

The Relationship Between Impostor Syndrome and Burnout in Postgraduate Students of the Health Science Program at Universitas Sebelas Maret, Indonesia

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Received: June 26, 2025; Accepted: August 8, 2026; Available online: October 16, 2026

ABSTRACT

Background: Student mental health is a growing concern among postgraduate students, with burnout affecting well-being and impostor syndrome linked to it, though evidence in Indonesia is limited. This study aims to analyze the relationship between impostor syndrome and burnout among postgraduate health sciences students at Universitas Sebelas Maret.

Subjects and Methods: This was an analytical observational study with a cross-sectional design conducted from April to May 2026 at the Postgraduate Program in Health Sciences, Universitas Sebelas Maret, Indonesia. A total of 232 postgraduate students were selected using proportionate stratified random sampling. Burnout was the dependent variable, impostor syndrome was the independent variable, and confounders included sociodemographic factors and social support. Data were collected using CIPS, MBI-SS, and MSPSS questionnaires, and analyzed using Spearman correlation and multiple linear regression with STATA 13.

Results: Impostor syndrome was positively and significantly associated with burnout ($r = 0.65$; $p < 0.001$). After controlling for confounding variables, in the multivariable analysis, impostor syndrome remained a significant predictor of burnout ($\beta = 0.42$; 95% CI = 0.32 to 0.51; $p < 0.001$), while social support showed a significant negative association ($\beta = -0.25$; 95% CI = -0.34 to -0.16; $p < 0.001$). The model explained 48.5% of the variance in burnout ($R^2 = 0.48$).

Conclusion: Impostor syndrome is positively and significantly associated with burnout among postgraduate students, even after controlling for social support as a confounder, while social support shows a protective effect. These findings highlight the importance of considering psychological factors and social support in policies related to postgraduate student well-being.

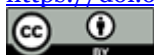
Keywords: impostor syndrome, burnout, postgraduate students, social support

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Cite this as:

Nurhaliza AARF, Widyaningsih V, Rahardjo SS, Sumardiyono, Ghozali DA (2026). The Relationship Between Impostor Syndrome and Burnout in Postgraduate Students of the Health Science Program at Universitas Sebelas Maret, Indonesia. *J Epidemiol Public Health*. 11(4): 457-469. <https://doi.org/10.26911/jepublichealth.2026.11.04.06>.



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BACKGROUND

Student mental health has become an increasingly important issue in higher education, especially among postgraduate students who face academic workloads, research demands, and publication requirements. The prevalence of depression and anxiety among postgraduate students reaches 30–40% ([Chi et al., 2023](#)), which is much higher compared to the general population. One of the serious impacts of academic pressure is burnout, a condition characterized by emotional exhaustion, cynicism, and reduced self-efficacy due to excessive academic demands ([Maslach & Jackson, 1981](#)). Burnout not only reduces students' quality of life but also contributes to decreased academic performance, increased risk of dropout, and long-term mental health problems.

One psychological factor that can trigger burnout is impostor syndrome (IS), which refers to feelings of doubting one's own competence, attributing achievements to mere luck, and fearing being perceived as a "fraud" despite clear evidence of ability ([Clance & Imes, 1978](#)). The prevalence of IS among students and healthcare professionals is reported to be quite high, ranging from 20–70% ([Bravata et al., 2020](#)). Individuals with impostor syndrome tend to experience self-doubt, perfectionism, and difficulty accepting validation for their achievements, which can increase vulnerability to burnout.

Previous studies support the association between impostor syndrome and burnout. [Villwock et al. \(2016\)](#) found a significant relationship between IS and burnout among medical students in the United States. [Agrawal et al. \(2025\)](#) in India reported a high prevalence of IS among medical students and its association with mental health, although not specifically focused on burnout. [Khurshid et al. \(2025\)](#) in Pakistan

found a high prevalence of burnout due to academic workload but did not assess IS as a risk factor. Meanwhile, [Ok et al. \(2025\)](#) examined impostor syndrome among postgraduate anatomy students in Turkey but did not evaluate its relationship with burnout. This indicates the existence of a research gap, particularly in the population of postgraduate health students.

