The Type A Behavior Pattern Among the Hashemite University Students

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ABSTRACT

The purpose of this study was to assess type A behavior among the Hashemite University students. The researchers developed a scale of (93) items, with four domains (urgency, ambition, agressiveness and physiological signs) based on the previous studies. The stability by test and retest method ranged from 0.82 to 0.87, and internal consistency was calculated by Cronbach Alpha and was 0.82. The final scale form was administered to a stratified random sample of (1200) students, representing male and female students, from differnt levels of study and colleges. The SPSS program was used to analyze the study data. The means and standard deviations, Multivariate as well as post - hoc comparisons Bonforoni were computed to answer the following study questions:

1. What are the type A behavior domains (urgency, ambition, agressiveness and physiological signs) in the Hashemite University students according to the study variables: college, gender and level of study?

2. Are there significant differences at (P< 0.05) among the Hashemite University students in type A behavior domains (urgency, ambition, agressiveness and physiological signs) due to the study variables: college, gender and level of study?

The results of the study showed- by answering the first question- that the ambition domain had the highest mean among the Hashemite University students, then the urgency domain and the physiological signs domain, and the last was the agressiveness domain. In regard to answering the second question, the "F" values indicated that there were significant differences among the students due to gender, college and study level, but there weren't significant differences among students due to the interaction between gender with college, gender with study level, and gender, college and study level.

The study concluded with some recommendations.

KEYWORDS: Type A behavior pattern, Hashemite University, Urgency, Ambition, Agressiveness, Physiological signs.

INTRODUCTION

Most people today experience different types of problems, whose magnitude ranges from mild to severe, as a result of increasing demands of the present life, which are more stressful than those in the past. Stress is one of the problems that captured people's attention. It has become a popular topic, because people have been facing various stressful events ranging from simple to catastrophic later (Friedman and Schustak, 1992). While ancient Greek philosophers, such as Hippocrates and Galen were interested in classifying people's temperament and moods into types: each type of them has a set of the same traits. The types which theorists and researchers such as Friedman and Rosenman (1952) had reached in this context are type A behavior, type B behavior, type C behavior and type T behavior, these types are usually studied under the topic of stress, therefore type A behavior and its relation to person health/heart disease has been one of the most intensively studied topics in the stress field (Schaffer, 1992).

Physicians attempted to study the relationship between emotions and heart problems, for example Williams (1989) reported that Harvey who was one of the

founders of modern physiology and medicine, wrote in 1628 that every affection of the mind that is attended with either pain or pleasure, hope or fear, is the cause of an agitation whose influence extends to the heart. Schaffer (1992) reported that Friedman and Rosenman led a team of medical scientists, investigating the role of cholesterol and other risk factors in the development of coronary artery disease in the 1950s, after these research findings, around half of all heart attacks couldn't be explained by conventional risk factors, they have begun to suspect that emotions or behavior type should be studied. Atkinson;Atkinson; Smoth; Bem and Nolen-Hoeksema (2000) said that Friedman and Rosenman who were cardiologists defined a set of behaviors that seemed to characterize patients with Coronary Heart Disease (CHD), these were labeled by the type A pattern.

The youth frequently experience various psychological problems and troubles, which get them to be exposed to somatic and healthy diseases, such as: Coronary Heart Disease (CHD), gastric disorders like peptic ulcer and duodenal ulcer, and dermatological (skin) diseases like pruritus and psoriasis, type A behavior may result in these problems and crises, and it may also ultimately result in death.

Surveying this behavior among the youth in Jordan will stigate us to set counseling programs, assist the individuals with type A behavior, and control their negative beliefs, which will ease their life, and they can get relaxed, also, such programs will help them improve their intrapersonal and interpersonal relationships.

Literature Review

Friedman and Ulmer (1983) defined the type A behavior: Unremitting attempt to accomplish, or achieve more and more things, or participate in more and more events in less and less time, frequently in the face of opposition - real or imagined - from other persons. The type A personality is dominated by covert insecurity of status of hyper - agressiveness or both. But McConnelle and Philipchalk (1992) said that Friedman and Rosenman suggested that people could be divided into two types: type A individuals or type B individuals, they claimed that type A individuals are at risk for a variety of stress-related illnesses especially heart attacks, time urgency with its accompanying impatience, and are not easily angered. Burke (1985) investigated belief and fear underlying type A behavior components among (137) male and female university students of administration,

