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Correlation between Self-compassion and Academic Procrastination with Learning Achievement among the Medical Students at Universitas Swadaya Gunung Jati, Cirebon, Indonesia

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ABSTRACT

Background: Learning achievement is primarily measured by GPA. A positive self-concept, nurtured by self-compassion, is essential for achieving academic excellence. Self-compassion helps students cope with stress and boost motivation. On the other hand, procrastination is a common obstacle to academic success. Ineffective time management and organizational skills are hallmarks of procrastination.

Aims: To describe the levels of self-compassion and procrastination among medical students and to examine how these factors relate to academic performance.

Methods: This study employed a cross-sectional design involving 266 active medical students at UGJ, selected through stratified random sampling. Data was collected using an online questionnaire, including the Self-Compassion Scale and the Academic Procrastination Scale. Univariate and bivariate analyses were conducted, with a Spearman correlation test used to assess the correlation between variables due to the non-normal distribution of self-compassion and academic achievement.

Results: The majority of participants exhibited moderate levels of self-compassion (56%). Similarly, the majority (38.7%) demonstrated moderate levels of academic procrastination. In terms of learning achievement, the majority of participants achieved a GPA between 3.01 and 3.50 (32.3%). A significant positive correlation was found between self-compassion and learning achievement (p-value<0.001, r=0.339). Conversely, a significant negative correlation was observed between academic procrastination and learning achievement (p-value<0.001, r=-0.234).

Conclusion: This research shows that higher self-compassion is associated with better learning outcomes whereas higher academic procrastination is associated with worse learning outcomes.

Keywords: *Self-compassion, Academic procrastination, Learning achievement, Medical students.*
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1. Introduction

The minimum criteria for the qualifications of medical graduates, encompassing attitudes, knowledge, and skills, are stated in the learning outcomes (Konsil Kedokteran Indonesia, 2019). Learning achievement, a key measure of educational system performance, is reflected through the average grade, known as the Cumulative Grade Point Average (CGPA). The CGPA is a key metric reflecting overall learning achievement, influencing various aspects of a student's academic journey (Murti & Raihana, 2023). From the data analysis conducted by Murti C. and Raihana P. A. (2023), it identified that the academic achievement (CGPA) of Psychology students at UMS showed that 10% of students had very low CGPA, 21% had low CGPA, 38% had moderate CGPA, 24% had high CGPA, and 7% had very high CGPA (Murti & Raihana, 2023).

Learning is necessary for building a positive self-concept to foster self-confidence and a sense of certainty during the learning process (Hanim et al., 2022). Observations suggest that medical students experience higher levels of psychological morbidity compared to students from other departments. Stressors such as a competitive environment, a large amount of material to master quickly, sleep disturbances, numerous exams, and parental expectations also contribute to high-stress levels among medical students. Self-compassion, characterized by self-kindness, common humanity, and mindfulness toward oneself, can help individuals manage stress and improve their overall well-being (Nayoan et al., 2023).

In a study conducted by Nayoan et al. (2023) on seventh-semester medical students at Sam Ratulangi University, it was found that 70% had moderate self-compassion, 27% had high levels, and 3% had low levels. This means that students can accept and understand their imperfections, to understand that imperfections are a part of life for all humans, and to maintain a balance of mind and emotions when facing difficulties or failures (Nayoan et al., 2023).

Findings from Egan et al.'s (2021) study support a positive relationship between self-compassion and academic performance, indicating an improvement in academic performance. Furthermore, the findings of this study support a negative relationship between procrastination and academic performance, as increased procrastination leads to decreased academic performance. Procrastination is a barrier to success, manifested in inconsistencies in time management, time perspective, and workload organization. Therefore, procrastination can affect students' academic achievement. A study found that students who exhibited higher levels of procrastination received lower academic grades overall (Egan et al., 2022).

A depiction of procrastination found in the research by Murti C. and Raihana P. A. (2023) is that 9% of students sorted as very low, 21% as low, 39% as moderate, 25% as high, and 6% as very high (Murti & Raihana, 2023). Research by Hayat et al. (2020) showed that 29.25% of students experienced academic procrastination. Moreover, 47.9% of students stated that moderate procrastination has caused the problem. This study findings concluded that many students have high levels of procrastination, leading to persistent problems and decreased academic performance (Hayat et al., 2020).