In Indonesia, data on impostor syndrome and burnout among postgraduate students are not yet available. In fact, postgraduate students face heavy academic demands, such as publication requirements, research completion, and on-time graduation targets. This condition has the potential to increase the risk of impostor syndrome and burnout, which, if not addressed, can affect study success and the quality of graduates ([Levecque et al., 2017](#); [Salmela-Aro & Upadyaya, 2018](#)).

In addition to increasingly complex academic demands, postgraduate students in health sciences also face changes in social and professional roles that may exacerbate their psychological condition. Students at the master's and doctoral levels are generally in early or middle adulthood, where they are not only focused on their studies but must also carry out family responsibilities, work, and other social demands. The combination of these roles often leads to role conflict and psychological fatigue, especially when academic demands are not aligned with the individual's adaptive capacity. This condition is further worsened when students feel the need to maintain a competent image while internally experiencing uncertainty, which in turn contributes to the emergence of impostor syndrome symptoms and an increased risk of burnout ([Bravata et al., 2020](#)).

Furthermore, the development of the higher education system currently emphasizes high academic productivity, such as

scientific publications, research involvement, and other academic achievements. The pressure to meet these performance indicators can create a competitive and perfectionistic academic environment. Students who feel unable to meet these standards tend to experience deep self-doubt, compare themselves with peers, and attempt to conceal their perceived inadequacies. Such situations have the potential to generate chronic stress, which, if not properly managed, can develop into burnout. Therefore, the role of psychological factors such as impostor syndrome becomes important to be examined more deeply in the context of postgraduate students ([Feenstra et al., 2020](#)).

Considering the complexity of these issues, research is needed that specifically analyzes the psychological and social factors contributing to burnout among postgraduate students, particularly those from the health sciences field. To date, research integrating the variables of impostor syndrome and burnout in the population of postgraduate students in Indonesia remains very limited. In fact, understanding the relationship between these two factors is essential for designing prevention strategies, psychological interventions, and institutional support for students. Thus, this study is expected to provide significant scientific contributions and serve as a basis for the development of mental health programs in higher education settings, particularly at the postgraduate level.

SUBJECTS AND METHOD

1. Study Design

This study is an analytical observational with cross-sectional design. The study was conducted from April to May 2026 at the Postgraduate Program in the Health Sciences field in the Master's Program in Public Health, Master's Program in

Nutrition Science, Doctoral Program in Medical Science, and Doctoral Program in Public Health at Universitas Sebelas Maret, Surakarta, Central Java.

2. Population and Sample

The population of this study consisted of postgraduate students in the Health Sciences field at Universitas Sebelas Maret, including the Master's Program in Public Health, Master's Program in Nutrition Science, Doctoral Program in Medical Science, and Doctoral Program in Public Health. The inclusion criteria were active students with a year of entry between 2021-2025 who were enrolled during the data collection period and were willing to provide informed consent.

The sample size was determined using an a priori power analysis with effect size through G*Power software using a bivariate correlation test approach, resulting in a minimum sample size of 193 respondents. After adjusting for a 10% non-response rate, the minimum sample size became 214 respondents. The sampling technique used was proportionate stratified random sampling to ensure representation from each study program and to minimize bias. Based on the final results of the study, the total number of respondents obtained was 232 students.

3. Study Variables

The independent variable in this study was impostor syndrome. The dependent variable in this study was burnout. The potential confounding variables in this study were gender, age, study program, semester, year of entry, marital status, employment status, scholarship status, study status, history of mental health disorders, history of chronic illness, hobby activities, physical exercise, and social support.

4. Operational Definition of Variables

Impostor Syndrome is a psychological condition in which individuals experience

doubts about their own abilities, feel unworthy of their achievements, and have a fear of being perceived as a “fraud” despite having objective evidence of success.

Dimensions of Impostor Syndrome:

- a. Feeling Like a Fraud / fake (A feeling that one is not truly competent and is only “pretending” to succeed, accompanied by a fear of being exposed as incapable)
- b. Luck Attribution (A belief that success is not due to personal ability, but rather due to luck or external factors)
- c. Discounting Achievement (A tendency for individuals to reject or downplay their achievements and feel unworthy of recognition)

Burnout is a condition of emotional exhaustion, cynicism, and low academic efficacy related to study demands.

