Original article

The influence of self-leadership on students' academic burnout: the mediating role of study-life conflict

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Abstract

Objective: To investigate the association among self-leadership, study-life conflict, and academic burnout among university students.

Methods: An online cross-sectional study was conducted among undergraduates across Thailand, selected through convenience sampling. The research instruments comprised the Maslach Burnout Inventory for students, the Abbreviated Self-Leadership Questionnaire, the Study-Life Conflict Scale, and personal information sheet. The mediation effect was tested using a statistical software (PROCESS, Model 4).

Results: A total of 601 participants, 62.9% female, with a mean age of 20.17 years, completed the questionnaires. Self-leadership was negatively correlated with academic burnout, a significance evident in both the direct effects (β = -.25, $p < .01$) and the indirect effect (β = -.05, $p < .01$). Study-life conflict was observed to mediate the relationship between self-leadership and academic burnout.

Conclusion: Self-leadership could mitigate academic burnout among Thai university students both directly and indirectly by reducing study-life conflict.

Keywords: academic burnout, self-leadership, study-life conflict, university students

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นิพนธ์ต้นฉบับ

อิทธิพลของภาวะผู้นำตนเองที่มีต่อภาวะหมดไฟในการเรียนของนักศึกษา : บทบาทการเป็นตัวแปรสื่อของความขัดแย้งระหว่างการเรียนกับชีวิต

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บทคัดย่อ

วัตถุประสงค์ : เพื่อศึกษาความสัมพันธ์ระหว่างภาวะผู้นำตนเอง ความขัดแย้งระหว่างการเรียนกับชีวิต และภาวะหมดไฟในการเรียนของนักศึกษามหาวิทยาลัย

วิธีการ : การศึกษาภาคตัดขวางแบบออนไลน์ ในนักศึกษาระดับปริญญาตรีในประเทศไทยจากการสุ่มตัวอย่างตามสะดวก เครื่องมือประกอบด้วย แบบวัดภาวะหมดไฟสำหรับนักศึกษา แบบวัดภาวะผู้นำตนเองแบบย่อ แบบวัดความขัดแย้งระหว่างการเรียนกับชีวิต และแบบสอบถามข้อมูลส่วนบุคคล วิเคราะห์ข้อมูลการใช้สถิติเชิงพรรณนาเพื่อบรรยายข้อมูลพื้นฐาน ทดสอบการสื่ออิทธิพลของตัวแปรโดยการใช้โปรแกรมทางสถิติ (PROCESS, Model 4)

ผล : กลุ่มตัวอย่างที่ตอบแบบสอบถามครบถ้วน 601 คน เป็นหญิงร้อยละ 62.9 อายุเฉลี่ย 20.17 ปี ภาวะผู้นำตนเองมีความสัมพันธ์เชิงลบกับภาวะหมดไฟในการเรียน โดยมีอิทธิพลทั้งทางตรง (β = -.25, $p < .01$) และทางอ้อมผ่านความขัดแย้งระหว่างชีวิตกับการเรียน (β = -.05, $p < .01$) และพบว่าความขัดแย้งระหว่างชีวิตกับการเรียนมีบทบาทเป็นตัวแปรสื่อในความสัมพันธ์ระหว่างภาวะผู้นำตนเองกับภาวะหมดไฟในการเรียน

สรุป : ภาวะผู้นำตนเองสามารถบรรเทาภาวะหมดไฟในการเรียนของนักศึกษามหาวิทยาลัยได้ทั้งทางตรงและทางอ้อมผ่านการลดความขัดแย้งระหว่างการเรียนกับชีวิต

คำสำคัญ : ความขัดแย้งระหว่างการเรียนกับชีวิต, ภาวะผู้นำตนเอง, ภาวะหมดไฟในการเรียน, นักศึกษามหาวิทยาลัย

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Previous Knowledge: Self-leadership is associated with reduced stress levels and burnout symptoms among students. However, the mechanisms through which self-leadership affects academic burnout are not fully understood.

New Knowledge: Study-life conflict mediated the association between self-leadership and academic burnout among university students.

Applications: Academic institutions should address academic burnout among university students by providing self-leadership training and a balanced schedule for the course works and free-time.