Given the background above, this research aims to investigate the correlation between self-compassion, academic procrastination, and learning achievement among medical students at Swadaya Gunung Jati University. By exploring the various dimensions of these constructs, this study seeks to provide new insights that can enhance the learning achievement of medical students.

2. Methods

Study design/ Research procedures

This research was conducted at UGJ Medical Faculty from May to July 2024. A cross-sectional study involving 266 active medical students was conducted. Students were selected through stratified random sampling. Data was collected through an online questionnaire.

Measurements

Data was collected through an online questionnaire given to UGJ medical students to measure self-compassion and academic procrastination. This study used standardized questionnaires, including the Self-Compassion Scale (SCS) (K. Neff, 2003), adapted into Indonesian as Skala Welas Diri (SWD) (Sugianto et al., 2020). SCS includes 26 items covering six subscales—self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification—scored on a Likert scale of 1 to 5, with scores classified as low, moderate, or high.

Academic procrastination was measured with the Academic Procrastination Scale (APS) (McCloskey & Scielzo, 2015), translated into Indonesian (Putri, 2022). The APS, a reliable 25-item scale, assesses procrastination habits in academic tasks across six indicators: self-confidence, attention deficit, time management, personal initiative, social factors, and laziness. Each item is rated on a Likert scale of 1 to 5. Academic procrastination is categorized based on the mean and standard deviation. The dependent variable, learning achievement, was obtained from the students' GPA for the odd semester, sourced from UGJ Faculty of Medicine's academic records.

Statistical techniques

This study used univariate and bivariate analyses. Univariate analysis examined the frequency distribution of the independent variables (self-compassion and academic procrastination) and the dependent variable (learning achievement). Bivariate analysis determined the correlation between the independent and dependent variables. Since the data were numerical but not normally distributed for self-compassion and learning achievement, a non-parametric test, the Spearman correlation, was used.

Ethical clearance

The research was conducted following established procedures and began after obtaining a research permit, approved after the thesis proposal examination and ethical review by the UGJ Faculty of Medicine Ethics Committee (No. 32/EC/FKUGJ/V/2024). Ethical principles were upheld to protect UGJ medical students as subjects, with informed consent provided and professional relationships maintained. The study aimed to maximize benefits and minimize risks, following Beneficence and Non-maleficence principles. Justice was ensured by treating all subjects equally, and Confidentiality was maintained by using anonymous coded data.

3. Results

Respondent characteristics

Based on Table 1, it can be seen that out of a total sample of 266 students, the results indicate that, in terms of academic level, the majority of research subjects were from the second level, with 76 students (28.6%). When looking at age, the majority of research subjects were aged ≥20 years, with 187 students (70.3%), and when looking at gender, the majority of research subjects were female with 173 respondents (65%).

Table 1. Frequency Distribution of Respondent Characteristics

	n	%
Academic Level		
Level 1	67	25.2
Level 2	76	28.6
Level 3	67	25.2
Level 4	56	21.0
Age		
<20 years old	79	29.7
≥20 years old	187	70.3
Gender		
Male	93	35.0
Female	173	65.0

Index: n = number, % = percentage

Self-compassion

Table 2 reveals that the distribution of self-compassion scores among UGJ medical students is uneven, with a wide range from 50 to 129. Although the mean score is 85.15, this inter-individual variation suggests significant differences in levels of self-compassion and implies the need for a personalized approach in developing programs to enhance self-compassion.

Table 2. The Total Self-Compassion Score of Medical Students UGJ

Variable	n	$\bar{x} \pm SD$	$Me(Min - Max)$	Kolmogorov-Smirnov
Total Self-Compassion Score	266	85.15±13.68	85.00(50-129)	<0.001

Table 3 reveals a considerable variation in self-compassion levels among medical students, ranging from very low to very high. The majority of UGJ medical students exhibit a moderate level of self-compassion (56%). Approximately 10.9% of students demonstrate low levels of self-compassion, while around one-third (33.1%) exhibit high levels. These findings indicate that although a significant proportion of students possess adequate levels of self-compassion, a substantial minority still exhibit low levels. This highlights the need for targeted programs or interventions to enhance self-compassion, particularly for those with lower scores.

