhaustion, increased job satisfaction, and mental health^{77,78}. Moreover, resilience, as a core component of psychological capital, is regarded as a psychological strength that reflects mental endurance and plays a pivotal role in sustaining individual performance, particularly in situations characterized by psychological stressors⁷⁹. Within the COR framework, psychological capital is identified as a resource that enables individuals to preserve and prevent further loss of resources by fostering positive psychological attributes. Additionally, results show that psychological capital moderates the impact of incivility on work-related psychological distress⁸⁰. To mitigate the negative impacts of dissatisfaction and uncivil behavior, researchers have proposed positive psychology as a motivator for individual development and recovery^{25,81}.

According to Luthans et al.⁸², psychological capital is a flexible state rather than a static characteristic. Therefore, these personal strengths and psychological resources can be enhanced. Psychological capital may serve as a moderator, helping to explain the means of the association between social support and academic performance⁸³. Several new studies suggest that psychological capital promotes students’ academic performance^{66,78,83}. According to Chughtai and Khan⁸⁴, self-efficacy, as a component of psychological capital, is considered a core psychological resource that reflects an individual’s belief in their ability to accomplish tasks. This factor not only enhances intrinsic motivation but also improves engagement and work performance in challenging contexts⁸⁵. Increased engagement, in turn, can help mitigate the negative impacts on work performance⁸⁶. This effect becomes even more pronounced when combined with perceived peer support, as the COR suggests that such support can expand an individual’s existing resources and compensate for those lacking or lost⁸⁷. Therefore, this study has developed the following research hypotheses:

H4: Psychological capital moderates the relationship between incivility and psychological distress.

H5: Psychological capital moderates the relationship between perceived peer support and academic performance.

The conceptual model illustrating the hypothesized relationships is presented in Fig. 1.

Methodology

Sample and procedures

This research adhered to the Declaration of Helsinki and was ethically approved by the Ethics Committee of Ho Chi Minh City Open University. It adheres to respect, autonomy, and confidentiality principles, with all participants providing informed consent. Additionally, the research has received approval from the same Ethics Committee (Decision No. 2543/QĐ-ĐHM, dated September 11, 2023).

The research framework for six hypotheses indicates the connection between incivility and students’ academic performance. University learners were selected as the subjects for the survey through convenience sampling. The survey process began with an email outlining the research and the research purpose, encouraging voluntary participation and ensuring security commitments. The questionnaire was designed with a section for basic demographic information, while the subsequent section contained questions related to the main content, measured on a 7-point Likert scale varying between “Completely Disagree” and “Completely Agree”. At the beginning of the questionnaire, some expressions of incivility (malicious glancing, glaring or staring, using disrespectful, sarcastic, offensive statements, ironic words, ...) are given. Questionnaires were sent to universities in Vietnam through the student management department and the student support department to reach the right group of students. Questionnaires were sent to universities in the area through the student management department and the student support department to reach the right group of students. The information question appeared with the content “Recently have you felt like you are facing some incivility behavior (the above expressions) from friends, teachers or school staff?” to ensure that the students participating in the survey are the ones who can answer the questionnaire most accurately. This inclusive approach provides a comprehensive understanding of the issue, as these groups represent all key actors within the academic environment with whom students

