Academic Resilience and Academic Engagement as Predictors of Academic Burnout among Postgraduate Students at the University of Cape Coast, Ghana

Mark Owusu Amponsah, Kyei Anane Ampofo, Ruth Keziah Annan-Brew, and Justice Dadzie

Abstract

This article investigates the predictive roles of academic resilience and academic engagement in academic burnout among postgraduate students at the University of Cape Coast, Ghana. Guided by seven objectives transformed into three research questions and four hypotheses, a descriptive survey design with a quantitative approach was employed. The population consisted of 847 postgraduate students, with 265 participants selected through stratified and simple random sampling. Questionnaires were adapted to measure the study objectives, and data were analysed using simple linear regression and multiple linear regression analyses. The findings revealed significant predictive relationships between academic resilience, academic engagement, and academic burnout. A positive relationship was also established between academic resilience and academic engagement. The study concluded that academic resilience and engagement play crucial roles in predicting and understanding academic burnout among postgraduate students. It recommended collaborative efforts between university management, lecturers, and counsellors to implement policies and measures to address this issue.

Key words: academic resilience, academic engagement, academic burnout

ABOUT THE AUTHORS: MARK OWUSU AMPONSAH, email: mamponsah@ucc.edu.gh, KYEI ANANE AMPOFO, email: kyei.ampofo001@stu.ucc.edu.gh, RUTH KEZIAH ANNAN-BREW, email: ruth.keziah@ucc.edu.gh and JUSTICE DADZIE, email: Justicedadzie19@gmail.com

Résumé:

Cet article étudie les rôles prédictifs de la résilience académique et de l'engagement académique sur l'épuisement académique chez les étudiants de troisième cycle de l'Université de Cape Coast, au Ghana. Guidé par sept objectifs transformés en trois questions de recherche et quatre hypothèses, un modèle d'enquête descriptive avec une approche quantitative a été utilisé. La population était composée de 847 étudiants de troisième cycle, 265 participants ayant été sélectionnés par échantillonnage aléatoire stratifié et simple. Des questionnaires ont été adaptés pour mesurer les objectifs de l'étude et les données ont été analysées à l'aide d'analyses de régression linéaire simple et multiple. Les résultats ont révélé des relations prédictives significatives entre la résilience académique, l'engagement académique et l'épuisement académique. Une relation positive a également été établie entre la résilience académique et l'engagement académique. L'étude conclut que la résilience et l'engagement académiques jouent un rôle crucial dans la prédiction et la compréhension de l'épuisement académique chez les étudiants de troisième cycle. Elle recommande des efforts de collaboration entre la direction de l'université, les enseignants et les conseillers pour mettre en œuvre des politiques et des mesures visant à résoudre ce problème.

Mots clés: résilience académique, engagement académique, épuisement académique

Introduction

In the demanding landscape of higher education, students grapple with significant pressure stemming from the academic workload, deadlines, and various obligations, often leading to a state of constant stress known as academic burnout (Kpodoe et al., 2023; de Lima, 2021). This phenomenon encompasses feelings of emotional exhaustion, inadequacy, and cynicism towards the learning process, ultimately dampening students' enthusiasm for their studies (Domaley et al., 2020). Recent research has highlighted the prevalence of academic burnout among students, shedding light on its repercussions within educational settings (Wang et al., 2021; Ye, Huang et al., 2023).

Academic resilience has emerged as a pivotal factor in mitigating academic burnout's adverse effects (Atman Uslu, 2023). Resilient students exhibit positive self-beliefs and effective coping skills, enabling them to regulate their actions and perceive setbacks as opportunities for growth (Asiedu et al., 2018; Odonkor and Frimpong, 2020). Studies have demonstrated that academic resilience acts as a protective shield against the negative emotions associated with academic strain, allowing students to maintain their well-being in the face of academic challenges (Oyoo et al., 2020; Kaggwa et al., 2021).

Moreover, students' level of academic engagement significantly influences their experience of burnout and overall academic outcomes. Academic engagement entails active participation and investment in the learning process, correlating with positive outcomes such as higher completion rates, improved job prospects, enhanced self-perception, and overall well-being (Li and Lerner, 2011; Salmela-Aro and Upadyaya, 2012; Wang and Peck, 2013). Conversely, students grappling with burnout symptoms may display incompetence and disinterest in academic responsibilities, hampering their academic performance and achievement (Dadzie et al., 2023; Alshobaili et al., 2021).

In the African context, academic burnout poses significant challenges for students across various educational settings (Dadzie, 2022; Oyoo et al., 2020; Kaggwa et al., 2021). Research conducted in countries like South Africa, Kenya, and Ghana underscores the prevalence of burnout among students and its impact on academic achievement (Annan-Brew et al., 2023; Winga et al., 2016; Domaley et al., 2023). However, there is a gap in understanding how factors such as resilience and academic engagement influence burnout among students, particularly in postgraduate programmes (Opoku and Apenteng, 2014; Asiedu et al., 2018; Odonkor and Frimpong, 2020; Osei et al., 2021). Addressing this gap is vital to develop targeted interventions to support students' well-being and academic success in African higher education contexts.

The study on which this article is based investigated academic resilience and academic engagement as predictors of academic burnout among postgraduate students. It aimed to address two primary research hypotheses:

1. H_O1: Academic resilience will not predict academic burnout amongst postgraduate students.

$H_A 1$: Academic resilience will predict academic burnout amongst postgraduate students.

1. $H_o 2$: Academic engagement will not predict academic burnout amongst postgraduate students.

