

# 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

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## ABSTRACT

The objective of the present study was to investigate the relationship between time management, perceived stress, gender and academic achievement among United Arab Emirates college students. The respondents were 352 college students from Al Ain University of Science and Technology. The sample was stratified by sex. Among the respondents, 52.5% were female students and 47.5% were male students. The mean age of the sample was 23.4 years ranging from 18 to 39. Time management was measured by Time Management Questionnaire developed by Britton and Tesser (1991), while perceived stress was measured by The Perceived Stress Scale developed by Cohen (1985). The findings of the study showed that there was statistically significant negative relationship between time management and perceived stress. Females reported higher time management compared to their males counter mates. Higher time management and lower perceived stress were associated with high levels of academic achievement. However, time management was the most significant predictor of academic achievement accounting for 26 % of the variance while perceived stress accounted for an additional 11.2% of the variance in academic achievement. All three predictors explained 29.4% ( $R = .543$ ) of total variance. The implications and limitations are reviewed as are the suggestions for future research.

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## 1. Introduction

Time is an essential resource everyone possesses equally but fails to utilize at the same level due to a variety of reasons. The only asset that cannot be changed or purchased or stored is "time" itself. The secret to achieving success in life is effectively managing this resource that everyone possesses equally and paying sufficient emphasis to planning. Good time management is essential for everybody, especially for university students whose schedule is often packed with activities and lessons.

Good time management such as setting goals and priorities as well as monitoring the use of time can facilitate productivity and minimize stress, contributing to work effectiveness, maintaining balance and academic success. From this broadened perspective, people can see that the real value of time management is that it enhances their lives in all dimensions. What people gain from time management, in essence, is not more time, but a better life (Britton & Tesser, 1991; Misra & McKean, 2000).

Time concept is a problem for university students' academic life and their social life. In trying to read all the books and chapters assigned, meet paper deadlines, and participate in extracurricular activities, university students may become overwhelmed with feeling that there is not enough time to complete all their work adequately. Good time management behaviors such as setting goals and priorities as well as monitoring the use of time can facilitate productivity and minimize stress (Lay & Schouwenburg, 1993), contributing to work effectiveness and academic success (Misra & McKean, 2000). On the other hand, poor time management behaviors, such as not allocating time properly or last minute cramming for exams are sources of stress and poor academic performance (Britton & Tesser, 1991). The importance of time management and time practices has been increasing day by day and especially there is lack of studies related to time management and academic achievement (Macan, et al., 1990).

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Time management has been referred to as techniques for managing time (Macan, et al., 1990) a technique for effective time use, planning and allocating time (Burt & Kemp, 1994); the degree to which individuals perceive their use of time to be structured and purposive (Strongman & Burt, 2000); a technique to increase the time available to pursue activities (King et al., 1986); self-regulation strategies aimed at discussing plans, and their efficiency (Eilam & Aharon, 2003). IzandÖzen (2010) argued that time management refers to the process of stacking greater amounts of work and activity into a certain length of time. Moreover, research has reported evidence for the multi-dimensional nature of the time management construct (Britton & Tesser, 1991). In the present paper, time management was conceptualized in terms of short-range planning, time attitudes and long-range planning. These components of time management were taken from Britton & Tesser (1991).

### **1.1 Time Management and Perceived Stress**

Not only the matter of time management bothers university students, but also the stress created during the academic years (Dusselier et al., 2005). Stress can be defined as a process in which environment demand strains an organism's adaptive capacity, resulting in both psychological as well as biological changes that could place a person at risk for illness (Cohen, et al., 1999).

University students might experience high stress due to academic commitments, financial pressures and lack of time management skills. When stress is perceived negatively or becomes excessive, it can affect both health and academic performance (Campbell & Svenson, 1992).

In the literature, a negative relationship was found between time management and perceived stress. For example, Macan et al. (1990) find that lower stress levels were most strongly correlated to the factor perceived control of time. This suggests that regardless if one undertakes time management activities and behaviors, such as writing lists and setting goals, if they do not perceive to be in control of their time they will still feel stressed. Misra and McKean (2000) found a negative correlation between time management behaviors and perceived academic stress. They concluded that stress levels decreased among students who managed their time well.