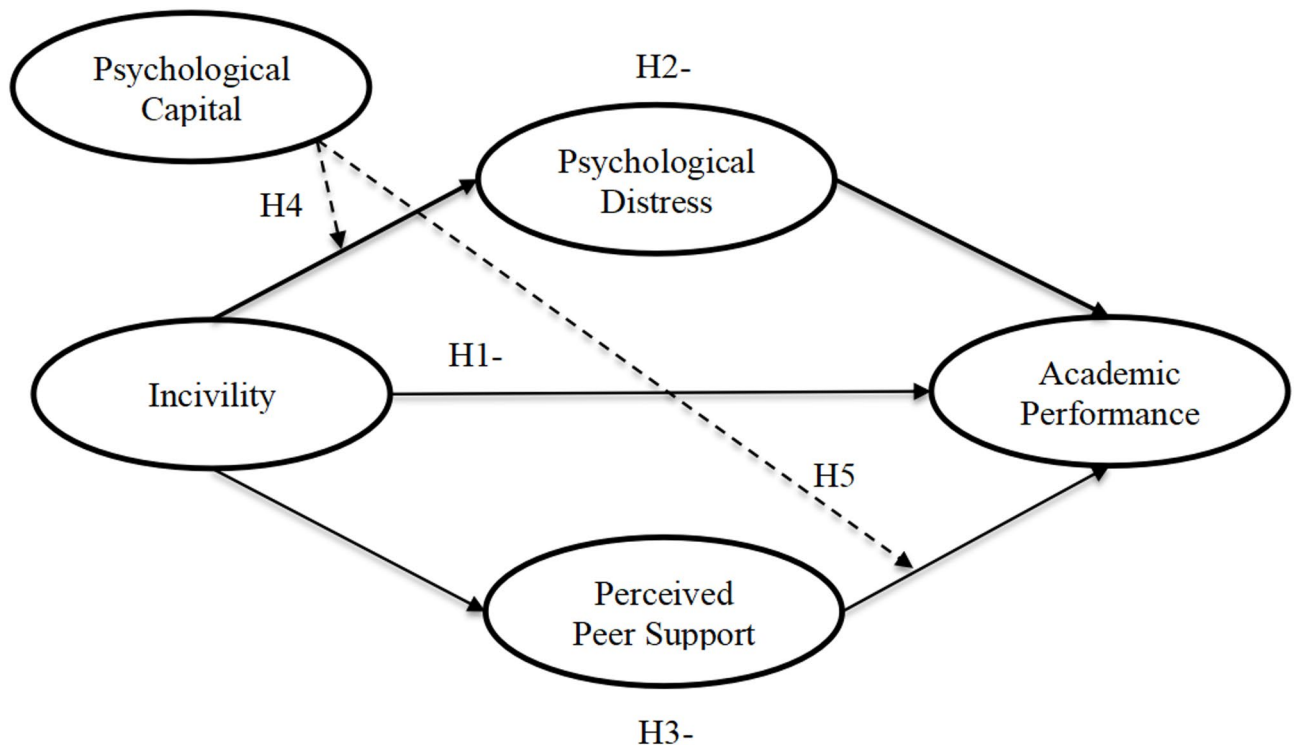


Fig. 1. Conceptual model.

interact frequently. Each group may contribute to incivility in different forms and dynamics. Teachers may exert authority-based incivility, staff may show procedural disrespect, and peers may engage in social exclusion or verbal hostility. Including all three sources allows the study to capture the full scope and frequency of incivility students may encounter during their university life. The survey aimed to collect 250 questionnaires; however, by the end of the data collection period, 266 responses were obtained.

After being encoded, the data were analyzed using SmartPLS (version 4.0), available at <https://www.smartpls.com>, to perform partial least squares structural equation modeling (PLS-SEM), for which SmartPLS is considered a leading analytical tool. The sample size was sufficient for PLS-SEM analysis, comprising 28 observed variables across six constructs. PLS-SEM is deemed the most suitable new option for replacing covariance-based structural equation modeling⁸⁸. Furthermore, PLS-SEM has recently undergone modifications, especially the moderating and mediating effects analysis⁸⁹.

Of the 266 collected responses, the majority were female, comprising 64.7% of the students, and 35.3% were male. Most surveyed students belonged to the economics-management field, accounting for 40.2%, followed by social sciences and humanities group students with 27.1%, and natural sciences and engineering with 21.4%. Finally, the remaining 11.3% were surveys conducted by students in the Medical field. All participants in this survey were students enrolled at universities in Vietnam.

Measures

Incivility behavior is measured using six items from the incivility behavior scale developed by⁹⁰. The concept of perceived peer support is adapted from the research by², consisting of four questions. At the same time, psychological distress is measured using six scale items in⁹¹. The questions on psychological capital are derived from the compound PsyCap scale by⁹². The academic performance is measured by four items from⁹³. All measurement scales used in this study were selected based on their conceptual alignment with the theoretical constructs under investigation. Additionally, these scales have been widely adopted in previous studies on similar topics across various geographical contexts.

Results

Assessment of the measurement model

Data validity

The scale evaluation was implemented to consider the reliability of the structures in the research. The reliability can be estimated by Cronbach's α (α) and composite reliability (CR). The general principle for those criteria is that they should exceed 0.70. The Cronbach's α values are above the 0.70 threshold, and all composite reliability values, ranging from a minimum of 0.867 (PPS) to a maximum of 0.907 (PsyDis), meet the requirements. Based on these results, it can be confirmed that the concepts in the model are highly reliable. At the same time, the lowest composite reliability value was 0.907, and the highest was 0.933 (>0.7), indicating that the observed variables meet the reliability criteria⁹⁴.

Construct	AVE	α	CR	λ	VIF	R^2	Q^2
Incivility	0.621	0.878	0.907	0.742–0.837	1.758–2.483		
Perceived peer support	0.715	0.867	0.909	0.809–0.877	1.914–2.395	0.096	0.087
Academic performance	0.778	0.905	0.933	0.824–0.906	2.155–3.170	0.405	0.156
Psychological capital	0.568	0.891	0.913	0.708–0.832	1.817–2.432		
Psychological distress	0.684	0.907	0.928	0.788–0.867	2.033–2.769	0.229	0.194

Table 1. Data validity criteria.

Construct	AcaPerf	INCI	PPS	PsyCap	PsyDis
Academic performance (AcaPerf)					
Incivility (INCI)	0.431				
Perceived peer support (PPS)	0.527	0.349			
Psychological capital (PsyCap)	0.136	0.153	0.100		
Psychological distress (PsyDis)	0.468	0.469	0.147	0.245	

Table 2. Heterotrait-Monotrait ratio.

Data processing outcomes indicate the lack of multicollinearity, as all items' variance inflation factor (VIF) values are below the suggested threshold of 5. Convergent validity was assessed using the extracted average variance, where values higher than 0.5 should be achieved⁹⁵. The association level between variables is demonstrated through the outer loading (λ) scores, with values greater than or equal to 0.7, which were satisfied by the observed variables⁹⁶. The results are presented in Table 1.

Discriminant validity was also assessed using the Heterotrait-Monotrait Ratio (HTMT). The correlation values for all pairs were below the maximum threshold of 0.85, indicating sufficient distinctiveness (see Table 2).

Examination of the structural model

The research model's structural model of total variance is calculated with R^2 . It measures the extent to which the sample can illustrate the data variability. A higher R^2 value indicates a more adequate explanation of the relationships within the model. R^2 values of 0.75, 0.50, and 0.25 are considered substantial, moderate, and weak, respectively⁹⁷. The R^2 (Table 1) of academic performance (0.405), perceived peer support (0.096), and psychological distress (0.229) indicate a relatively predictive level. The R^2 of academic performance is 0.405, suggesting that all the independent variables collectively demonstrate 40.5% of the variance in academic performance. Using the blindfolding predictive validity assessment method, the Q^2 values in Table 1 for academic performance (0.156), peer support perception (0.087), and psychological distress (0.194) indicate a substantial predictive level.