$H_A 2$: Academic engagement will predict academic burnout amongst postgraduate students.

Literature Review

Theoretical Framework

The theory of student involvement conceptualised by Alexander Astin and published in 1984 emphasises the significance of students' active engagement in their college experience (Astin, 1984). According to Astin, student involvement refers to the quantity and quality of the physical and psychological energy that students invest in their academic pursuits and campus activities (Astin, 1984). This theory suggests that the more students immerse themselves in school-related activities, such as interacting with faculty and peers, participating in extracurricular activities, and dedicating time to studying, the more likely they are to learn and develop academically. Astin contends that institutions can enhance the learning environment by fostering greater student involvement, as academically engaged students tend to perform better academically and exhibit behaviours conducive to academic success.

In contrast, the resilience theory developed by Masten in 2011 and further refined in 2014 focuses on individuals' capacity to successfully adapt to adverse circumstances (Masten, 2011, 2014). Masten defines resilience as the ability to navigate significant changes or disruptions without compromising one's stability, viability, or development (Masten, 2011, 2014). Unlike earlier definitions that emphasised withstanding adversity, Masten's revised perspective underscores the importance of adaptation and positive transformation in response to challenges (Masten, 2014). According to Masten, resilience is characterised by positive adaptation or development despite the existence of conditions that threaten to disrupt one's well-being (Masten, 2014). This theory highlights the dynamic nature of resilience and the role of various adaptive systems such as attachment relationships and self-regulatory mechanisms in promoting positive outcomes in the face of adversity.

Both theories offer valuable insights to understand students' experiences and outcomes in educational settings. While the theory of student involvement underscores the importance of active engagement and participation in academic and extracurricular activities, resilience theory highlights individuals' capacity to adapt and thrive in the face of challenges. Together, these theories contribute to a comprehensive understanding of how students navigate their academic journeys and overcome obstacles to achieve success.

Academic Burnout

Recent research such as that conducted by Warlick et al. (2021) has highlighted the widespread prevalence of burnout among both students and workers, indicating its impact across diverse demographics. Numerous studies, including those by Grace (2018), Xie et al. (2019), and Hodge et al. (2020), have identified burnout as a significant challenge within educational settings, emphasising its detrimental effects on students' academic success.

Defined as a syndrome characterised by emotional exhaustion, cynicism, and diminished efficacy in an educational environment, academic burnout is often attributed to chronic interpersonal stressors encountered during schooling or work (Maslach and Leiter, 2016; Ferreira and Lucca, 2015). Students experiencing academic burnout commonly report feelings of energy depletion, emotional exhaustion, and detachment from their studies, accompanied by cynicism and decreased personal or professional effectiveness (Costa et al., 2012). The demanding nature of university education, with its myriad pressures including coursework, relationships, and examinations, places many students at risk of experiencing burnout (Galbraith and Merrill, 2015).

The consequences of academic burnout extend beyond academic outcomes to encompass students' overall health and well-being. Described as a consequence of chronic work-related stress, burnout manifests as emotional exhaustion, depersonalisation, and a reduced sense of personal accomplishment (Durán et al., 2006). Student burnout has been associated with increased rates of absenteeism, reduced motivation to complete coursework, and a higher likelihood of dropping out, all of which negatively impact academic achievement (Bikar et al., 2018).

Researchers have also explored the implications of academic burnout on students' academic achievement, efficacy, resilience, and engagement in the African context (Freidman, 2014; Winga et al., 2016; Kamalpour et al., 2017; Oyoo et al., 2020). These studies underscore the significance of academic burnout in shaping students' academic experiences. Furthermore, previous research suggests that academic resilience may act as a protective factor against burnout among students (Oyoo et al., 2018; Janatolmakan et al., 2021; Romano et al., 2021). However, there is a need for further extensive research, particularly within the Ghanaian context, to fully understand the dynamics of academic burnout and its implications for student well-being and academic success.

Academic Resilience

Academically resilient students exhibit remarkable abilities to overcome significant challenges during their schooling, often achieving excellent academic outcomes despite adversity (Romano et al., 2021). They can benefit greatly from supportive school environments that foster positive relationships and provide the necessary support (Yuan et al., 2018).

Academic resilience involves students facing and overcoming adversities or challenges encountered within the educational setting, leading to personal growth and adaptation (De la Fuente et al., 2017). It enables them to achieve academic success despite facing difficult circumstances during their educational journey (Amuwa, 2015). Essentially, academic resilience reflects a student's capacity to effectively navigate obstacles, pressures, and challenges encountered in the school environment.

Recent research has delved into the characteristics of resilience, highlighting their efficacy in shielding students from severe negative outcomes such as academic burnout (Fiorilli et al., 2020; Romano et al., 2021). Resilience is widely acknowledged as an individual's ability to effectively cope with setbacks, challenges, and stressors, adapting and thriving despite adverse circumstances (Fiorilli et al., 2020). In the academic context, it is defined as the ability to maintain high levels of achievement, motivation, and performance despite facing challenging educational conditions (Grace, 2018).
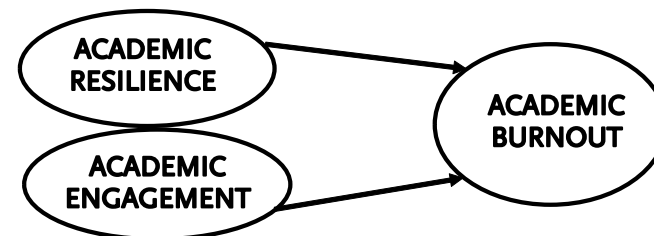
Conceptual Framework

Figure 1: Academic Resilience and Academic Engagement as predictors of Academic Burnout

Source: Authors' construct (2024)

As shown in Figure 1, our conceptual framework illustrates the interplay between the study's independent and dependent variables. Academic resilience and engagement are the independent variables, while academic burnout is the dependent variable. The framework shows that academic resilience and engagement may positively or negatively predict the academic burnout that postgraduate students face.

