

# Time Management Counselling Intervention for Undergraduate Students with Academic Stress

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**Abstract**— This study examined the effect of Time Management Counselling Intervention (TMCI) on the reduction of academic stress among undergraduate students. The study adopted quasi-experimental research design employing non randomized pretest, posttest control group design. Subjects were 32 undergraduate students from a university in Nigeria whose scores were high on the Student Academic Stress Indices (SASI) and low on Management of Academic Time Index (MATI). Student Academic Stress Indices and Management of Academic Time Index were developed by the researchers with reliability indices of 0.85 and 0.78, respectively and were considered suitable for the study. Those in the treatment group were exposed to time management counselling intervention (TMCI) in six sessions of approximately 45 minutes each. The control group was a waitlist group. Data collected were analyzed using mean and standard deviation for the research questions and t-test for the null hypotheses. The results revealed that those in TMCI group had greater effect in reducing academic stress than the control at posttest and even at one-month follow-up. Based on the findings, it was recommended among others that professional counsellors should expose students to time management counselling interventions especially those with high academic stress.

**Index Terms**— academic stress, counselling intervention, time management, undergraduate students.

## I. INTRODUCTION

The knowledge society we are in requires that time is managed efficiently. The challenge is not the amount of time available but the management that is made of it. According to Eldeeb and Eldosoky [1] time is a scarce resource and time management is the most effective use of available time. There is diversity of tasks that require the students to adequately manage their academic time and by extension, their overall time. Organizing it appropriately in order to correctly align all the activities of their daily life and acquire relevant competencies is the hallmark of time management [2]. However, few students attach importance to time management. The burden of academic stress obviously has negative effect on students. Academic stress shares the same effect with the general stress, insomnia, heart palpitation, muscle whack, and others. When students are stressed academically, they will begin to experience irritability because of lack of sleep, lack of concentration, unexplained

fears and anxiety [3,4]. Rizzolo [5] asserts that academic stress accounts for over 40% of academic underperformance among students in sub-Saharan regions.

Three levels of academic stress interventions identified by Manjula [6] include primary, secondary and tertiary interventions. Primary intervention is designed to eliminate or reduce the stressors; secondary intervention is designed to alter the way individuals respond to a stressor; while tertiary intervention is designed to focus on the treatment of students who are currently experiencing stress [7]. The present study targets to adopt tertiary intervention to assist those with high academic stress to reduce the level of academic stress and increase their academic performance.

Aihie and Ohanaka's [8] findings revealed that undergraduate students reported higher academic stress level with the males reporting higher levels than the females. According to Wright [9], academic stress has resulted in inconclusive programmes and drop-out in the universities. This stress if not handled is capable of creating many other health related issues like poor mental health, high blood pressure and even death. Considering the damaging effect of stress generally and academic stress in particular, any study that is aimed at providing ways to reduce the levels of academic stress will be appreciated.

All the material and human resources can be enhanced or transformed in the course of time. The only asset that cannot be stored or changed is time. The secret to achieving success in life is effectively managing this resource that everyone possesses equally but managed differently. Students' time management can also affect stress level of students as they need to cope with their tasks and their personal achievements [10].

ICTs have changed the way to access teaching and the role of its main characters—students, professors, managers, but the role of the university as a learning institution that facilitates the acquisition of habits and behaviours that companies need and by extension the society in which they are integrated has not [11]. The efficient management of time can be acquired through specific activities to promote this set of skills for smooth transition from the educational/university system to the professional world [12]. Häfner and colleagues [13] also showed that people with more training in relation to time management are able to make a more equitable allocation of time to tasks and reduce the stress. Time management is about finding healthiest, smartest and most rewarding way to use the same 24 hours every day [14]. Increasing the quality of activities performed in limited period of time is the main

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aim of time management [15]. Prioritizing the tasks is very essential for managing the time effectively [16]. Deciding on how time is spent is very essential in becoming productive and organized [17]. This requires skills in goal setting, setting priorities, planning and organizing skills and minimizing time wasting [18]. Counselling interventions can assist in making individuals acquire these skills.

