

Grit, Self-Regulation and Self-Efficacy as Predictors of Academic Procrastination among Nursing Students

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Abstract

In recent years, procrastination has become a central issue which is difficult to ignore. It is considered one of the most serious problems in educational settings. So the current study aimed to investigate grit, self-regulation and self-efficacy as predictors of academic procrastination. The study was conducted at the Faculty of Nursing, Zagazig University, Egypt, using descriptive correlational design. A simple random sample of 324 nursing students, were selected from the above-mentioned setting. Four tools were used to collect data for the study; Academic procrastination scale, grit, self-efficacy scale and self-regulation scale. Results revealed highly statistically significant correlations among grit, self-regulation, self-efficacy and academic procrastination where P- value < 0.01, also, grit, self-regulation and self-efficacy were predictors of academic procrastination ($R^2 = 0.110$, $R^2 = 0.290$, & $R^2 = 0.659$, respectively). It is concluded that grit, self-regulation and self-efficacy can predict academic procrastination. Consequently, it is recommended that faculty should raise nursing students' awareness about procrastination and provide a training program about self-regulation for them.

Keywords: *Academic procrastination, Grit, Self-efficacy, Self-regulation, Nursing students.*

Introduction

Moving from school to university brings many difficulties for students. Sometimes students perceive university life as negative and it affects students' motivation and performance⁽¹⁾. Nursing students are challenged to think in a way that will prepare them for clinical practice in a complex environment and all these require them to do multiple academic tasks such as coursework, assignments and clinical work, therefore, there isn't time for anything else. Consequently, academic procrastination is considered an important risk factor for students' achievement⁽²⁾.

Grit was found to be a protective factor against procrastination. It can be defined as a sense of strength, patience and persistence which helps the student to

overcome challenges and establish long-term goals⁽³⁾. It consists of two sub-domains: perseverance of effort and consistency of interest. Perseverance of effort is visualized as the liability to overcome first failures to achieve the goal while the consistency of interest concentrates on student's tendency to achieve the same goals overtime⁽⁴⁾.

Grit provides students with the ability to see a goal from start to the end⁽⁵⁾. It involves self-regulation, ability to make choices and engage in behaviours that will ultimately lead to success⁽⁴⁾. Self-regulation refers to the route which students can use internal and external cues to determine when to (initiate, maintain and terminate) their goal-directed behaviours. Shortage in self-regulatory behaviours will result in the avoidance of tasks⁽⁶⁾.

Self-efficacy plays a critical role in nursing practice. It is defined as individuals' judgments of their abilities to organize and apply actions required in achieving certain types of performance⁽⁷⁾. Therefore students who have a high level of self-efficacy are more eager to learn, duplicate their efforts toward activities and may develop

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more effective strategies to overcome difficulties they face⁽⁸⁾.

Academic procrastination is related to the academic environment. It involves knowing that students need to carry out academic tasks, such as making an assignment, writing a term paper, studying for exams or engage in daily readings, but; sometimes, they fail to do so within the expected time. This refers to that, most students frequently engage in procrastination during their faculty life⁽⁷⁾. It specifically, has a significant relation to lack of motivation to learn, lack of self-efficacy, disagreement with academic conditions and lower levels of self-regulated learning. On the contrary, procrastination can be a deliberate self-motivating strategy for persons who need intense levels of stimulation to be adequately motivated⁽²⁾.

Significance: Achievement is one of the important concerns for nursing students. On the contrary, procrastination is one of the major challenges facing them. It creates many difficulties for students such as stress, poor performance and may even lead to withdrawal from the study⁽⁹⁾. In the faculty of nursing, students have a lot of assignments and term papers so they may habitually procrastinate. Academic procrastination is a risk factor for students' success and needs to be studied; therefore, the goal of this study is to investigate grit, self-regulation and self-efficacy as predictors of academic procrastination among nursing students. The findings of this study will assist fill in the gap in understanding academic procrastination.

Aim: Investigate grit, self-regulation and self-efficacy as predictors of academic procrastination among nursing students.

