PROCEEDINGS
of The International Conference
on Psychology and Education

Predictors of Academic Procrastination in Migrant Students: Internet Addiction and Parenting Styles

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Abstract. The high internet use among students and the unique dynamics of living away from parents influence academic discipline, especially procrastination. This study examines the relationship between internet addiction, parenting styles and academic procrastination among migrant students as a vulnerable group. A correlational quantitative design involved 149 migrant students aged 18-25 years selected through convenience sampling. Data were collected online using the Academic Procrastination Scale (APS), Internet Addiction Test (IAT), and Parental Authority Questionnaire (PAQ), then analysed using multiple correlation and regression in JASP. Internet addiction was strongly positively correlated with academic procrastination ($r = 0.658$, $p < 0.001$). Among parenting styles dimensions, authoritarian was positively correlated ($r = 0.237$, $p = 0.004$), authoritative was negatively correlated ($r = -0.178$, $p = 0.029$), whereas permissive was not significant ($r = 0.138$, $p = 0.094$). The regression model combining all predictors explained 47.6% of the procrastination variance ($R^2 = 0.476$, $F = 32.69$, $p < 0.001$), with internet addiction as the strongest predictor. This study concludes that academic procrastination in migrant student is significantly influenced by the interaction between contemporary technology factors and past parenting patterns, emphasizing the need for a holistic and contextual approach to intervention.

Keywords: *Academic Procrastination, Internet Addiction, Parenting Style, Migrant Students*

1 Introduction

In the era of the industrial revolution 4.0 and society 5.0, the internet has become one of the most essential needs in society. Based on figures from the Central Bureau of Statistics (BPS) from the 2024 Susenas survey results, as many as 72.78% of Indonesian people had used the internet in 2024, an increase from 69.21% in 2023 (Badan Pusat Statistik, 2024). Digital devices, from smartphones to laptops, have become daily accompaniments for all groups, especially among students. According to the findings of research by APJII together with the Communication Studies Center at the University of Indonesia (UI), the majority of internet users in Indonesia are in the 18-25 age group. This age group represents for almost half, namely 49% of all internet users in Indonesia (Iskandar & Isnaeni, 2019). In this phase, gadgets are used as a means to support learning and are inseparable from students. However, behind the efficiency of its benefits, there is a paradoxical impact due to the unlimited access to information and entertainment. Research from (Saputra, 2019) states that students spend an average of 6 hours per day on non-academic internet activities such as social media. This is also vulnerable to giving rise to negative behavior, one of which is academic procrastination among students (Simbolon & Daulay, 2022).

Ferari as cited in (Azriya Shabila Ainunnahr et al., 2024) defines academic procrastination as the tendency to delay or start tasks and choose less useful activities so that they cannot be completed on time. According to (Solomon & Rothblum, 1984), procrastination is a deliberate and repeated delay of tasks that causes feelings of discomfort, other research also states that procrastination appears as a result of unfavorable personality and experiences and simultaneously acts as a factor that gives rise to negative consequences (Solomon & Rothblum, 1984). Operationally, academic procrastination in this study is defined as the score obtained from the Academic Procrastination Scale (APS), covering psychological beliefes about abilities, distraction of attention, social factors, time management skills, personal initiative, and laziness (Mccloskey, 2011). This procrastination phenomenon has become a scourge among students, who are notably active internet users. Jannah and Muis (2014 as cited in Novalyne & Soetjiningsih, 2022) state that as many as 55% of 167 students engage in academic procrastination. Additionally, (Ursia et al., 2013) revealed that 56.7% of students experience high to very high levels of procrastination.

Meanwhile, internet addiction according to Young (2011 as cited in Hayani et al., 2022) is described as excessive and uncontrollable internet use, which has negative impacts on various aspects of life. These negative impacts include disrupted sleep patterns, decreased academic achievement and work productivity, as well as problems in social interaction and family relationships. (Griffiths, 2005) also states that internet addiction is classified in technological addiction, which falls under behavioral addiction involving the interaction between humans and computers. Operationally, internet addiction is defined as the score derived from the Internet Addiction Test (IAT), covering excessive use, withdrawal effects, tolerance, and negative repercussions Young (2011 as cited in (Hayani et al., 2022). Addiction to computers, including their derivatives such as the internet and video games, can trigger withdrawal symptoms if the activity is stopped. This addiction causes serious problems, ranging from decreased academic achievement to impaired social function. Its pattern, which resembles psychoactive substance addiction, shows that internet addiction is essentially a conventional addiction pattern that has adapted to contemporary objects (Dewi & Trikusumaadi, 2017). Research from (Lisa, 2023) revealed that 29.23% of students are in the mild internet addiction category, 65.04% in the moderate category, and 5.73% in the severe category. (Khoirinnisa et al., 2021) also revealed that 73.4% of students show tendencies towards internet addiction; around 35.9% are in the mild addiction category, 35.9% in the moderate category, and 1.6% in the severe category.