Extant literatures demonstrate that appropriate management of time leads to better results. On the contrary, the lack of management of time produces lower performance, and a negative impact on the psychological resources of individuals like anxiety, stress, and [1,10]. Counselling intervention utilizing time management skills could be used to reduce academic stress. Roberts, Krause, and Suk-Lee [19] conceptualize time management as the ability to meet deadlines, stay focused on the current task, have an organized workspace, set appropriate goals, plan ahead, and organize one's time and tasks. Time management is a set of habits or learnable behaviours that may be acquired through increased knowledge, training or deliberate practice [20]. Time management is the process of planning and exercising conscious control over the amount of time spent on specific activities, especially to increase effectiveness, efficiency and productivity [21]. Failure to effectively manage one's time results to stress. Time is a non-renewable resource that should be managed efficiently.

One important time management theory that underpins this study is the Pickle Jar theory propounded by Wright [22]. He used the analogy of an empty jar to think about how individuals make use of available fixed amount of time on a daily basis. Pickle jar theory believes in scale of preference. This implies making plans for all activities and arranging them according to the most pressing ones. The theory is relevant as it offers explanation on how students especially the undergraduates manage their time starting with the more important things such as attending lectures, studying and doing assignments, while the less important things like watching home movies, playing football, attending parties and the likes should be minimized.

Efficient time management practices have been found as strong indicators of not only high levels of academic success, but good physical condition and lower levels of stress [23, 24]. In spite of knowing about the impact of time on academic achievement, and its effect on their stress level, this relationship is not given the needed attention by some students [25]. Studies over the years have demonstrated that students' poor performance and stress are positively related [26].

Some studies have been conducted to ascertain the effect of interventions using time management skills on the reduction of academic stress among undergraduate students. Maxwell [27] examined the effect of time management programmes in reducing academic pressure of students in two urban universities in Tanzania. Result shows that time management programmes had effect on reducing students' academic

pressure for those in experimental group. The results also show retention effect of the treatment at follow-up

A related study was carried out by Igwe and [28] who investigated the effect of time management skills on the reduction of test anxiety and academic stress among undergraduate students in Faculty of Education, University of Nigeria Nsukka. The study found that time management skills have significant effect on the reduction of students' test anxiety and academic stress levels. In Turkey, Pehlivan [29] performed a study to determine the effect of the college students' time management skills on their GPA and course achievement. The results revealed that in all sub-dimensions that students from Karadeniz Technical University hold "moderate level" time management scores.

Some contrary conclusions are found in literature. A study [30] explored the association between stress levels and the academic performance. Findings show that respondents with a high and severe stress level were observed to have higher cumulative grade point average (CGPA). The medical students were found to be highly resourceful to manage their stress well and thus denying the negative effect of stress towards their academic performance. A study [31] of 376 college students of university of Putra in Malaysia reveals a weak negative relationship between undergraduate stress level and their academic performance.

Undeniably, the literature into academic stress, its reduction and its impact on academic achievement indicates that not much scholarly work has been done particularly in the area of providing counselling interventions using time management skills. The results of the current study might provide guidelines to practitioners to design and provide appropriate intervention programmes to manage time and reduce academic stress levels.

The main aim of the present study was to investigate the effect of time management counselling intervention on the reduction of academic stress among undergraduate students. The objective was to determine the difference in the rate of reduction of academic stress between those in the TMCI and the control at both posttest and follow-up periods.

### A. Research Questions

1. What is the effect of time management counselling intervention on the reduction of academic stress among undergraduate students in the treatment group and control at posttest?
2. What is the effect of time management counselling intervention on the reduction of academic stress among undergraduate students in the treatment group and control at follow-up?

