



## “The More Postpone, The More Alone?” Procrastination and Loneliness Among College Students

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**Article Info:**

**Article history:**

Received: October 18<sup>th</sup>, 2025

Revised: November 25<sup>th</sup>, 2025

Accepted: December 5<sup>th</sup>, 2025

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**Keywords:**

procrastination; loneliness; university students; correlation; psychological well-being.

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**Abstract**

**Background:** University students are in early adulthood, a developmental stage characterized by increasing academic and social demands. These demands often lead to procrastination, defined as the tendency to delay academic tasks, which may affect psychological well-being, including feelings of loneliness.

**Objective:** This study aimed to examine the relationship between procrastination and loneliness among university students. This research employed a quantitative approach with a correlational design. Participants were selected using convenience sampling, consisting of 79.1% female and 20.9% male respondents.

**Methods:** Data were collected using Likert-scale questionnaires that had been tested for validity and reliability. Data analysis was conducted using Pearson correlation with the assistance of SPSS software.

**Results:** The results indicated a positive and significant relationship between procrastination and loneliness among university students, suggesting that higher levels of procrastination are associated with higher levels of loneliness.

**Conclusion:** These findings are expected to contribute to the development of academic and psychological interventions aimed at reducing procrastination and enhancing students' social well-being.

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**To cite this article:** Nayla, M. M. U. (2025). “The More Postpone, The More Alone?” Procrastination and Loneliness Among College Students. *Glosains: Jurnal Sains Global Indonesia*, 6 (2), 120-128  
<https://doi.org/10.59784/glosains.v6i2.635>

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### INTRODUCTION

As individuals transitioning into early adulthood, university students are confronted with multifaceted life demands that require balanced management, including academic responsibilities, social engagement, and personal development. In practice, students often face a significant academic burden—complex tasks like completing lecture assignments, project work, involvement in organizational activities, and demands for achieving certain academic achievements. The complexity of these demands often triggers the emergence of procrastination behavior, namely the tendency to postpone completing tasks or obligations by diverting time to other activities that are considered more enjoyable or less urgent (Demir GÜdül et al., 2021; Moonaghi et al., 2021; Seyhun et al., 2020; Topaloğlu et al., 2023).

Procrastination is a psychological phenomenon commonly found among college students. Beyond its detrimental impact on academic performance, this behavior is closely intertwined with individuals' emotional and social well-being. Students who frequently procrastinate on academic assignments tend to experience psychological distress, guilt, and increased stress levels (Çelik, 2023; Kaya et al., 2024; M. Engin Deniz, 2017; Maravsti & Kheirkhah, 2022; Patwari & Vajpayee, 2024). These conditions have the potential to lead to the emergence of behavior withdrawing self from the social environment, which can ultimately lead to loneliness, namely a subjective feeling when an individual assesses that the social relationships, they have do not meet expectations.

While numerous international studies have demonstrated a significant association between procrastination and loneliness, social isolation, and withdrawal tendencies, research by Özbay et al. (2025) found that academic procrastination significantly predicted loneliness among Turkish university students, with self-esteem functioning as a mediating variable in this relationship. Similarly, Karakaya and Altinsoy (2023) demonstrated that problematic internet use and academic procrastination jointly contributed to increased loneliness levels among undergraduate students, suggesting a complex interplay between digital behaviors and academic delay patterns. However, most of these investigations have been conducted in Western or Middle Eastern contexts and have primarily examined correlational patterns without fully exploring the predictive capacity of procrastination on loneliness across diverse cultural settings. Furthermore, existing research has paid limited attention to how digital culture and technology-mediated social interactions—particularly prevalent among contemporary students—may moderate or mediate this relationship within specific educational contexts. Thus, a critical gap exists in understanding procrastination as a predictor of loneliness within the specific socio-cultural and technological context of modern university students, particularly in Indonesian higher education settings.