Introduction

In contemporary higher education, students often grapple with numerous academic and non-academic commitments, leading to heightened stress levels.[1] Prolonged exposure to the stressors associated with academic pursuits could elevate academic burnout to a critical concern, impacting students' mental well-being, academic performance, and overall quality of life.[2] Academic burnout is characterized by emotional exhaustion, cynicism, and a diminished sense of personal achievement.[3] Previous research has shown that academic burnout is influenced by both internal factors, such as individual personalities, resilience, cognitive style, emotional intelligence, and goal orientation, and external factors, including academic pressure, learning environment, interpersonal relationships, and family environment.[4-8]

A comprehensive meta-analysis of 55 studies, encompassing 27,940 individuals from 24 low- to middle-income countries, reveals that 27.8% of university students experienced academic burnout.[9] In the context of Thailand, the COVID-19 pandemic necessitated a shift to remote learning, significantly impacting the mental well-being of students. A survey conducted in 2021 by the Department of Mental Health reported that 29.2% of Thai students suffered from high stress levels, and 16.6% faced academic burnout.[10] Furthermore, a more recent study in 2023 involving 9,050 undergraduate students from 15 universities nationwide uncovers alarming statistics. Nearly 40% of Thai students reported that they were often or always under stress, with about 30% stating they were often or always unhappy or depressed. Additionally, the study highlighted that 4% of respondents had contemplated suicide, and 1.3% had engaged in self-harm on multiple occasions.[11] Addressing academic burnout is hence pivotal not only for individual student well-being but also for broader societal implications.

Self-leadership involves the process by which individuals guide and motivate themselves to enhance their performance and achieve their goals.[12] It is intricately linked to concepts such as self-regulation, self-motivation, and self-efficacy, collectively contributing to an individual's capacity to excel in both personal and professional domains.[13] Essentially, self-leadership embodies a proactive and empowered approach to personal growth, decision-making, and the pursuit of excellence, with far-reaching effects in various aspects of an individual's life and within organizational settings.

According to the job demands-resources (JD-R) theory, burnout stems from an imbalance between job demands, such as task complexity and

workload, and personal resources, including skills and social support.[14] Self-leadership, considered a personal resource within the JD-R theory, helps buffer against job demands, lowering stress and burnout. Studies demonstrate that self-leadership moderates the impact of excessive workload on emotional exhaustion.[15,16] In educational contexts, self-leadership alleviates the adverse effects of academic stress and workload on emotional exhaustion among students.[17] Additionally, self-leadership training could effectively reduce burnout symptoms.[18,19]

However, the mechanisms through which self-leadership lessens academic burnout are not fully understood. One possibility is that self-leadership helps students to reduce study-life conflict. Study-life conflict is a form of inter-role conflict characterized by the incompatibility of pressures arising from roles in the study and social life domains.[20] Previous research has linked conflicts arising from study and life demands to increased anxiety and heightened social dysfunction among university students.[21] Self-leadership could play a crucial role in helping students reduce study-life conflict by empowering them to take control of their academic and personal lives. This empowerment enables students to set clear goals, manage their time effectively, and make proactive decisions. Research has indicated a positive correlation between self-leadership and stress management competencies.[22] Therefore, this proactive characteristic may significantly reduce study-life conflict and, ultimately, alleviate academic burnout.

All in all, a better understanding of the mechanisms through which self-leadership affects academic burnout may inform the development of targeted interventions and support strategies aimed at reducing academic burnout among students. The primary aim of this research is to investigate the extent to which self-leadership affects academic burnout among students, with a specific focus on the mediating effect of study-life conflict. In accordance with the literature reviewed above, we hypothesized that: 1) self-leadership would be negatively correlated with academic burnout (H1); 2) self-leadership would be negatively correlated with study-life conflict (H2); 3) study-life conflict would be positively correlated with academic burnout (H3); and 4) study-life conflict would serve as a mediator in the relationship between self-leadership and academic burnout (H4).

Methods

A correlational study was employed from September to October 2023 to investigate relationships among specified variables within the research's conceptual framework. Ethical approval was obtained on June 2, 2023 from the Chiang Mai University Research Ethics Committee (certificate of approval number: 068/66).