### **1.2 Time Management and Academic Achievement**

Scholarly literatures have shown that time management is among the contributing factors which impinge upon students' academic performance and achievement. Balduf, (2009) recognized that poor time management can contribute to academic underachievement, and effective time management can contribute to higher levels of college achievement (Britton & Tesser, 1991). Britton and Tesser (1991) found that 67% of undergraduate students identified time management as their most pressing problem. Moreover, they found that self-reported time management predicted academic achievement and, in particular, it was short-term planning that predicted grade point average. Misra & McKean (2000) in a study showed that there is a relation between time management, stress reduction and increased academic success. More specifically, time management has been shown to be related to college grades (Britton & Tesser, 1991) and academic performance (Burt & Kemp, 1994). Izawa (2002) reported that in learning the text materials, the skill of time management is essential. Moreover, studies show that the time organization and time management behaviors are significantly related to academic performance (Frazier, Youngstrom & Glutting 2007). If the ability to effectively manage one's time was indeed positively related to academic performance, then, presumably, interventions that improve time management would be of value to students (Burrus, et al., 2013).

### **1.3 Time Management and Gender**

Many studies which tested university students in time management have resulted in significantly different scores across genders. The findings of Trueman and Hartley (1996) revealed that female students reported considerably greater time management skills than male students. In addition, the older mature-aged students (aged over 25 years) were found to report significantly better time-management skills than the younger students, and those variables can predict the academic performance of the students weakly.

Findings by Misra and McKean (2000) indicated that females reported significantly higher results in all factors of time management behaviors (perceived better control of time, set and prioritized goals, planning and had an organized approach to tasks and workspace). Furthermore, results from Covic et al. (2003) showed females scored significantly higher only in one factor, this being the mechanics of time management, such as making lists and keeping a diary. Macan et al. (1990) found significant correlations

between gender and time management, reporting that women engage in more mechanical time management behaviors than men, whereas men feel more in charge of their time management behaviors.

#### **1.4 Literature Review**

Tanriogen and Iscan (2009) determined the time management attitude and skill levels of Pamukkale University students and the effects of these skills on their academic achievement. The findings demonstrated that a majority of Pamukkale University students possess moderate level time management skills and only a significantly small portion have high level time management skills. Also, according to the findings, the prediction level of time management skills for academic performance is 7.9 percent.

Necati & Sevil (2010) carry out a study to determine the relationship between the time management skills and academic achievement of students who are potential teachers studying in faculties of education. The research was conducted among 849 graduate students in the Faculty of Education at Gazi University. The result showed that there was a meaningful and moderate relation between time management and academic achievement. The relative importance order of the predictor variables on academic achievement, according to the standardized regression coefficient, was time consumers, time planning, and time attitude; each of the three variables had an important predictor effect on the academic achievement of the students.

In a research conducted by Sevari and Kandy (2011), the impact of time management skills on self-efficacy and academic performance was tested. The results from the study showed that the training of time management skills to increase academic performance and self-efficacy is influential. Swart et al. (2010) explored the relationship between time management skills and the academic achievement of African engineering students. The results of this study were applied to various tests, which indicated no statistically significant relationship between time management skills and the academic achievement of African engineering students.

A study performed by Nonis, et al. (1998) explores the Influence of perceived control over time on college students' stress and stress-related outcomes. Data was collected from 164 business students. The results showed that students who perceived themselves as having a high level of control over their time they experienced lower level of stress, higher level of academic performance, problem-solving ability, and health than those who believed themselves to be less in control over their time.

Kelly (2004) proposed that efficient use of time is directly associated with increased academic performance and achievement. He investigated this possibility among 141 college students. He used the Efficiency Scale (TUES), a social desirability scale, and self-reported their overall GPA. The TUES is based on how well the participants claim to use their time. The results support the positive correlation between time management, academic performance, and GPA.

In Turkey, Pehlivan (2013) performed a study to determining 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. The findings revealed that in all sub-dimensions of the questionnaire, female students obtained higher average scores than male students. It has been demonstrated that there is a positive significant relation between students' grade point averages and the time attitudes sub-dimension and between student grades and the long-range planning sub-dimension. It has also been demonstrated that students' time management skills affect their GPA-course achievement and these skills are one of the predictors of grade point averages.

Talib (2012) studied factors such as academic competence, test competence, time management, strategic studying, and test anxiety to determinants of academic performance, i.e., Grade Point Average. A sample was 199 university students from Rawalpindi and Islamabad Universities. The results indicated that academic competence, test competence, time management, and test anxiety were significantly related to student's academic performance.