Hypotheses testing

The bootstrap technique determines the statistical significance of research hypotheses. Hair Jr et al.⁹⁸ propose using bootstrapping confidence intervals to test significance in cases where the bootstrap distribution of indicator weights is skewed. The bootstrapping method calculates T-values to examine whether there is a significant difference in path coefficients from zero. In this study, non-parametric significance testing is conducted through 5,000 bootstrap iterations to ensure the reliability of the linear structural model. The coefficients are also obtained using the PLS algorithm.

Data analysis shows that the results are as predicted in the hypothesis. The degree of influence of incivility on academic performance varies depending on the direct impact and through positive and negative intermediaries. Expressly, hypothesis H1 is accepted with $\beta = -0.127$ ($p = 0.065$). This result proves that the assumption of this study is correct that incivility has a negative impact on academic performance. Besides, when considering the mediating role of perceived peer support, although the positive aspect of perceived peer support cannot eliminate the negative impact of incivility on academic performance, it somewhat reduces the negative level ($\beta = -0.115$; $p = 0.000$). In this case, the negative relationship between incivility and academic performance has been reduced through the mediating effect of perceived peer support.

Psychological distress is the opposite if perceived peer support is a positive factor. In hypothesis H2, with $\beta = -0.132$ ($p = 0.000$), under the influence of the mediator psychological distress, a factor of negative psychological nature, it increases the level of impact of incivility on academic performance. More specifically, when faced with incivility situations, if individuals are having psychological problems, their academic performance will be more negatively impacted. Through this, it can be seen that the exact impact of incivility on academic performance, with a direct relationship, affects through intermediaries is positive (perceived peer support) and negative (psychological distress). The results were entirely consistent with the proposed hypotheses. The level of impact tends to increase or decrease depending on the positive and negative nature of the intermediate factor.

However, the surprising finding is that hypothesis H5 is rejected ($\beta = -0.086$; $p = 0.176$). Specifically, psychological capital does not demonstrate its moderating effect on the connection between perceived peer support and academic performance. On the contrary, with the weak effects ($\beta = -0.110$; $p = 0.084$), psychological

Hypothesis	Relationship	β	T	P	Result
H1	INCI \rightarrow AcaPerf	-0.127	1.846	0.065	Supported
H2	INCI \rightarrow PsyDis \rightarrow AcaPerf	-0.132	4.535	0.000	Supported
H3	INCI \rightarrow PPS \rightarrow AcaPerf	-0.115	3.664	0.000	Supported
H4	PsyCap x (INCI \rightarrow PsyDis)	-0.110	1.726	0.084	Supported
H5	PsyCap x (PPS \rightarrow AcaPerf)	-0.086	1.354	0.176	Not Supported

Table 3. Study results.

capital is confirmed to moderate the impact from incivility to academic performance. A summary of the findings is presented in Table 3.

Discussion and conclusion

Based on the COR framework, this study was conducted to test the direct relationship between incivility and academic performance and examine the mediating role of peer support and psychological distress. In addition, psychological capital was also included in the model as a moderator of the relationship between incivility and psychological distress, as well as how perceived peer support affects academic performance. Although there are many studies on incivility, the integration of these critical factors is often overlooked. The proposed research model was evaluated for its potential to explain the impact of these factors, and clear evidence was provided through the analysis of empirical data.

Specifically, incivility has been shown to negatively impact academic performance. According to COR, environmental circumstances often threaten or deplete human resources. When students face incivility without timely resistance, it leads to fear and anxiety, subsequently affecting academic performance. Prior investigations have confirmed the negative consequences of incivility, including insufficient attachment and job performance^{80,99}. Indeed, incivility can negatively impact academic achievement in education⁴⁶. In the classroom, it affects learning, causing students to report decreased satisfaction with their program, psychological distress, and poor academic performance⁴³. This finding is consistent with previous research (e.g.^{100,101}), that students exposed to incivility and similar events show problems with cognitive functioning and achievement, which affect their academic performance.

Next, the results of this study also showed that the mediating role of perceived peer support negatively affected the impact of incivility on academic performance. As expected, although this was still a negative impact, the level of impact between incivility and academic performance under the mediation of perceived peer support was reduced, demonstrating that perceived peer support had a supportive effect. Specifically, one of the primary sources of social support during adolescence, perceived peer support, is a fundamental part of the social and psychological environment². Students who experience incivility will often seek help and support from their peers, specifically their friends. This support, even if it is simply listening, has helped individual students reduce their negative state. In addition, friends will also be a great source of academic support if someone in the group has problems with knowledge. The results of this study and previous research^{102,103} demonstrate that perceived peer support affects academic performance. Student academic achievements result from both psychological support and support from friends¹⁰⁴. They are also the closest and quickest to notice when their friends show unusual behavior, even witnessing their friends facing incivility. Peers' immediacy, closeness, and support capacity are truly immense and help reduce incivility's impact on academic performance to some extent.

Meanwhile, psychological distress, which plays a similar role to perceived peer support, exacerbates the negative impact of incivility on academic performance. According to COR, when individuals experience adverse events, this will cause a loss of resources and lead to negative psychological effects²⁰. It proves that students' moods will be negatively affected when they encounter incivility. It will cause dissatisfaction, skepticism, and self-questioning if they cannot find a reason to explain their behavior. Constantly thinking and questioning this issue causes individuals to waste and lose resources, affecting their academic performance. In addition, incivility, by definition, is also a manifestation of disrespect. In the educational environment, students often have an equal role with their friends while they are customers of academic services. Finding themselves facing incivility and disrespect makes students feel out of place in a place where they should receive protection and behave correctly, thus neglecting their studies.

