Journal of Studies in Social Sciences

Volume 23, 2024, 1

The Mediating Role of Academic Self-Efficacy in the Relationship Between Procrastination and Test Anxiety Among Second-Year Students of College of Allied Health Sciences in PHINMA University of Pangasinan

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Abstract: Procrastination and text anxiety are two of the most prevalent ongoing matters that hinder the academic performance of students. Self-efficacy, on the other hand, plays a crucial role in performing academic tasks. The goal of this research is to shed light on a crucial but understudied aspect of student behavior by investigating how the level of academic self-efficacy can influence the link between procrastination and test anxiety. To address this gap, researchers employed a cross-sectional-explanatory design as proposed by Johnson (2001) and conducted mediation analysis following Baron and Kenny's framework of mediation analysis. The sample for this study consisted of 321 second-year students at the College of Allied Health Sciences Department of PHINMA University of Pangasinan. The study's data were collected through self-report questionnaires, including the Academic Procrastination Scale (McCloskey, 2011), Westside Test Anxiety Scale (WTAS), and General Academic Self-Efficacy (GASE). The researchers' findings showed a positive correlation between procrastination and academic self-efficacy, suggesting that students who engage in procrastination may possess greater confidence in their academic performance. Additionally, the researchers also identified a negative correlation between procrastination and test anxiety, indicating that procrastination may be linked to lower levels of test anxiety. Moreover, a negative correlation between test anxiety and academic self-efficacy is associated with reduced test anxiety. Mediation

analysis also showed that self-efficacy was fully mediated by procrastination and test anxiety. The researchers stress the need for further research to understand the intricate dynamics of strategies to enhance academic self-efficacy.

Keywords: Procrastination, Test Anxiety, Self-Efficacy, Second-Year College Students, Pre-Med Students

1. Introduction

Each individual must fulfill their duties and obligations to properly contribute to the community. However, putting such ideas into practice is not always straightforward, especially when the habit of procrastination has become so extensive in our time. A particular habit that can also be observed in college students. Operationally speaking, procrastination is the tendency to put off carrying out tasks as a way to cope with challenging emotions. Despite not being quick at accomplishing tasks, procrastinators are nonetheless actively motivated to achieve an anticipated outcome (Litvinova et al., 2019). Academic procrastination affects a sizable proportion of students around the world (Madhuri & Rani, 2017). A study in the Philippines on the academic achievement of Filipino students in Metro Manila found that respondents studying office administration had a moderately high procrastination level. (Nartea, et al., 2020). Internationally, procrastination affects more than 80% of students, according to a university study in Ethiopia, with poor time management, a lack of preparation, stress, and inactivity being the main contributors (Yared, et al., 2022). Additionally, a survey conducted by students at Zanjan University of Medical Sciences for two years revealed procrastination to have a prevalence of 63% (Mohammadi, 2018). According to previous research, 50% of college students make a habit of putting aside work, and 75% of them consider themselves procrastinators. In general, procrastination is thought to affect between 80% to 95% of college students (Todorov, 2023). Thus, the current statistics on the number of people

who practice procrastination prove it to be one of the major problems that students face in this day and age.

Procrastination is a coping strategy for challenging emotions, such as test anxiety. In order to avoid ambiguity, test anxiety is the fear, worry, or nervousness experienced before, during, or after a test. It is also the experience of physical and emotional symptoms that can affect an individual's ability to perform properly and efficiently on examinations. Particularly among medical students nearly everywhere, it has become a widespread concern. Between 25% to 40% of college medical students exhibit symptoms of troublesome test anxiety. Moreover, researchers have found that between 25% and 65% of students in health professions experience test anxiety. (Alghamdi, 2016; Khoshhal, 2017; Tsegay et al., 2019; Alamri & Nazir, 2022).

Consequently, the two most prevalent issues that can have a significant effect on a student's performance at school are procrastination and test anxiety. In past studies, procrastination has been considered an influential factor in motivation for academic performance (Akpur, 2017). Academic procrastination is not only an impediment to good results but also to emotional regulation, considering that procrastination leads to feelings of guilt, negligence, and dissatisfaction with the results of performances (Saplavska & Jerkunkova, 2018). A recent study has shown that there is a direct correlation between the tendency to procrastinate and the level of test anxiety experienced in an individual. As the level of inclination to engage in procrastination activities increases, so does the amount of test anxiety experienced increase. (Al-Shagaheen, 2017).