Methodology

The study utilised a descriptive survey research design. The target population comprised all postgraduate students at the University of Cape Coast, totalling 1 786 individuals and encompassing both Master's and Doctoral students across various colleges and academic levels (800, 850, 900, and 950). However, the accessible population, limited to regular first-year Master's and Doctoral students from the same colleges, amounted to 847 students.

Krejcie and Morgan's (1970) table to determine the sample size was consulted, indicating that a population of 847 called for a representative sample of 265 participants. Proportionate stratified sampling was employed to select participants in equal proportions from their respective colleges. Subsequently, simple random sampling was used to ensure fairness and unbiased representation, guaranteeing each member of the accessible population an equal chance of being selected.

Table 1: Distribution of Students

College	800	900	Total	Sample	800		900	
					M	F	M	F
Agricultural and Natural Sciences	98	51	149	46	26	4	12	4
Education Studies	280	97	377	119	48	40	18	13
Health and Allied Sciences	21	4	25	8	4	2	1	1
Humanities and Legal Studies	205	91	296	92	40	24	21	7
			847	265	265			

Source: Fieldwork (2022)

A close-ended questionnaire was utilised as the primary data collection instrument. The Academic Resilience Scale (ARS) developed by Cassidy (2016) was adapted to measure the level of academic resilience among postgraduate students. It aims to capture the multidimensional nature of academic resilience by assessing students' responses to educational challenges. The ARS comprises 30 items scored on a 5-point Likert scale ranging from unlikely (1) to likely (5). The scale encompasses three sub-dimensions: perseverance, reflecting and adaptive help-seeking, and negative affect and emotional response. The reliability coefficients for these sub-dimensions were .83, .78, and .80, respectively, with an overall Cronbach's reliability coefficient for the scale of .90. The Cronbach's alpha coefficient measures the internal consistency of the scale, indicating how closely related a set of items are as a group. A coefficient value of .90 indicates high internal consistency, suggesting that the items in the scale reliably measure academic resilience.

The University Student Engagement Inventory (USEI) by Maroco and Tecedeiro (2009) was adapted to measures the academic engagement variable. The USEI conceptualises student engagement across behavioural, emotional, and cognitive dimensions. Behavioural engagement refers to students' participation in classroom tasks and extracurricular activities, while cognitive engagement reflects their investment in comprehending complex ideas and skills. Emotional engagement captures students' attention to teachers' instructions and

perceptions of school belonging. The inventory comprises 15 self-reported items with Likert-type response options. The reliability coefficients for the behavioural, emotional, and cognitive dimensions were .74, .88, and .82, respectively, with a total Cronbach's alpha coefficient of .88, indicating high internal consistency.

Lastly, academic burnout was measured using the Maslach Burnout Inventory-Student Survey developed by Schaufeli et al. (2002). It includes three subscales with 15 items that assess emotional exhaustion, cynicism, and academic efficacy. High scores on emotional exhaustion and cynicism, alongside low scores on academic efficacy (reverse-scored items) indicate burnout. The reliability coefficients for the three subscales were .869, .856, and .852, respectively, with an overall Cronbach's alpha coefficient of .75. According to Dadzie et al. (2023), a Cronbach's alpha coefficient greater than .65 indicates acceptable internal consistency.

Result and Discussion

Demographic Characteristics of Respondents

This section presents the respondents' demographic characteristics, including gender, college and academic level.

Gender Distribution of Respondents

Table 2: Gender of students

Gender	Frequency	Percent
Male	170	64.2
Female	95	35.8
Total	265	100.0

Source: Field Survey (2022)

The results in Table 2 indicate that, of a sample of 265 respondents, 170 were males (64.2%) and 95 were females (35.8%). This suggests that, the responses were dominated by male students. It is understandable as the population of the University of Cape Coast postgraduate students is dominated by males.

Distribution of Respondents' College

Table 3: Students' College

College	Frequency	Percent
Education Studies	119	44.9
Health and Allied Sciences	8	3.0
Humanities and Legal Studies	92	34.7
Agricultural and Natural Sciences	46	17.4
Total	265	100.0

Source: Field Survey (2024)

The results in Table 3 indicate that, of the 265 respondents, 119 were affiliated to the College of Education Studies (44.9%), eight to the College of Health and Allied Sciences (3.0%), 92 to the College of Humanities and Legal Studies (34.7%), and 46 to the College of Agriculture and Natural Sciences (17.4%).

Distribution of Academic Level of Respondents

Table 4: Academic Level of Students

Level	Frequency	Percent
800	188	70.9
900	77	29.1
Total	265	100.0

Source: Field Survey (2024)

The results in Table 4 show that, 188 of the 265 students were in level 800 or pursuing their Master's degree in first year, while 77 were in level 900 or pursuing their doctoral degree (29.1%). Thus, the majority were Master's students.

Results
The study tested two hypotheses. Prior to testing, the normality assumption, which is fundamental to all parametric assumptions was tested using the mean, median, 5% trimmed mean, and the normal Q-Q plot. The results are presented in Table 5.