### B. Hypotheses

1. There is no significant mean difference in the rate of reduction of academic stress between those in TMCI group and control group at posttest.
2. There is no significant mean difference in the rate of reduction of academic stress between those in TMCI group and control group at follow-up.

## II. MATERIALS AND METHOD

The study adopted quasi-experimental research design employing non randomized pretest, posttest control group design which is suitable for the study because they are often conducted to evaluate the effectiveness of an experiment [32]. Two instruments were used for the study. The “Students’ Academic Stress Indices” (SASI) was used to determine the level of academic stress; developed by the researchers and modeled after review of related literature. It has five clusters with 45 items. The instrument was validated by experts in Psychology and Counselling and test-retest reliability yielded a coefficient index of 0.85 which was considered suitable for the study. Management of Academic Time Index (MATI) was also developed by the researchers modeled after Robert et al’s [19] Abbreviated Time Management Index (ATMI) to determine the rate at which the students managed their time. It has four clusters with 24 items. It was also subjected to validation by experts and test-retest carried out yielded a coefficient of 0.78 which was considered suitable for the study.

Subjects for the present study were 32 undergraduate students with high academic stress and low in time management purposively sampled from two faculties in one of the universities in South-South Nigeria. The subjects consented to participating in the counselling programme. Treatment programme comprised pre-treatment, treatment, post treatment and follow-up. Pre-treatment activities included introductory formalities, administration of instruments to get the pretest (Baseline), assignment to groups and other initial establishment issues. The subjects were assigned to groups according to their location -Time Management Counselling Intervention (TMCI) and the Control Group (CG). Those in the TMCI group were exposed to structured counselling programme weaved intricately around time management skills of daily/weekly time analysis; identifying, setting and prioritizing goals; time scheduling; identifying and removing distractions; handling procrastination; monitoring and evaluating progress; and feedback/reinforcement. This was done in five sessions of approximately 45 minutes per session. The control group is a wait-list group. They will, however, receive treatment at the end of the experiment. A week after the treatment, all the subjects were assembled and the SASI was shuffled and re-administered on the subjects and their posttest scores were obtained. The SASI was once more shuffled and re-administered on all subjects at one-month follow-up and follow-up tests scores obtained. Data collected were analyzed using mean and standard deviation for the research questions and t-test for the null hypotheses.

## III. RESULTS AND DISCUSSION

Research Question 1: What is the effect of time management counselling intervention on the reduction of academic stress among undergraduate students in the treatment group and control at posttest?

**Table I: Mean and standard deviation on the rate of reduction of academic stress between TMCI and control at posttest**

Groups	N	$\bar{x}$	SD	Mean	Difference (gain/loss)
TMCI	18	2.00	0.06		-0.85 (Loss)
Control	14	2.85	0.08		

Table I shows that there is a mean difference of -0.85 in the reduction of academic stress between those in the TMCI group and control at posttest. This means that there is a difference between TMCI and control which is attributable to the intervention provided.

**Hypothesis 1:** There is no significant mean difference in the rate of reduction of academic stress between those in TMCI group and control group at posttest.

**Table II: t test analysis of mean difference in the rate of reduction of academic stress between those in TMCI and control at posttest**

Groups	N	$\bar{x}$	SD	df	t.cal.	t.crit.	Remarks
TMCI	18	2.00	0.06	30	34.38	1.96	Significant
Control	14	2.85	0.08				

Table 2 shows that the t-calculated value of 34.38 is greater than the table value of 1.96 at 0.05 significant level. This means that the result is significant and therefore the hypothesis of no significant difference is rejected.

**Research Question 2:** What is the effect of time management counselling intervention on the reduction of academic stress between those in TMCI and control at follow-up?

