

## Original Article

## Impact of Procrastination and Time-Management on Academic Stress among Undergraduate Nursing Students: A Cross Sectional Study

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### Abstract

Nursing profession demands the skills for working in busy schedules, stressful situations and unexpected emergencies in the hospitals. There is need to inculcate good time management skills and reduction in procrastination to prepare the students to work in the hospitals. This cross-sectional study focused on assessing the procrastination, time management skills and its relationship with academic stress among 201 undergraduate nursing students in a private college of South India. Finding showed that mean ( $\pm$  SD) of procrastination was 88.05 ( $\pm$  1.19) which is above the mean (81) score of the tool indicating lesser procrastination by the undergraduate nursing students. There was positive correlation between procrastination and academic stress with  $r=.185$  ( $p=.009$ ); time wasting and academic stress  $r=.253$  ( $p=0.001$ ) among the undergraduate nursing students which is statistically significant at 0.05 level of significance. Study implies that helping the undergraduate students for effective time management for reducing the academic stress and better academic performance is essential.

**Key words:** Academic Stress, Nursing Students, Procrastination, India, Time Management

### Introduction

Procrastination is a prevailing phenomenon in the academic settings with a range of negative consequences (Goroshit, 2018) (Zacks & Hen, 2018). Procrastination in academics is a prevalent behavior among students that negatively influences the well-being and performance (Hen, 2018). One of the common barriers to productivity is procrastination. People often put off the things very last moment even after knowing that it will put them in turmoil. Delaying the things for the last minute also results in anxiety and distressed state of mind (Homisak, 2012).

Procrastination in academics is well studied phenomenon and it is indicated that over 70% of students report delay in learning and tasks on regular basis in the higher education and college setting (Steel & Klingsieck, 2016).

Time is not a kind of resource which one can increase by working hard (Tanrıögen & Işcan, 2009). Time management is all about how we manage self (Spidal, 2009). It is about finding healthiest, smartest and most rewarding way to use the same 86,400 seconds which each one of us given on every day (Homisak, 2012). Increasing the quality of activities performed in limited period of time is the main aim of time management (Tanrıögen & Işcan, 2009). Prioritizing the tasks is very essential for managing the time effectively (Ashurst, 2014). Deciding on how we spend the time is very essential to make ourselves productive and more organized (Spidal, 2009). This requires skills in goal setting, setting priorities, planning and organizing skills and minimizing time wasting (Gordon & Borkan, 2014). The life process in the university is the preparation stage for taking responsibility and working. Acquiring time

management related skills during this process is an important role for a student (Tanrıögen & Işcan, 2009). Success of a University student depends on their ability and efficiency of utilizing time (Kaya, Kaya, Pallos, & Küçük, 2012), (Tanrıögen & Işcan, 2009). Nursing is skill oriented programme and students need to gain the knowledge required for the profession to practice in the future (Mirzaei, Oskouie, & Rafii, 2012). Time management is an important and crucial to acquire competence and skill for the nursing students (Kaya, Kaya, Pallos, & Küçük, 2012). Health care workers working in a busy health settings should be having an essential skill of good time management (Ancel & Yilmaz, 2016). Nursing is a profession requiring the skills multitasking during the course of day for coping with time limitations and pressure (Ancel & Yilmaz, 2016). Nurses are indispensable part of the health care system (Blevins & Millen, 2016) and the continual and growing shortage of nurses demands working smarter than harder for improving quality care (Said, 2014). Nurses need to meet the expectations of patients, peers, managers, along with completing the nursing activities in a given shift (Cleary & Horsfall, 2011) and inadequate time management has shown delay in patient care and patient safety (Blevins & Millen, 2016). Contingencies also arise in the schedule which need to be identified as high, medium and low priority and should be best fit in the shift by the nurses (Cleary & Horsfall, 2011). Whenever, time limitations are more nurses may not be able to think critically, prioritize and tend to make more errors (Blevins & Millen, 2016). Leaping out of the safe boundaries of the classroom to the busy, noisy, and sometimes life or death environment of the clinical setting or hospital can completely frazzle the students (Bullen, 2015). Professional nursing practice and work performance, nurses should have good time management skills and different time management strategies (Said, 2014). Realizing the need of time management is very essential, to prevent burnout in managing personal life and duty shifts (Bullen, 2015). Thus, time management is an exceptionally important skill for nursing students for their academic life and career since they must be prepared for unanticipated emergencies and urgencies at work place. Academic stress is a universal phenomenon and affects the grades of the students in all the levels (Deb, Strodl, & Sun,