The negative impact of incivility is substantial. However, the negative impacts depend on a person's psychological capital, as it gives individuals the mental flexibility to cope effectively with issues¹⁰⁵. The results of this study demonstrated that psychological capital plays a moderating role in the relationship between incivility and psychological distress. When individuals have high psychological capital, with positive psychological characteristics and thinking, it will also help students be self-aware of what is essential and not worth worrying about, directing their attention to better values. It helps them understand that incivility from someone may not be intentional or that person is not significant enough to make them pay attention and think so much, thereby making their psychology and spirit not affected too much. Moreover, this way of thinking and thinking of people with psychological capital is also the way the resource conservation principle of COR operates.

In Kos's study¹⁰⁶, results show that increased perceived peer support will lead to more psychological capital and ultimately improve academic performance. However, contrary to this hypothesis, the study does not find experimental evidence that it moderates the connection between perceived peer support and academic performance. An explanation for this could be that psychological capital and perceived peer support for the students in this study are unrelated. Psychological capital is considered a subjective personal capability about

an individual's mental state⁷⁵, while peer support is an objective impact from external sources. Peer support is an active support source for individuals¹⁰⁷. However, the perception and awareness of its existence vary from person to person. Everyone's support sources are different, it cannot be assumed that students with similar psychological capital will have equivalent perceptions of support.

Moreover, students experiencing discourteous behavior have their knowledge acquisition affected, leading to adverse effects on academic performance. Even with high psychological capital, it cannot compensate for the impacted academic knowledge. In this case, students' psychological capital becomes less significant, and its role is replaced by peer support. A possible reason is that for students enduring incivility impacting academic performance, psychological capital initially provides mental support. However, as students transition to receiving peer support, psychological capital may no longer exert its intended effects.

Implications

This study holds significant implications for understanding incivility and students' academic performance. Firstly, the research strongly reflects the impact of all factors related to students' incivility. Perceived peer support was identified as helping minimize incivility's impact on students. What is more, this factor appears to help improve academic performance. Secondly, findings regarding psychological distress are considered crucial in the relationship between incivility and academic performance. The research also focuses on the psychological capital moderated impact in the influence of negative factors on students' academic performance. Students are likely to have poorer academic performance if they do not receive support from perceived peer relationships.

Creating a positive and safe learning environment to protect students from the adverse impacts of incivility is essential. This requires collaboration, engagement from all parties, including students, faculty, and administrators. Additionally, educational institutions should implement counseling and psychological support services while developing life skills training programs. By applying the proposed suggestions and solutions, there is a need to enhance training and education on communication skills, conflict resolution, building relationships, and social connections.

Limitations and directions for future research

Although the discoveries are meaningful, this article has limits and exits several available aspects for forthcoming studies. All concepts were considered through self-report questionnaires. Additionally, the study only focused on testing the moderating effect of psychological capital on the relationship between incivility and psychological distress without finding evidence to support psychological capital in moderating the connection between perceived peer support and academic performance. Therefore, future research may explore assessing the moderating impact of psychological capital on other relationships for a more comprehensive understanding.

Data availability

The data supporting this study will be made available upon reasonable request. Please contact the corresponding author [LanAnh Thuy Nguyen], at the email address anhntl.238b@ou.edu.vn for any data requests related to this study.

Received: 16 February 2025; Accepted: 25 June 2025

Published online: 01 July 2025

References

1. Abdellatif, M. S. Modeling the relationships between academic boredom, Self-Compassion, and quality of academic life among university students. *SAGE Open*. **12** (4). <https://doi.org/10.1177/21582440221141703> (2022).
2. Song, J., Bong, M., Lee, K. & Kim, S. I. Longitudinal investigation into the role of perceived social support in adolescents' academic motivation and achievement. *J. Educ. Psychol.* **107** (3), 821–841 (2015).
3. Hudgins, T., Layne, D., Kusch, C. E. & Lounsbury, K. An analysis of the perceptions of incivility in higher education. *J. Acad. Ethics*. **21** (2), 177–191 (2023).
4. Knepp, K. A. & Knepp, M. M. Academic entitlement decreases engagement in and out of the classroom and increases classroom incivility attitudes. *Soc. Psychol. Educ.* **25** (5), 1113–1134 (2022).
5. Al-Jubouri, M. B. et al. Incivility among nursing faculty: A multi-country study. *J. Prof. Nurs.* **37** (2), 379–386 (2021).
6. Shin, G., Hur, W. M. & Shin, Y. Does person-job fit buffer employees from rumination about customer incivility? *Curr. Psychol.* **43** (8), 7411–7423 (2024).
7. Fontenot, J., Hebert, M., Stefanski, R. & Morris, D. Systemic antecedents of academic incivility in nursing: an integrative review. *Teach. Learn. Nurs.* **19** (2), 192–201 (2024).
8. Segrist, D., Bartels, L. K. & Nordstrom, C. R. But everyone else is doing it: a social norms perspective on classroom incivility. *Coll. Teach.* **66** (4), 181–186 (2018).
9. Agarwal, S. et al. Workplace incivility: A retrospective review and future research agenda. *Saf. Sci.* **158**, 105990. <https://doi.org/10.1016/j.ssci.2022.105990> (2023).
10. Sirry, M. I., Suyanto, B., Sugihartati, R., Hidayat, M. A. & Srimulyo, K. Fragile civility and the seeds of conflict among youth in contemporary Indonesia. *Asian J. Comp. Politics*. **7** (4), 988–1007 (2022).
11. Nguyen, K. *Vietnamese American College Students' Classroom Participation and the Impact of Asian Values and Model Minority Expectations* (Doctoral dissertation, Alliant International University, 2023).
12. Hoang, T. H. & Pham, T. N. T. Hierarchy in high school English classrooms in Vietnam in Identity, Equity and Social Justice in *Asia Pacific Education* (eds. Chowdhury, R. & Yazdanpanah, L. K.) 137–155 (Monash University Publishing, 2019).
13. Griffin, L. & Baverstock, A. Medical student perceptions and experiences of incivility: a qualitative study. *BMC Med. Educ.* **23** (1), 404. <https://doi.org/10.1186/s12909-023-04354-6> (2023).
14. Ahmed, W., Minnaert, A., van der Werf, G. & Kuyper, H. Perceived social support and early adolescents' achievement: the mediational roles of motivational beliefs and emotions. *J. Youth Adolesc.* **39** (1), 36–46 (2010).
15. Kiuru, N. et al. Associations between adolescents' interpersonal relationships, school well-being, and academic achievement during educational transitions. *J. Youth Adolesc.* **49** (5), 1057–1072 (2020).