Research by (Hayani et al., 2022) demonstrates that there is a positive and significant relationship between internet addiction and academic procrastination in students. This is indicated by a correlation coefficient (r) of 0.500 and a significance value (p) of 0.000 ($p < 0.05$), meaning that the higher the internet addiction, the greater the tendency for students to delay academic tasks. Similar results were also reported by research by (Zhang et al., 2022), which indicated that academic procrastination has a significant positive relationship with internet addiction ($r = 0.50$), meaning that the more frequently students delay their academic tasks, the higher their level of internet addiction. Furthermore, research from (Dewi & Primanita, 2023) also shows a positive and significant relationship between the tendency for internet addiction and academic procrastination with a correlation coefficient of around $r = 0.443$, meaning that the higher the internet addiction, the higher the academic procrastination. In this context, internet addiction appears as one of the main factors driving academic procrastination. This problem becomes more complex when it affects groups of students living away from home (migrant students). The life of a migrant student, which is often associated with freedom and lack of direct parental supervision, as well as the transition from home to a dormitory or apartment environment that offers more freedom, demands a high level of discipline from students. The trigger for migrant students finding it difficult to complete their studies on time is thought to be due to a lack of support and supervision from parents, causing students to be less responsible for their tasks and to delay completing tasks on time, especially in completing their studies (Lastary & Rahayu, 2018). One informant from the research by (Via Ningrum & Intansari, 2023) mentioned that the informant, as a migrant student, faced several difficulties, ranging from managing money to managing time, which made them undisciplined. Migrant students must manage their own time and responsibilities, thus the temptation to immerse themselves in digital activities becomes stronger. This can lead to academic procrastination, which can have serious impacts such as decreased GPA to prolonged stress. Research from (Nudin, 2020) shows a significant positive relationship between parental social support and self-adjustment of migrant students; the higher the positive "supervision" support from parents, the better the student's self-adjustment. The correlation result was approximately $r \approx 0.24$ with $p < 0.05$, so it can be used as a reference that the role of parents remains important even though the child lives far away. According to Diana Baumrind (Baumrind, 1978), parenting styles consist of three types: authoritative style, authoritarian style, and permissive style. Operationally, parenting style is defined as the score obtained from the Parental Authority Questionnaire (PAQ) comprissing permissive, authoritarian, and authoritative dimensions (Burry, 1991, as cited in Chairunnisa, 2024). An overly strict authoritarian style can make children less independent when they are away from home, while a permissive style can weaken self-discipline. Conversely, an authoritative style tends to instill responsibility and better time management skills, which act as a shield against procrastination. Research by (Rosani & Indrawati, 2020) states that there is a significant positive relationship between authoritarian parenting and academic procrastination ($r = 0.337$; $p = 0.000$). The higher the students' perception of authoritarian parenting, the higher their level of academic procrastination. This indicates that it is possible that other parenting styles, such as authoritative and permissive, also influence the level of academic procrastination.

In this study, the novelty lies not only in testing the single influence of internet addiction but also in integrating it with the psychological developmental factor, namely parenting style. In terms of population focus, this study also possesses novelty by specifically targeting the migrant student population, as most previous research only examined students in general without considering the unique psychological dynamics experienced by migrant students. In fact, the life of a migrant student creates a space without direct supervision, which strengthens the influence of internet addiction while simultaneously testing the extent to which previous parenting styles influence discipline and mental readiness. Therefore, this study attempts to

bridge the gap by highlighting a vulnerable group that has received less specific attention in similar research.