2015) Students obtaining training for helping professional disciplines including nursing may be at increased risk of stress levels (Enns, Eldridge, Montgomery, & Gonzalez, 2018) and nursing students also face immense stressors during the student life that affecting the physical and mental health leading to poor academic performance (Rathnayake & Ekanayaka, 2016). The key causes of academic stress is long classes, regular examinations, over expectations from parents and teachers, different teaching methods and comparisons among the students (Deb, Strodl, & Sun, 2015). There are few studies conducted in the past among the nursing students to assess the academic procrastination (Custer, 2018), time management (Kaya, Kaya, Pallos, & Küçük, 2012) and academic stress (Brown, Anderson-Johnson, & McPherson, 2016), (Yucha, Kowalski, & Cross, 2009), (Gurková & Zeleníková, 2018) in comparison with different outcome variables. But evidence of relating procrastination, time management and academic stress in this population is limited. The present research, perhaps is an initial effort to study the relationship between procrastination, time management skills and academic stress among nursing students.

## Methods

### **Design, Participants and ethical considerations:**

A descriptive correlational survey design was used to answer the research question. The study was conducted in a largest private college of nursing in Udupi District, Karnataka; which offers various undergraduate, post graduate, MPhil Nursing, PhD in nursing and specialized courses in nursing studies. The annual enrolment for basic undergraduate nursing programme is 100 with the students representing from all over India. Undergraduate Nursing students were enrolled for the study by using proportionate stratified sampling (50% from each batch). Students from each academic year were selected by systematic random sampling using registration number list of the students (first year = 51, second-year = 50, third-year = 53, fourth year = 47). Study as approved by Institutional Ethics Committee (IEC 443/2017) and the study was conducted according to the ethical principles of IEC. Consent was obtained from the study participants before collecting the data.

## Instruments

In the current study data were collected by using four instruments. Validity of all instrument was established through the scrutiny of the panel of experts in nursing education and mental health. The demographic questionnaire was used to collect the basic information such as age in years, gender and year of study. Procrastination among the nursing students was assessed by a procrastination scale, which was developed by the researcher. Procrastination scale was five point Likert scale with 27 items. Participants responded for the items on a five point likert scale ranging ranging from 5 (always) to 1 (never) by considering the each behaviour (eg. "I get up in the morning soon after first alarm rings"). Reverse scoring was done for the negative statements. Higher the score lesser the procrastination in the score ranged between 27 and 135. The reliability established for the instrument in the current study was by internal consistency and Chronbah's  $\alpha$  coefficient = 0.94. Time management skills of the basic undergraduate using students were assessed by time management questionnaire (TMQ) a standardized questionnaire with 27 items in three sections (time planning=16, time attitude=7 and time wasters=4) (Alay & Kocak, 2002). The instrument was highly reliable with Cronbach's  $\alpha$  coefficient of 0.87. However, one item was edited (Do you smoke an average of at least one pack of cigarettes per day?) with author's permission as smoking was not a common cultural practice in the research setting. Reliability was also established in the research setting by internal consistency and Chronbah's  $\alpha$  coefficient = 0.9. Academic stress was measured through

academic stress scale, which was developed by the researcher. This scale was five point Likert scale with 26 items. The response for the item were: strongly agree, agree, uncertain, disagree and strongly disagree with the scores of 5, 4, 3, 2 and 1 respectively. Reverse scoring was done for the negative statements. Higher the score lesser the academic stress in the score ranged between 26 and 130. Established reliability for the tool by internal consistency and Chronbah's  $\alpha$  coefficient = 0.87.

**Data collection and analysis:** Data were collected between August 2017 and January 2018 by using study instruments stated above. Average time taken for the participants was 40-50 minutes. Statistical analysis was performed using SPSS version 16. Normality of the quantitative variable was tested by using Kolmogorov-Smirnov test. Frequency and percentage were used to express the descriptive statistics of categorical variables. Quantitative data were also expressed in mean and standard deviation (SD) for the variables with normal distributed data and median for non-normally distributed data. Spearman - rho was computed to assess the relationship between the two quantitative variables. P value < 0.05 was considered statistically significant.

## Results

**Sample characteristics:** Description of sample characteristics were analyzed by frequency and percentage. Among 201 undergraduate nursing students, 92 (45.77%) were in the age group of 18-19 years and majority 180 (89.6%) were females (table 1).