Population and sample

Inclusion criteria for participant selection required being a Thai citizen enrolled in any university undergraduate program in Thailand, 18 years or older, and capable of reading and writing in Thai. Given the research objective of testing relationships between variables, convenience sampling was employed without adversely affecting findings.[23] The statistical test used for determining the sample size was linear multiple regression (2-tailed), taking into account the inclusion of two predictor variables. The analysis indicated that a minimum sample size

of 395 would be necessary to detect a small effect size (0.2) with a power (1- β error probability) of 0.8 and statistical significance at the .05 level.[24]

Data were collected online through Google Forms involving several steps. Initially, permission was requested from instructors of courses across various universities and administrators of the university web pages (e.g., Look Chang Mor Chor). Subsequently, project details were provided, a questionnaire link was shared, and participants were given the option to decide whether to participate. Participants could withdraw at any point without using their data in the analysis. Participants' responses were validated by examining response patterns. Valid responses excluded "straight-lining" instances where the same option was selected consecutively for numerous questions, despite varying content. Only participants with complete and valid responses were selected for analysis.

Measures

1. Academic burnout. The Maslach Burnout Inventory General Survey for Students - Thai version was used to assess academic burnout, with its validity and reliability having been previously assessed.[25] Respondents were asked to rate each item on a 5-point scale ranging from 1 (never) to 5 (always). The scale's overall reliability coefficients, based on the study's sample, were calculated to be 0.86.

2. Self-leadership. The Abbreviated Self-Leadership Questionnaire (ASLQ) was used to assess self-leadership, with its validity and reliability having been previously assessed.[26] We received authorization from the authors to translate this measure. Language proficiency experts conducted both translation and back-translation procedures to ensure language equivalence. The scale comprises 9 items, rated on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Internal consistency reliability of the scale, based on the study's sample, was 0.80.

3. Study-life conflict. The Study-Life Conflict Scale was used to measure participants' levels of study-life conflict, with its validity and reliability having been previously assessed.[20] We obtained permission from the author to translate the measure. Language proficiency experts conducted both translation and back-translation procedures, ensuring language equivalence through the use of a back-translation process. Respondents were instructed to rate each item on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Internal consistency reliability of the scale, calculated based on the study's sample, was found to be 0.79.

4. Personal information. The personal information sheet asked participants to reveal their gender, age, and academic year.

Measurement model validation

The evaluation of measurement models in this study employed the partial least squares structural equation modeling (PLS-SEM)[27] The PLS-SEM, renowned for realistically reflecting and explaining psychosocial phenomena in the educational sector, provides a unique advantage by allowing the assessment of partial weights of validity and reliability for each construct dimension, surpassing the limitations of Cronbach's alpha. Its prediction-centered approach exhibits robustness in predicting intra- and extra- sample relationships between subdimensions within the same model and across different models.[28]

The primary goal of this procedure was to assess the reliability and validity of the measurement models. Convergent validity was established by scrutinizing the outer loadings (λ) of indicators and the average variance extracted (AVE), a standard practice in measurement model assessment.[28] The criteria for outer loadings mandated that each reflective measure should significantly load on its corresponding construct, with loadings exceeding the conventional threshold of 0.7. However, indicators with loadings between 0.4 and 0.7 were considered for removal from the scale if their exclusion resulted in an increase in composite reliability (CR) above the recommended threshold.[28] Consequently, two items from the self-leadership measure (ASLQ) were excluded due to low loading estimates.

The analysis uncovers that AVE values for academic burnout, self-leadership, and study-life conflict factors fell below the recommended threshold of at least 0.5. Nonetheless, it was argued that if AVE falls below 0.5 but CR exceeds 0.6, the convergent validity of the construct remains acceptable.[29] The CR estimates for academic burnout, self-leadership, and study-life conflict factors were 0.89, 0.84, and 0.90, respectively. Additionally, these constructs demonstrated good internal consistency, supported by alpha coefficient (α) values of 0.86, 0.80, and 0.79 for academic burnout, academic stress, resilience, and self-leadership factors, respectively. These results collectively indicated sufficient convergent validity in the measurement model.