The correlation between procrastination and test anxiety was studied over time. The results indicate that when someone continually procrastinates, it can result in higher levels of stress and anxiety, resulting in decreased academic performance and even academic probation. Moreover, a recent cross-lagged panel analysis, it was found that academic procrastination is associated with test anxiety. In light of the known association between these two factors, test anxiety may be decreased if an academic procrastination

treatment is adopted. (Wang, 2020). However, these results are inconsistent with a recent study that concluded that academic procrastinators do not exhibit greater degrees of stress, test anxiety, embarrassment, fear, and irrational and negative thinking (Bolbolian et al., 2021).

Procrastination stems from a lack of belief in one's ability to perform a task. This belief is what Albert Bandura termed "self-efficacy." (Bandura, 1977, as cited in Barrows et al., 2013). In present times, psychologists have benefited from Bandura's work by understanding that people are accountable for their development. The self-efficacy theory proposed by Albert Bandura identifies four methods for boosting self-efficacy. The most effective method is mastery experience, which can either boost or lower self-efficacy depending on how successfully a job is accomplished. (Hickton, 2022).

Self-efficacy-based actions produce specific performance outcomes in conjunction with four basic processes: cognitive, motivational, affective, and selection processes. Similarly, academic self-efficacy alludes to a person's tenacity in finishing a task at a given level or reaching a particular academic goal. Such confidence brings about various outcomes as mentioned earlier. Recent comparative studies and statistics demonstrate an inverse relationship between procrastination and self-efficacy (Hernández et al., 2020; Uma et al., 2020). Therefore, an increase in self-efficacy tends to decrease the procrastination behavior of an individual.

On the other hand, test anxiety and self-efficacy have been shown to have a correlation based on previous research. Results from a study conducted in Norway among secondary and postsecondary students showed that self-efficacy perceptions were inversely related to test anxiety (Bråten et al., 2018). Consistently, it was indicated on an online survey that test anxiety and self-efficacy have a negative correlation (Maier et al., 2021). To avoid ambiguity, this study will specifically measure academic self-efficacy—the belief in completing an academic goal.

Although past studies found a significant correlation between procrastination and test anxiety, only a few researchers have investigated the relationship between the two variables in the presence of academic self-efficacy as a mediator. The academic self-efficacy of an individual plays a crucial role in academic performance, especially for those who tend to procrastinate, potentially impacting their academic outcomes. Given that procrastination increases the probability of possessing low academic self-efficacy and that test anxiety is more likely to increase with low academic self-efficacy, an individual's high level of academic self-efficacy could potentially be an influential variable in whether procrastination increases or decreases the probability of experiencing test anxiety (Wang, 2020).

The study will focus on academic self-efficacy as a mediating factor in the pre-med students' procrastination and test anxiety and consider the paucity of studies that deal with the three factors altogether. The demographic for this study is pre-med students, as they encounter many challenges while pursuing their academic goals in a blended learning setting. Two general hypotheses are put forward:

(a) There is no significant relationship between the procrastination habits of students, experience of test anxiety, and academic self-efficacy.

(b) Academic self-efficacy does not make a significant mediator between procrastination and test anxiety.

2. Methodology

The cross-sectional-explanatory design of Johnson (2001) and the mediation analysis of Baron & Kenny (1986) were utilized for analyzing the study's gathered data as it was collected from a single period using self-reported questionnaires, and because the study's objective was to determine how academic self-efficacy can affect the relationship between procrastination and test anxiety. Additionally, according to Frazier, Tix, and Baron (2004), the mediator or the mediating variable explains how a predictor

and an outcome are related. In this study, procrastination operated as the predictor, academic self-efficacy as the mediating variable, and test anxiety as the outcome.

2.1 Sample

This study gathered its data from the second-year students of the College of Allied Health Sciences department at the University of Pangasinan. The sample for this study consisted of 321 students. This sample size aligns with a power calculation from a Monte Carlo simulation, assuming a 5% margin of error, 0.05 alpha, and a population of 1639 (Schoemann et al., 2017). In selecting the study participants, the researchers employed a statistical method called purposive sampling to meet the needs of the analysis in this study.