16. Bakker, A. B. & van Wingerden, J. Do personal resources and strengths use increase work engagement? The effects of a training intervention. *J. Occup. Health Psychol.* **26** (1), 20–30 (2021).
17. Taschereau-Dumouchel, V., Michel, M., Lau, H., Hofmann, S. G. & LeDoux, J. E. Putting the mental back in mental disorders: a perspective from research on fear and anxiety. *Mol. Psychiatry*. **27** (3), 1322–1330 (2022).
18. Massé, R. Qualitative and quantitative analyses of psychological distress: methodological complementarity and ontological incommensurability. *Qual. Health Res.* **10** (3), 411–423 (2000).
19. Carmona-Halty, M., Salanova, M., Llorens, S. & Schaufeli, W. B. Linking positive emotions and academic performance: the mediated role of academic psychological capital and academic engagement. *Curr. Psychol.* **40** (6), 2938–2947 (2021).
20. Hobfoll, S. E. Conservation of resources: A new attempt at conceptualizing stress. *Am. Psychol.* **44** (3), 513–524 (1989).
21. Halbesleben, J. R., Neveu, J. P., Paustian-Underdahl, S. C. & Westman, M. Getting to the COR Understanding the role of resources in conservation of resources theory. *J. Manag.* **40** (5), 1334–1364 (2014).
22. M Arkin, A. *Sleep talking: psychology and psychophysiology* (Psychology Press, 2018).
23. Hobfoll, S. E. The influence of culture, community, and the nested-self in the stress process: advancing conservation of resources theory. *Appl. Psychol.* **50** (3), 337–421 (2001).
24. Robinson, S. L., Wang, W. & Kiewitz, C. Coworkers behaving badly: the impact of coworker deviant behavior upon individual employees. *Annu. Rev. Organ. Psychol. Organ. Behav.* **1** (1), 123–143 (2014).
25. Luthans, F., Avolio, B. J., Avey, J. B. & Norman, S. M. Positive psychological capital: measurement and relationship with performance and satisfaction. *Pers. Psychol.* **60** (3), 541–572 (2007).
26. Hobfoll, S. E., Halbesleben, J., Neveu, J. P. & Westman, M. Conservation of resources in the organizational context: the reality of resources and their consequences. *Annual Rev. Organizational Psychol. Organizational Behav.* **5** (1), 103–128 (2018).
27. O'Connor, M. C. & Paunonen, S. V. Big five personality predictors of post-secondary academic performance. *Pers. Individ. Differ.* **43** (5), 971–990 (2007).
28. Halimi, F., AlShammari, I. & Navarro, C. Emotional intelligence and academic achievement in higher education. *J. Appl. Res. High. Educ.* **13** (2), 485–503 (2021).
29. York, T. T., Gibson, C. & Rankin, S. Defining and measuring academic success. *Practical Assess. Res. Evaluation*. **20** (1), 5. <https://doi.org/10.7275/hz5x-tx03> (2019).
30. Alhadabi, A. & Karpinski, A. C. Grit, self-efficacy, achievement orientation goals, and academic performance in university students. *Int. J. Adolescence Youth*. **25** (1), 519–535 (2020).
31. Schilpzand, P., De Pater, I. E. & Erez, A. Workplace incivility: A review of the literature and agenda for future research. *J. Organizational Behav.* **37**, S57–S88 (2016).
32. Huang, H. T. & Lin, C. P. Assessing ethical efficacy, workplace incivility, and turnover intention: a moderated-mediation model. *Rev. Managerial Sci.* **13** (1), 33–56 (2019).
33. Arasli, H., Namin, H., Abubakar, A. M. & B., & Workplace incivility as a moderator of the relationships between polychronicity and job outcomes. *Int. J. Contemp. Hospitality Manage.* **30** (3), 1245–1272 (2018).
34. Gupta, A. et al. Vicenarian of workplace incivility: a bibliometric analysis and systematic review. *EuroMed J. Bus.* **20** (1), 52–74 (2025).
35. Andersson, L. M. & Pearson, C. M. Tit for tat? The spiraling effect of incivility in the workplace. *Acad. Manage. Rev.* **24** (3), 452–471 (1999).
36. Hershcovis, M. S. Incivility, social undermining, bullying... oh my! A call to reconcile constructs within workplace aggression research. *Journal of Organizational Behavior*. **32**(3), 499–519 (2011).
37. Hodgins, M. & McNamara, P. M. An enlightened environment? Workplace bullying and incivility in Irish higher education. *SAGE Open*. **9** (4), 2158244019894278. <https://doi.org/10.1177/2158244019894278> (2019).
38. Bai, Q., Zhang, Y., Dan, Q. & Kishimoto, T. Understanding school incivility: exploring its impact on students and practical interventions. *Comput. Hum. Behav.* **152**, 108037. <https://doi.org/10.1016/j.chb.2023.108037> (2024).
39. Camodeca, M. & Nava, E. The long-term effects of bullying, victimization, and bystander behavior on emotion regulation and its physiological correlates. *J. Interpers. Violence*. **37**(3–4), 2056–2075 (2022).
40. Khan, H. S. U. D., Cristofaro, M., Chughtai, M. S. & Baiocco, S. Understanding the psychology of workplace bullies: the impact of dark tetrad and how to mitigate it. *Manage. Res. Rev.* **46** (12), 1748–1768 (2023).
41. Tay, E. M. K. & Zampore, S. Exploring the relationship between the learning environment and bullying: PLS-SEM evidence from Norwegian higher education. *Learning Environ.* **27**, 1–35 (2024).
42. Clark, C. M. & Springer, P. J. Incivility in nursing education: a descriptive study of definitions and prevalence. *J. Nurs. Educ.* **46** (1), 7–14 (2007).
43. Sauer, P. A., Hannon, A. E. & Beyer, K. B. Peer incivility among prelicensure nursing students: A call to action for nursing faculty. *Nurse Educ.* **42** (6), 281–285 (2017).
44. Ugwu, F. O. et al. Supervisor and customer incivility as moderators of the relationship between job insecurity and work engagement: evidence from a new context. *Econ. Ind. Democr.* **44** (2), 504–525 (2023).
45. Welbourne, J. L., Miranda, G. & Gangadharan, A. Effects of employee personality on the relationships between experienced incivility, emotional exhaustion, and perpetrated incivility. *Int. J. Stress Manage.* **27** (4), 335–345 (2020).
46. Clark, C. M. National study on faculty-to-faculty incivility: strategies to foster collegiality and civility. *Nurse Educ.* **38** (3), 98–102 (2013).
47. Sliter, M. T. & Boyd, E. M. Two (or three) is not equal to one: multiple jobholding as a neglected topic in organizational research. *J. Organizational Behav.* **35** (7), 1042–1046 (2014).
48. Ridner, S. H. Psychological distress: concept analysis. *J. Adv. Nurs.* **45** (5), 536–545 (2004).
49. Drapeau, A., Marchand, A. & Beaulieu-Prévost, D. Epidemiology of psychological distress. Mental illnesses-understanding. *Prediction Control*. **69** (2), 105–106 (2012).
50. Heffernan, T., Bosetti, L. & Incivility The new type of bullying in higher education. *Camb. J. Educ.* **51** (5), 641–652 (2021).
51. Timming, A. R., Carpini, J. A., Hirst, T. M., Tian, A. W. & Notebaert, L. Experienced incivility undermines the positive effects of job autonomy on mental and physical health. *Int. J. Hum. Resource Manage.* **35** (4), 563–586 (2024).
52. Geldart, S. et al. Workplace incivility, psychological distress, and the protective effect of co-worker support. *Int. J. Workplace Health Manage.* **11** (2), 96–110 (2018).
53. Frazier, P., Gabriel, A., Merians, A. & Lust, K. Understanding stress as an impediment to academic performance. *J. Am. Coll. Health.* **67** (6), 562–570 (2019).
54. Choi, C., Lee, J., Yoo, M. S. & Ko, E. South Korean children's academic achievement and subjective well-being: the mediation of academic stress and the moderation of perceived fairness of parents and teachers. *Child Youth Serv. Rev.* **100**, 22–30 (2019).
55. Dyrbye, L. N., Thomas, M. R. & Shanafelt, T. D. Medical student distress: causes, consequences, and proposed solutions. *In Mayo Clinic Proceedings*. **80**(12), 1613–1622 (2005).
56. Alva, S. A. & de Reyes, L. Psychosocial stress, internalized symptoms, and the academic achievement of Hispanic adolescents. *J. Adolesc. Res.* **14** (3), 343–358 (1999).
57. Hughes, J. N. & Cao, Q. Trajectories of teacher-student warmth and conflict at the transition to middle school: effects on academic engagement and achievement. *J. Sch. Psychol.* **67**, 148–162 (2018).
58. Tuominen-Soini, H. & Salmela-Aro, K. Schoolwork engagement and burnout among Finnish high school students and young adults: profiles, progressions, and educational outcomes. *Dev. Psychol.* **50** (3), 649–662 (2014).