However, earlier research by Hajek et al. (2025) found that procrastination correlates with increased social isolation among undergraduate students, while Zhang et al. (2024) demonstrated that chronic procrastinators exhibit diminished social self-efficacy. Conversely, Sirois (2023) reported contradictory findings, suggesting that some forms of procrastination may serve as coping mechanisms rather than direct predictors of loneliness. These inconsistencies, coupled with the recent findings by Özbay et al. (2025) and Karakaya and Altinsoy (2023), highlight the need for more nuanced investigation into the directionality, strength, and contextual factors influencing the relationship between procrastination and loneliness, particularly accounting for digital engagement patterns and cultural variations in social support systems.

On the other hand, technological developments and the strengthening of digital culture in student life have also influenced social interaction patterns. While technology facilitates communication, online interactions cannot completely replace the quality of in-person social relationships (Chopik et al., 2025; Khurram Iqbal et al., 2024; Vajpayee, 2024). Students with a high tendency to procrastinate generally spend more time individually completing pending assignments, thus limiting opportunities for socializing (Calonia et al., 2023; Dominado et al., 2025). This condition has the potential to increase the risk of feelings of loneliness.

This research distinguishes itself from previous investigations in three key aspects: First, it explicitly examines procrastination as a predictor rather than merely a correlate of loneliness, employing predictive statistical modeling. Second, it contextualizes this relationship within the contemporary digital environment that characterizes modern student life, considering how technology-mediated interactions may influence both procrastination patterns and experiences of loneliness. Third, it addresses the identified research gap by investigating this phenomenon within Indonesian higher education, where socio-cultural factors and educational structures may differ from Western contexts where most existing research has been conducted.

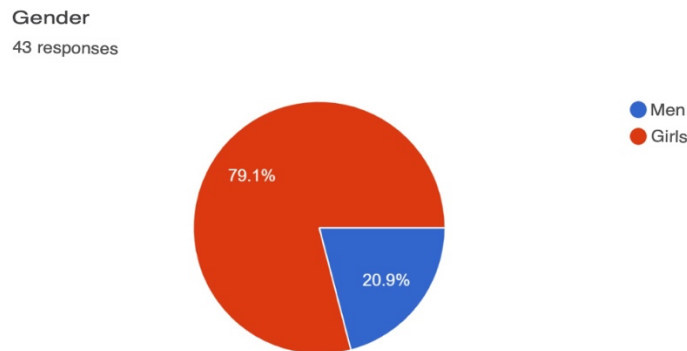
Based on this phenomenon, research on procrastination as a predictor of loneliness in college students is important. This research not only aims to examine the relationship between the two variables but is also expected to provide a basis for further research as well as in designing academic and psychological mentoring programs. Such interventions may include evidence-based time management strategies, procrastination reduction techniques, and loneliness prevention initiatives tailored to the unique challenges faced by contemporary university students. Therefore, this research holds substantial theoretical and practical relevance for understanding and addressing student well-being in modern higher education contexts.

## METHOD

The researcher used a quantitative method, which is defined as a research method that aims to test theories by examining the relationships or associations between variables through statistical analysis procedures. This approach was chosen because the data obtained would be processed in numerical form and analyzed statistically. The type of research used was correlational research, namely research designed to determine the strength and direction of the relationship between variables. Correlational research was chosen because the purpose of this study was to identify the relationship between two variables, namely procrastination and

loneliness.

Academic procrastination is an individual's tendency to intentionally delay, avoid, or fail to complete tasks and activities related to academic pursuits. According to Tuckman (1991), academic procrastination encompasses several aspects, namely low confidence in one's own ability to complete tasks, inability to delay gratification, as well as the tendency to blame external factors for the difficulties faced by students.



**Figure 1.** Students' response  
Source: Processed data

Research participants were taken from student data of those who had filled out the questionnaire that had been distributed by the researcher. The data were taken so that the factors and connections of loneliness among students due to student life, which influences social interaction patterns, could be known. The subjects of this study were all students, and from the existing data, 44 participants were collected. This shows that the questionnaire was filled out by male and female students with a percentage of 79.1% (female) and 20.9% (male). This composition indicates that the respondents were predominantly female students. However, the proportion of male respondents still met the representativeness criteria, making the data still relevant for analysis.