To be eligible, the participants must be enrolled as second-year students of any program under the College of Allied Health Sciences who are within the age range of 18-20 years old as of 2023 and have signed the letter of consent for participants to show their voluntary participation in the study. English reading and speaking proficiency will also be a criterion in the selection of participants to ensure that those completing the surveys can understand the questions and answer them accurately. Non-eligibility will occur if the participants do not meet the criteria, or finish answering all three of the questionnaires with the required profile information filled in.

2.2. Measurement Scales

This study used a total of three validated questionnaires to collect responses from the participants. First, the Academic Procrastination Scale (APS) was used to gauge the degree of procrastination among the participants (McCloskey, 2011). The 25-item questionnaire assessed the students' procrastination. Example item: "I put off projects until the last minute." Five items (#1, #8, # 12, #14, and #25) from the questionnaire indicated reverse scoring. The APS scores range from 25 to 125 with higher scores indicating a higher tendency to procrastinate. Participants rated their responses on a 5-point Likert scale ranging from (1) "Strongly disagree" to (5) "Strongly agree". The scale

has a high level of internal consistency (α = 0.94) from a recently conducted study (Soares et al., 2022). In the present study, the APS indicated a good internal consistency (α = 0.90) per the general guideline for evaluating the Cronbach's Alpha value of a Likert scale or dichotomous instrument (George & Mallery, 2003, as cited in Saidi & Siew, 2019).

Additionally, the study assessed test anxiety levels through the utilization of the Westside Test Anxiety Scale (WTAS) to assess the feelings of incapacity and worry among individuals before and after taking a test, respectively. The participants completed a 10-item questionnaire to evaluate their test anxiety level. Example item: "The closer I am to a major exam, the harder it is for me to concentrate on the material." The participants rated their responses on a 5-point Likert scale, ranging from "Not at all or Never True" (1) to "Extremely or Always True" (5). Driscoll (2004) has established cut scores for different levels of anxiety: comfortably low test anxiety (score ranging from 1.0 to 1.9), normal or average test anxiety (score ranging from a score of 2.0 to 2.5), high normal test anxiety (score ranging from 2.5 to 2.9), moderately high (score ranging from 3.0 to 3.4, with some items rated 4 = high), high test anxiety (score ranging from 3.5 to 3.9, with half or more of the items rated 4 = high), and lastly, extremely high anxiety (score ranging from 4.0 to 5.0, with items rated 4 = high and 5 = extreme). In a study conducted on medical students in the United States, the researchers utilized WTAS with a (Cronbach's alpha) good internal consistency (α = 0.84) (Talwar et al., 2019). In this study, the internal consistency of the overall scale was found to be good (α = 0.89). At the same time, the incapacity subscale showed good reliability (α = 0.83) and the worry subscale demonstrated acceptable reliability (α = 0.80) per the general guideline for evaluating the Cronbach's Alpha value of a Likert scale or dichotomous instrument (George & Mallery, 2003, as cited in Saidi & Siew, 2019).

Finally, the General Academic Self-Efficacy Scale (GASE) was used as another method of measurement in this study to assess the participants' academic self-efficacy (Nielsen et al., 2018). The 5-item scale assessed the students' academic self-efficacy (e.g.,

I generally manage to solve difficult academic problems if I try hard enough"). Participants rated their responses on a 5-point Likert scale from (1) "Strongly disagree" to (5) "Strongly agree." The questionnaire's (Cronbach's a) internal consistency was good (α = 0.81) in a recent study conducted (van Zyl et al., 2022). Concerning the present study, the internal consistency of the measurement scale is acceptable (α = 0.76) per the general guideline for evaluating the Cronbach's Alpha value of a Likert scale or dichotomous instrument (George & Mallery, 2003, as cited in Saidi & Siew, 2019).

2.3. Procedure

The researchers have conducted a study in which they investigated the relationship between procrastination and test anxiety, with academic self-efficacy serving as the mediator. Prior to that, the College of Allied Health and Sciences (CAHS) and their research adviser were formally asked for approval before the researchers could begin surveying the second-year CAHS students at PHINMA University of Pangasinan. The request was made to obtain permission for the study's implementation and data collection procedures. After gaining consent, the researchers used pen-and-paper survey questionnaires as their primary research tool for data collection

In order to evaluate the levels of academic procrastination, test anxiety, and academic self-efficacy among participants, the researchers used three psychometric scales in their survey questionnaires: the Academic Procrastination Scale (APS), the Westside Test Anxiety Scale (WTAS), and the General Academic Self-Efficacy Scale (GASE). To make sure the questionnaires followed the criteria and procedures for reliability and validity in research, the researchers submitted the survey questionnaire to the research adviser for a thorough assessment and approval prior to conducting the data collection. The survey was then administered after the researchers received approval for the survey questionnaires. Importantly, the researchers made sure that all of the chosen participants were aware of the study and its goals before completing the survey.