#### **1.5 Rationale of the Study**

Since there is no study was performed on the relations between time management, perceived stress and academic achievement in United Arab Emirates, it is important to explore whether or not there exists relationships among these variables and how the predictive power of these relationships. The results of this study may help practitioners and university students to prevent harmful effects caused by poor time

management, high levels of stress and poor academic achievement. The results of the current study possibly help practitioners to design and provide appropriate intervention programs such as how to manage the time and reduce levels of stress.

Moreover, it is necessary for university students to understand the relationship between these factors and try to manage their time use. This study will lead students to understand more about time management and inquire into the importance of time management to their academic performance.

## **2. Method**

### **2.1 Participants**

The total number of undergraduates who participated in this study was 352 students who were randomly selected from the population of Al Ain University of Science and Technology (AAU) in the United Arab Emirates. The mean age of the sample was 23.4 years ranging from 18 to 39 (SD = 2.81). Of the total sample, 185 (52.5%) were female students and 167 (47.5%) were males. Of these, 91(25.9%) were high academic achievers, 190 (54%) moderate achievers and 71 (20.1%) low achiever students. Among the sample as a whole, 201 (36.7%) were freshmen, 157 (28.7%) were sophomores, 104 (19.1%) were juniors, and 85 (15.5%) were seniors.

### **2.2 Measures**

Three instruments: the 10-item Perceived Stress Scale (PSS), The "Time Management Questionnaire" developed by Britton and Tesser (1991), in addition to the demographic sheet, were used to collect the data in this study. For the purpose of this study, by using "forward-backward" procedure, the English version of the three instruments was translated into Arabic language by an expert in both languages, and then another bilingual expert translated the Arabic version into English without accessing the original version. A third bilingual faculty member compared the translated Arabic and the translated English versions and corrected any incongruence in the translation. No significant variation between the two was detected. These instruments have been translated into many languages, and for many of these translations validation studies confirm the internationality applicable nature of these tools. Also, these scales are in the public domain. Therefore, they may be used without copyright permission.

The Time Management Questionnaire developed by Britton and Tesser (1991) was used to measure the time management behavior of participant students. The adapted questionnaire is made up of 7 items in the short-range planning dimension, 6 items in the time attitudes dimension and 5 items in the long-range planning dimension. The time management questionnaire included 18 items, each answered on a 5-point scale consisting of the responses always (5), frequently (4), sometimes (3), infrequently (2), and never (1).

Each scale item had five response categories: 'Always', 'Frequently', 'Sometimes', 'Infrequently' and 'Never'. These were scored from 1 to 5 with a high score indicating a positive attempt at managing time. The response, 'Always' was scored as 1 for items 8, 10, 12 and 15 and as 5 for the remainder of the items. The range of possible scores was 18- 90 on the 18-item Time Management Scale; 7-35 on the Short Range Planning sub-scale; 6 - 30 on the Time Attitudes sub-scale; and 5 - 25 on the Long Range Planning sub-scale. Higher values on the scale correspond to better time management practices.

In the current study, Cronbach's alpha for (TMQ) was 0.80 and Guttman split-half alpha was 0.63, with good internal consistency: Cronbach's alpha values for the subscales were 0.82(SRA), 0.86 (TA), and 0.66 (LRA). In addition, average two-week test-retest reliability coefficient for TMQ subscales was 0.81, 0.78, and 0.76, respectively which makes it a good instrument for the purposes of this study.

The Perceived Stress Scale (PSS) developed by Cohen (1985) was used. It was designed to measure the degree to which respondents found their lives unpredictable, uncontrolled, and overloading (Cohen & Williamson, 1988). The psychometric properties of the PSS indicated that initial reliability coefficients ranged from 0.84 to 0.88. Cronbach's alpha coefficient for the PSS-10 was 0.78. In this study, the PSS-10 was considered appropriate for use in data collection because of the foregoing psychometric properties. PSS-10 scores are obtained by reversing the scores on the four items, and then summing across all items. The positive items are 4, 5, 7, and 8. PSS individual scores range from 0 to 40 with higher scores indicating higher perceived stress levels. Scores ranging from 14-26 would be considered moderate stress. Score ranging from 27-40 would be considered high perceived stress levels (Amponsah & Owolabi, 2011).