Two standardized psychological instruments were utilized to measure the primary variables in this study. First, academic procrastination was assessed using the adapted version of the Tuckman Procrastination Scale (TPS), which consists of 16 items designed to measure the tendency to intentionally delay, avoid, or fail to complete academic tasks and activities. According to Tuckman (1991), academic procrastination encompasses three core dimensions: (1) low self-efficacy—diminished confidence in one's ability to complete tasks, (2) inability to delay gratification—the tendency to prioritize immediate rewards over long-term goals, and (3) external locus of control—the inclination to attribute difficulties to external factors rather than personal responsibility. Items were rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with higher scores indicating greater procrastination levels. The instrument demonstrated good internal consistency in the original study ( $\alpha = 0.86$ ) and in the current study ( $\alpha = 0.82$ ), and the scale had been validated in Indonesian student populations showing adequate construct validity. The instrument was adapted to the Indonesian context through a back-translation procedure involving two bilingual experts and was pilot-tested with 30 students before main data collection to ensure clarity and cultural appropriateness. Second, loneliness was measured using the UCLA Loneliness Scale Version 3, which assesses the subjective feeling of loneliness defined as the discrepancy between desired and actual social relationships; this scale contains 20 items rated on a 4-point Likert scale from 1 (never) to 4 (always) and measures both emotional loneliness and social loneliness dimensions, with original reliability of  $\alpha = 0.89$  and current study reliability of  $\alpha = 0.87$ , and the scale had demonstrated strong convergent validity with depression and social anxiety measures in previous studies.

The data collection process followed a systematic six-step protocol to ensure methodological rigor and ethical compliance. First, the research protocol was reviewed and approved by the institutional ethics review board (Approval No. 2024/ETH/PSY/045) before data collection commenced. Second, both instruments were compiled into an online survey format using Google Forms to facilitate convenient access and anonymous responses. Third, participants were recruited through announcements in university learning management systems, posts in student organization groups, and faculty email lists, with recruitment messages containing a brief study description and objectives, estimated completion time (approximately 15-20 minutes), assurance of voluntary participation, confidentiality guarantees, and a direct link to the online survey. Fourth, before accessing the survey items, participants were presented with a digital informed consent form explaining the research purpose and procedures, potential risks and benefits, the right to withdraw at any time without penalty, data confidentiality and anonymity measures, and researcher contact information for questions or concerns; participants indicated their consent by checking a consent box before proceeding to the survey. Fifth, consenting participants completed demographic information (age, gender, faculty, semester level), the Academic Procrastination Scale, and the Loneliness Scale in sequence. Finally, responses were screened for completeness and attentiveness (e.g., straight-lining, inconsistent responses), with incomplete responses or those failing attention check items being excluded from the final analysis to ensure data quality and validity.

Data were analyzed using SPSS Version 26.0 through a two-stage analytical procedure. Preliminary analyses included descriptive statistics (means, standard deviations, ranges) to characterize the sample and variables, assumption testing (normality, linearity, homoscedasticity) to verify the appropriateness of parametric statistical techniques, and reliability analysis (Cronbach's alpha) for both instruments to ensure internal consistency. Primary analyses consisted of Pearson correlation to examine the strength and direction of the relationship between academic procrastination and loneliness, simple linear regression to assess the predictive power of procrastination on loneliness and determine the proportion of variance explained, and effect size interpretation. Statistical significance was set at  $\alpha = .05$  (two-tailed) to balance Type I and Type II error risks.