Table 5: Test for Normality

Parameters	Academic Resilience	Academic Engagement	Academic Burnout
Mean	133.6453	67.8717	82.2377
Standard deviation	4.70922	2.96165	3.16588
5% Trimmed mean	133.5094	67.8973	82.1342
Median	133.0000	68.0000	82.0000

Source: Fieldwork (2024)

As presented in Table 5, the mean, median, and 5% trimmed mean of the students' academic resilience, academic engagement and academic burnout were approximately equal. This implies that the scores of the aforementioned variables were normally distributed (Pallant, 2011). The normal Q-Q plots for all the variables were also examined. These showed that the distribution of all the scores was closer to the straight line. Prior to running the regression analysis for the first and second hypothesis, it was important to ensure that assumptions for running the regression analysis were met, taking into consideration the histogram plot showing the normality curve as well as the test of multicollinearity and that to check autocorrelation.

Hypothesis 1

H_o1: *Academic resilience will not predict academic burnout amongst postgraduate students.*

H_A1: *Academic resilience will predict academic burnout amongst postgraduate students.*

Hypotheses one aimed to test whether or not academic resilience could predict academic burnout. Both simple and multiple linear regressions were deemed appropriate to predict the extent to which academic resilience predicts academic burnout, taking into consideration all three dimensions of academic resilience (perseverance, reflective and adaptive help seeking, and negative affect and emotional response) as well as their combined effects. Tables 6 and 7 present the correlation results between the predictor variable and the criterion variable as well

as the correlation between the subscales of the predictor variable and the criterion variable, respectively. Tables 8 and 9 provide the multiple regression results between the predictor variable and the criterion variable as well as the regression results between the subscales of the predictor variable and the criterion variable, respectively.

Table 6: Correlation between Academic Resilience and Academic Burnout

		Academic burnout	Resilience
Pearson Correlation	Academic burnout	1.000	-.177
	Resilience	-.177	1.000
Sig. (1-tailed)	Academic burnout	.	.002
	Resilience	.002	.

Source: Field Survey (2024)

The correlation analysis in Table 6 reveals that there was a statistically significant relationship between academic resilience and academic burnout, r=-.177, p=.002. This represents a weak negative relationship. It means that as academic resilience increases, academic burnout decreases and vice-versa.

Table 7: Correlations between Academic Resilience (Sub-Scales) and Academic Burnout

		Academic Burnout	Perseverance	RAHS	NAER
Pearson Correlation	Academic Burnout	1.000	-.185	-.090	-.006
	Perseverance	-.185	1.000	.131	-.152
	RAHS	-.090	.131	1.000	.109
	NAER	-.006	-.152	.109	1.000
Sig. (1-tailed)	Academic Burnout	.	.001	.071	.459
	Perseverance	.001	.	.017	.007
	RAHS	.071	.017	.	.038
	NAER	.459	.007	.038	.

RAHS = Reflective and adaptive help seeking, NAER = Negative affect and emotional response

Source: Field Survey (2024)

Table 7 presents the correlation analysis between the sub-scales of academic resilience (perseverance, reflective and adaptive help seeking, and negative affect and emotional response) and academic burnout. It illustrates that there was only a statistically significant relationship between perseverance and academic burnout, r=-.185, p=.001. This indicates a weak negative relationship. It means that as perseverance decreases, academic burnout increases and vice-versa. All the other correlations were not statistically significant at .05 level.

Table 8: Academic Resilience as a predictor of Academic Burnout

Variables	B	R²	SE B	B	T	P
Constant	98.118	.031	5.456		17.982	.000
Academic Resilience	-.119		.041	-.177	-2.912	.004

Source: Field Survey, 2022

F = 8.481 df = (1, 263)

Table 8 presents the results of the simple linear regression analysis conducted to analyse the data and test the hypothesis. A linear regression model was used to establish how academic resilience predicted academic burnout. The results revealed that academic resilience predicted academic burnout, B= .119, F (1,263) = 8.481, p=.004. The model accounted for 3.1% of the variation in academic burnout such that a unit increase in academic resilience results in a .119 decrease in academic burnout. Therefore, individuals with lower academic resilience experience higher academic burnout. Since academic resilience significantly predicted academic burnout, the null hypothesis which states that "*Academic resilience will not predict academic burnout amongst postgraduate students*" is rejected in favour of the alternative hypothesis.

Table 9: Academic Resilience (Sub-Scales) as predictors of Academic Burnout

Variables	B	R^2	SE B	B	t	P
Constant	98.966	.039	5.816		17.017	.000
Perseverance	-.192		.066	-.181	-2.917	.004
Reflective and adaptive help seeking	-.089		.086	-.064	-1.033	.302
Negative affect and emotional response	-.040		.092	-.027	-.435	.664

Source: Field Survey

2022 F = 3.577 df = (3, 261)

Table 9 presents the results of a multiple linear regression analysis conducted to predict academic burnout based on academic resilience (perseverance, reflective and adaptive help seeking, and negative affect and emotional response). A significant regression equation was found and the results revealed that the model predicted academic burnout, $F_{(3,261)} = 3.577$, p=.000 and accounted for 3.9% of the variation in it. This means that the model is responsible for 3.9% of the differences in academic burnout among students. In addition, the perseverance sub-scale predicted academic burnout such that a unit increase in perseverance accounts for a .192 decrease in academic burnout. Individuals with lower perseverance experience higher academic burnout. However, reflective and adaptive help seeking, and negative affect and emotional response did not predict academic burnout.