**Table 1: Description of sample characteristics N=201**

Sample characteristics	Frequency (f)	Percentage (%)
Age in years		
18-19	92	45.77
20-21	83	41.29
22 and above	26	12.94
Gender		
Male	21	10.4
Female	180	89.6
Year of study		
First	51	25.4
Second	50	24.9
Third	53	26.4
Fourth	47	23.3

### Description of procrastination, time management and academic stress

Description of the procrastination and time management were analyzed by mean and standard deviation (SD) as the data was following normal distribution. Minimum, maximum and median were computed for academic stress as it was not following normal distribution. Findings in the area of procrastination showed that the mean ( $\pm$  SD) was more 90.58 ( $\pm$  1.22) among third year undergraduate nursing students which indicates less procrastination comparing to fourth year undergraduate students with the mean ( $\pm$  SD) 82.09 ( $\pm$  1.02). However, the findings didn't show any trend of procrastination as the student enters into the higher classless was not observed (table 2). Study findings showed, among fourth year undergraduate students the median score was high (73) indicative of less academic stress in comparison with other batch of students. A trend in increase median score of academic stress was observed in the consecutive years which is indicative of decrease in the academic stress (table 4).

Findings in the description of time management also showed that highest mean score ( $\pm$  SD) 50.68 ( $\pm$  9.96) in the area of time planning among third year undergraduate students indicating better time planning comparing to other batches of students. In the area of time waster's fourth year undergraduate students scored less mean ( $\pm$  SD) i.e. 11.96 ( $\pm$

2.71) indicating that they are time wasters comparing to any other batches (table 3).

### Relationship between the variables

Spearman Rho was computed to find the correlation between procrastination, time management and academic stress.

There was a positive correlation between procrastination and academic stress with  $r=.185$  ( $p=.009$ ), which is statistically significant at 0.05 level of significant. Similar findings were obtained among first year undergraduate students with  $r=.308$  ( $p=.028$ ) (table 5)

Study findings showed, significant positive correlation between time planning and academic stress among first year undergraduate students with  $r=.287$  ( $p=.041$ ) which is statistically significant at 0.05 level. There was negative correlation between time planning and academic stress among second year  $r=-.034$  ( $p=.812$ ), third year  $r=-.023$  ( $p=.871$ ) and fourth year  $r=-.230$  ( $p=.121$ ) undergraduate students. There was a significant positive correlation between time attitude with  $r=.239$  ( $p=0.001$ ) among undergraduate students which was statistically significant at 0.05 level. Similar findings were obtained among fourth year students with  $r=.494$  ( $p=0.001$ ). A week positive correlation was obtained between time wasting and academic stress with  $r=.253$  ( $p=.001$ ) which was statistically significant at 0.05 level (table 6).

**Table 2. Description of the procrastination**

N=201

Year of study	Mean	$\pm$ SD
First (n=51 )	90.33	1.27
Second (n= 50)	88.62	1.09
Third (n=53 )	90.58	1.22
Fourth (n= 47)	82.09	1.02
Total (n=201)	88.05	1.19

**Table 3: Description of time management N=201**

Year of study	Time planning		Time Attitude		Time waster	
	Mean	± SD	Mean	± SD	Mean	± SD
First (n=51 )	48.98	9.12	22.84	2.90	13.07	2.61
Second (n= 50)	47.76	10.28	21.96	2.84	13.20	3.33
Third (n=53 )	50.68	9.96	23.39	2.95	12.75	3.49
Fourth (n= 47)	48.36	11.54	22.21	2.47	11.96	2.71
Total (n=201)	48.98	10.22	22.62	2.84	12.76	3.08

**Table 4: Description of Academic stress**

Year of study	Minimum	Maximum	Median
First (n=51 )	51	97	67
Second (n= 50)	53	96	71
Third (n=53 )	46	100	72
Fourth (n= 47)	54	96	73
Total (n=201)	46	100	69

**Table 5. Relationship between procrastination and academic stress among undergraduate nursing students. N=201**

Year of study	r value	P value
First (n=51 )	.308	.028*
Second (n= 50)	.156	.280
Third (n=53 )	.221	.112
Fourth (n= 47)	.271	.065
Total (n=201)	.185	.009*

\*= Significant correlation at 0.05 level

**Table 6. Relationship between time management and academic stress among undergraduate nursing students. N=201**

Year of study	Time planning		Time attitude		Time wasting	
	r value	P value	r value	P value	r value	P value
First (n=51 )	.287	.041*	.166	.243	.130	.365
Second (n= 50)	-.034	.812	.134	.353	.247	.084
Third (n=53 )	-.023	.871	.249	.072	.428	.001*
Fourth (n= 47)	-.230	.121	.494	.001*	.324	.026*
Total (n=201)	-.020	.783	.239	.001*	.253	.001*

\*= Significant correlation at 0.05 level



## Discussion

Procrastination and poor time management skills can lead to academic stress among the students. Academic stress can lead to poor physical and mental health, losing self-confidence and academic failure. The aim of the current study was to examine the link between procrastination, time management skills and academic.