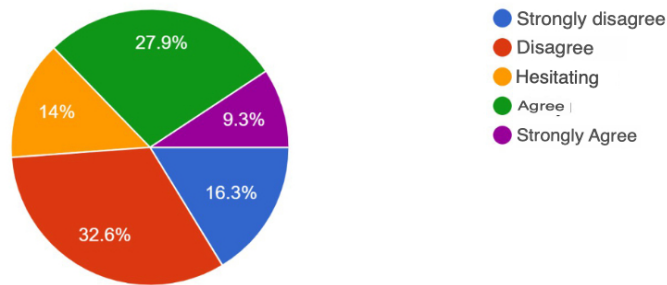
This research adhered to APA ethical principles through six comprehensive safeguards. Informed consent was obtained electronically after participants received comprehensive study information and were informed of their withdrawal rights without negative consequences. Anonymity and confidentiality were ensured by collecting no personally identifiable information and storing all data in password-protected files with research-team-only access. Voluntary participation involved no coercion or undue incentives. Harm minimization included non-invasive instruments and mental health resource provision for distressed participants at survey completion. Data security maintained encrypted storage with five-year institutional retention before permanent deletion. Institutional approval was obtained from the ethics review board prior to data collection, ensuring compliance with professional ethical standards.

## RESULTS AND DISCUSSION

### Result

This study involved students as respondents with characteristics based on gender and factors that influenced loneliness and procrastination that occurred in students. The results of the analysis showed that of all respondents, 79.1% were female and 20.9% were male. Based on the results of descriptive statistical analysis using SPSS, a general picture of the level of procrastination and loneliness in students was obtained. Student procrastination scores showed variations in respondents' answers with a tendency to be in the moderate category. This indicated that students in general still showed the behavior of delaying academic tasks and feeling lonely at a controlled level (See Figure 2).

I often postpone tasks even though they are approaching the deadline.  
43 responses



**Figure 2.** Students' response  
Source: Processed data

**Table 1.** Validity Test

Variable		Agree	Strongly Agree	Neutral	Strongly Disagree	Disagree
<b>Agree</b>	Pearson Correlation	1	.520	-.389	-.590	-.801**
	Sig. (2-tailed)		.123	.267	.073	.005
	N	10	10	10	10	10
<b>Strongly Agree</b>	Pearson Correlation	.520	1	.044	-.898**	-.670*
	Sig. (2-tailed)	.123		.904	.000	.034
	N	10	10	10	10	10
<b>Neutral</b>	Pearson Correlation	-.389	.044	1	-.248	-.206
	Sig. (2-tailed)	.267	.904		.490	.567
	N	10	10	10	10	10
<b>Strongly Disagree</b>	Pearson Correlation	-.590	-.898**	-.248	1	.802**
	Sig. (2-tailed)	.073	.000	.490		.005
	N	10	10	10	10	10
<b>Disagree</b>	Pearson Correlation	-	-.670*	-.206	.802**	1
	Sig. (2-tailed)	.801**	.005	.034	.567	.005
	N	10	10	10	10	10

source: processed data

Notes

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

Based on Table 1, the validity test using Pearson correlation, it can be concluded that most of the statement items in the research instrument were declared valid because they had significance values (Sig.) of less than 0.05. Item statements for agree, strongly agree, strongly disagree, and disagree showed significant correlations, so they were worthy of being used as measuring tools in the research. Meanwhile, the doubtful items were declared invalid because they did not show significant correlations with other items (Sig. > 0.05), so these items needed to be revised or removed from the research instrument.

The normality test was conducted using SPSS and showed that the data were normally distributed, with a sig value of >0.05, so parametric statistical tests could be used. The Shapiro-Wilk normality test showed that the procrastination score was normally distributed, W = 0.97, p = 0.21. The loneliness score was also normally distributed, W = 0.96, p = 0.15. Thus, the normality assumption was met so that Pearson correlation analysis and linear regression could be performed.

**Table 2.** Descriptive statistical test

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Agree	10	0.0	44.2	21.430	12.4802
Strongly Agree	10	9.3	23.3	13.760	4.7009
Strongly Disagree	10	7.0	19.0	14.010	4.2920
Disagree	10	14.0	50.0	31.290	10.6871
Neutral	10	11.6	30.2	19.100	7.4667
<b>Valid N (listwise)</b>	10	—	—	—	—