59. Martin, A. J. & Dowson, M. Interpersonal relationships, motivation, engagement, and achievement: yields for theory, current issues, and educational practice. *Rev. Educ. Res.* **79** (1), 327–365 (2009).
60. Schwab, S. Teachers' student-specific self-efficacy in relation to teacher and student variables. *Educational Psychol.* **39** (1), 4–18 (2019).
61. Boud, D. & Cohen, R. *Peer Learning In Higher Education: Learning From And With Each Other* (Routledge, 2014).
62. Räisänen, M., Postareff, L. & Lindblom-Ylänne, S. Students' experiences of study-related exhaustion, regulation of learning, peer learning and peer support during university studies. *Eur. J. Psychol. Educ.* **36**, 1135–1157 (2021).
63. Heaney, C. A. & Israel, B. A. Social networks and social support. *Health Behav. Health Education: Theory Res. Pract.* **4** (1), 189–210 (2008).
64. Luthans, F., Youssef, C. M. & Human Social, and now positive psychological capital management: investing in people for competitive advantage. *Organ. Dyn.* **33** (2), 143–160 (2004).
65. Luthans, F. & Youssef, C. M. Emerging positive organizational behavior. *J. Manag.* **33** (3), 321–349 (2007).
66. Chen, P. L., Lin, C. H., Lin, I. H. & Lo, C. O. The mediating effects of psychological capital and academic self-efficacy on learning outcomes of college freshmen. *Psychol. Rep.* **126** (5), 2489–2510 (2023).
67. Avey, J. B., Luthans, F. & Jensen, S. M. Psychological capital: A positive resource for combating employee stress and turnover. *Hum. Resour. Manag.* **48** (5), 677–693 (2009).
68. Haddoud, M. Y., Nowiński, W., Laouiti, R. & Onjewu, A. K. E. Entrepreneurial implementation intention: the role of psychological capital and entrepreneurship education. *Int. J. Manage. Educ.* **22** (2), 100982. <https://doi.org/10.1016/j.ijme.2024.100982> (2024).
69. Martínez, I. M., Youssef-Morgan, C. M., Chambel, M. J. & Marques-Pinto, A. Antecedents of academic performance of university students: academic engagement and psychological capital resources. *Educational Psychol.* **39** (8), 1047–1067 (2019).
70. van Dijk, H., Kooij, D., Karanika-Murray, M., De Vos, A. & Meyer, B. Meritocracy a myth? A multilevel perspective of how social inequality accumulates through work. *Organizational Psychol. Rev.* **10** (3–4), 240–269 (2020).
71. Pathak, D. & Joshi, G. Impact of psychological capital and life satisfaction on organizational resilience during COVID-19: Indian tourism insights. *Curr. Issues Tourism.* **24** (17), 2398–2415 (2021).
72. Datu, J. A. D. & Valdez, J. P. M. Psychological capital predicts academic engagement and Well-Being in Filipino high school students. *Asia-Pacific Educ. Researcher.* **3** (25), 399–405 (2016).
73. Wang, H. U. I., Sui, Y., Luthans, F., Wang, D. & Wu, Y. Impact of authentic leadership on performance: role of followers' positive psychological capital and relational processes. *J. Organizational Behav.* **35** (1), 5–21 (2014).
74. Al Nahyan, M. T. et al. Employee job security and job performance: the mediating role of well-being and the moderating role of perceived organizational support and psychological capital. *Eur. J. Manage. Bus. Econ.* <https://doi.org/10.1108/ejmb-e-01-2023-0011> (2024).
75. Darvishmotevali, M. & Ali, F. Job insecurity, subjective well-being and job performance: the moderating role of psychological capital. *Int. J. Hospitality Manage.* **87**, 102462. <https://doi.org/10.1016/j.ijhm.2020.102462> (2020).
76. Kalyar, M. N., Saeed, M., Usta, A. & Shafique, I. Workplace cyberbullying and creativity: examining the roles of psychological distress and psychological capital. *Manage. Res. Rev.* **44** (4), 607–624 (2021).
77. Brunetto, Y., Rodwell, J., Shacklock, K., Farr-Wharton, R. & Demir, D. The impact of individual and organizational resources on nurse outcomes and intent to quit. *J. Adv. Nurs.* **72** (12), 3093–3103 (2016).
78. Li, R., Che Hassan, N. & Saharuddin, N. Psychological capital related to academic outcomes among university students: a systematic literature review. *Psychol. Res. Behav. Manage.* **16**, 3739–3763 (2023).