Dimensions of Academic Burnout:

- a. Exhaustion (Fatigue due to study demands)
- b. Cynicism (A cynical or detached attitude toward tasks)
- c. Reduced academic efficacy (Decreased academic confidence)

Gender is a biological characteristic that distinguishes individuals as male and female, which may influence levels of impostor syndrome and burnout.

Age is the length of time a respondent has lived, calculated from birth to the time of the study, which is related to emotional maturity and an individual's ability to manage stress.

Study program is the field of study pursued by respondents at the postgraduate level, which has different curriculum characteristics and academic workloads.

Marital status is the respondent's marital condition, which may influence social support and role burden in daily life.

Employment status is the respondent's condition regarding involvement in work

while studying, which may create dual roles and increase psychological burden.

Scholarship status is the respondent's condition of receiving or not receiving educational financial assistance, which may be related to academic pressure and achievement demands.

Study status is the respondent's condition of affiliation with a workplace while pursuing education, such as study assignment or study leave, which may influence academic workload and responsibilities.

History of mental health disorders refers to the presence of a diagnosis or previous experience of mental health disorders, such as depression or anxiety, which may affect an individual's psychological condition.

History of chronic illness refers to the presence of long-term physical diseases that have been or are currently experienced by the respondent, which may affect physical and psychological conditions.

Physical exercise is regular physical activity performed by respondents, which plays a role in maintaining physical health and helping to reduce stress.

Hobby activities are non-academic activities (e.g., arts, music, writing, etc.) carried out voluntarily by respondents for enjoyment or relaxation, which can help reduce psychological pressure.

Social Support is perception of respondents regarding emotional, informational, and instrumental support from family, friends, and others.

5. Study Instruments

Impostor Syndrome scores were measured using the Clance Impostor Phenomenon Scale (CIPS), a 20-item questionnaire developed by [Clance \(1985\)](#).

- a. Feeling like a fraud / fake: indicated in items 1, 3, 5, 7, 9, 12, 14, and 18
- b. Luck attribution: indicated in items 2, 6, 11, 17, and 20

c. Discounting achievement: indicated in items 4, 8, 10, 13, 15, 16, and 19

Burnout scores were measured using the Maslach Burnout Inventory Student Survey (MBI-SS) developed by [Schaufeli et al. \(2002\)](#), consisting of 15 items, including 9 favorable statements and 6 unfavorable statements.

a. Exhaustion: Favorable items (1, 4, 7, 10, 13)

b. Cynicism: Favorable items (2, 5, 8, 11)

c. Reduced academic efficacy: Unfavorable items (3, 6, 9, 12, 14, 15)

The level of social support was measured using the MSPSS (Multidimensional Scale of Perceived Social Support) questionnaire consisting of 12 items.

However, the results of the validity test showed that four items were not valid, namely in the impostor syndrome construct (items 2 and 16) and burnout (items 6 and 12), so these items were removed. This removal changed the number of items and the score range; therefore, adjustments were made to the minimum and maximum score limits to ensure they remained representative without altering the proportion of score interpretation.

6. Data Analysis

Univariate analysis was used to describe the distribution of each variable included in the study. Bivariate analysis using spearman correlation test, because the data were not normally distributed. Multivariable analysis was conducted using multiple linear regression analysis by controlling for confounding variables. All analyses were conducted using STATA version 13.

7. Research Ethics

Research ethical issues including informed consent, anonymity, and confidentiality, were addressed carefully during the study process. The research ethical clearance approval letter was obtained from the Research Ethics Committee at Universitas Sebelas Maret, Surakarta, Indonesia, No. 46/UN27.06.11/KEP/EC/2026, on March 17, 2026.

RESULTS

1. Sample Characteristics

Based on the research that has been conducted, a total of 232 respondents who met the inclusion criteria were obtained, with the results of the univariate analysis (See Table 1).