they completed type A behavior measures. Three beliefs and four fears were assessed along with four aspects of type A behavior. Findings revealed that measures of beliefs and fears were moderately correlated with measures of time urgency and hostility, particulaly among women, but younger men and women reported stronger beliefs and fears. Edwards and Baglioni (1990) examined the psychometric characteristics of the Bortner Type A scale which was developed by Bortner (1969), they administered the scale to (1320) working adults from three occupations: accountants, dentists and nurses, the results indicated that the reliability of the Brotner scale is approximately 0.59, the Bortner scale contained two distinct independent dimensions: the speed and the competitiveness, the results also indicated that the speed and competitiveness were significantly related to validity criteria. Birbilis and Seals(1991) assessed the relationship of sense of humor and hostility to the type A behavior pattern, among (151) junior college students who were given: Jenkins activity survey, situational humor response questionnaire, Novacco anger scale, and a demographic questionnaire. Findings suggested that hostility significantly accounted for four percent of behavior pattern variance, while sense of humor did not account for any variance. Lees,Smith and Jackson (1992) examined the dimensionality of type A behavior within a stressful work simulation, among eighty two undergraduate students(21 males, and 61 females) who are subjected to time and work-load pressures; who completed behavior observation checklist of type A behavior and survey of work styles. Component analysis revealed four primary factors: hurriedness, irritability, tension of the lower extremities, and restlessness, these factors contribute to an understanding of type A behavior. Kopper (1993) investigated the relationship of gender, sex role identity, and type A behavior to multiple dimensions of anger expression and mental health functioning among (407) female and (222) male college students. It was found that significant multivariate effects of sex role and behavior pattern type for anger expression, significant gender differences were not observed. But Northam and Bluen (1994) conducted a study on differential correlates of components of type A behavior, which were measured by analyzing items of Achievement Strivings (AS) factorially, and II sub-scales, they administered these scales to a sample comprised (236) Psychology I students, registered at the University of Witwatersand. The results indicated that the

components of the Type A behavior are: Impatience, irritability (II), anger, hostility and competitiveness, these negative "toxic" components were positively related to depression, and ill health. Hirschfield (1994) conducted a study on type A behavior pattern, self efficacy and performance in small business firms, the subjects who were (412) New Hampshire small business owners completed the individual behaviors activity (I-BAP) which is widely used to measure the type A behavior pattern, the results indicated an overwhelming percentage of respondents is type A behavior. Clark (1995) studied the stress as a function of control, hardship and type A behavior, on 283 university students, scale on stress, locus of control, hardineness, and type A behavior were administered to the subjects. The findings revealed that type A behavior was high in those whose vulnerability to stress was also high, and hardiness is one of type A behavior components, however, it was positively related to this vulnerability. Alvarez (1998) conducted an evaluation of components of the type A behavior pattern, on a heterogeneous professional sample, the study results indicated that the subjects tended to show themselves more vulnerable to TABP components such as: agressiveness, hostility, anger, urgency, impatience and competitiveness, the results indicated that YABP components were significantly related to sex, age, culture and job. In addition, Zemberg (1998) conducted a study on type A behavior pattern among patients with multiple sclerosis; the Jenkins Activity Survey (JAS) was administered to them to evaluate type A Behavior, the findings revealed that sixty percent of the sample population had positive scores on the (JAS). Friedman and Schustack (1999) mentioned the struggle of type A person, is most likely to be the one of a "Choleric " angry against the arbitrary controls of his or her job, or such a person will also have generally poor interpersonal relationships, it is a bitter person who is coronary prone, but the struggle also may be an internal struggle of a "phlegmatic "apathetic and conforming on the outside, but tense and distraught on the inside. Atkinson et al. (2000) said people who exhibit type A behavior pattern are extremely competitive and achievement oriented, they have a sense of time urgency, find it difficult to relax, and become impatient and angry when confronted with delay or with people whom they view as incompetent, although outwardly self - confident, they are prey to constant feelings of self doubt; they push themselves to accomplish more and more in less and less time. Type B

people don't exhibit the characteristics listed for Type A behavior, they are able to relax without feeling guilty and to work without becoming agitated; they lack a sense of time urgencey with its accompanying impatience, and are not easily angered.