To assess discriminant validity, two approaches were employed. The Heterotrait-Monotrait (HTMT) ratio of correlation indicates that all HTMT values were below the recommended threshold of 0.85, confirming adequate discriminant validity.[28] The second approach compared the square root of AVE with the correlation of latent constructs.[29] This examination demonstrates that the square root of AVE for each construct exceeded correlations with other latent constructs, confirming discriminant validity. The comprehensive evaluation of the measurement model substantiates the validity and reliability of all construct measures. Given these findings, the subsequent phase of the research shifted focus towards a thorough examination of the hypothesized relationships among the constructs.

To test the research hypotheses, the bootstrap method was employed using a statistical software (PROCESS, Model 4).[30] Bootstrapping is a necessary for testing hypotheses in mediation analysis, particularly when the distribution of the data is unknown or deviates from normality. The bootstrapping process typically involves: 1) drawing a large number of bootstrap samples from the original data set by sampling with replacement; 2) estimating the model for each bootstrap sample and calculating the parameter estimates; and 3) computing the bootstrap standard errors (SE) and confidence intervals (CI) based on the bootstrap parameter estimates.[28]

Results

A total of 601 participants, 37.1% male and 62.9% female, with a mean age of 20.17 years, completed the questionnares. Of the participants, 26.2% were enrolled as first-year students, 20.2% were classified as second-year students, 34.5% represented third-year students, while the remaining 19.1% comprised fourth and fifth-year students.

Regarding their field of study, 56.6% pursued degrees in the humanities and social sciences, 23.3% enrolled in science and technology programs, and 20.1% pursued degrees in health sciences. Most of the participants studied at universities in the northern region (60.4%), followed by universities in Bangkok (25.6%). The remaining portion studied in the central, eastern, and northeastern regions (totaling 14.0%). The participants had a mean grade point average (GPA) of 3.19.

Table 1 shows descriptive statistics, reliabilities, and intercorrelations among the study variables. The results indicate that self-leadership was negatively correlated with academic burnout ($r = -.31$, $p < .01$), and study-life conflict ($r = -.17$, $p < .01$). In addition, study-life conflict was positively correlated with academic burnout ($r = .43$, $p < .01$).

The results of mediation analysis are presented in Table 2. A significant negative relationship between self-leadership and academic burnout (c path: $\beta = -.30$, $p < .01$) was revealed, confirming H1. This relationship remained significant when controlling for study-life conflict, gender, age, academic year, field of study, and GPA, resulting in a similar estimate (c' path: $\beta = -.25$, $p < .01$). A significant negative relationship was observed between self-leadership and study-life conflict (a path: $\beta = -.14$, $p < .01$), confirming H2. Additionally, study-life conflict exhibited a significant positive association with academic burnout (b path: $\beta = .40$, $p < .01$), confirming H3.

In light of these findings, a mediation test for study-life conflict was conducted. The lower part of Table 2 displays the results of the bootstrap. The bootstrapped 95% CI around the standardized indirect effect did not include 0 ($\beta = -.05$, $p < .01$), confirming H4.

Discussion

The present study formulated and tested a model that examined relationships among self-leadership, academic burnout, and study-life conflict. Our findings contribute in several ways to understanding the relationship between self-leadership and academic burnout. First, self-leadership was both directly and indirectly negatively correlated with academic burnout. Second, study-life conflict mediated the relationship between the self-leadership and academic burnout. These findings align with prior research that has demonstrated self-leadership's capacity to mitigate students' academic burnout and study-life conflict.[18,19,22]

Table 1 Means, standard deviations (SD), and correlations between study variables

Variables	M	SD	1	2	3
1. academic burnout	2.64	0.69	(0.86)		
2. self-leadership	3.90	0.58	-.31**	(0.80)	
3. study-life conflict	2.73	1.01	.43**	-.17**	(0.79)

Note: ** $p < .01$, $n = 601$; reliabilities of scales were in parentheses along diagonals. To interpret the average scores, the following criteria were applied: 1.00 to 2.33 indicates a low level, 2.34 to 3.66 signifies a medium level, and 3.67 to 5.00 reflects a high level.