Grade Point Average (GPA). Student's cumulative GPA (a measure of academic performance) was obtained using an open-ended question requesting their GP A at the time they completed the questionnaire on a scale ranging from 0 to 4. The GPA was self reported, which was later counter checked with the Registration unit (which is responsible for keeping all the records/statistics of results of all evaluation tests of students) for accuracy. Moreover, for discriminate analysis, student's academic performance was categorized as high GP A achiever group with GP A 3 and above, moderate GPA achiever group with 2-2.99 whereas those with GPA below 2 were categorized as low GPA group.

### **2.3 Procedures**

The study was a cross-sectional research carried out on the students of Al Ain University of Science and Technology in 2014. Permission for participation of students was obtained from the related chief departments. Self administered questionnaires on demographic information (gender, and GPA), TMQ, and SP scales were randomly given out to students who were selected by stratified random sampling. All participants were treated in accordance with the Ethical Principles of Psychologists and Code of Conduct (APA, 1992).

The majority of the participants completed the questionnaires within 20 min. Test-retest reliability data was collected on 18 participants, who comprised 20% of the sample, two weeks following the primary data collection.

### **2.4 Statistical Analysis**

Data were analyzed using Statistical Packages for Social Sciences (SPSS) version 17.0 software (SPSS Inc., Chicago, IL). Descriptive statistics were used to generate means, standard deviations, and frequencies for the study variables.

Multivariate analysis of variance (ANOVA), correlations, and hierarchical regression analysis procedure were employed. In addition, for the best Type 1 error control, continuous variables were assessed for homogeneity of variance and normality values. It was found that values of skewness and kurtosis were less than value of 1. Therefore, they are in acceptable ranges.

### **2.5 Research Questions**

There is limited information on time management among university students and existing research provides information specific to UAE college students. This study was therefore designed to investigate the time management levels by college students and its relation to perceived stress and academic achievement. This is expected to help developing relevant services for those that may be experiencing low levels of time management. In order to address the issue, the main research questions were:

1. What are the prevalence levels of time management among college students at Al Ain University of Science and Technology [AAU]?
2. What are the relationships among general time management, short-range planning, time attitudes, long-range planning and perceived stress among students at AAU?
3. Are there significant differences in time management scores among university students in relation to their gender and academic achievement?
4. Are general time management, short-range planning, time attitudes, long-range planning and perceived stress collectively would account for significant portion of variance in students' academic achievement.

## **3. Results**

The present study used descriptive statistics, Pearson, correlation, analysis of variance (ANOVA) and regression to examine the relationship among time management, perceived stress, gender and academic performance among university students in Al Ain University of Science and Technology.

The Cronbach's alpha for GTM, PS and were .83 and .86 respectively in this study, indicating that the data are highly reliable (Cohen, 1988). Moreover, Cronbach's alphas for each sub-scales of GMT, namely the short-range planning, time attitudes and long-term planning, were .82, .86 and .79 respectively, which showed that GTM possesses the convergent validity of each sub-scale (when items correlate highly with each other and these items are believed to measure the same construct, the convergent validity is obtained).

**Table 1:** Means and Standard Deviations of Participants for the Variables (N = 352).

	Gender				Academic Achievement					
	Male N (167)		Female N (185)		High N (91)		Moderate N (190)		Low N (71)	
	M	SD	M	SD	M	SD	M	SD	M	SD
General time management	47.85	11.98	52.25	12.30	56.92	12.81	51.59	7.47	37.74	13.49
Short-Range	21.46	5.27	21.65	4.82	22.47	4.93	21.38	4.408	19.78	5.719
Time Attitudes	17.41	4.43	18.41	4.10	19.28	4.22	17.12	5.171	17.12	5.171
Long-Range Planning	17.42	3.86	19.43	4.40	20.53	4.404	17.93	3.436	17.36	5.22
Perceived stress	29.73	7.653	29.38	8.872	24.85	7.768	28.81	6.87	37.48	6.88

To answer the first question of this study, frequencies and percentages were used. As can be seen in Table 2, the time management level of AAU students was at a moderate level (f: 210, 59.7%). About one fourth of the students possessed high level time management score (f: 90, 25.5%) and the smallest portion was for low time management score (f: 52, 14.8). Based on this result, it can be suggested that AAU students are in need of further programs to manage their time management.