Hypothesis 2

H_o2:   *Academic engagement will not predict academic burnout amongst postgraduate students.*

H_A2:   *Academic engagement will predict academic burnout amongst postgraduate students.*

Research hypotheses two aimed to test whether or not academic engagement could predict academic burnout. Both simple and multiple linear regressions were deemed appropriate to predict the extent to which academic engagement predicts academic burnout, taking into consideration all three dimensions of academic engagement (behavioural,

emotional and cognitive) as well as their combined effect. Tables 10 and 11 present the correlation results between the predictor variable and the criterion variable, and the correlation between the sub-scales of the predictor variable and the criterion variable, respectively. Tables 12 and 13 show the multiple regression results between the predictor variable and the criterion variable, and the regression results between the sub-scales of the predictor variable and the criterion variable, respectively.

Table 10: Correlation between Academic Engagement and Academic Burnout

		Academic burnout	Academic Engagement
Pearson Correlation	Academic burnout	1.000	-.230
	Academic engagement	-.230	1.000
Sig. (1-tailed)	Academic burnout	.	.000
	Resilience	.000	.

Source: Field Survey (2024)

The correlation analysis revealed that there was a statistically significant relationship between academic resilience and academic burnout, r=-.230, p=.000. It also indicated that there was a weak negative relationship between academic engagement and academic burnout. This means that as academic engagement decreases, academic burnout increases and vice-versa.

Table 11: Correlations between Academic Engagement (Sub-Scales) and Academic Burnout

		Academic burnout	Behavioural	Emotional	Cognitive
Pearson Correlation	Academic burnout	1.000	-.248	-.057	-.052
	Behavioural	-.248	1.000	-.162	.162
	Emotional	-.057	-.162	1.000	-.164
	Cognitive	-.052	.162	-.164	1.000
Sig. (1-tailed)	Academic burnout	.	.000	.177	.200
	Behavioural	.000	.	.004	.004
	Emotional	.177	.004	.	.004
	Cognitive	.200	.004	.004	.

Source: Field Survey (2024)

The correlation analysis revealed that there was only a statistically significant relationship between behavioural engagement and academic burnout, r=-.248, p=.000. This further indicates that there was a weak negative relationship between behavioural engagement and academic burnout. It means that as behavioural engagement decreases, academic burnout increases and vice-versa. All the other correlations were not statistically significant at .05 level.

Table 12: Academic Engagement as a predictor of Academic Burnout

Variables	B	R²	SE B	B	t	P
Constant	98.913	.053	4.358		22.696	.000
Academic Engagement	-.246		.064	-.2.30	-3.830	.000

F = 14.668 df = (1, 263)

Source: Field Survey (2024)

Table 12 presents the results of the simple linear regression analysis conducted to analyse the data and test the hypothesis. A linear regression model was employed to establish how academic engagement predicted academic burnout. The results revealed that academic engagement predicted academic burnout, B= .246, F (1,263) = 14.668,

p=.000. The model accounted for 5.3% of the variation in academic burnout, such that a unit increase in academic engagement results in a .246 decrease in academic burnout. Therefore, individuals with lower academic engagement experience higher academic burnout. Since academic engagement significantly predicted academic burnout, the null hypothesis which states that "*Academic engagement will not predict academic burnout amongst postgraduate students*" is rejected in favour of the alternative hypothesis.

Table 13: Academic Engagement (Sub-Scales) as predictors of Academic Burnout

Variables	B	R²	SE B	B	t	P
Constant	96.762	.072	4.996		19.368	.000
Behavioural	-.416		.097	-.261	-4.274	.000
Emotional	-.144		.085	-.104	-1.699	.091
Cognitive	-.077		.175	-.027	-.439	.661

F = 3.577 df = (3, 261)

Source: Field Survey (2024)

Table 13 shows that a significant regression equation was found. The results revealed that the model predicted academic burnout, F (3,261) = 3.577, p=.000 and accounted for 7.2% of the variation in academic burnout. This means that the model is responsible for 7.2% of the differences in students' academic burnout. In addition, the behavioural engagement sub-scale predicted academic burnout such that a unit increase in behavioural engagement accounts for a .416 decrease in academic burnout. Individuals with lower behavioural engagement experience higher academic burnout. However, emotional and cognitive engagement did not predict academic burnout.

Discussion

Academic Resilience as a Predictor of Academic Burnout

The study investigated how academic resilience predicts academic burnout among postgraduate students using both simple and multiple linear regression analyses. These analyses aimed to assess the individual effects of academic resilience sub-dimensions and their combined effects on academic burnout.

90   MARK OWUSU AMPONSAH, KYEI ANANE AMPOFO, RUTH KEZIAH ANNAN-BREW, AND JUSTICE DADZIE

ACADEMIC RESILIENCE AND ACADEMIC ENGAGEMENT AS PREDICTORS OF ACADEMIC BURNOUT   91
AMONG POSTGRADUATE STUDENTS AT THE UNIVERSITY OF CAPE COAST, GHANA

In considering the three sub-dimensions of the academic resilience scale, the study identified perseverance as the only significant predictor of academic burnout. The findings indicated a weak inverse association between perseverance and academic burnout, suggesting that as perseverance increased, academic burnout decreased, and vice versa. This negative correlation underscored the importance of perseverance in mitigating burnout. Overall, the study revealed a weak inverse association between academic resilience and academic burnout, indicating that higher levels of academic resilience were associated with lower levels of burnout.