Research Questions:

1. What are the levels of grit, self-regulation, self-efficacy and academic procrastination among nursing students?
2. What is the relationship among grit, self-regulation, self-efficacy and academic procrastination?
3. Do grit, self-regulation and self-efficacy predictors of academic procrastination?

Methodology:

Design: A descriptive correlational design was used.

Setting: Faculty of Nursing, Zagazig University, Egypt.

Subject & Sample: Sample size was estimated by this formula $[n = N / 1 + N (e)^2]$ ⁽¹⁰⁾; at confidence interval 95%, margin of errors 5.0%, a total population of 1743 nursing students, it was 324 students, simple random sample.

Instruments:

The tool I: Academic procrastination scale: consisted of two parts; first: Personal characteristics of students. Second: Academic procrastination scale: developed by **McCloskey & Scielzo**⁽¹¹⁾ to measure academic procrastination level (25 items), grouped under six domains; Psychological beliefs (5 items); distractions (4 items); social factors (3 items); time management (4 items); personal initiative (5 items) and laziness (4 items). Responses were measured on a five-point Likert scale ranging from (1) strongly disagree to (5) strongly agree. The reverse score for items number (1, 8, 12, 17 and 25). Score ≥ 80 indicates a high level of procrastination. Cronbach's alpha was 0.95.

Tool II: Grit scale: developed by **Duckworth et al.**,⁽¹²⁾ to assess Grit level (12 items), divided into two domains; consistency of interest and perseverance of effort (6 items each). Responses were measured on five points Likert scale ranging from 1 (not like me at all) to 5 (very much like me). Score ≥ 34 indicates a high level of grit. Cronbach's alpha was 0.765.

Tool III: Self-regulation scale: developed by **Brown et al.**,⁽¹³⁾ to measure self-regulation level, consists of 63 items grouped under seven domains (as illustrated in table 2); each domain has nine items. The responses were measured on five points Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Score ≥ 192 refers to a high level of self-regulation. Cronbach's alpha was 0.91.

Tool IV. The generalized self-efficacy scale: was developed by **Schwarzer & Jerusalem**⁽¹⁴⁾ to assess the general sense of perceived self-efficacy among students (10 items). Responses were measured on four points Likert scale ranged from exactly true (4) to not at all true (1). Level of self-efficacy is high if the score was ≥ 30 . Cronbach's alpha was 0.85.

Fieldwork: The data collection took two months. The researchers explained the aim of the study to students through group meetings. Each student was allowed to fulfil the questionnaire under the supervision of the researchers. The time consumed to answer it was 25 minutes to 35 minutes.

Pilot Study: It was done before the collection of data to confirm understanding and applicability of the tools. Additionally, to estimate the time required for filling the questionnaire. It was carried out on 32 students (10 % of the sample). They were selected randomly and excluded from the main research results. Accordingly, the necessary modifications were done.

Content validity: After translation of the questionnaire into Arabic. Validity was established by a jury of experts (6 professors & assistant professors) from academic nursing staff, Zagazig University. Accordingly, the required modifications were done.

Ethical consideration: Before data collection, the content of this study was approved by the ethics committee and dean of the Faculty of Nursing, Zagazig University. Oral and written clarification of the nature and aim of the study has been explained to students who participated in the study. They were given an option to discontinue at any time without explanation; also, the researchers explained to students that they aren't forced to write their names with emphasis on the confidentiality of the information as it would be used for the research purpose only.

Statistical analysis: It was performed using the Statistical Package for Social Science (SPSS), version 21.0. Data were displayed using descriptive statistics. Pearson correlation was used for assessing inter-relationships. Multiple Linear inner regressions were used to investigate the predictors.

Results

Table (1): shows that, 65.7% of nursing students aged ≤ 20 years. Also, the highest percentages of them (26.6%) were in the third academic year.