Table 3. Frequency Distribution of Self-Compassion Categorization among Medical Students at UGJ

Self-Compassion Category	n	%
Low (1.00-2.50)	29	10.9
Moderate (2.51-3.50)	149	56.0
High (3.51-5.00)	88	33.1
Total	266	100.0

Table 4 shows variations in students' levels of self-compassion across each subscale, reflecting individual differences in the ability to relate to oneself with compassion. Most students (41.4%) have a moderate level of self-kindness, while 18.4% have a low level, indicating that some students struggle to be kind to themselves during difficult times. The majority (41.4%) also engage in self-judgment at a low level, but 40.2% tend to judge themselves frequently, suggesting difficulty in accepting personal flaws. In the common humanity aspect, 40.6% are at a moderate level, while 44% feel isolated, indicating that many students struggle to feel connected to others. Around 42.5% have a moderate level of mindfulness, but 51.5% tend to dwell on negative thoughts. Overall, these results indicate the need for students to further develop self-compassion, particularly in self-kindness, reducing self-judgment, and enhancing common humanity. Self-development programs focusing on self-compassion can help students manage stress, improve mental well-being, and reach their full potential.

Table 4. Categorization of Each Subscale of The Self-Compassion Scale

Subscale	$\bar{X}$	Category					
		Low		Moderate		High	
		n	%	n	%	n	%
Self-kindness (+)	16.36	49	18.4	110	41.4	107	40.2
Self-judgement (-)	13.58	110	41.4	107	40.2	49	18.4
Common humanity (+)	13.18	61	22.9	108	40.6	97	36.5
Isolation (-)	11.33	117	44.0	92	34.6	57	21.4
Mindfulness (+)	13.16	54	20.3	113	42.5	99	37.2
Overidentification (-)	10.65	137	51.5	87	32.7	42	15.8

Academic procrastination

Based on Table 5, medical students at UGJ generally have a positive outlook on their ability to learn. They also tend to be proactive in initiating tasks. The main challenges identified were issues with concentration and time management. However, social factors and laziness do not appear to be significant problems for the majority of students.

Table 5. Percentage of Academic Procrastination Scale Indicators among Medical Students UGJ

Indicator	Favourable		Unfavourable	
	%	Category	%	Category
Belief in Ability	51.1	Moderate	-	-
Attentional Disturbance	60.5	High	53.8	Moderate
Time Management	-	-	54.1	Moderate
Personal Initiative	51.7	Moderate	56.5	Moderate
Social Factor	53.0	Moderate	-	-
Laziness	50.7	Moderate	-	-

Table 6 indicates that, on average, medical students at UGJ have a procrastination score of 67.26. This means that, in general, medical students tend to procrastinate on their academic tasks. Although the average score is as such, not all students have the same level of procrastination. Some students procrastinate very rarely (lowest score of 28), while others procrastinate very often (highest score of 114). This suggests that there is a significant difference among students in terms of procrastination habits.

Table 6. The Total Academic Procrastination Score of Medical Students UGJ

Variable	N	$\bar{x} \pm SD$	$Me(Min - Max)$	Kolmogorov-Smirnov
Total Academic Procrastination Score	266	67.26±17.19	68.00(28-114)	0.200

Based on Table 7, a majority of students exhibit a moderate level of procrastination. Specifically, 38.7% of medical students at UGJ fall into the moderate category, indicating a fairly common level of procrastination. There is a considerable variation in the degree of procrastination among students, ranging from those who procrastinate very rarely to those who procrastinate very often. Although the majority of students have a moderate level of procrastination, the proportion of students with high and very high levels of procrastination is also significant. This suggests that academic procrastination is a concern that should be addressed.

Table 7. Frequency Distribution of Academic Procrastination Categorization among Medical Students at UGJ

Academic Procrastination Category	n	%
Very Low (≤41)	17	6.4
Low (42-59)	76	28.6
Moderate (60-76)	103	38.7
High (77-93)	52	19.5
Very High (≥94)	18	6.8
Total	266	100.0

Learning achievement

An analysis of the learning achievement of medical students at UGJ reveals significant variations. Table 8 shows that the average score is 2.82, but the range of scores is wide, from 0.60 to 3.85. This indicates that each student's ability to absorb the material varies greatly. Table 9 shows a relatively even distribution of GPAs among medical students. No single GPA range is dominant. The majority of students have a satisfactory GPA. Specifically, 32.3% of students have a GPA between 3.01 and 3.50, which is considered a good GPA. However, 13.1% of students have a GPA below 2.00, indicating that some students are struggling to achieve the expected academic performance. These results demonstrate the heterogeneity in academic abilities among students. Some students have excellent abilities, while others still need to improve their performance.