79. Salah ud din Khan, H., Salman Chughtai, M. & Zhiqiang, M. Empowering leadership and occupational burnout: the moderated mediation model. *BMC Psychol.* **13** (1), 378. <https://doi.org/10.1186/s40359-025-02492-8> (2025).
80. Al-Zyoud, M. F. & Mert, İ. S. Does employees' psychological capital buffer the negative effects of incivility? *EuroMed J. Bus.* **14** (3), 239–250 (2019).
81. Luthans, F., Avey, J. B., Avolio, B. J., Norman, S. M. & Combs, G. M. Psychological capital development: toward a micro-intervention. *J. Organizational Behavior: Int. J. Industrial Occup. Organizational Psychol. Behav.* **27** (3), 387–393 (2006).
82. Luthans, F., Youssef, C. M. & Avolio, B. J. *Psychological Capital: Developing the Human Competitive Edge* (Oxford University Press, 2007).
83. Siu, O. L., Lo, B. C. Y., Ng, T. K. & Wang, H. Social support and student outcomes: the mediating roles of psychological capital, study engagement, and problem-focused coping. *Curr. Psychol.* **42** (4), 2670–2679 (2023).
84. Chughtai, M. S. & Khan, H. S. U. D. Knowledge oriented leadership and employees' innovative performance: a moderated mediation model. *Curr. Psychol.* **43** (4), 3426–3439 (2024).
85. ud din Khan, H. S., Li, P., Chughtai, M. S., Mushtaq, M. T. & Zeng, X. The role of knowledge sharing and creative self-efficacy on the self-leadership and innovative work behavior relationship. *J. Innov. Knowl.* **8** (4), 100441. <https://doi.org/10.1016/j.jik.2023.100441> (2023).
86. Khan, H. S. U. D., Ma, Z., Chughtai, M. S. & Li, M. Investigation of cascading effects of perceiving a calling on occupational burnout: a mediated moderation model. *Current Psychol.* **42**, 1–11 (2021).
87. Alarcon, G. M., Edwards, J. M. & Menke, L. E. Student burnout and engagement: A test of the conservation of resources theory. *J. Psychol.* **145** (3), 211–227 (2011).
88. Henseler, J., Ringle, C. M. & Sinkovics, R. R. The use of partial least squares path modeling in international marketing. In *New Challenges To International Marketing* (eds. Cavusgil, T., Sinkovics, R. R. & Ghauri, P. N.) 277–319 (Emerald Group Publishing Limited, 2009).
89. Hair, J. F., Sarstedt, M., Ringle, C. M. & Mena, J. A. An assessment of the use of partial least squares structural equation modeling in marketing research. *J. Acad. Mark. Sci.* **40** (3), 414–433 (2012).
90. Cortina, L. M., Magley, V. J., Williams, J. H. & Langhout, R. D. Incivility in the workplace: incidence and impact. *J. Occup. Health Psychol.* **6** (1), 64–80 (2001).
91. Radloff, L. S. The CES-D scale: A self-report depression scale for research in the general population. *Appl. Psychol. Meas.* **1** (3), 385–401 (1977).
92. Lorenz, T., Beer, C., Pütz, J. & Heinitz, K. Measuring psychological capital: construction and validation of the compound PsyCap scale (CPC-12). *PLOS One.* **11** (4), 1–17 (2016).
93. Alvarez-Risco, A. et al. Multitasking behavior in online classrooms and academic performance: case of university students in Ecuador during COVID-19 outbreak. *Interact. Technol. Smart Educ.* **18** (3), 422–434 (2021).
94. Hair, J. F., Risher, J. J., Sarstedt, M. & Ringle, C. M. When to use and how to report the results of PLS-SEM. *Eur. Bus. Rev.* **31** (1), 2–24 (2019).
95. Salem, S. F. & Alanadoly, A. B. Personality traits and social media as drivers of word-of-mouth towards sustainable fashion. *J. Fashion Mark. Management: Int. J.* **25** (1), 24–44 (2021).
96. Sarstedt, M., Ringle, C. M. & Hair, J. F. Partial Least Squares Structural Equation Modeling. In *Handbook of market research* (eds. Homburg, C., Klarmann, M. & Vomberg, A.) 587–632 (Springer International Publishing, 2021).
97. Sarstedt, M., Hair Jr, J. F. & Ringle, C. M. PLS-SEM: indeed a silver bullet—retrospective observations and recent advances. *J. Mark. Theory Pract.* **31** (3), 261–275 (2023).
98. Hair, J. F. Jr et al. *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook* (Springer, 2021).
99. Im, A. Y., Cho, S. & Kim, D. Y. The cost of rude customers: customer incivility and employee performance. *Curr. Issues Tourism.* **27** (13), 2031–2047 (2024).