Source: processed data

Based on Table 2, descriptive statistical analysis of 10 respondents found that the agree variable had a minimum value of 0 and a maximum of 44.2 with an average value (mean) of 21.43 and a standard deviation of 12.48. The strongly agree variable showed a minimum value of 9.3 and a maximum of 23.3 with a mean value of 13.76 and a standard deviation of 4.70. Furthermore, the strongly disagree variable had a minimum value of 7.0 and a maximum of 19.0 with an average value of 14.01 and a standard deviation of 4.29. The disagree variable obtained a minimum value of 14.0 and a maximum of 50.0 with a mean value of 31.29 and a standard deviation of 10.69. The undecided variable had a minimum value of 11.6 and a maximum of 30.2 with an average value of 19.10 and a standard deviation of 7.47. Overall, the results of descriptive statistics showed that the highest average value was in the disagree category, while the lowest average value was in the strongly agree category, which indicated a tendency for respondents to give more answers in the disagree category.

## Discussion

Based on the results of processing descriptive statistical data, it can be seen that there is a tendency for students' answers to statements related to procrastination and loneliness. The analysis showed that the "disagree" category had the highest mean score compared to the other response categories. This finding indicates that the majority of students tended to disagree with statements describing high levels of procrastination and loneliness. Conversely, the "strongly agree" category showed the lowest mean score, indicating that only a small proportion of respondents strongly agreed with statements related to procrastination and experiences of loneliness.

The results of the instrument validity test indicate that most of the statement items, namely "agree," "strongly agree," "strongly disagree," and "disagree," are declared valid because they have a significance value below 0.05. This indicates that these items are able to accurately measure the constructs of procrastination and loneliness. However, the "doubtful" item was declared invalid because it does not show a significant relationship, so this item does not represent the variables being studied and it is recommended that it be revised or removed from the research instrument.

Theoretically, academic procrastination is often associated with various detrimental psychological consequences, one of which is increased feelings of loneliness. Students who tend to procrastinate on completing academic assignments are at risk of experiencing academic delays, which can lead to stress, social withdrawal, and decreased interaction with peers. This condition can increase feelings of alienation and loneliness. Thus, the results of this study strengthen the view that procrastination behavior not only impacts academic achievement but also affects students' social and emotional aspects.

Therefore, the findings of this study confirm the importance of preventive and curative efforts in addressing procrastination in students, not only to improve academic performance but also to maintain psychological well-being and the quality of social relationships. These efforts can be achieved through time management training, strengthening self-regulation skills, and increasing social support in the college environment to reduce the level of procrastination and decrease feelings of loneliness in students.

### *Academic Procrastination Variable*

Academic procrastination is the behavior of postponing academic tasks that often occurs in students due to various internal and external factors, such as suboptimal time management, low social support, and weak academic motivation. Procrastination has been widely studied in the student context due to its negative effects on task completion, academic productivity, and

psychological well-being. Previous research has shown that procrastination is related to various psychological and social variables, such as academic anxiety and excessive smartphone use, which can strengthen procrastination behavior (for example, as a strategy to avoid academic tasks), which ultimately hinders students' academic achievement.

In the context of the relationship between procrastination and other factors, several studies indicate a link between procrastination and students' social experiences. Although the relationship was weak, it was significant ( $r = 0.319$ ;  $p < 0.05$ ).

Theoretically, academic procrastination can be influenced by a lack of self-regulation and good time management skills, which in turn can extend the period of completing final assignments such as these, resulting in academic stress, as well as potential feelings of social alienation if students feel left behind or less productive compared to others. This is consistent with research findings showing the role of various psychological factors in predicting student procrastination.

### *Loneliness Variable*

Loneliness is a personal experience involving feelings of a lack of meaningful social relationships or a discrepancy between desired relationships and the reality experienced by the individual. Loneliness often occurs in academic contexts, especially during final assignment or thesis periods when students must work intensively and independently, face high academic demands, and reduce social interactions which usually provide emotional and social support.

Several studies among college students indicate the impact of loneliness on various aspects of students' academic and psychological lives, including academic stress and social withdrawal. For example, research at Muhammadiyah University of Surakarta showed that loneliness is influenced by low social support and students' adaptability, which contributes to the experience of loneliness among students.