Table 1. Sample Characteristics

Characteristics	Category	Frequency (n)	Percentage (%)
Gender	Male	70	30.17
	Female	162	69.83
Age	22-29 years old	109	46.98
	30-39 years old	74	31.90
	≥ 40 years old	49	21.12
Study Program	Master's Program in Public Health	67	28.88
	Master's Program in Nutrition Science	68	29.31
	Doctoral Program in Medical Science	42	18.10
	Doctoral Program in Public Health	55	23.71
Marital Status	Married	115	49.57
	Unmarried/Single	114	49.14
	Divorced	3	1.29
	Widowed	0	0

Characteristics	Category	Frequency (n)	Percentage (%)
Employment Status	Full-time employed	147	63.36
	Part-time employed	39	16.81
	Unemployed	46	19.83
Scholarship Status	Yes	34	14.66
	No	198	85.34
Study Status	Study assignment (fully released from work duties)	34	14.66
	Study permit (working while studying)	136	58.62
	Not affiliated with any institution	62	26.72
History of Mental Health Disorders	Yes	11	4.74
	No	221	95.26
History of Chronic Illness	Yes	8	3.45
	No	224	96.55
Exercise	Never	29	12.50
Duration per Week	1–2 times/week	161	69.40
	≥ 3 times/week	42	18.10
Hobby Activity	Yes, regularly	53	22.84
	Yes, occasionally	165	71.12
	No	14	6.03
Social Support	Low	22	9.48
	Moderate	81	34.91
	High	129	55.60
Impostor Syndrome	Feeling like a fraud/fake		
	Low (score 8–18)	76	32.76
	Moderate (score 19–29)	132	56.90
	High (score 30–40)	24	10.34
	Luck attribution		
	Low (score 4–9)	105	45.26
	Moderate (score 10–14)	97	41.81
	High (score 15–20)	30	12.93
	Discounting achievement		
	Low (score 6–13)	89	38.36
Burnout	Moderate (score 14–22)	122	52.59
	High (score 23–30)	21	9.05
	Exhaustion		
	Low (score 0–8)	136	58.62
	Moderate (score 9–14)	64	27.59
	High (score ≥ 15)	32	13.79
	Cynicism		
	Low (score 0–5)	176	75.86
	Moderate (score 6–10)	39	16.81
	High (score ≥ 11)	17	7.33
	Reduced Academic Efficacy		
	Low (score ≤ 14)	223	96.12

Characteristics	Category	Frequency (n)	Percentage (%)
	Moderate (score 15-18)	6	2.59
	High (score ≥ 19)	3	1.29

Table 1 shows that the majority of respondents were female, totaling 162 (69.83%), while male respondents amounted to 70 (30.17%). Based on age, most respondents were in the 22–29 years age group, totaling 109 (46.98%). The distribution of respondents by study program was relatively even, with the largest proportions coming from Master's in Nutrition Science 68 (29.31%) and Master's in Public Health 67 (28.88%), followed by Doctoral in Medical Science 55 (23.71%) and Doctoral in Public Health 42 (18.10%).

Based on marital status, respondents were almost evenly divided between those who were married, totaling 115 (49.57%), and those who were unmarried/single, totaling 114 (49.14%). In terms of employment, most respondents worked full-time, totaling 147 (63.36%). The majority of respondents did not receive scholarships, totaling 198 (85.34%), and pursued their studies under a study leave status, meaning they continued working while studying, totaling 136 (58.62%). This indicates that most respondents carried dual roles as both students and workers.

In terms of health conditions, most respondents did not have mental health disorders, totaling 221 (95.26%), nor a history of chronic diseases, totaling 224 (96.55%). From a lifestyle perspective, the majority of respondents exercised 1–2 times per week, totaling 161 (69.40%), and had hobbies, although most were done occasionally, totaling 165 (71.12%). In addition, more than half of the respondents had a high level of social support, totaling 129 (55.60%).