100. Delaney-Black, V. et al. Violence exposure, trauma, and IQ and/or reading deficits among urban children. *Arch. Pediatr. Adolesc. Med.* **156** (3), 280–285 (2002).
101. Margolin, G. & Gordis, E. B. The effects of family and community violence on children. *Ann. Rev. Psychol.* **51** (1), 445–479 (2000).
102. Mishra, S. Social networks, social capital, social support and academic success in higher education: A systematic review with a special focus on ‘underrepresented’ students. *Educational Res. Rev.* **29**, 100307. <https://doi.org/10.1016/j.edurev.2019.100307> (2020).
103. Double, K. S., McGrane, J. A. & Hopfenbeck, T. N. The impact of peer assessment on academic performance: A Meta-Analysis of control group studies. *Educational Psychol. Rev.* **32** (2), 481–509 (2020).
104. Alsubaie, M. M., Stain, H. J., Webster, L. A. D. & Wadman, R. The role of sources of social support on depression and quality of life for university students. *Int. J. Adolescence Youth.* **24** (4), 484–496 (2019).
105. Baron, R. A., Franklin, R. J. & Hmieleski, K. M. Why entrepreneurs often experience low, not high, levels of stress: the joint effects of selection and psychological capital. *J. Manag.* **42** (3), 742–768 (2016).
106. Kos, T. Exploring peer support among young learners during regular EFL classroom lessons. *Int. J. Appl. Linguistics.* **33** (2), 169–189 (2023).
107. Selkie, E., Adkins, V., Masters, E., Bajpai, A. & Shumer, D. Transgender adolescents’ uses of social media for social support. *J. Adolesc. Health.* **66** (3), 275–280 (2020).

Author contributions

The contributions of the authors are as follows: Minh Pham contributed to the methodology, investigation, and writing – review and editing. LanAnh Thuy Nguyen was responsible for formal analysis, conceptualization and, writing – review and editing. Anh Tram Tuong Nguyen contributed to writing – original draft, conceptualization, and investigation. Anh Van Nguyen contributed to writing – original draft, conceptualization, and methodology.

Declarations

Competing interests

The authors declare no competing interests.

Additional information

Correspondence and requests for materials should be addressed to L.T.N.

Reprints and permissions information is available at www.nature.com/reprints.

Publisher’s note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Open Access This article is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License, which permits any non-commercial use, sharing, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if you modified the licensed material. You do not have permission under this licence to share adapted material derived from this article or parts of it. The images or other third party material in this article are included in the article’s Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article’s Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/>.

© The Author(s) 2025