Table 2 Results of mediation analysis

	b	β	SE	LLCI	ULCI
direct and total effects					
▪ study-life conflict regressed on self-leadership (a path)	-.25**	-.14**	.07	-.38	-.11
▪ academic burnout regressed on study-life conflict (b path)	.27**	.40**	.02	.22	.32
▪ academic burnout regressed on self-leadership (c path)	-.29**	-.30**	.05	-.45	-.27
▪ academic burnout regressed on self-leadership, controlling for study-life conflict, gender, age, year of study, field of study, GPA (c' path)	-.29**	-.25**	.04	-.37	-.21
bootstrapped result	bootstrapped indirect effect		boot SE	boot LLCI	boot ULCI
study-life conflict	-.05		.02	-.09	-.02

Note: b = unstandardized regression coefficients, β = standardized regression coefficients. Listwise N = 601., LLCI = lower level confidence interval, ULCI = upper level confidence interval. Bootstrap sample size = 5,000, **p < .01.

Self-leadership serves as a protective factor against academic burnout for several compelling reasons. Individuals who embrace self-leadership utilize three sets of strategies to improve their performance. The first set, known as self-regulation strategies, focuses on behaviors, aiming to replace ineffective ones with actions that lead to positive outcomes. This involves self-observation, goal-setting, self-reward, self-correction, and self-prompting. The second set, natural reward strategies, enables individuals to find intrinsic satisfaction in their tasks, fostering feelings of competence, self-control, and purpose. This is achieved by enhancing the enjoyment of the work and experiencing personal fulfillment through self-reward. The third set, constructive thought pattern strategies, is designed to alter thinking processes, promoting positive thinking and outlook. This includes identifying and eliminating erroneous beliefs, practicing positive self-talk, and creating positive mental imagery.[12] As a result, burnout symptoms are reduced,[18,19] as well as stress level.[31]

The contribution of self-leadership to the reduction of study-life conflicts is multifaceted. First, by promoting effective time management, self-leadership empowers individuals to take control of their schedules, allowing for the allocation of ample time to both academic and personal activities, thereby minimizing conflicts and feeling of overwhelm. Second, self-leadership fosters adaptability and proactive problem-solving skills, enabling students to navigate challenges and unexpected events with resilience, thus reducing the impacts on their study-life balance. Third, through self-regulation strategies, self-leadership aids in identifying and managing stressors early on, preventing their escalation into conflicts and burnout.[12,13]

The finding of study-life conflict being a mediator between self-leadership and academic burnout also suggests that mitigating study-life conflict contributes to the reduction of academic burnout. Study-life conflict arises when the demands and responsibilities of academic life clash with other aspects of an individual's life, such as personal relationships and leisure activities. This conflict can lead to high levels of stress and an overwhelming sense of burden, which are key contributors to academic burnout.[20] The finding underscores the importance of implementing strategies to help students effectively balance their academic responsibilities with other life demands, thereby reducing the risk of academic burnout.

Our findings convey several implications for mental health management in universities. First, universities should actively endorse self-leadership programs, integrating them into the curriculum to equip students with skills in goal-setting, time management, and stress reduction. Second, providing faculty training on recognizing burnout signs, conducting regular check-ins, and acknowledging student achievements could foster a positive and supportive academic environment. Third, universities should provide mentoring and coaching programs that help improve the well-being of educators and students.[32] Finally, universities should offer study support systems to assist students in mitigating study-life conflict, such as time management workshops, flexible learning options, financial aid, and scholarships.

This study has some limitations that require consideration. First, data were collected from a large sample size, surpassing the minimum requirement, which bolsters statistical power and result reliability. However, the likelihood of nonclinical significance may also increase. Moreover, a large sample size does not ensure the elimination of sampling bias. Second, this study employed a correlational design which could identify associations but not causality. Therefore, future studies should consider utilizing an experimental approach to examine causal relationships more effectively.

Conclusions

Self-leadership could be a mitigating factor of life-study conflict and academic burnout among Thai university students. The findings contribute insights into the field of mental health and implications for educational policies and practices, emphasizing the importance of promoting student well-being. However, further research is necessary to enhance the understanding of the causal relationship.

Author's participation

Bhudis Smithikrai: Research problem identification, literature review, data collection, writing introduction, writing methodology, formatting and referencing, proofreading and editing; Chuchai Smithikrai: Research design, data analysis, writing results, writing discussion, submission and revision

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