The mean ( $\pm$  SD) of procrastination was 88.05 ( $\pm$  1.19) which is above the mean (81) score of the tool indicating lesser procrastination by the students. There was a positive correlation between procrastination and academic stress with  $r=.185$  ( $p=.009$ ), which is statistically significant at 0.05 level of significant. Literature related to research studies is very limited in the area of procrastination and academic stress among the nursing population. But past research conducted among social sciences students also revealed, academic stress playing significant role in influencing academic procrastination (Rahardjo, Juneman, & Setiani, 2013). Thus the academic procrastination may induce academic stress among students or academic stress may foster academic procrastination. Basic psychological needs and academic motivation are the predictable factors for procrastination behavior among the undergraduate students (Cavusoglu & Karatas, 2017). Hence, it is important identify the academic stressors, psychological needs, overcoming the stressors and fulfilling those needs is very essential for succeeding the academic procrastination.

Present study also showed significant positive correlation  $r=.253$  ( $p=0.001$ ) between time wasting and academic stress among the undergraduate nursing students. Research conducted in the past among the students of various stream is in consistent with present study findings. Statistically significant negative correlation was found between time management and perceived stress ( $\beta = -.364$ ,  $p < 0.001$ ) in a study conducted among science and technology students (Al Khatib, 2014). They also concluded that the academic achievement is the combined effort of time management and perceived stress. Results of a study conducted among Saudi medical students also showed a significant positive correlation between time management and perceived academic satisfaction ( $r=0.356$ ,  $p=0.001$ ) and percentage of marks

( $r=0.331$ ,  $p=0.019$ ) (Alshaya, Roomi, Alzayer, Alonze, & Alshaalan, 2017). Significant positive correlation between time management questionnaire score and academic motivation score ( $r= 0.279$ ,  $p< 0.001$ ) was found in a study conducted among the nursing students in Tehran (Ghiasvand, Naderi, Tafreshi, Ahmadi, & Hosseini, 2017). Though the academic satisfaction and academic scores were not measured in the current study, several published literature reveals that there is significant relationship between academic stress and academic satisfaction, academic motivation and academic scores (Rafidah, et al., 2009), (Elias, Ping, & Abdullah, 2011). Thus, there is a need for reducing the academic stress among the nursing students for enhancing the academic motivation and academic satisfaction.

## Conclusion

This work reflects the need for effective time management, reduction in procrastination for reduction in academic stress. Good time management skills are very essential for the nursing students as they are going to work in a context with emergencies arising unexpectedly in the hospitals. Students need to be helped for the effective time management initially for better academic performance and managing the demands and uncertainties in the clinical setting.

## References

- Al Khatib, A. S. (2014). Time Management and Its Relation to Students' Stress, Gender and Academic Achievement among Sample of Students at Al Ain University of Science and Technology, UAE. *International Journal of Business and Social Research*, 47-58.
- Alay, S., & Kocak, S. (2002). Validity and reliability of time management questionnaire. Hacettepe University Faculty of Education, 9-13.
- Alshaya, H. M., Roomi, M. A., Alzayer, M. A., Alonze, S. K., & Alshaalan, R. F. (2017). Is time management related to better academic performance and perceived academic satisfaction among medical students? A cross-sectional survey in Saudi Arabia. *International Journal of Advanced Research*, 2205-2213.
- Ancel, G., & Yilmaz, Y. (2016). Time management in Turkish nurses. *Global Journal on Humanites & Social Sciences.*, 205-2011.