Table (1): Personal characteristics of nursing students (n=324)

Personal Characteristics	No	%
Age in Year		
≤ 20	213	65.7
≥ 20	111	34.3
Mean ± SD	20.21±1.30	
Gender		
Female	234	72.2
Male	90	27.8

Personal Characteristics	No	%
Academic Year		
First	74	22.8
Second	82	25.3
Third	87	26.9
Fourth	81	25.0
Working Beside Study		
Yes	55	17.0
No	269	83.0

Table (2): clarifies mean score of grit, self-regulation, self-efficacy and academic procrastination (34.27 $\pm$ 6.94, 194.37 $\pm$ 24.69, 32.78 $\pm$ 4.87 & 86.04 $\pm$ 13.58 respectively).

Table (2): Grit, self-regulation, self-efficacy and academic procrastination among nursing students (n=324)

Study variables	Mean $\pm$ SD
Grit Domains:	
• Consistency of interest	16.48 $\pm$ 3.98
• Perseverance of effort	17.78 $\pm$ 3.32
The total mean score of grit	34.27 $\pm$ 6.94
Self-regulation domains:	
• Receiving	25.55 $\pm$ 4.63
• Evaluating	29.00 $\pm$ 4.64
• Triggering	27.68 $\pm$ 4.23
• Searching	27.83 $\pm$ 3.66
• Formulating	26.44 $\pm$ 3.80
• Implementing	28.52 $\pm$ 3.93
• Assessing	29.33 $\pm$ 4.31
The total mean score of self-regulation	194.37 $\pm$ 24.69
Academic procrastination domains:	
• Time management	13.15 $\pm$ 2.44
• Laziness	13.72 $\pm$ 2.41
• Psychological belief	16.91 $\pm$ 2.71
• Distractions	13.36 $\pm$ 2.27
• Personal initiative	15.72 $\pm$ 2.77
• Social factor	10.56 $\pm$ 2.36
The total mean score of academic procrastination	86.04 $\pm$ 13.58
The total mean score of self-efficacy	32.78 $\pm$ 4.87

Table (3): demonstrates significant positive correlation between grit and self-regulation ($r = 0.769^{**}$, $p < 0.001$). Moreover, grit, self-regulation and self-efficacy were negatively and significantly correlated with academic procrastination ($r = -0.43^{**}$, -0.39^{*} & -0.81^{**} at $p < 0.05$ respectively).

Table (3): Correlations between study variables as reported by nursing students (n=324):

Study variables	Self-regulation		Grit		Self-efficacy	
	R	p	R	p	R	p
Grit	0.769**	0.000				
Self-efficacy	0.005	0.92	0.09	0.10		
Academic procrastination	- 0.39*	0.047	-0.43**	0.000	-0.81**	0.000

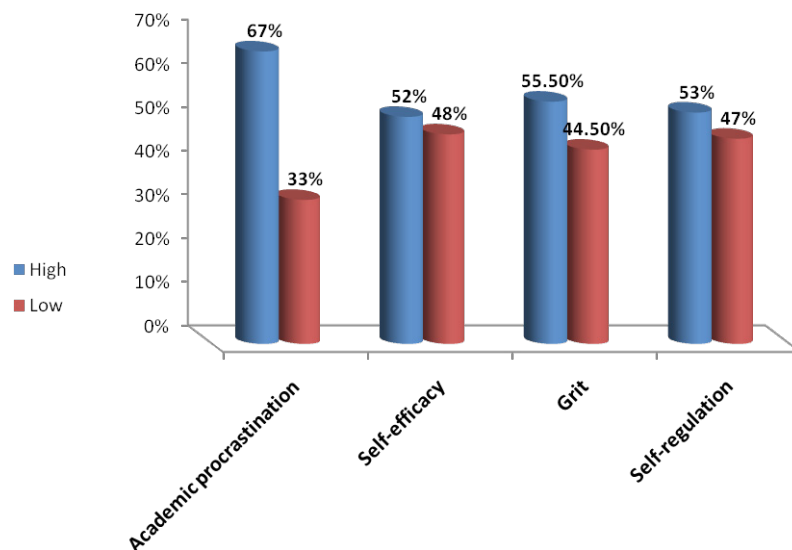
**Highly statistically significant at $p < 0.01$

Table (4): demonstrates that,grit, self-regulation and self-efficacy were predictors of academic procrastination, particularly self-efficacy was responsible for 65.9 % of the variation in academic procrastination compared to 29% for self-regulation and 11% for grit ($R^2 = 0.659$, $R^2 = 0.290$, & $R^2 = 0.110$, respectively).