This research is expected to provide benefits for migrant students to increase awareness and concern about the dangers of academic procrastination by improving internet usage management and developing better self-regulation and time management. For parents and practitioners, this research is expected to serve as a reflection on parenting patterns that have a long-term influence on children's independence and discipline, as well as a reference in assessment and the development of comprehensive interventions by considering related factors, namely internet addiction and parenting history. Furthermore, this research advances psychological science through empirical data on the relationship between internet addiction, parenting styles, and academic procrastination among migrant students and opens opportunities for further research using various approaches.

Based on theoretical evidence and empirical studies from previous research, the objectives of this study are: a) To determine whether there is a significant relationship between internet addiction and the level of academic procrastination among migrant students; b) To determine whether there is a significant relationship between parenting styles and the level of academic procrastination among migrant students; and c) To determine whether there is a significant relationship between internet addiction and parenting styles together with the level of academic procrastination among migrant students. Based on these research objectives, the alternative hypotheses proposed are: a) There is a significant positive relationship between internet addiction and academic procrastination among migrant students; b) There is a significant relationship between parenting styles and academic procrastination among migrant students; and c) Internet addiction and parenting styles predict academic procrastination among migrant students.

2 Methods

This study employed a correlational quantitative research design, where data are presented in numerical form to describe a phenomenon or event. The descriptive method was used to generate a systematic, factual, and accurate description of the research variables based on the real conditions in the field. This study had three main variables: internet addiction (X1), parenting styles (X2), and academic procrastination (Y).

This study involved 149 active students in Indonesia, both from public and private universities, who were identified as migrant students aged 18-25 years. Further criteria included students living in dormitories, boarding houses, etc., who originated from outside the city where they were studying and, during their study period, lived separately from their parents. A more detailed breakdown of participant demographics is presented in Table 1.

Participants were chosen using a convenience sampling technique, which is a non-probability sampling method that selects participants based on their availability and accessibility (Etikan et al., 2015). This technique was chosen because it allows efficient recruitment of migrant students who meet the criteria, although it may limit the generalizability of the findings.

Tabel 1.
Participant/Demographic Characteristics

Demographic	Frequency	Percentage
Gender		
Male	49	32.9%
Female	100	67.1%
Age		
18	34	22.8%

19	45	30.2%
20	43	28.9%
21	18	12.1%
22	7	4.7%
23	2	1.3%
Semester		
1	56	37.6%
3	58	38.9%
5	20	13.4%
7	12	8.1%
9	3	2.0%
Place Of Residence		
Dormitory	6	4.0%
Boarding House/Rental House	140	94%
Living with Family/Relatives	3	2.0%
Age of First Internet Use		
Childern (5-11 years)	50	33.5%
Toddler (0-5 years)	1	0.7%
Adolescent (12-25 years)	98	65.8%
Main Purpose of Internet Use		
Games	8	5.4%
Information, News, and Learning	76	51.05
Comunication	31	20.8%
Social Media	34	22.8%
Birth Order		
Youngest	58	38.9%
Second	2	1.3%
Firstborn	55	36.9%
Middle	22	14.8%
Only Child	12	8.1%

The data collection procedure in this study was survey-based and conducted online using Google Forms. Data were collected by providing a Google Form link or barcode containing the research questionnaires to students who met the participant criteria. Filling out the questionnaire took approximately 10-15 minutes. The data collection process lasted for 27 days, from October 23, 2025, to November 18, 2025.

Academic procrastination was measured using the Academic Procrastination Scale (APS), developed by (Mccloskey, 2011) and adapted in the research thesis by (Ersa, 2020). This instrument consist of 25 items (Mccloskey, 2011), both favorable and unfavorable, representing 6 main dimensions: 1) Psychological belief about abilities; 2) Distractions of attention; 3) Social Factors; 4) Time management skill; 5) Personal Initiative; and 6) Laziness. An example of an item on this scale is "I delay working on my academic assignments until the last minute of submission" and "I concentrate on working on academic assignments compared to other things." The APS has strong reliability, indicated by a Cronbach's Alpha coefficient of 0.92. Based on the standard criteria used ($D \geq 0.30$), two items, numbers 12 and 14, did not meet the established discrimination threshold, with D values of (0.21) and (0.21), respectively. Thus, warrant consideration for revision or removal