Based on the results of univariate analysis, the distribution of impostor

syndrome levels measured through three dimensions among respondents showed varying distributions across each dimension. In the feeling like a fraud/fake dimension, the majority of respondents were in the moderate category, totaling 132 (56.90%), followed by the low category with 76 (32.76%), and the high category with 24 (10.34%). In the luck attribution dimension, the distribution of respondents was relatively more even, but most were in the low category, totaling 105 (45.26%), followed by the moderate category with 97 (41.81%), and the high category with 30 (12.93%). In the discounting achievement dimension, the majority of respondents were in the moderate category, totaling 122 (52.59%), followed by the low category with 89 (38.36%), and the high category with 21 (9.05%).

Meanwhile, the level of burnout measured through three dimensions showed different variations. In the exhaustion dimension, the majority of respondents were in the low category, totaling 136 (58.62%), followed by the moderate category with 64 (27.59%), and the high category with 32 (13.79%). In the cynicism dimension, most respondents were in the low category, totaling 176 (75.86%), followed by the moderate category with 39 (16.81%), and the high category with 17 (7.33%). In contrast to the previous two dimensions, in the reduced academic efficacy dimension, almost all respondents were in the low (burnout) category, totaling 223 (96.12%), while only a small proportion were in the moderate category with 6 (2.59%) and the high category with 3 (1.29%).

2. Bivariate Analysis

Bivariate analysis explains the effect between the independent variable, namely impostor syndrome, and the dependent variable, namely burnout, using a correlation

test. Before conducting the correlation test, a normality test was first performed to determine the type of statistical test to be used (See Table 2).

Table 2. Results of the Spearman correlation test of factors related to burnout

Variables	n	Spearman's rho	p
Impostor syndrome	232	0.65	<0.001
Gender	232	0.11	<0.001
Age	232	-0.26	<0.001
Study Program	232	-0.24	<0.001
Marital Status	232	0.25	<0.001
Employment Status	232	0.32	<0.001
Scholarship Status	232	-0.00	<0.001
Study Status	232	0.25	<0.001
History of Mental Health Disorders	232	-0.22	<0.001
History of Chronic Illness	232	-0.18	<0.001
Exercise Duration	232	-0.14	<0.001
Hobby Activity	232	0.08	<0.001
Social Support	232	-0.44	<0.001

Based on the results of the normality test using the Shapiro-Wilk test, the significance value (p-value) obtained for the impostor syndrome variable was <0.001 and for the burnout variable was <0.001. Both values are $p < 0.05$, so it can be concluded that the data for both variables are not normally distributed. Therefore, the bivariate analysis in this study used a non-parametric test, namely the Spearman correlation test, which does not require normally distributed data.

The results of the Spearman correlation test indicated that impostor syndrome had a strong positive correlation with burnout ($r = 0.65$; $p < 0.001$). These results indicate that there is a statistically significant relationship between impostor syndrome and burnout. The positive direction of the correlation indicates that the higher the level of impostor syndrome, the higher the level of burnout experienced. The correlation coefficient value of 0.650 indicates that the

strength of the relationship is in the strong category, meaning that impostor syndrome has a fairly strong relationship with burnout among the respondents in this study social support demonstrated a moderate negative correlation ($r = -0.44$; $p < 0.001$), suggesting its role as a protective factor. Other variables, such as employment status ($r = 0.32$), age ($r = -0.26$), marital status ($r = 0.25$), and study status ($r = 0.25$), showed weak to moderate associations. Meanwhile, variables including gender, engagement in hobbies, and scholarship status exhibited very weak or practically negligible correlations.

3. Multivariable Analysis

Multivariable analysis in this study was conducted using multiple linear regression to determine the effect of the impostor syndrome variable on burnout by considering confounding variables.

a. Selection of Candidate Variables and Identification of Confounders

Before entering the stage of selecting candidate variables that have the potential to become confounders, a simple linear regression analysis was conducted on potential variables from respondent characteristics, including: gender, age, study program, marital status, employment status, scholarship, study status, history of mental health disorders, history of chronic disease, exercise, hobby activities, and social support. Furthermore, to identify variables that act as confounders, the change in estimate

approach was used, by comparing changes in the regression coefficient (β) between the crude model (unadjusted) and the adjusted model (adjusted) with the inclusion of other variables. This approach is used because it is able to demonstrate substantive changes in the magnitude of effect, thus better reflecting the role of a variable as a confounder compared to relying solely on p-values. A variable is categorized as a confounder if there is a coefficient change of $\geq 10\%$ after being included in the model (Hosmer et al., 2013) (See Table 3).