Moreover, the researchers provided those who agreed to participate with information on the procedures, risks, benefits, anonymity, confidentiality, and the option to discontinue participation without consequence. Following that, the participants underwent a set of self-report questionnaires that were conducted in groups of ten to fifteen (10-15) individuals by at least one of the researchers. This was done to guarantee that any queries or additional assistance required by the participants were addressed appropriately. The questionnaires were presented in the following order: Academic Procrastination Scale (APS), Westside Test Anxiety Scale (WTAS), and General Academic Self-Efficacy Scale (GASE); and the participant's battery of tests was completed in between 10 and 20 minutes. Of particular significance, in keeping with the Code of Ethics, the researchers made certain that the participants who required it went through a debriefing session and were given accurate and relevant details about the study's purpose.

2.4. Data analysis

The researchers utilized a Monte Carlo simulation to estimate the required sample size for the study (Schoemann et al., 2017). The sample's socioeconomic and demographic characteristics were described using descriptive statistics. The correlation between procrastination and test anxiety and the mediation analyses was calculated with the use of Microsoft Excel. The significance of the mediation effect was then tested using the Sobel Test after conducting regression analyses. The level of significance for all operations in this study will be set at $p \leq 0.05$, with a 95% confidence interval.

3. Results

3.1. Descriptive Variables

This section presents the data that researchers have gathered from the 321 second-year students enrolled in the College of Allied Health Sciences at the PHINMA University of Pangasinan. Male (N = 79; 25%) and female (N = 241; 75%) students were included in the study. The mean age of the respondents is 19.21 (SD: 0.57).

Table 1. ***Results by students' gender and age.***

Sociodemographic		**N**	**%**
Gender	Male	79	25
	Female	241	75
Age	18 years	24	7
	19 years	205	64
	20 years	91	28

3.2. Profile of the Participants.

The summarized profile of the study's participants on the three variables including procrastination, test anxiety, and academic self-efficacy is presented in Table 2. In terms of procrastination, the calculated mean was 70.37 which suggests that the average participants of the study exhibit a moderate level of procrastination. In terms of test anxiety and its two factors; incapacity and worry, a mean of 3.23, 3.09, and 3.44, respectively, was determined. This suggests that the average number of participants in this study experience moderately high levels of test anxiety. In terms of academic self-efficacy, a mean of 3.93 was calculated, which suggests that the average number of participants in this study possess a high amount of academic self-efficacy. The calculated standard deviations for all three variables indicate that the study participants' scores are tightly clustered around their corresponding mean scores. Lastly, as the values of skewness and kurtosis suggest, a normal distribution can be observed for procrastination, test anxiety (including incapacity and worry), and academic self-efficacy.

Table 2. ***Summary of the Profile of Participants on the Variables procrastination, test anxiety, and self-efficacy.***

	Mean	*SD*	*Skewness*	*Kurtosis*	*Interpretation*
Academic Procrastination Scale	70.37	14.55	0.04333	-0.14098	Moderate
Westside Test Anxiety Scale	3.23	0.73	-0.25259	-0.32127	
Incapacity	3.09	0.71	-0.10607	-0.46851	
Worry	3.44	0.88	-0.36144	-0.31918	Moderately high
General Academic Self-efficacy Scale	3.93	0.66	-0.63526	0.85488	High

Note: N = 321; SD = Standard Deviation

3.3. Correlational Analysis between Procrastination, Test Anxiety and Self-Efficacy

In Table 3, the correlations between the variables are presented. Although the strength and direction of the correlations vary, all pairings of variables show significant correlations. Procrastination and test anxiety have a negative correlation (r = -0.257). The only and highest positive correlation was found between academic self-efficacy and procrastination (r = 0.51). In contrast, the weakest negative correlation was found between procrastination and test anxiety (r = -0.181).