Table (4): Regression analysis to study the independent factors affecting academic procrastination (n=324)

	R	R^2	Unstandardized coefficient		t	Sig.
			B	Std. error		
Grit	0.321	0.110	0.215	0.047	4.960**	0.000
Self-regulation	0.541	0.290	0.509	0.051	9.320**	0.000
Self-efficacy	0.812	0.659	2.263	0.090	25.00**	0.000

Figure (1): portrays that more than half of students had high levels of procrastination, self-efficacy, grit and self-regulation (67%, 52%, 55.5% & 53% respectively)

**Figure (1): Levels of study variables among nursing students (n=324)**

Discussion

University life is not only a vital part of students' academic development but also, it is an important element of their social integration to the society. During this time, students face different experiences which may prevent their academic growth. Academic procrastination is an important one of these experiences ⁽¹⁵⁾. It is an illogical postponement in performing academic ⁽¹⁶⁾. It is

a motivational problem with no easy solution; therefore this study aimed to investigate grit, self-regulation and self-efficacy as predictors of academic procrastination.

Concerning the level of academic procrastination; most students experience high level. The best rationale is the excessive assignments and term papers in addition to most of the students work beside the study that leads to excessive loads, therefore they habitually procrastinate.

In the same line, at King Saud University, **AlQudah et al.**,⁽¹⁷⁾ found the same results.

Regarding grit level; more than half of students had a high level. This could be due to that; the majority of them had persistence and patience to overcome academic challenges. This result in agreement with **Kannangara et al.**,⁽¹⁸⁾ conducted a study in the North-West of England; found the same results.

Concerning self-regulation level; half of the students had a high level. This could be related to differences in nursing students' academic years. This result is consistent with a study in Turkey carried out by **Erdogan**⁽¹⁹⁾, found the same results.

As regard students' level of self-efficacy; more than half of them had a high level. This may be due to that, not all students enter the faculty of nursing on their desire but some of them enter faculty for employment chance. This result is in agreement with **Athiraet al.**,⁽²⁰⁾ who found the same findings.

Concerning correlation among study variables; grit, self-regulation and self-efficacy had negative correlations with academic procrastination. Also, there was a significant correlation between grit and self-regulation. Moreover, grit, self-regulation and self-efficacy were significant predictors of academic procrastination. The aforementioned results related to the use of self-regulatory strategies by students feel self-confident to learn and understand can easily organize their academic duties rather than procrastinating it.

This result is consistent with a study done by **Kandemir**,⁽²¹⁾ revealed that academic procrastination is related to self-regulation and academic self-efficacy. Also, a study carried out by **Vinothkumar et al.**,⁽²²⁾ found a correlation between self-efficacy and academic procrastination.

In the same line; **Littrell**⁽²³⁾ conducted a study at Chattanooga, demonstrated that; grit and course self-efficacy had a negative correlation with academic procrastination. Additionally, a study carried out by **Wejkum**⁽²⁴⁾ on psychology and nursing students, found that; procrastination was strongly negatively correlated with both grit and self-efficacy for self-regulation.

Additionally, a study in Tehran by **Ebadi & Shakoorzadeh**⁽²⁵⁾; revealed that academic self-regulation predicts academic procrastination. Another study done by **Ocal**⁽¹⁵⁾, in Turkey, found that

Academic self-efficacy was a significant predictor of procrastination.

Conclusion

Grit, self-regulation and self-efficacy can predict academic procrastination.

Recommendations:

- Raising nursing students' awareness about procrastination.
- Design a training program about self-regulation to students.
- Educators must understand students' different capacities and hence must introduce subjects and topics in a way that all students can comprehend easily.
- Design syllabus in a manner that every student should be able to master the subject.

Further Research to: Identify the causes of academic procrastination among nursing students.

Ethical Clearance: Taken from the Ethics Committee and Dean of the Faculty of Nursing, Zagazig University.

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Conflict of Interest: No conflict for publication of the study.

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