Table 8. The Amount of Learning Achievement of Medical Students UGJ

Variable	N	$\bar{x} \pm SD$	$Me(Min - Max)$	Kolmogorov-Smirnov
Learning Achievement	266	2.82±0.66	2.95(0.60-3.85)	<0.001

Table 9. Frequency Distribution of Learning Achievement among Medical Students at UGJ

Semester GPA	n	%
<2.00	35	13.1
2.00 – 2.75	64	24.1
2.76 – 3.00	51	19.2
3.01 – 3.50	86	32.3
3.51 – 4.00	30	11.3
Total	266	100.0

Bivariate analysis

The Kolmogorov-Smirnov test indicated that the variables of self-compassion and learning achievement did not meet the normality assumption, whereas academic procrastination did. As a result, Spearman correlation, a non-parametric test, will be employed using statistical software to examine the correlation between these variables.

Table 10. Results of the Non-parametric Spearman's rho Correlation Test

Variable	Learning Achievement		
	n	p-value	*r*
Self-Compassion	266	<0.001	0.339
Academic Procrastination	266	<0.001	-0.234

Table 10 reveals a significant, yet weak, positive correlation between self-compassion and learning achievement. This suggests that students with higher levels of self-compassion tend to have higher learning achievement. Additionally, a significant, weak negative correlation was found between academic procrastination and learning achievement. This indicates that students who tend to procrastinate tend to have lower learning achievement.

4. Discussion

Self-compassion profile among the medical students

The data analysis results showed that most medical students UGJ, or 149 students (56%), exhibited a moderate level of self-compassion. Medical students often possess perfectionist tendencies, a source of anxiety and stress due to high self-expectations compared to students from other faculties. These unmet expectations can lead to decreased self-compassion (Pereira et al., 2022). Higher levels of self-compassion have been linked to reduced psychopathology through decreased automatic and negative thinking, reduced negative emotions, and improved emotion regulation skills (K. D. Neff, 2023). Individuals who practice self-compassion tend to experience less emotional distress, greater empathy towards others, and a more profound sense of purpose in life (Ka et al., 2022).

The recent study also assessed each indicator of The Self-Compassion Scale. The results showed that the most prominent indicators were self-kindness (positive) and self-judgment (negative). This suggests that while medical students UGJ are able to be kind and caring towards themselves, they also tend to criticize themselves frequently when they fail. As a result, the benefits of self-kindness, such as better emotion regulation, optimism, motivation, empathy, and healthy relationships, are not fully realized. Instead, it can lead to new problems like anxiety and depression (K. D. Neff, 2023).

One way to enhance self-compassion is by practicing self-kindness. This enables students to learn to accept themselves as they are, including their flaws and strengths. Additionally, reducing self-judgment is crucial. It helps students to be gentler with themselves and perceive mistakes as part of the learning process. Furthermore, by fostering a sense of common humanity, students can feel more connected to others and less isolated. Mindfulness practice can also help students be more present and accepting of their thoughts and feelings without judgment. Lastly, reducing overidentification with negative thoughts can help students focus on the positive aspects of their lives.

These strategies can be more effective when supported by a conducive learning environment. Therefore, medical educators need to create a more supportive learning environment. They can do this by, for instance, raising awareness about self-compassion through workshops or seminars on the topic to help students understand the importance of self-compassion and how to practice it. They can also cultivate a culture of constructive feedback that focuses more on students' progress rather than just their final outcomes. Additionally, they can create supportive communities by facilitating study groups or communities where students can support and share experiences with each other. Integrating mindfulness practices into the curriculum can help students manage stress and improve self-awareness. By implementing these strategies, it is hoped that medical students can develop higher levels of self-compassion. This will not only improve their mental health but also have a positive impact on their academic performance and overall quality of life.

Academic procrastination profile among the medical students

Based on the accumulated data, it can be concluded that the majority of the medical students UGJ, or 103 students (38.7%), exhibited a moderate level of academic procrastination. This could be attributed to a lack of motivation, fear, anxiety, and negative self-talk (Hidayanti & Chris, 2022). Students who procrastinate often work under time pressure, leading to stress (Hayat et al., 2020). Factors contributing to procrastination among medical students include an overwhelming workload, numerous exams, and a vast amount of material to learn and memorize, making it challenging to keep up. The highly competitive academic environment also plays a role (Bella Khansa Puspita & Dewi Kumalasari, 2022). Procrastination can be seen as a coping mechanism to temporarily improve mood by avoiding stress and emotional discomfort (Cho & Lee, 2022).