Table 3. ***Results by correlational analysis of procrastination, test anxiety, and academic self-efficacy.***

	Procrastination	*Academic Self-Efficacy*	*Test anxiety*	*M*	*SD*
Procrastination	-			70.37	14.55
Academic Self-efficacy	0.501	-		3.93	0.66
Test anxiety	-0.181	-0.257	-	3.23	0.73

Note: N = 321; *$p < 0.05$; Critical r = 0.105; M = Mean Score; SD = Standard Deviation

3.4. Mediation Effects of Self-Efficacy on the Relationship between Procrastination and Test Anxiety

The regressions among all the variables included in the mediation analysis are displayed in Table 4. In particular, it shows the regressions between procrastination, test anxiety, and academic self-efficacy.

Table 4. ***Regressions for Procrastination, Test Anxiety, and Academic Self-efficacy.***

	Predictor	*Outcome*	*P-value*	*β*	*SE*	*t(319)*
Test anxiety						
Path C	P	TA	0.001110935*	-0.01	0.002	-3.29
Path A	P	ASE	7.68214E-22*	0.03	0.003	10.35
Path B	ASE	TA	3.15032E-06*	-0.21	0.04	-4.75

Note: N = 321; *$p < 0.05$; β = Regression Coefficient; SE = Standard Deviation; P = Procrastination; TA = Test anxiety; ASE = Academic Self-efficacy

The mediation analysis predicting the relationship between procrastination, test anxiety, and academic self-efficacy is shown in Figure 1.

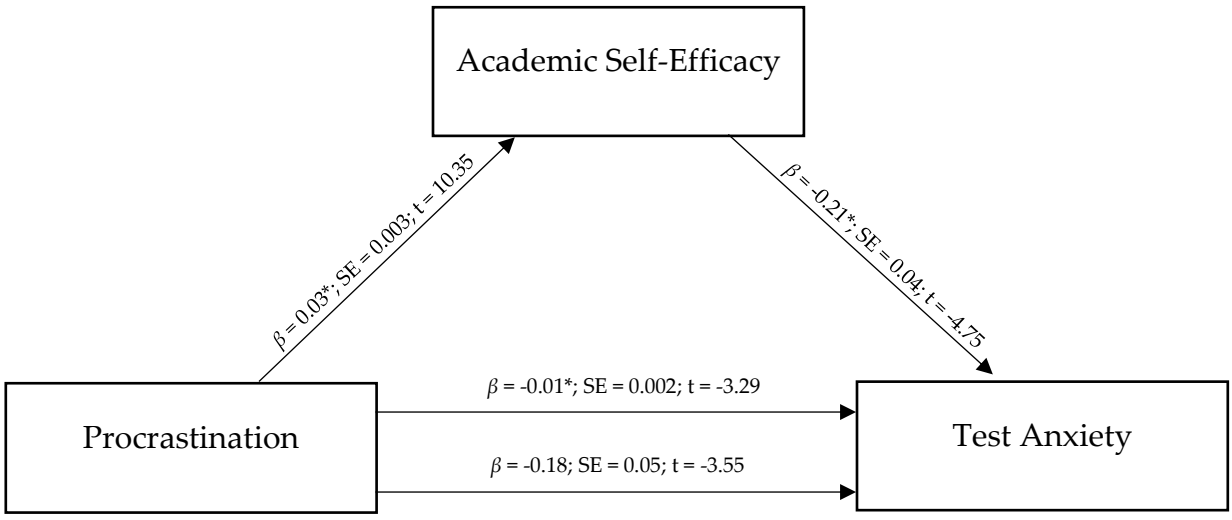

Figure 1. ***A mediation model of procrastination and test anxiety through academic procrastination. *p < 0.05.***

4. Discussion

In this study, procrastination and academic self-efficacy resulted in a significant positive correlation (r = 0.51). This demonstrates that the likelihood of having academic self-efficacy improves as procrastination levels rise, and vice versa. The results were inconsistent with comparative studies and statistics from recent times showing an inverse relationship between procrastination and self-efficacy (Hernández et al., 2020; Uma et al., 2020). As a coping mechanism for difficult emotions, procrastination can be both active and passive for students. The study's findings are in line with those of other studies that suggested active procrastination (Chu & Choi, 2005, as cited in Liu et al., 2017). As procrastination plays the role of a self-regulatory strategy, individuals who employ this coping behavior will indicate the individual to have better perceived confidence in their capabilities in dealing with academics.