in future research. The data collection instrument used a Likert scale model with four answer choices from 1 to 4, where 1 represents strongly disagree and 4 represents strongly agree.
Internet addiction was measured using the Internet Addiction Test (IAT) questionnaire developed by Dr. Kimberly S. Young (2011) through an adaptation from the thesis by (Tama, 2024). This instrument consists of 20 items with 6 main dimensions: 1) excessive use; 2) withdrawal effect; 3) tolerance; and 4) negative repercussion, divided into favorable and unfavorable items. The data collection instrument used a Likert scale model with five answer choices from 0 to 4, where 0 represents rarely and 4 represents very often, and all answers are favorable items. An example of an item is "How often do you neglect your duties to spend time on the internet?" and "How often do you feel the need to limit the time you spend on the internet?" The validity and reliability test results demonstranted a Cronbach's Alpha of 0.88, suggesting good reliability. The item discrimination analysis results showed that out of 20 items, 19 items met the criteria for good discrimination ($D \geq 0.30$). However, one item, Item 11, was identified to have a low discrimination index ($D = 0.08$).
Parenting style was measured using the Parental Authority Questionnaire (PAQ) by John R. Burry (1991), adapted from the research thesis by (Chairunnisa, 2024) This instrument consists of three subscales: 1. Permissive; 2. Authoritarian; and 3. Authoritative. This instrument consists of 30 items with a Likert scale from 1 to 5, where 1 represents strongly disagree and 5 represents strongly agree. An example of an item is "My father/mother always explains verbally whenever I feel that family rules and prohibitions are unreasonable" and "My father/mother always feels that what their children need is to be given the freedom to think for themselves and do what they want to do, even if this is not in accordance with their parents' wishes." This instrument has strong reliability, show by a Cronbach's Alpha coefficient of 0.86, which means it has good reliability. Based on the item discrimination values, items can be classified as follows: (1) Good discrimination ($D \geq 0.40$): 13 items; (2) Adequate discrimination ($0.30 \leq D < 0.40$): 12 items; (3) Low discrimination ($D < 0.30$): 5 items. The five items with low discrimination are Items 6, 7, 13, 16, and 28, which warrant consideration for future research.
Data analysis began with data processing, including editing, coding, scoring, and tabulating the collected data. Subsequently, descriptive statistical analysis was performed to describe the sample characteristics. The data analysis techniques used in this study consisted of three main types of analysis: descriptive analysis, assumption tests (including normality test, linearity test, and correlation test), and hypothesis testing (using correlation and multiple corelation and regression analysis). All three were tested using JASP software. The choice of this software was based on the completeness of the required statistical features, ease of operation, and its wide acceptance in the field of psychological research. The results of each analysis are presented systematically in tables and narratives to facilitate the interpretation and discussion of the research findings.

3 Results

The results of the descriptive statistics between internet addiction and parenting styles with academic procrastination are displayed in Table 2.

Tabel 2.
Descriptive Analysis Test

Variable	N	Mean	Std. Deviation	Min.	Max
Academic Procrastination	149	56.35	13.15	25.00	85.00

Internet Addiction	149	40.09	12.08	10.00	76.00
Parenting Style	149	99.77	13.74	59.00	150.00

Based on the descriptive statistics from 149 migrant students, the following overview was derived. The average academic procrastination score was 56.35 with a standard deviation of 13.15, indicating a fairly varied level of delay among respondents, with the lowest score being 25 and the highest 85. For internet addiction, the average score was 40.09 (SD = 12.08), ranging from 10 to 76. Based on the Internet Addiction Test (IAT) norms, this value indicates that, in general, the participants' level of internet addiction falls into the mild to near-moderate category. Meanwhile, parenting style showed an average of 99.77 (SD = 13.74), ranging from 59 to 150. The moderate level of variation in these three variables reflects the diversity of characteristics within the research sample, providing a basis for further relationship analysis.

Tabel 3.
Normality Assumption Test

Shapiro-Wilk	p
0.991	.456

The results of the normality test using Shapiro-Wilk showed that the research data were normally distributed. This is shown by a Shapiro-Wilk statistic of 0.991, which is very close to 1, and a significance value (p) of 0.456. Since the p-value is greater than 0.05, the null hypothesis stating that the data are normally distributed cannot be rejected. In other words, the normality assumption for subsequent parametric statistical analysis has been met. This near-perfect W value indicates that the data distribution pattern closely matches the theoretical normal distribution, thus allowing the use of analysis techniques such as Pearson correlation and linear regression, which require data normality.