In addition, a simple linear regression model was employed to analyse how academic resilience predicts academic burnout among postgraduate students. The results revealed a statistically significant regression equation, with academic resilience emerging as a significant predictor of academic burnout. The model accounted for 3.1% of the variation in burnout, indicating that a unit increase in academic resilience resulted in a 0.119 decrease in academic burnout. Thus, individuals with higher academic resilience were less likely to experience burnout, while those with lower resilience were more susceptible.

These findings are consistent with previous research by Oyoo, Mwaura, and Kinai (2018) and Romano et al. (2021), which also demonstrated a negative correlation between academic resilience and burnout. Similarly, studies by Bahrami, Amiri, and Abdollahi (2017) and Lee (2019) support these findings, highlighting the predictive power of academic resilience on burnout. However, the results of this study differ from those of Trigueros et al. (2020) who reported a significant positive relationship between academic resilience and burnout. This may be attributed to methodological differences such as sampling techniques between the studies.

In summary, academic resilience was found to be a significant predictor of academic burnout, and there was a negative relationship between the two. This can be explained in line with the Demands and Resources Theory which posits that when one's demands (academic challenges) become unbearable, this depletes one's resources (ability to deal with them). Thus, when postgraduate students are not able to effectively meet their academic demands, this is likely to deplete their resources such as being academically resilient.

Academic Engagement as a predictor of Academic Burnout
Our research also explored how academic engagement predicts academic burnout among postgraduate students. Both simple and multiple linear regression analyses were conducted to examine the individual effects of the academic engagement sub-dimensions and their combined effects on academic burnout.

The findings revealed that among the three sub-dimensions of academic engagement, only behavioural engagement emerged as a significant predictor of academic burnout. Specifically, a weak inverse association was observed between behavioural engagement and academic burnout, indicating that as behavioural engagement increased, academic burnout decreased, and vice versa. Overall, the study found a weak inverse association between academic engagement and academic burnout, implying that higher levels of academic engagement were associated with lower levels of burnout.

Furthermore, the simple linear regression model demonstrated that academic engagement was a significant predictor of academic burnout, explaining 5.3% of the variance in burnout. The results suggested that for every unit increase in academic engagement, there was a corresponding decrease of 0.246 units in academic burnout. Thus, individuals with higher levels of academic engagement were less likely to experience burnout, while those with lower engagement levels were more susceptible.

These findings align with previous research by Yuan et al. (2018) and Fiorilli et al. (2020), which also identified a negative correlation between academic engagement and burnout. Similarly, studies by McCallen, and Johnson (2020) and Ofori et al. (2020) support these findings, highlighting the predictive power of academic engagement on burnout.

However, the results of this study differ from those of Ye et al. (2021), who reported a significant positive relationship between academic engagement and burnout. This may stem from methodological differences, variations in sample characteristics, or contextual factors within educational environments.

In summary, academic resilience emerged as a significant predictor of academic burnout, indicating a negative relationship between the two variables. This finding aligns with the Demands and Resources Theory, suggesting that when academic demands become overwhelming, they

deplete individuals' resources, including resilience, potentially leading to burnout.

Conclusion and Recommendations

Based on the findings of this study, it can be concluded that the academic resilience levels of most postgraduate students at the University of Cape Coast were low. The majority of first-year postgraduate students at the university engaged in Master's and doctoral study believed that they did not have the requisite resilience to overcome adversities encountered during their academic journey. This suggests that postgraduate students at the University of Cape Coast were not optimistic that they could overcome obstacles in their studies. Again, it can be concluded that these students had lower levels of academic engagement. Thus, the majority of first-year postgraduate students at the university engaged in Master's and doctoral studies believed that they were not engaged with their studies. Furthermore, they believed that they were suffering from severe academic burnout as they scored high on all dimensions of the academic burnout scale.

Based on the findings, it is recommended that management of the University of Cape Coast in collaboration with the guidance and counselling unit should put measures in place to assist postgraduate students to develop academic resilience. Furthermore, lecturers at the university should identify innovative, new pedagogical strategies to ensure that postgraduate students are fully engaged with their studies. It is also recommended that management put policies in place to ensure that academic burnout is reduced among postgraduate students as this has implications for their academic resilience and engagement. Recreational programmes could be offered as part of semester activities to help students to manage their burnout levels.

References

Alshobaili, A. M., Alruwaili, S. H., Alshallan, H. A., Alqarni, A. F., Alanazi, M. M., Alshinqeeti, T. A., and Awad, S. S. (2021). The impact of burnout on the academic achievement of Saudi female students enrolled in the Colleges of Health Sciences. *International Journal of Higher Education* 10(2), 229-239.

Amuwa, O. A. (2015). *Psycho-Social Variables as Correlates of Academic Resilience among Underachieving Senior Secondary School Students in South-West, Nigeria*. Unpublished Doctoral dissertation, Department of Education, University of Lagos.

Annan-Brew, R., Mensah, J., Ntim, E., Dadzie, J., Kpodoe, I., Akai-Tetteh, V., Anhwere, D. and Ampofo, K. (2023). Emotional reactions and burnout of instructors teaching wards with exceptional needs in inclusive schools in Offinso Municipality: Moderating roles of coping mechanisms. *Creative Education* 14, 487-507. DOI: 10.4236/ce.2023.143034.

Asiedu, E. E. A., Annor, F., Amponsah-Tawiah, K., and Dartey-Baah, K. (2018). Juggling family and professional caring: Role demands, work-family conflict, and burnout among registered nurses in Ghana. *Nursing Open* 5(4), 611-620.

Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel* 25(4), 297-308.

Atman Uslu, N. (2023). How do computational thinking self-efficacy and performance differ according to secondary school students' profiles? The role of computational identity, academic resilience, and gender. *Education and Information Technologies* 28(5), 6115-6139.

Bahrami, F., Amiri, M., and Abdollahi, Z. (2017). The perception of the learning environment and academic burnout: The mediating role of academic resilience. *Journal of Sabzevar University of Medical Sciences* 24(4), 217-223.

Bikar, S., Marziyeh, A., and Pourghaz, A. (2018). Affective structures among students and its relationship with academic burnout with emphasis on gender. *International Journal of Instruction* 11(1), 183-194.

94 MARK OWUSU AMPONSAH, KYEI ANANE AMPOFO, RUTH KEZIAH ANNAN-BREW, AND JUSTICE DADZIE

ACADEMIC RESILIENCE AND ACADEMIC ENGAGEMENT AS PREDICTORS OF ACADEMIC BURNOUT 95
AMONG POSTGRADUATE STUDENTS AT THE UNIVERSITY OF CAPE COAST, GHANA

Costa, E. F. D. O., Santos, S. A., Santos, A. T. R. D. A., Melo, E. V. D., and Andrade, T. M. D. (2012). Burnout Syndrome and associated factors among medical students: A cross-sectional study. *Clinics 67*(6), 573-580.

Dadzie, J. (2022). *Teachers' and Students' Perceptions of the Effectiveness of Strategies Adopted in Curbing Exam Misconduct at Senior High Schools in the Sekondi Takoradi Metropolis.* Doctoral dissertation, University of Cape Coast.

Dadzie, J., Annan-Brew, R., and Ahorsu-Walker, J. (2022). Strategies for curbing examination malpractices: A mediating role of gender. *International Journal of Research and Innovation in Social Science (IJRISS) VI*(11), 379-385. ISSN 2454-6186.

Dadzie, J., Annan-Brew, R., Akai-Tetteh, V. A., and Ahenkora, A. T. (2023). Psychometric characteristics of test anxiety analysis tools. *International Journal of Research and Innovation in Social Science (IJRISS) VI*(12), 277-284. ISSN 2454-6186.

De la Fuente, J., Fernández-Cabezas, M., Cambil, M., Vera, M. M., González-Torres, M. C., and Artuch-Garde, R. (2017). A linear relationship between resilience, learning approaches, and coping strategies predict achievement in undergraduate students. *Frontiers in Psychology 8*(1), 10-39.

de Lima, J. Á. (2021). Authentic learning in the undergraduate social research methods classroom: Students' perspectives on project-based pedagogy. *SN Social Sciences 1*(1), 1-23.

Domaley, V. L., Senyametor, F., Yusif, B. D., Antwia, A., and Nkrumah, K. (2023). Relationship between academic stress and thesis completion among university postgraduate students. *Asian Journal of Education and Social Studies 41*(2), 7-21.

Durán, A., Extremera, N., Rey, L., Fernández-Berrocal, P., and Montalbán, F. M. (2006). Predicting academic burnout and engagement in educational settings: Assessing the incremental validity of perceived emotional intelligence beyond perceived stress and general self-efficacy. *Psicothema 18*(2), 158-164.

Ferreira, N. D. N., and Lucca, S. R. D. (2015). Burnout syndrome in nursing assistants of a public hospital in the state of São Paulo. *Brazilian Journal of Epidemiology 18*(7), 68-79.

Fiorilli, C., Farina, E., Buonomo, I., Costa, S., Romano, L., Larcan, R.,

and Petrides, K. V. (2020). Trait emotional intelligence and school burnout: The mediating role of resilience and academic anxiety in high school. *International Journal of Environmental Research and Public Health 17*(9), 30-58.

Friedman, G. (2014). *Student's stress, burnout, and engagement: Burnout and Engagement.* Unpublished Manuscript.

Grace, M. K. (2018). Depressive symptoms, burnout, and declining medical career interest among undergraduate pre-medical students. *International Journal of Medical Education 9*(3), 31-33.

Hodge, B., Wright, B., and Bennett, P. (2020). Balancing effort and rewards at university: Implications for physical health, mental health, and academic outcomes. *Psychological Reports 123*(4), 1240-1259.

Huang, J., Zhou, L., Zhu, D., Liu, W., and Lei, J. (2023). Changes in academic self-efficacy and value and crossover of burnout among adolescent students: A two-wave longitudinal study. *Journal of Youth and Adolescence 52*(7), 1405-1416.

Janatolmakan, M., Torabi, Y., Rezaeian, S., Andayeshgar, B., Dabiry, A., and Khatony, A. (2021). The relationship between resilience and academic burnout among nursing and midwifery students in Kermanshah, Iran. *Educational Research 7*(8), 20-21.

Kaggwa, M. M., Kajjimu, J., Sserunkuma, J., Najjuka, S. M., Atim, L. M., Olum, R., and Bongomin, F. (2021). Prevalence of burnout among university students in low-and middle-income countries: A systematic review and meta-analysis. *PloS one 16*(8), 256-402.

Kamalpour, S., Azizzadeh-Forouzi, M., and Tirgary, B. (2017). A study of the relationship between resilience and academic burnout in nursing students. *Strides in Development of Medical Education 13*(5), 476-487.