**Table III: Mean and standard deviation on the rate of reduction of academic stress between TMCI and control at follow-up**

Groups	N	$\bar{x}$	SD	Mean	Difference (Gain/Loss)
TMCI	18	2.25	0.05		-0.5 (Loss)
Control	14	2.75	0.08		

Table 3 shows that there is a mean difference of -0.5 in the rate of reduction of academic stress between those in the TMCI group and control at follow-up. This is an indication that the gains of treatment were maintained at a one-month follow-up.

**Hypothesis 2:** There is no significant mean difference in the rate of reduction of academic stress between those in TMCI group and control group at follow-up.

**Table IV: t test analysis of mean difference in the rate of reduction of academic stress between those in TMCI and control at follow-up**

Groups	N	$\bar{x}$	SD	Df	t.cal.	t.crit.	Remarks
TMCI	18	2.25	0.05	30	21.67	1.96	Significant
Control	14	2.75	0.08				

Table 4 shows that the t-calculated value of 21.67 is greater than the table value of 1.96 at 0.05 significant level. This means that the result is significant and therefore the hypothesis of no significant difference is rejected.

### A. Discussion

The present study was set out to determine the effect of time management counselling intervention on students

experiencing academic stress. Inefficient time management produces lower performance and a negative impact on the psychological resources of individuals like anxiety, stress, and others [2,10]. The findings reveal that TMCI was effective in the reduction of academic stress among undergraduate students as compared with the control at posttest. The same effect was maintained at one-month follow-up. The finding is in line with the findings of Igwe and Okonkwo [28] who investigated the effect of time management skills on the reduction of test anxiety and academic stress among undergraduate students in Faculty of Education, University of Nigeria Nsukka and found out that time management skills have significant effect on the reduction of students' test anxiety and academic stress levels.

This finding is similar to that of Maxwell [27] who examined the effect of time management programmes in reducing academic pressure of students in two urban universities in Tanzania. The result shows that time management programmes had effect in reducing students' academic pressure for those in experimental group. The results also show retention effect of the treatment at follow-up within the period of one month. This underscores the importance of time management counselling intervention in managing students' academic stress.

### B. Conclusion

The result of this present study shows that time management counselling intervention is effective in the reduction of academic stress among undergraduate students. It was thus concluded that TMCI was effective in reducing academic stress among undergraduate students. Time management skills are vital skills that need to be inculcated to students especially to those experiencing academic stress. This will not only reduce their stress level but will improve their academic performance and overall well-being.

## IV. RECOMMENDATIONS

From the findings, it is recommended that:

1. Professional counsellors should identify students with high academic stress and expose them to time management counselling intervention to assist them manage their time efficiently and reduce their academic stress.
2. Time management counselling intervention should be exposed to counsellor-trainees by counsellor educators. The curriculum for counsellor training should be reviewed to include time management counselling skills.
3. The government in collaboration with Association of Professional Counsellors in Nigeria (APROCON) and Counselling Association of Nigeria (CASSON) should organize workshops, seminars, train the trainers' conferences to sensitize and train counsellors on how to use Time Management skills to reduce students' academic stress.

## V. LIMITATIONS OF THE STUDY

As with every empirical work, there are some limitations of this study. The first limitation was that there was only a one-month follow-up period. Follow-up should have lasted for more than one month especially as there is possibility of relapse. However, since it is not a longitudinal study, it

provides exclusive and detailed data on the effectiveness of the intervention provided. Another limitation was the small sample size used for the study. However, quasi-experiments recommend manageable sample sizes due to the sessions involved and the need to adhere strictly to the principles of the design. Notwithstanding the limitations, the findings of the study were still valid and generalizable to the target population.

There are several additional avenues for future research that could be explored. The first could be to conduct a longitudinal study of the effects of the intervention. It is quite possible that the effects of the time management intervention will not be evident until they have had a chance to compound over time. Thus, a study employing a delayed post-test design would be informative.

## VI. DECLARATIONS

All the experimental procedures were performed according to the Postgraduate format for research in Michael Okpara University of Agriculture, Umudike, Abia State, Nigeria.

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