**Table 2.**The Frequency Levels of the Points Related to the Time Management Levels of AAU Students

Level	Points	Frequency	%
High	58 and above	90	25.5
Moderate	46-58	210	59.7
Low	46 and below	52	14.8

The second question was strictly correlational in nature: What are the relationships among general time management, short-range planning, time attitudes, long-range planning and perceived stress among college students at AAU? Results of Bivariate correlation analysis of the variables examined in the current study are displayed in Table 3 which suggested a negative correlation between perceived stress and general time management, and short-range planning ( $r(352) = -.198, p < 0.001$ ;  $-.243, p < 0.001$ , respectively).

As expected, all the three subscales of general time management scale were strongly and positively correlated to general time management scale. Likewise, no significant relation could be detected between perceived stress and time attitudes and long-range planning. These inter-correlations suggest that greater perceived stress is related to lower time management.

**Table 3.** Correlation matrix for all variables (N = 352).

	GTM	Stress	SRP	TA	LRP
GTM	1				
PS	-.198**	1			
SRP	.301**	-.243**	1		
TA	.408**	-.065	.422**	1	
LRP	.395**	.017	.361**	.312**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Univariate analysis of variance (ANOVA) was used to investigate whether the students' scores on time management scale differ with respect to their gender and academic achievement. The results showed that there is a statistically significant difference between male and female students on general time management, time attitudes and long-range planning, whereas there is no significant difference between students on short-range scores due to their gender. The female students reported greater time management than did the male students.

With respect to the academic achievement, the results which listed in Table 4 showed that the students' general time management scores, time attitudes and long-range planning were significantly different between students due to their gender. But the difference in short-range planning was not significant.

The results of this study showed that there is no significant difference between male and female student in their scores on perceived stress scale due to their gender, whereas the difference was significant according to their academic achievement. This result means that whenever the level of achievement is high the level of stress is low.

Table4. Univariate analysis of variance (ANOVA) between independent variables (gender and academic achievement) and dependent variables (Time management) (N=352).

	Gender				Academic Achievement			
	Sum of Squares	Mean Square	F	Sig.	Sum of Squares	Mean Square	F	Sig.
GTM	14308.36	7154.180	69.564**	.000	1665.25	1665.25	16.19**	.000
SRP	66.948	33.474	1.355	.259	.000	.000	.000	.997
TA	144.741	72.371	4.227*	.015	102.036	102.036	5.95*	.015
LRP	408.570	204.285	12.77**	.000	224.243	224.243	14.02**	.000
PS	21.375	21.375	.431	.512	6039.06	3019.53	60.92**	.000

\* p<.0.05. \*\* p<.0.01., two-tailed

According to the fourth and last research question " Are generaltime management, short-range planning, time attitudes, long-range planning and perceived stress collectively would account for significant portion of variance in students' academic achievement. A stepwise multiple regression analysis was conducted to determine the relative importance of each variable in predicting college students' academic achievement. Table 5 shows the results of regression analysis on the full sample with the independent variables used to predict the dependent variable of students, academic achievement.

Based on the strength of bivariate correlations between all variables, general time management was the first variable entered into each of the three regression equations.Because it was known to be highly correlated with academic achievement,it was expected to account for the greatest amount of variance in predicting academic achievement. Sub-scales of general time management scale (short-time planning, time attitudes and long-time planning) was placed after general time management in the regression equation. Perceived stress was entered third. Table 4 showed the results of the analysis of Model 1, 2 and 3. R is different from zero at the end of each model.

In Model 1, general time management alone accounted for 26% (R-square = 0.26) of the variance in academic achievement, the inclusion of short-range planning, time attitudes and long-range planning in Model 2accounted for 26.9 % (R-square = 0.2690) which resulted in addition .9% of the variance and lastly in Model 3, the inclusion of accounted perceived stress for 38.1% (R-square = 0.381) which resulted in additional 11.2% of the variance in academic achievement being explained. In Model 3 also, the standardized  $\beta$  values reveal the decreasing order of the predictors: general time management, short-range planning, time attitudes and long-range planning showing that general time management was the best predictor, followed by perceived stress. Thus, academic achievement is predicted by time management, ( $\beta = .510$ ,  $p < 0.001$ ), and by perceived stress, ( $\beta = -.364$ ,  $p < 0.001$ ). Whereas the sub-scales of time management were not predictors of academic achievement, ( $\beta = -.065$ ,  $p = .220$ ;  $\beta = -.033$ ,  $p = .542$ ;  $\beta = .095$ ,  $p = .071$  for STP, TA, and LTP, respectively). perceived stress in Model 3 accounted for 36.7% (R-square = 0.367) which resulted in additional 10.7% of the variance.