Table 4
Person Correlation Test

Variable Pair	Pearson's r	P
Academic Procrastination - Internet Addiction	0.658	< .001
Academic Procrastination - Permissive	0.138	.094
Academic Procrastination - Authoritarian	0.237	.004
Academic Procrastination – Authoritative	-0.178	.029

Based on the results of the Pearson correlation test, there is a significant relationship between internet addiction and parenting styles with academic procrastination among migrant students. Internet addiction showed a strong positive correlation with procrastination ($r = 0.658$, $p < 0.001$), indicating that the higher the level of internet addiction, the higher the tendency for academic procrastination. Among the parenting style dimensions, authoritarian parenting showed a significant positive correlation with procrastination ($r = 0.237$, $p = 0.004$), while authoritative (democratic) parenting showed a significant negative correlation ($r = -0.178$, $p = 0.029$). Meanwhile, permissive parenting did not show a significant relationship with academic procrastination ($r = 0.138$, $p = 0.094$). These findings reveal that both contemporary factors (internet addiction) and past parenting factors play a role in the

academic procrastination behavior of migrant students, with internet addiction being the strongest predictor.

Table 5
Multiple Regression Analysis Model Summary

Model	R	R^2	Adjusted R^2	RMSE
M0	0.000	0.000	0.000	13.150
M1	0.690	0.476	0.461	9.651

Table 6
ANOVA Model

Model		Sum of Squares	df	Mean Square	F	P
M1	Regression	12181	4	3045.22	32.69	< .001
	Residual	13413	144	93.15		
	Total	25594	148			

Based on the multiple regression analysis results, the model consisting of internet addiction (TOTAL IA) and the three parenting styles (Permissive, Authoritarian, Authoritative) significantly predicts academic procrastination. This model produce a coefficient of determination (R^2) of 0.476, meaning that 47.6% of the variation in academic procrastination can be explained by the combination of these predictor variables. The Adjusted R^2 value of 0.461 indicates that after adjusting for the number of predictors, the model still explains 46.1% of the variance. The ANOVA test demonstranted that the overall regression model was significant ($F = 32.69$; $p < 0.001$), proving that at least one predictor significantly contributes to predicting academic procrastination. The Root Mean Square Error (RMSE) of 9.651 indicates a relatively low prediction error compared to the standard deviation of procrastination (13.150).

The descriptive analysis results of this study suggest that the research sample has adequate variation across all variables. The academic procrastination scores ranged from low to high, indicating that this phenomenon indeed exists and has varying intensity among migrant students. The average internet addiction score, which falls into the mild to moderate category, reflects the ambiguity of the internet's role as a tool to support academic activities and as a potential source of distraction. This finding strengthens the assumption that research on the migrant student population has not been extensively discussed in previous studies (Anggunani & Purwanto, 2019; S. A. Gultom et al., 2018). Therefore, it still needs to be investigated further, considering their life context, which presents new challenges such as greater adaptation and independence. The satisfaction of the normality assumption test (Shapiro-Wilk = 0.991, $p = 0.456$) validates the subsequent use of parametric analysis, thus making the correlation and regression findings in this study robust.

Furthermore, the correlation and regression results consistently position internet addiction as the strongest predictor of academic procrastination ($r = 0.658$, $p < 0.001$) with a major contribution to the model ($R^2 = 0.476$). This is a strong relationship that is not only consistent with the findings of (Febriani & Atsillah, 2024) on the relationship between internet use and regulation but also contributes a more critical dimension in the context of migrant students. The migrant situation, which is often characterized by structural freedom and minimal direct parental supervision, creates an empty space that allows for a lack of external regulation. In this vacuum, the internet, with its accessible, attractive, and instantly gratifying nature, can easily transform into an escapism mechanism, as in the study by (Jouhki et al., 2022), which explains that escapism significantly predicts excessive internet use ($B = 0.77$, $p < 0.001$), because the internet provides an easy escape from daily problems through fast and engaging

content. Students experiencing adaptation difficulties, academic pressure, and loneliness may use the internet compulsively as a maladaptive coping strategy, as shown in a study by (Rinaldi, 2020), which produced a correlation (rxy) of 0.721 and $p = 0.000$ ($p < 0.01$), indicating that the higher the students' loneliness, the higher the problematic internet use, and vice versa. The value ($R^2 = 0.52$) indicates that loneliness contributes 52% to problematic internet use.