Table 3. Results of change in estimate in determining confounders

Variable	β	Change in Estimate
Gender	0.50	-2.65%
Age	0.48	1.43%
Study Program	0.47	3.47%
Marital Status	0.47	3.88%
Employment Status	0.46	5.10%
Scholarship Status	0.49	-0.41%
Study Status	0.46	4.49%
History of Mental Health Disorders	0.46	5.31%
History of Chronic Illness	0.47	2.86%
Exercise Duration	0.49	-0.61%
Hobby Activity	0.49	0%
Social Support	0.42	12.86%

Description : confounding cut-off $\geq 10\%$

Based on the results of the coefficient change calculation, it was found that only the social support variable had a coefficient change of 12.86%, which is greater than the cut-off $\geq 10\%$, and thus can be categorized as a confounder. Therefore, in the subsequent multivariate analysis, the variables included in the multiple linear regression model were impostor syndrome as the main variable and social support as the confounder.

b. Multiple Linear Regression Analysis

Based on the results of multiple linear regression analysis with robust standard

errors, it was found that the regression model is simultaneously significant with a $p < 0.001$. The coefficient of determination (R^2) value of 0.48 indicates that 48.52% of the variation in burnout can be explained by the impostor syndrome and social support variables. Meanwhile, the remaining 51.48% is influenced by other factors outside the research model. This indicates that the model has a fairly good explanatory ability in the context of social and public health research (See Table 4).

Table 4. Multiple linear regression analysis of the relationships among impostor syndrome, social support, and burnout

Variable	β	95% CI		p
Impostor syndrome	0.42	0.32	<0.001	0.51
Social Support	-0.25	-0.34	<0.001	-0.16
Constanta	16.13	6.98	0.001	25.28
$R^2 = 0.4852$; $n = 232$				

The analysis results show that impostor syndrome has a positive and significant effect on burnout ($\beta = 0.42$; 95% CI = 0.32 to 0.51; $p < 0.001$). This indicates that an increase of one unit in the impostor syndrome score will increase the burnout score by 0.42 points after controlling for social support. These findings indicate that impostor syndrome is an important risk factor contributing to increased burnout levels, so individuals with high levels of impostor syndrome tend to be more vulnerable to experiencing burnout.

Meanwhile, the social support variable shows a negative and significant effect on burnout ($\beta = -0.25$; 95% CI = -0.34 to -0.16; $p < 0.001$). This indicates that each one-unit increase in social support score will reduce burnout by 0.25 points after controlling for impostor syndrome. Thus, social support acts as a protective factor that can reduce burnout levels. Individuals who have good social support tend to be better able to manage the burnout they experience.

DISCUSSION

The results of this study indicate that impostor syndrome has a strong and significant correlation with burnout among postgraduate students in the health sciences at Universitas Sebelas Maret, Indonesia. The positive direction of the relationship suggests that higher levels of impostor syndrome are associated with higher levels of burnout. This finding is further supported by the multivariate analysis, which shows that after controlling for social support,

impostor syndrome remains a significant positive predictor of burnout. This indicates that impostor syndrome is a key risk factor contributing to increased burnout. Additionally, the coefficient of determination ($R^2 = 0.48$) suggests that nearly half of the variance in burnout can be explained by impostor syndrome and social support, indicating that the model has good explanatory power within a public health context.

Theoretically, these findings can be explained by the concept of impostor syndrome as a form of cognitive distortion in which individuals doubt their abilities despite objective achievements. This condition leads individuals to perceive academic demands as more burdensome than they actually are, thereby increasing psychological stress and ultimately resulting in burnout. This is consistent with the theory that burnout is influenced not only by objective workload but also by individuals' perceptions of these demands ([Schaufeli et al., 2020](#)). In this study, although most respondents were categorized as having low burnout, the predominance of moderate levels of impostor syndrome indicates the presence of latent psychological pressure that may develop into burnout if not properly managed.