Table 5. Stepwise Multiple Regression Analysis Predicting Students' Academic Achievement (N=352).

R	R Square	Adjusted R Square	Std. Error of the Estimate	R Change	Square $\beta$	F Change	Sig. F
.510	.260	.258	.582	.260	.510	122.794	.000
.519	.269	.261	.580	.010	-.355	1.525	1.525
.617	.381	.372	.535	62.197		346	.000

#### **4. Discussion**

The primary objective of this study was to determine the relationship between time management behaviors, perceived stress, gender and the GPA of Al Ain University of Science and Technology(AAU) students.

The results of this study showed that most students (59.7% ) possess a time management score at the moderate level, whereas 14.8% of them possess low levels of time management and 25.5% possess high levels of time management. These results mean that the students lack a sufficient amount of knowledge about how to manage their time efficiently. This result was in consistent with previous studies. For example: Tanriogen and Iscan (2009), and Pehlivan (2013).

With respect to the gender differences in time management, the results revealed that female student scores in time management were higher than male students. This result is in consistent with the results of (Macan et al., 1990, Saketi and Taheri, 2010, Pehlivan 2013, and Kaushar, Mehnaz (2013). They conclude that female students in terms of time management are generally more accomplished than male students and possess higher average scores.

Female students are less accomplished than male students with respect to time. Nevertheless, female students use time more effectively than males which can be related to the fact that they use and implement more effectively behaviors such as listing, planning and programming which are all from the category of traditional time management (Alay & Koçak, 2002).

The difference is not statistically significant in all sub-scales of the time management scale in the previous studies. In a study carried out by Mpofu et al. (1996) results vary with respect to STP and TA whereas in the current research differentiations were found in TA and LTP. Saketi and Taheri (2010) and Yilmaz et al. (2010), on the other hand, could detect no differentiation in any sub-dimension of the questionnaire. Pehlivan (2013) detected the difference between male and female students in LTP only, However, Macan et al. (1990) detected that answers provided to questions on their Time Management Behavior Scale correlated with gender ( $r = -0.23$ ,  $p < .05$ ). Their result refers that female students possessed higher average scores than male students.

The Univariate analysis of variance (ANOVA) between gender and perceived stress showed that there are no significant differences between male and female students. This result can be explained by the cultural factors.

With respect to the relationship between time management and GPA, it is found in this study that the better the students' time management behaviors, the higher the students' GPA. This result has good consistence with results of Britton & Tesser, 1991; Misra & McKean, 2000; Talib, 2012).

The significant negative correlation between perceived stress and GPA indicates that perceived stress is associated with a lower GPA. These findings are consistent with the findings obtained from a study conducted by Hill and Wigfield (1984). The results of this study also supported conclusion that academic performance and perceived stress are inversely proportional (Macan et al., 1990; Misra & McKean, 2000; Pritchard & Wilson, 2003). However, there are also findings of studies that show a non-significant relationship between stress and academic performance. For instance, Petrie and Stoeber (1997) illustrated that life events stress was not a significant predictor of academic performance for sport-major university students. Fogle & Pettijohn (2013) found that there were no significant effects of perceived stress on grade point average. Wavy (2008) suggests that the non-significant result may be due to the measurement which is too general to assess college-related stress.

Both Britton and Tesser (1991) and Macan, et al. 1990 report that a student's ability to manage their time successfully and productively is clearly related to academic performance – the better a student's time management, the better their grades and the less stress they experience in regards to their academic life.

In the present study, there is an inverse and significant relationship between time management and perceived tress. This finding has a good agreement with results of Keshavarz (2001), suggesting that there is an inverse and significant relationship between time management and perceived stress. One of the ways to prevent stress is time management. Time management skills can help individuals to use their times more effectively and efficiently, and do their jobs in accordance with a predetermined plan. Too much work and



lack of control over the time limit are major sources of stress, and time management can reduce levels of perceived stress by eliminating time-related stressor factors (Abbasiejad, et al., 2013).