As explained by (Aditiantoro & Wulanyani, 2019), problematic internet use positively influences procrastination, while self-regulation has a negative effect. Thus, in the context of migrant students, internet addiction is not merely a distraction but a symptom of a failure in self-regulation among migrant students in facing new demands for independence. The time that should be used for academic tasks becomes consumed by non-productive online activities, which then strengthens the cycle of delay, guilt, and further avoidance into cyberspace.

The differential relationship patterns of the three parenting styles provide support for the theory of independence development (Fahmawati et al., 2023). Authoritarian parenting, which shows a positive correlation with procrastination ($r = 0.237$; $p = 0.004$), corresponds with the findings of (Rosani & Indrawati, 2020), which highlight strict rules without flexibility, becoming a significant predictor of academic procrastination that hinders the internalization of motivation and the development of self-management skills; thus, the higher the authoritarian pattern, the higher the procrastination. Before migrating, children with authoritarian parenting are accustomed to acting according to instructions and direct supervision from parents. When they become migrant students, this direct supervision disappears, making it difficult for them to initiate, organize, and maintain commitment to academic tasks independently. This absence worsens the tendency to delay because the internal control mechanisms that should function have never developed optimally.

Conversely, a significant negative correlation was observed for authoritative parenting ($r = -0.178$, $p = 0.029$), indicating its protective role. This parenting pattern merges high demands with warmth, open communication, and support for autonomy, which effectively builds self-efficacy and self-regulation. This result also supports previous research by (Shahnan et al., 2024), which stated that democratic parenting, which balances demands with emotional support, builds self-efficacy and self-regulation, thus protecting against academic procrastination in students. Migrant students raised with this parenting style are likely to have a stronger internal locus of control, better problem-solving skills, and greater resilience in confronting pressure. They are better able to adapt the regulation skills learned earlier in the family to the independent academic context of migration, making them more resistant to the temptation to delay.

The most interesting and different finding compared to previous studies (Habibi et al., 2022) and (T. Gultom et al., 2023) is the non-significance of the relationship between permissive parenting style and procrastination ($r = 0.138$, $p = 0.094$). This difference can be explained by the unique characteristics of the student sample, which consists of migrant students. Moving away to study is a decision that encourages initiative, intrinsic motivation, and courage to face challenges. Individuals raised with a very permissive parenting style, where there are almost no demands or structure, may lack the motivation or persistence to choose or persist in a life path that demands high independence, such as migrating. In other words, there may be a self-selection bias, where the migrant students who became the sample in this study may naturally come from backgrounds where, despite experiencing permissive parenting, they have other factors that drive them to migrate and reduce the negative impact of permissive parenting on procrastination. Furthermore, the lack of rules from parents might actually allow them to adapt more quickly to the freedom of migration without experiencing the culture shock experienced by individuals with authoritarian parenting.

The multiple regression model successfully explained 47.6% of the variance in academic procrastination ($R^2 = 0.476$), a substantial contribution. The Adjusted R^2 (0.461) and the significance of the model ($F = 32.69$, $p < 0.001$) confirm that the combination of internet addiction and parenting style variables are strong predictors. However, 52.4% of the variance remains unexplained, suggesting the complexity of the academic procrastination phenomenon. This proportion indicates that there are other contributing factors that could not be measured in this study. These factors probably include personality characteristics, mental health, environment, and social support as sources of new external regulation.

Overall, this study advances the educational psychology literature by integrating contemporary technological factors (internet addiction) and long-term developmental factors (parenting styles) in understanding academic procrastination in the specific population of migrant students. These findings emphasize the need for a holistic and contextual approach in addressing the issue of procrastination in higher education. The practical implications of this study highlight the importance of intervention programs targeting internet use management and the development of self-regulation skills for migrant students, especially those from authoritarian parenting backgrounds. Collaboration between universities and mental health services is needed to detect at-risk students early on. However, the limitations of this study include the use of a cross-sectional design, which does not allow for causal conclusions, and the focus on the perception of parenting styles, which may deviate from parents' perceptions.