Additionally, this study provides evidence of a significant negative correlation between procrastination and test anxiety (r = -0.181). This means that as procrastination increases, test anxiety decreases, and vice versa. This finding suggests that students who tend to procrastinate may possess a certain level of confidence in their abilities, which ultimately leads to a reduction in their test anxiety levels. Students who procrastinate may have a higher level of self-confidence in their abilities, which could lead to a decrease in test anxiety. This confidence may stem from a belief that they can complete tasks even with limited time. On the other hand, students who do not procrastinate may face heightened levels of test anxiety as a result of their lack of belief in their capabilities. Recent studies have found a correlation between test anxiety and procrastination, suggesting that those who procrastinate are more likely to experience anxiety when taking tests. However, these results do not support this finding (Al-Shagaheen, 2017; Wang, 2020). Notably, the relationship between procrastination and test anxiety is complex. Some research suggests that academic procrastinators do not experience greater

degrees of stress, test anxiety, embarrassment, fear, or negative thinking (Bolbolian et al., 2021).

The study found a significant negative correlation between test anxiety and academic self-efficacy (r = -0.257). Academic self-efficacy may trigger a cascade of developments in the performance of an individual that may influence the level of anxiety an individual experiences during a test. Hence, a high academic self-efficacy may cause low levels of test anxiety. The results are in line with a Norwegian study and an online poll that examined the same variables (Bråten et al., 2018; Maier, 2021).

Furthermore, the study revealed procrastination as a significant predictor of test anxiety (β = -0.01, SE = 0.002; t(319) -3.29; $p<0.05$). This means that individuals who exhibit procrastination are less likely to experience test anxiety. Additionally, it demonstrates that procrastination is a significant predictor of academic self-efficacy (β = 0.03, SE = 0.003, t(298) = 10.35; $p<0.05$). This suggests that individuals who exhibit procrastination frequently possess academic self-efficacy. Moreover, the study demonstrates that academic self-efficacy is a significant predictor of test anxiety. (β = -0.21; SE = 0.04; t = -4.75; $p<0.05$). This suggests that individuals with high academic self-efficacy are less likely to experience test anxiety.

Finally, upon regressing test anxiety on procrastination and academic self-efficacy, the correlation between procrastination and test anxiety became insignificant. (β = -0.18; SE = 0.05; t = -3.55; ϱ = 0.26). This suggests that academic self-efficacy significantly mediates the relationship between procrastination and test anxiety. This indicates that individuals who exhibit procrastination have a low probability or likeliness of experiencing test anxiety. This implies that individuals who exhibit procrastination will be less likely to experience test anxiety if they possess academic self-efficacy.

The Self-efficacy theory proposes that a higher level of self-efficacy may reduce stress by giving people a sense of control over prospective outcomes. (Bandura, 1977, as cited in Meyer et al., 2022). Rather than truly being in control, a strong defense against

the anxiety-inducing stress may come from the individual's belief or perception that he remains in control despite delaying the accomplishment of his academic tasks. Concerning the implications of the study's findings, the lesser the possession of academic self-efficacy of individuals who exhibit procrastination, the greater the risk of experiencing test anxiety. Whereas, the greater the possession of academic self-efficacy of individuals who exhibit procrastination, the lesser the risk of experiencing test anxiety. Therefore, academic self-efficacy acts as a preventive factor against test anxiety among individuals who exhibit procrastination.

A student's academic performance and even their social life can suffer as a result of procrastination (Abdi Zarrin et al., 2020). To reiterate, procrastination, which is the act of intentionally delaying important actions or decisions despite knowing that it will lead to negative outcomes and personal discomfort, often results in a combination of physical symptoms and emotional reactions that can affect a person's ability to perform well on tests. (Van Eerde, 2003; Ferrari et al., 2005, as cited in Krispenz et al., 2019). Particularly when there is a decline in students' self-efficacy, this can result in students performing worse on exams by raising test anxiety (Asayesh, 2016). However, the results of this research suggest differently; that some people may engage in active procrastination.