Kpodoe, I. A., Vanderpuye, I., Ntim, E. K., and Dadzie, J. (2023). Enhancing teachers' understanding and support for students with emotional and behavioral disorders (EBD) in Ghanaian Second Cycle Educational Institutions. *Journal of Education and Practice 14*(28), 29-37. https://doi.org/10.7176/JEP/14-28-04

Krejcie, R. V., and Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement 30*(3), 607-610.

96   MARK OWUSU AMPONSAH, KYEI ANANE AMPOFO, RUTH KEZIAH ANNAN-BREW, AND JUSTICE DADZIE

ACADEMIC RESILIENCE AND ACADEMIC ENGAGEMENT AS PREDICTORS OF ACADEMIC BURNOUT   97
AMONG POSTGRADUATE STUDENTS AT THE UNIVERSITY OF CAPE COAST, GHANA

Lee, E. (2019). Effect of resilience on academic burnout of nursing students. *Journal of Korea Academia-Industrial Cooperation Society 20*(6), 178-187.

Maroco, J., and Tecedeiro, M. (2009). Burnout among Portuguese students. *Psychology, Health and Diseases 10*(2), 227-236.

Maslach, C., and Leiter, M. P. (2016). The concept of burnout. *Stress, Cognition, Emotion, and Behaviour 8*(2), 351-357.

Masten, A. S. (2011). Resilience in children threatened by extreme adversity: Frameworks for research, practice, and translational synergy. *Development and Psychopathology 23*(2), 493-506.

Masten, A. S. (2014). Global perspectives on resilience in children and youth. *Child Development 85*(1), 6-20.

McCallen, L. S., and Johnson, H. L. (2020). The role of institutional agents in promoting higher education success among first-generation college students at a public urban university. *Journal of Diversity in Higher Education 13*(4), 320.

Odonkor, S. T., and Frimpong, K. (2020). Burnout among healthcare professionals in Ghana: A critical assessment. *BioMed Research International 7*(5), 29-31.

Ofori, K. N., Kyere, E. A., and Berko, L. B. (2020). Psychological burnout among tutors in Colleges of Education in the Ashanti Region, Ghana. *Asian Journal of Education and Social Studies 4*(9), 12-21.

Opoku, S. T., and Apenteng, B. A. (2014). Career satisfaction and burnout among Ghanaian physicians. *International Health 6*(1), 54-61.

Osei, M., Adom, D., Kwene, A., and Tetteh, N. (2021). Burnout syndrome during the Covid-19 pandemic among Visual Art teachers in Ghana. *Studies in Learning and Teaching 2*(3), 115-129.

Oyoo, S., Mwaura, P., Kinai, T., and Mutua, J. (2020). Academic burnout and academic achievement among secondary school students in Kenya. *Education Research International 8*(2), 30-35.

Romano, L., Consiglio, P., Angelini, G., and Fiorilli, C. (2021). Between academic resilience and burnout: The moderating role of satisfaction on school context relationships. *European Journal of Investigation in Health, Psychology, and Education 11*(3), 770-780.

Salmela-Aro, K., and Upadyaya, K. (2012). School burnout and engagement in the context of the demands-resources model. *British Journal of Educational Psychology 84*(1), 137-151.

Schaufeli, W. B., Martinez, I. M., Pinto, A. M., Salanova, M., and Bakker, A. B. (2002b). Burnout and engagement in university students: A cross-national study. *Journal of Cross-Cultural Psychology 33*(5), 464-481.

Trigueros, R., Padilla, A., Aguilar-Parra, J. M., Mercader, I., López-Liria, R., and Rocamora, P. (2020). The influence of transformational teacher leadership on academic motivation and resilience, burnout and academic performance. *International Journal of Environmental Research and Public Health 17*(20), 76-87.

Wang, M-T., and Peck, S. C. (2013). Adolescent educational success and mental health vary across school engagement profiles. *Developmental Psychology 4*(9), 1266 –1276.

Wang, Y., Di, Y., Ye, J., and Wei, W. (2021). Study on the public psychological states and its related factors during the outbreak of coronavirus disease 2019 (COVID-19) in some regions of China. *Psychology, Health and Medicine 26*(1), 13-22.

Warlick, C. A., Van Gorp, A., Farmer, N. M., Patterson, T., and Armstrong, A. (2021). Comparing burnout between graduate-level and professional clinicians. *Training and Education in Professional Psychology 15*(2), 150-153.

Winga, M. A., Agak, J. O., and Ayere, A. M. (2016). The relationship between school burnout, gender, and academic achievement amongst secondary school students in Kisumu East sub-county, Kenya. *Journal of Emerging Trends in Educational Research and Policy Studies 7*(5), 326-331.

Xie, Y. J., Cao, D. P., Sun, T., and Yang, L. B. (2019). The effects of academic adaptability on academic burnout, immersion in learning, and academic performance among Chinese medical students: A cross-sectional study. *BMC Medical Education 19*(1), 1-8.

Yang, H. J. (2004). Factors affecting student burnout and academic achievement in multiple enrolment programs in Taiwan's technical-vocational colleges. *International Journal of Educational Development 24*(3), 283-301.

Ye, Y., Huang, X., and Liu, Y. (2021). Social support and academic burnout among university students: A moderated mediation model. *Psychology Research and Behaviour Management 14*(6), 33-35.

Yuan, G., Xu, W., Liu, Z., and An, Y. (2018). Resilience, posttraumatic stress symptoms, and posttraumatic growth in Chinese adolescents after a tornado: The role of mediation through perceived social support. *The Journal of Nervous and Mental Disease* 20(2), 130-135.