The findings of this study are consistent with previous research demonstrating that impostor syndrome is a significant predictor of burnout. [Gondos et al. \(2026\)](#) and [Moeen et al. \(2026\)](#) found that individuals experiencing impostor syndrome have a higher risk of burnout, particularly among

postgraduate students facing high academic demands. Similarly, [Campos et al. \(2022\)](#) reported that impostor syndrome is positively correlated with key dimensions of burnout, including emotional exhaustion and cynicism, and negatively correlated with professional efficacy. Comparable findings were also reported among healthcare professionals by [Leach et al. \(2019\)](#), who found that impostor syndrome is associated with increased emotional exhaustion and depersonalization. The consistency of these findings reinforces the role of impostor syndrome as an important psychological factor contributing to burnout across different populations.

In addition to impostor syndrome, this study found that social support has a moderately strong negative correlation with burnout and acts as a confounding variable, with a change in coefficient of 12.86%. In the multivariate analysis, social support showed a significant protective effect against burnout, indicating that higher levels of social support are associated with lower levels of burnout. This suggests that social support not only has a direct relationship with burnout but also influences the strength of the relationship between impostor syndrome and burnout.

The role of social support in this study aligns with the buffer effect model proposed by [Cohen & Wills \(1985\)](#), which posits that social support can mitigate the negative effects of stress by enhancing individuals' coping abilities. In this context, students with higher levels of social support are more likely to have better emotional regulation, more positive self-perceptions, and higher self-confidence, thereby reducing the negative impact of impostor syndrome. These findings are supported by previous studies by [Ye et al. \(2021\)](#) and [Li et al. \(2018\)](#), which demonstrated that social support is associated with reduced burnout and

increased learning motivation. Furthermore, [Rehman et al. \(2020\)](#) emphasized that social support improves psychological well-being by providing access to broader social networks, enabling individuals to cope more adaptively with academic stress.

However, several other variables in this study showed weak to moderate correlations with burnout, including employment status, age, marital status, and study status. Meanwhile, variables such as gender, hobby activity, and scholarship status showed very weak or negligible correlations. These findings suggest that psychological factors such as impostor syndrome and social factors such as social support play a more dominant role than demographic characteristics in explaining burnout in this population.

This study has several limitations. First, the cross-sectional design does not allow for causal inferences between variables. Second, the use of self-report questionnaires may introduce subjective bias, such as social desirability bias. Third, the study population was limited to postgraduate students in health sciences at a single university, which may limit the generalizability of the findings. Additionally, there may be other variables not included in the model that could influence burnout, as indicated by the R^2 value, which does not reach 1.

In conclusion, impostor syndrome is a major risk factor contributing to increased burnout, while social support serves as a protective factor that can reduce burnout levels. These findings have important implications for academic policy, particularly in efforts to prevent burnout among postgraduate students. Potential interventions include early screening for impostor syndrome, strengthening social support systems through peer support and academic mentoring, and developing campus-based mental health programs. Future research is recommended to use longitudinal designs to

establish causal relationships and to explore additional factors such as coping strategies, academic workload, and learning environment that may influence burnout more comprehensively.

AUTHOR CONTRIBUTION

All authors have contributed significantly in analyzing existing data, as well as actively participating in preparing the final manuscript of the research results.

ACKNOWLEDGEMENTS

The author would like to express gratitude to the Postgraduate Program in the Field of Health Sciences, Universitas Sebelas Maret, particularly the Master's Program in Public Health, the Master's Program in Nutrition Science, the Doctoral Program in Medicine, and the Doctoral Program in Public Health, for granting permission to the researcher to conduct this study and for the willingness of the students to participate as respondents in this research. The author also conveys appreciation to all parties who have provided support and assistance so that the preparation of this manuscript could be completed successfully.

FINANCIAL SUPPORT AND SPONSORSHIP

This study is self-funded.

CONFLICT OF INTEREST

There is no conflict of interest in this study.

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