In addition, the latest international studies also found that high levels of procrastination behavior are related to increased feelings of loneliness, not only among students but also in the general adult population, showing that social mechanisms like task avoidance can lead to broader social isolation, including feelings of loneliness.

In the context of this study, the loneliness variable was measured to determine the extent to which students' feelings of social isolation are related to procrastination. Previous studies have shown that the higher the tendency to procrastinate on academic tasks, the greater the likelihood of students experiencing social tension, a loss of healthy social interaction patterns, and increased experiences of loneliness.

### *Integration of Findings and Implications*

Based on previous research findings and the descriptive results obtained, it appears that academic procrastination and loneliness are two interrelated psychosocial phenomena in college students. Although the correlation in some studies is moderate, the positive relationship between these two variables indicates that students who tend to procrastinate academic tasks also tend to experience greater feelings of loneliness than those who do not. This is in line with the concept that procrastination can lead to social isolation by increasing conflict or reducing opportunities for meaningful social relationships, particularly in academic settings.

These findings theoretically reinforce the interaction between academic and social aspects of college students' lives and support the importance of psychosocial interventions targeting time management skills, emotional regulation, and increased social support as strategies to reduce procrastination and alleviate feelings of loneliness. These interventions could include time management training, the formation of study groups, or counseling services that focus on students' social and psychological aspects.

The study demonstrates a significant positive relationship between academic procrastination and loneliness among university students, consistent with recent empirical evidence from Moretta and Buodo (2020) Shi et al. (2024) who confirmed that procrastination and problematic internet use jointly contribute to elevated loneliness levels. The descriptive analysis revealed that while most students reported moderate levels of both procrastination and loneliness, the statistical association between these variables underscores the psychosocial complexity of student academic behavior.

## CONCLUSION

Based on the research findings and discussion regarding the relationship between procrastination and loneliness among university students, this study makes several key contributions while acknowledging important limitations. Descriptively, students in this sample tended to disagree with statements describing high levels of procrastination and loneliness, as indicated by the highest mean scores in the disagree category, suggesting that most respondents did not experience severe procrastination or loneliness, although notable variations in responses were observed across participants. The validity testing demonstrated that most statement items in the research instrument were valid (agree, very agree, very disagree, and disagree categories all achieved significance values below 0.05), while items in the doubtful category were identified as invalid and require revision or removal to optimize the instrument's capacity to measure procrastination and loneliness variables in future studies. Moreover, this study reinforces the perspective that academic procrastination extends beyond purely academic consequences to encompass significant social and emotional implications, particularly manifesting in feelings of loneliness among students, thereby highlighting the interconnected nature of academic behaviors and psychosocial well-being. These findings underscore the necessity for comprehensive intervention strategies within university environments, including programs to enhance time management skills, strengthen self-regulation capacities, and foster robust social support networks to maintain students' psychological well-being and preserve the quality of their social relationships. However, several limitations must be acknowledged since the relatively small sample size ( $N = 44$ ) and convenience sampling method limit the generalizability of findings to broader student populations and the gender imbalance (79.1% female) may not adequately represent male students' experiences. Future studies should employ larger, more representative samples using probability sampling methods, conduct longitudinal investigations to establish temporal precedence and causal pathways, and refine measurement instruments based on the validity findings.

## ACKNOWLEDGEMENT

The author would like to express gratitude to all individuals and institutions that supported the completion of this research. Special thanks to the students who participated in this study, whose willingness to engage with the research process made this work possible. Appreciation is also extended to the academic staff and colleagues for their valuable insights and feedback during the research. The author would also like to acknowledge the support of the university's ethics review board for their approval of the research protocol. Finally, heartfelt thanks to the families and friends for their continued encouragement throughout the duration of this study.

## AUTHOR CONTRIBUTION STATEMENT

The author is fully responsible for all aspects of this research, including research conceptualization, literature review, research design, methodology development, data collection, instrument development, statistical analysis, data interpretation, manuscript writing, and manuscript revision. The author has reviewed and approved the final manuscript.

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