This finding is consistent with the results of this study, which showed that the attentional disturbance indicator on the procrastination scale was rated high. This indicates a tendency to become distracted and engage in more pleasurable activities easily. Individuals procrastinating do not always do so because they want to avoid their tasks. Instead, they may be trying to distract themselves, leading to procrastination and ultimately, failure to complete tasks on time (Pertiwi, 2020). Other procrastination indicators, such as beliefs about abilities, time management, personal initiative, social factors, and laziness, were rated as moderate.

The research results indicate that the majority of medical students at UGJ have a positive perception of their learning abilities. However, the findings also reveal challenges in time management and attention span that can hinder academic performance, particularly related to a tendency to procrastinate. To address this issue, several strategic steps need to be taken. First, it is to raise students' awareness of the negative impacts of procrastination and the importance of effective time management. Second, it is to equip students with time management skills through training or workshops. Third, it is to assist students in overcoming attention difficulties by providing concentration tips and techniques. Fourth, fostering intrinsic motivation by connecting learning materials with clinical practice and providing constructive feedback. Fifth, creating a supportive learning environment that reduces stress. Finally, building students' self-confidence through challenging yet realistic tasks. By implementing a holistic approach that actively engages students, it is expected that students can develop more effective study habits and achieve optimal academic performance.

Learning achievement profile among the medical students

The Faculty of Medicine at UGJ implements a competency-based curriculum that promotes independent student learning (student-centered) and utilizes the Problem-Based Learning (PBL) system. In an effort to achieve these goals, the Faculty of Medicine UGJ has implemented various innovative learning strategies. The Problem-Based Learning (PBL) system used encourages students to learn by solving real-world problems relevant to the medical field. Although PBL provides flexibility in learning, students also need to have effective time management to be able to complete various assigned tasks. In addition, students also need to have good learning skills, such as the ability to read quickly, make effective notes, and study in groups. These learning skills are essential for facing various forms of assessment given, such as block exams, PBL, biomedical practicums, and assignments. Student success is measured based on their learning achievements (Albana & Meidianawaty, 2020). Although the final grade is important as a performance indicator, a deep understanding of fundamental concepts will help students

in facing professional medical examinations and clinical practice in the future.

Research findings show that most medical students at UGJ fall within the 3.01-3.50 GPA range. According to the academic guidelines of the Faculty of Medicine UGJ, this range is considered very satisfactory. However, to further understand why not all students achieve the same performance, further analysis of the various factors affecting academic performance is needed.

Several factors can influence the learning achievement of medical students. First, there are internal factors originating from the students themselves, such as intelligence, motivation, interest, talent, self-confidence, self-concept, emotions, and physical condition. Good physical and mental health greatly affects learning ability. Therefore, students need to maintain a healthy diet, exercise regularly, and get enough sleep. In addition, conducting regular self-evaluations can help students identify their strengths and weaknesses, so they can make improvements. Second, there are external factors from the surrounding environment, including parental roles, socioeconomic status, community conditions, and the educational environment, including lecturers, facilities, and curriculum. If you experience difficulties, don't hesitate to ask for help from lecturers, tutors, or peers. The rapidly changing academic environment demands that students continue to learn and adapt. Finally, the learning approach, which refers to the student's learning strategies and methods and their suitability for the individual, also plays an important role (Hanim et al., 2022). In essence, success in medical studies is not only determined by intelligence, but also by motivation, self-discipline, and the ability to work collaboratively with others.

Therefore, students can improve their academic performance by studying with peers, utilizing available facilities, and participating in extracurricular activities. This research finding provides several important implications for medical educators in supporting students who struggle with academic performance. First, early identification of at-risk students is crucial. Through regular performance monitoring and open communication, educators can detect signs of learning difficulties early on. Second, early intervention in the form of academic counseling, individual guidance, and learning skills training can help students overcome the challenges they face. Third, adjustments to the curriculum and teaching methods, such as offering flexibility in assessment and encouraging active learning, can increase student motivation and understanding. Finally, comprehensive psychological support, including collaboration with psychologists and mental health programs, is essential to maintain student well-being overall. By implementing these strategies, it is hoped that educators can provide more effective support to students, so that they can reach their optimal academic potential.