Active procrastination can be seen as a way of self-regulation where individuals engage in "positive" procrastination. This method allows individuals to be more efficient and effective in time management leading to higher levels of self-efficacy and consequently making these individuals more comparable to non-procrastinators. This is in contrast to passive procrastinators who struggle with time management which can negatively impact their productivity. Additionally, active procrastination leads to better academic performance and generally more favorable outcomes. (Chu & Choi, 2005, as cited in Liu et al., 2017). In the end, low self-efficacy-induced procrastination remains negative as it results in an increase in test anxiety. Possession of a strong sense of self-efficacy is positively correlated with academic achievement and negatively correlated

with test anxiety. (Bonaccio & Reeve, 2010, as cited in Roick, 2017). Therefore, the likelihood of developing test anxiety is reduced in people who can successfully regulate their learning habits by working with increased self-efficacy. (Krispenz et al., 2019).

In general, the study illuminates the relationship between procrastination, test anxiety, and academic self-efficacy, but its scope remains limited. First, the study was not longitudinal and is not able to offer an even stronger and more suitable evaluation of the hypotheses. Secondly, neither the sample selection nor its representativeness to all pre-med students in the Philippines was guaranteed to be sufficient in generalizing its findings. The results of the study could only be generalized to second-year pre-med students enrolled in PHINMA University of Pangasinan's College of Allied Health Sciences programs. It cannot be assumed that the findings apply to all pre-med students at all college year levels in all colleges/universities. Thirdly, because the research approach was non-experimental, the focus of this work is on relationships rather than cause-and-effect correlations. Finally, the researchers were unable to estimate the sampling distribution of the indirect effect among the three factors, as recommended by Preacher and Hayes (2004, 2008). Thus, the researchers recommend that future studies address these limitations; although further research is needed, current evidence suggests that self-efficacy plays a mediating role in the relationship between procrastination and test anxiety. The researchers advise more studies to be conducted to develop successful strategies for boosting self-efficacy as well as to gain greater comprehension of this potentially helpful concept and how it interacts with other variables.

Conclusions

The findings of the present study were able to determine the significant mediation of academic self-efficacy to the relationship between procrastination and test anxiety among second-year students enrolled in the College of Allied Health Sciences at PHINMA University of Pangasinan. The researchers found that the relationship between procrastination and test anxiety is fully mediated by academic self-efficacy.

The current study examined procrastination as an independent predictor of test anxiety and self-efficacy. Then, an independent assessment was conducted of academic self-efficacy's mediating role. This study has filled a significant gap in the literature concerning the paucity of studies focusing on academic self-efficacy leading to test anxiety among individuals, specifically pre-med students who exhibit procrastination. At present, none of the studies addressing the relationship between procrastination and test anxiety have yet examined self-efficacy as a mediating factor. This study's findings suggest that an individual's level of confidence in completing a task or achieving a particular academic goal significantly affects the relationship between procrastination and test anxiety experienced before, during, or after a test. The study's findings suggest that students who believe in their academic abilities and use procrastination as a self-regulation strategy are less likely to experience test anxiety. It's important to note that not all forms of procrastination are harmful. However, to avoid delaying tasks and experiencing anxiety about performing well on tests, it's crucial to build confidence in one's abilities.

Author Contributions: Conceptualization, T.J.C., P.S.O. and J.C..; methodology, T.J.C., P.S.O., J.C., E.C., and R.A.A.; validation, T.J.C., and P.S.O.; formal analysis, T.J.C.; investigation, T.J.C., P.S.O., J.C., E.C., and R.A.A.; resources, T.J.C., P.S.O., J.C., E.C., and R.A.A.; data curation, T.J.C.; writing—original draft preparation, T.J.C., P.S.O., J.C., E.C., and R.A.A.; writing—review and editing, T.J.C., P.S.O., J.C., and E.C.; visualization, T.J.C., P.S.O., J.C., E.C., and R.A.A.; supervision, T.J.C., P.S.O., J.C., E.C., and R.A.A.; project administration, T.J.C., P.S.O., J.C., E.C., and R.A.A.; funding acquisition, T.J.C., P.S.O., J.C., E.C., and R.A.A. All authors have read and agreed to the published version of the manuscript.

Funding: Did not receive any funding.

Acknowledgments: The participants in this research and the researchers' adviser, Ms. Kimberly O. Bacorro, MA, RPm, RPsy.

Conflict of Interest: The authors declare no conflict of interest.

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