The more efficient time the student use, the less stress he experienced or vice versa. A student with good time management skills or disposition, he or she may act accordingly. These time-saving actions have the potential impact on reducing time pressures. For instance, students with good time management skills organize and prioritize things well without crashing with other things and they can arrange time for finishing tasks on time. Therefore, they experience fewer time pressures. As a busy university student, good time management relieves lots of stress for them (Wavy, 2008).

In the present study, hierarchical linear regression analysis was performed to test the effect of time management and perceived stress on academic achievement (the grade point averages of students). The time management skill level explains 26 percent of total variance in the grade total variance in grade point average. Therefore, it can be argued that the students' time management affects their academic achievement even if it is low and these skills are one of the predictors of grade points for the AAU sample of students.

A lot of factors affect students' academic achievements, and these findings show that the time management skills of university students have a notable effect on their academic achievement. These results show the importance of a student's effective time management as well as the other factors affecting a student's academic achievement. Therefore, it is important to make the students acquire time management skills beginning in their first year of the university in order to provide a successful university education (Tanriogen and Iscan, 2009). The findings obtained are consistent with the studies by Britton and Tesser (1991), Macan et al. (1990), Tanriogen and Iscan (2009) and Pehlivan (2013).

However, the present study found that barely 26% of the variance in academic achievement was accounted for by time management scores whereas Britton and Tesser (1991) found that approximately 21% of the variance in GPA was explained by time attitudes and short-range planning score. Mark & James (1995) study found that barely 4% of the variance in academic performance was accounted for by time management.

The results of regression analysis indicated that time management and perceived stress were significant predictors of academic achievement for the present sample. In other words, higher the score in time management, lower the level of perceived stress the students obtained high GPAs. To elucidate that, for example, poor time management practices and habits create stress and its combined effects result in poor GPA.

The findings of this study allow for a clear understanding of students' time management for this sample of students. However, there are a number of limitations which temper the results. First, although the participants of this study were students from one university, this restricts the extent to which these findings might be applied to students from other colleges across the UAE. Second, the data in the current study were gathered at one point in time. Consequently, the respondents' perception may have been influenced by covariate factors. Thus, the interpretation of the results is constrained by the cross-sectional nature of the data. In addition, the current study was limited to self-report data, which may raise the potential problems with desirability bias and tiredness, thereby affecting the result of the study. Finally, difficulties such as misunderstanding the Likert-type scale and carelessness were encountered in the administration of the instruments. These difficulties may have affected the scores obtained and thus weakened the validity of the study.

Based on the limitations, the findings should be interpreted cautiously and the findings need to be replicated with more representative sample of college students.

In general, future investigation should further investigate the learning preferences of UAE college students in other institutions to see whether a generalization on college students' time management can be made. In addition, the relationship between time management and other variables could also be an area of investigation. Thirdly, this study adopted convenience sampling which is a kind of non-probability sample. It is better to use probability sampling method which guarantees representativeness.

## **5. Implications**

Based on the findings of this study, implications for practitioners and university students are discussed. Firstly, practitioners (e.g. counselors or psychologists) can provide time management and stress management programs for university students. It should aim to educate university students with better time management as well as stress management skill. It may help them free themselves from negative consequences of academic achievement which is brought about by poor time management and perceived stress. The results showed that combining time management and stress better predict academic achievement. Effective time management and low levels of perceived stress seemed to increase academic achievement in this sample. Therefore, faculty members and counselors should emphasize participation in time management and stress coping programs to improve academic performance of students.

For university students, the findings contribute to help them to step out for their better life. The findings may help them understand the relation among time management, stress and academic achievement. Being informed of this important linkage, university students should start managing their own time use and learn how to manage time and stress to improve their academic performance.

## **6. Conclusion**

To conclude, the present study aimed to investigate the relationships between time management, perceived stress, gender and academic achievement. The results showed that both time management and stress are significant predictors of academic achievement. Moreover, the good predictor of academic achievement was found to be the combined effect of time management and perceived stress. This study underscores the importance of understanding the role of time management in academic achievement. Certainly students who are unable to manage time well may be at risk for underachievement. Lastly, implications for practitioners and university students are discussed.

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