Correlation between self-compassion with learning achievement

After conducting data analysis using the Spearman correlation test, the correlation test results between self-compassion and learning achievement of medical students UGJ showed a weak positive significant correlation. This means that the higher the level of self-compassion, the higher the learning achievement. This finding suggests that students who are capable of self-compassion tend to be better equipped to handle academic challenges. In this case, increasing self-compassion is very beneficial in helping students understand and accept constructive criticism and feedback on assessments. Self-compassion can help increase students' motivation to improve themselves and become more resilient, as a result they continue to strive to learn and grow during their time at university, rather than letting difficulties lead to withdrawal from university, ultimately improving their academic performance and learning achievement.

This study's results align with Egan et al.'s research (2022) which stated that there is a significant positive correlation between self-compassion and students' average grades in a British university. Low levels of self-compassion can lead to problems in academic performance. Self-compassion can help students become more resilient, so they will continue to strive to learn (Egan et al., 2022). Findings from Shafeie Sani et al.'s research (2024) showed that self-compassion significantly influences academic motivation. Self-compassion provides emotional resilience, allowing students to maintain a positive self-concept and motivation even when facing setbacks (Shafiei Sani et al., 2024). Setiani et al.'s research (2023) mentioned that students with a GPA above the average (>3.5) have high and moderate levels of self-compassion, while students with an average GPA also have moderate levels of self-compassion. In addition, students with a GPA below the average (<3.5) have moderate to low levels of self-compassion (Setiani & Titi, 2023).

The findings of this study support the hypothesis that self-compassion is significantly correlated with

learning achievement. Similar to the results obtained from this study, the higher the level of self-compassion, the higher the learning achievement of UGJ medical students. Conversely, the lower the level of self-compassion, the lower the learning achievement of UGJ medical students. Low self-compassion in medical students UGJ may be caused by the students treating themselves harshly, self-criticism, and a lack of kindness and acceptance after failure, which can lead to lower average grades.

This research highlights the importance of developing self-compassion in university students to enhance their academic performance and psychological well-being. Self-compassion plays a role not only in learning achievement but also in mental health, interpersonal relationships, and overall well-being. Investing in the development of self-compassion is a sustainable effort that benefits students' personal and professional lives in the future. The findings also expand our understanding of non-cognitive factors affecting learning performance, such as emotional regulation. Further research is needed to explore the mechanisms behind the relationship between self-compassion and learning achievement, including its potential role in fostering more effective learning strategies.

While there is a positive correlation between self-compassion and academic performance, it cannot be concluded that self-compassion directly leads to improved academic outcomes, as other factors or reciprocal relationships may exist. However, overall, these findings support the importance of promoting self-compassion in higher education. With approaches like self-development programs and an empathetic learning environment, we can support students' academic success and well-being while shaping a generation that is not only successful but also empathetic and compassionate.

Correlation between academic procrastination with learning achievement

The findings of this study further support the hypothesis that academic procrastination is negatively correlated with learning achievement. The Spearman correlation test on the variables of academic procrastination and learning achievement of medical students UGJ showed a weak negative significant correlation. This means that the higher the level of academic procrastination, the lower the learning achievement, or the lower the level of academic procrastination, the higher the learning achievement. Procrastination can affect one's motivation and self-confidence, reducing their ability to overcome academic challenges and adapt to a competitive learning environment. This can limit their opportunities to pursue successful academic studies or careers.

Egan et al.'s research (2022) also mentioned a significant negative correlation between academic procrastination and average grades. Students who exhibit higher procrastination receive lower academic grades overall (Egan et al., 2022). Hayat et al.'s research (2020) has similar findings, showing a significant negative relationship between academic procrastination and academic achievement of medical students at Shiraz University (Hayat et al., 2020). Research by Murti C and Raihana PA (2023) also supports this research result, namely there is a significant negative correlation between procrastination and learning achievement (GPA) of UMS students (Murti & Raihana, 2023). Students with high procrastination are likely to experience dissatisfaction with their academic life due to working under time constraints. Procrastination is likely to result in low success and achievement. Students who procrastinate will experience stress and anxiety which will ultimately have a negative impact on their academic performance, including learning achievement (Hayat et al., 2020).