This study has several limitations. First, the cross-sectional design does not allow for drawing causal conclusions. Second, the data on parenting styles were gathered based on student retrospection and perception, which may deviate from parental reports and could be influenced by emotional state at the time of data collection. Third, this study only focused on the main predictor variables and did not include mediator or moderator variables that might explain the relationship mechanisms. The fourth and final limitation concerns the item aspects of the research instruments, where discrimination analysis revealed both high and low construct items. On the academic procrastination scale, two items (numbers 12 and 14) had a discrimination index (D) of 0.21, which is below the generally accepted threshold ($D \geq 0.30$). Similarly, one item (number 11) on the internet addiction scale had a very low discrimination index ($D = 0.08$). On the parenting style scale, five items (numbers 6, 7, 13, 16, and 28) also showed low discrimination values. The low discrimination of these items indicates the potential for ambiguous wording, complex sentences, or content that is less relevant and sensitive in measuring the intended construct in the specific population of migrant students. Although overall the instruments had adequate reliability coefficients for group analysis, the presence of items with low discrimination may slightly affect measurement precision and the internal validity of the instruments. This finding is an key note for instrument improvement in future research.

Based on the analysis and discussion of the research on the relationship between internet addiction and parenting styles with academic procrastination among migrant students, several substantive conclusions can be derived. First, descriptively, the level of academic procrastination among migrant students falls into the moderate category with considerable variation among individuals, while the level of internet addiction is generally in the mild to near-moderate category. Second, the correlation analysis verifies a strong and significant positive relationship between internet addiction and academic procrastination, where higher levels of internet addiction are linked with higher tendencies for academic delay. Third, the relationship between parenting styles and procrastination is differential: authoritarian parenting shows a significant positive relationship, authoritative/democratic parenting shows a significant negative relationship, while permissive parenting shows no significant relationship. Fourth, the multiple regression model consisting of internet addiction and the three parenting style dimensions together explains 47.6% of the variance in academic

procrastination, with internet addiction appearing as the strongest predictor, followed by authoritarian and authoritative parenting styles.

This study confirms that academic procrastination in migrant students is a complex phenomenon influenced by the interaction between factors formed early in life (parenting styles) and contemporary external factors (internet addiction) encountered in an independent academic environment. These findings highlight the particular vulnerability of migrant students, where freedom and lack of direct supervision can strenghen the negative impact of internet addiction, while the legacy of family parenting patterns continues to influence their self-regulation capacity. The practical implications of this research emphasize the importance of intervention programs in universities that not only target time management and technology use but also consider the parenting background and psychological needs of migrant students to build healthy and adaptive independence.

Based on the research findings, several practical and academic suggestions are proposed. First, for higher education institutions, it is suggested to develop psychoeducational intervention modules targeting internet use management and self-regulation skills, especially for first-year migrant students. Peer mentoring and group counseling programs addressing adjustment issues and time management also need to be enhanced. Second, for parents and families, it is important to recognize that democratic parenting, which emphasizes open communication and granting responsible autonomy, better equips children with psychological resilience when they have to live independently away from home. Third, for future researchers, it is recommended to conduct replication studies with a longitudinal design to trace causal relationships and the development of these relational patterns over time. Further research could also include mediator variables such as emotion regulation, academic self-efficacy, and peer social support, as well as explore the role of moderator variables such as gender, culture of origin, and academic pressure for a more comprehensive and contextual understanding. Furthermore, the identification of several items with below-standard discrimination indices across variables is an interesting point for further investigation. This suggests that the formulation of statements to measure these aspects may be less precise or too general, thus unable to differentiate respondents with different abilities. Therefore, for future research, it is recommended to perform an in-depth revision of these items, for example by developing more contextual scenarios or using more operational verbs.

Acknowledgements: We express our sincere appreciation to the Faculty of Psychology, Universitas Negeri Surabaya, for the institutional support provided throughout this research. Special thanks are extended to Rizky Putra Santosa, M.Si., whose thoughtful guidance, constructive suggestions, and unwavering encouragement were invaluable to the completion of this study. We are also deeply grateful to all the participants who generously devoted their time, placed their trust in us, and openly shared their personal experiences.

Funding: This research did not receive any financial support from public, commercial, or non-profit funding agencies**.**

Data Availability: The datasets generated and analyzed during the current study are available from the corresponding author upon reasonable request. Public access to the data is restricted due to ethical considerations and confidentiality agreements with the research participants.

Authors' Contributions Statement: The author contributed to all stages of this research, including the conception and design of the study, data collection and analysis, interpretation of findings, and the preparation and revision of the manuscript. The final version has been read and approved by the author.

Competing Interest: The author declares that there are no conflicts of interest pertaining to this research, its writing, or the publication of this paper.

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