- Ashurst, A. (2014). How to ... manage time and resources more effectively. *NRC Research Press Journal*, 296.
- Blevins, S., & Millen, E. A. (2016). Foundation for New Graduate Nurse Success. *MEDSURG Nursing*, 194-196.
- Brown, K., Anderson-Johnson, P., & McPherson, A. N. (2016). Academic-related stress among graduate students in nursing in a Jamaican school of nursing. *Nurse Education in Practice*, 117-124.
- Bullen, D. (2015). Clinical Time Management, Nursing students must juggle competing demands when learning in the hospital setting. *Advance healthcare network for Nurses*, 1-3.
- Cavusoglu, C., & Karatas, H. (2017). Academic Procrastination of Undergraduates: Self-determination Theory and Academic Motivation. *The Anthropologist*, 735-743.
- Cleary, M., & Horsfall, J. (2011). Developing Students' Time Management Skills in Clinical Settings: Practical Considerations for Busy Nursing Staff. *The Journal of Continuing Education in Nursing*, 248-249.
- Custer, N. (2018). Test Anxiety and Academic Procrastination Among Prelicensure Nursing Students. *Nursing Education Perspectives*, 162-163.
- Deb, S., Strodl, E., & Sun, J. (2015). Academic Stress, Parental Pressure, Anxiety and Mental Health among Indian High School Students. *International Journal of Psychology and Behavioral Sciences*, 26-34.
- Elias, H., Ping, W. S., & Abdullah, M. C. (2011). Stress and Academic Achievement among Undergraduate Students in Universiti Putra Malaysia. *Procedia - Social and Behavioral Sciences*, 646 – 655.
- Enns, A., Eldridge, G. D., Montgomery, C., & Gonzalez, V. M. (2018). Perceived stress, coping strategies, and emotional intelligence: A cross-sectional study of university students in helping disciplines. *Nursing Education Today*, 226-231.
- Ghiasvand, A. M., Naderi, M., Tafreshi, M. Z., Ahmadi, F., & Hosseini, M. (2017). Relationship between time management skills and anxiety and academic motivation of nursing students in Tehran. *Electronic Physician*, 3678-3684.
- Gordon, C. E., & Borkan, S. C. (2014). Recapturing time: a practical approach to time management for physicians. *Postgrad Med J*, 267-272.
- Goroshit, M. (2018). Academic procrastination and academic performance: An initial basis for intervention. *Journal of Prevention & Intervention in the Community*, 131-142.
- Gurková, E., & Zeleníková, R. (2018). Nursing students' perceived stress, coping strategies, health and supervisory approaches in clinical practice: A Slovak and Czech perspective. *Nurse education Today*, 4-10.
- Hen, M. (2018). Academic procrastination and feelings toward procrastination in LD and non-LD students: Preliminary insights for future intervention. *Journal of Prevention & Intervention in the Community*, 199-212.
- Homisak, L. (2012). Time and Efficiency Redux. How do you take better control of your time? *Podiatry Management*, 41-43.
- Kaya, H., Kaya, N., Pallos, A. Ö., & Küçük, L. (2012). Assessing time-management skills in terms of age, gender, and anxiety levels: A study on nursing and midwifery students in Turkey. *Nurse Education in Practice*, 284-288.
- Mirzaei, T., Oskouie, F., & Rafii, F. (2012). Nursing students' time management, reducing stress and gaining satisfaction: a grounded theory study. *Nursing & Health Sciences*, 1-6.
- Rafidah, K., Azizah, A., Norzaidi, M. D., Chong, S. C., Salwani, M. I., & Noraini, I. (2009). Stress And Academic Performance: Empirical Evidence From University Students. *Academy of Educational Leadership Journal*, 37-51.
- Rahardjo, W., Juneman, J., & Setiani, Y. (2013). Computer Anxiety, Academic Stress, and Academic Procrastination on College Students. *Journal of Education and Learning*, 147-152.
- Rathnayake, S., & Ekanayaka, J. (2016). Depression, Anxiety and Stress among Undergraduate Nursing Students in a Public University in Sri Lanka. *International Journal of Caring Sciences*, 1020-1032.
- Said, N. B. (2014). Time Management in Nursing Work. *International Journal of Caring Sciences*, 746-749.
- Spidal, D. (2009). Time management. *MIAR (Information Matrix for the Analysis of Journals)*, 15-17.
- Steel, P., & Klingsieck, K. B. (2016). Academic Procrastination: Psychological Antecedents Revisited. *Australian Psychologist*, 36-46.
- Tanrıöğen, A., & Işcan, S. (2009). Time Management Skills of Pamukkale University Students and their Effects on Academic Achievement. *Eurasian Journal of Educational Research*, 93-108.
- Yucha, C. B., Kowalski, S., & Cross, C. (2009). Student Stress and Academic Performance: Home Hospital Program. *Journal of Nursing Education*, 631-637.
- Zacks, S., & Hen, M. (2018). Academic interventions for academic procrastination: A review of the literature. *Journal of Prevention & Intervention in the Community*, 117-130.