The research by Nathasya and Irawaty (2020) did not show any significant relationship between academic procrastination and learning achievement (Nathasya & Irawaty, 2020). The contrasting results obtained are linked to a positive side of procrastination called active procrastination. Individuals who procrastinate want to get the sensation of working under pressure to challenge themselves. In addition, procrastinators delay because they want to prepare thoroughly for what they want to do in order to get the best results (Nathasya & Irawaty, 2020).

Procrastination is a serious issue for medical students. Further research is needed to identify the specific factors that contribute to procrastination among medical students, allowing for the development of more effective interventions. For instance, cognitive-behavioral therapy or mindfulness could be potential solutions.

Additionally, it is important to consider cultural differences in understanding and addressing this issue. However, with self-awareness, appropriate support, and effective strategies, this problem can be overcome. Investing time and effort in overcoming procrastination will pay off in the long run, both in academic life and in a professional career as a doctor. By managing time better and avoiding procrastination, students can improve academic performance, reduce stress, and ultimately become more competent and confident doctors.

Limitation

This study provides an initial and intriguing glimpse into the relationship between self-compassion, academic procrastination, and learning achievement. However, it is crucial to interpret the findings with caution. Methodological limitations, such as the correlational research design and potential social desirability bias, need to be considered. Moreover, the study only examines a subset of factors influencing academic performance. Other contextual factors, such as social support, learning environment characteristics, and individual differences, may also play significant roles. Furthermore, the specific sample used in this study limits the generalizability of the findings. The limited sample size and regional focus may constrain the applicability of the results to a broader population. The cross-sectional design also provides a snapshot at a single point in time, limiting the ability to capture changes in variables over time. Therefore, the results should be viewed as a starting point for future research that can address these limitations. Future studies could employ stronger research designs, larger and more representative samples, and consider a broader range of contextual factors to provide a more comprehensive understanding of the relationship between self-compassion, academic procrastination, and learning achievement.

5. Conclusion

The majority of medical students UGJ exhibited moderate levels of self-compassion and academic procrastination. A weak positive correlation was found between self-compassion and learning achievement, while a weak negative correlation was found between academic procrastination and learning achievement. Future research can build upon these findings by exploring additional factors influencing learning achievement and employing longitudinal, experimental, or linear regression methods. Medical students UGJ are encouraged to be more honest in their questionnaire responses, while those with low self-compassion and high procrastination should consider strategies such as mindful self-compassion (MSC) and time management. Institutions can support students' mental health through psychoeducation and psychotherapy programs to enhance academic performance.

This research has revealed significant findings regarding the factors influencing the academic success and well-being of medical students. Results demonstrate that self-compassion and effective time management play crucial roles in achieving success in the healthcare field. In other words, students who cultivate self-compassion, both towards themselves and others, tend to experience lower stress levels and higher motivation. Additionally, the ability to manage time effectively helps students avoid procrastination and enhance their academic productivity. Furthermore, this study highlights the importance of creating a supportive learning environment where students feel safe to learn and grow. Such an environment can facilitate the development of the social and emotional skills necessary to become a competent and empathetic physician.

The implications of this research are far-reaching for both educators and medical students. Educators can integrate practices that foster the development of self-compassion and time management into the curriculum. For instance, by conducting mindfulness workshops or personal development programs, students can learn to regulate emotions, reduce stress, and improve focus. Moreover, providing effective time management training can help students organize their study schedules more efficiently. For students, the findings of this research can serve as motivation to prioritize their mental well-being and develop the skills needed to succeed in medical studies. By adopting a more holistic approach to learning, students can not only achieve academic excellence but also become better physicians in the future.

This research also opens doors for further investigation in this field. Longitudinal studies can provide a clearer picture of the long-term impact of interventions designed to enhance self-compassion and time management. Additionally, qualitative research can offer deeper insights into students' experiences in

developing these skills. Cultural differences should also be considered when designing effective interventions, as cultural values and practices can influence how individuals perceive time, themselves, and others. Finally, further research into the neurobiological mechanisms underlying the relationship between self-compassion, time management, and academic performance can pave the way for the development of more specific and effective interventions.

Overall, this research makes a significant contribution to our understanding of the factors that influence the success of medical students. By integrating knowledge from psychology, education, and neurobiology, we can create optimal learning environments that cultivate physicians who not only possess strong medical knowledge but also possess the empathy, resilience, and interpersonal skills necessary to provide quality care to patients.

Conflict of Interest

There is no conflict of interest-nothing to disclosure.

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