Operational Defintion

Type A behavior is operationally defined as a state of stress, in which a set of insisting demands instigate the individual to meet them; consequently, he mobilizes himself to achieve more and more in less and less time, and the individual manifests tremens, diaphoresis, hypethermia and electric charges in his hands, he also manifests tachycardia, hyperpnea, and he couldn't breathe regularly, his face tends to be pale; that's, it hasn't a plethora,whatever he eats, his weight will still be low, he on the one hand, represses his emotions at the expense of his heart and health, but on the other hand, he tends to make catharsis, aggression, and he has rapid movements in his limbs. It is divided into four domains: (A) Urgency, Irritability – impatience, (B) Energy - Ambition, competitiveness, (C) Hostility-agressiveness, (D) physiological signs, somatic symptom.

A. Urgency, Irritability – and Impatience:
- Urgency is operationally defined as individual's insisting on achieving more and more demands in less and less time or his insisting on achieving the demand, although it is not important. In addition, the individual may insist on doing the task hastily.
- Irritability is operationally defined as the level of anxiety and stress without feeling relaxed as a result of not achieving the demand.
- Impatience is the individual's inability to wait to do the task on time.

B. Energy – Ambition, competitiveness.
- Energy is stated as individual's potential to work and to do the demand, it is as the required fuel to achieve the demands or targets of ambition, energy level reflects the ambition level of the individual.
- Ambition reflects what the individual intends to do or achieve in the future;that is, he inspires to reach the level of culmination.
- Competitiveness: is an important motive to superiority and discrimination, it needs potentials and persistence, which create a climate to work hard without any hostility.

C. Hostility and agressiveness is making verbal or corporal punishment against self or others, in addition, it also involves vandalism (destruction of his domains or people's domains).

D. Physiological signs and somatic symptoms and signs resulting from changing in chemical and physical quantities in some organs of the body such as: heart, lungs, stomach, intestines, skin and mouth, these changes are hypertension, peptic ulcer, loss of appetite, pruritus, diaphoresis, decreasing of saliva secretion, face color and movement, limbs movement, hyperthermia, hyperpnea…etc.

Significance of the Study

The rationale behind conducting this study was to explore type A behavior among the undergraduate students of the acadmic year 2001/2002, who are studying at the different colleges of the Hashemite University, in order to be awarded the Bachelor's degree, and to identify its incidence among them at the different study levels. University students represent a considerable percentage in the Jordanian society.

Study Questions:

The purpose of this study was to assess type A behavior among the Hashemite University students through answering the following questions:

1. What are the type A behavior domains (urgency, ambition, agressiveness and physiological signs) of the Hashemite University students according to the study variables: college, gender, and level of study?

2. Are there significant differences at (P< 0.05) among the Hashemite University students in type A behavior domains (urgency, ambition, agressiveness and physiological signs) due to the study variables: college, gender, and level of study?

Study Procedures

Population: The population of this research consisted of all undergraduate students, who were enrolled in the different colleges of the Hashemite University in the academic year 2001/2002,who represent all levels of study at the Hashemite University. Table (1) illustrates the distribution of the population subjects according to gender, level of study, and college.

Research Sample: A stratified random sample was chosen from the population, it consisted of (1200) students representing (15) % of the Hashemite University

students, table (2) illustrates distribution of the sample according to the research variables, gender, level of study, and college.

The Instrument: The researchers developed a type A behavior scale of (125) items, based on the previous studies, such as: Friedman and Rosenman(1974); and Friedman and Ulman(1984). The draft scale was submitted to (12) arbitrators (professors), whose specialties are in counselling, special education, and educational psychology. They were asked to review the scale items and modify, add, correct or delete items based on the definition of type A behavior. The researchers revised the draft scale on the basis of the arbitration, recommendations and suggestions. The final forms of this scale contained (93) items representing four dimensions: (A) Urgency, irritability – impatience (26)items. (B)Energy – ambition, competitiveness (24) items, (C) Hostility- agressiveness (21) items, (D) Physiological signs, somatic symptom (22) items. Five - point Likert type scale (always, often, sometimes, rarely and never), was used to assess the degree of occurrence frequency of type A behavior. If we supposed that the least frequency was given the score (0) and the greatest frequency was given the score (4) then the total score received on all of the scale items would be 93x 4 = 372, the reliability of the scale was estimated by two methods: (1) test and retest method, through administering the type A behavior scale to (53) students from College of Educational Sciences at the Hashemite University, after an interval of two weeks, the scale was also administered again to the same (53) students, then correlation coefficient between the two administrations was calculated for each domain of the scale, and were: Urgency (Irritability – impatience) was 0.82; Energy (Ambition- competitive) was 0.87; Hostility (agressiveness) was 0.86; physiological signs (somatic symptom) was 0.85, and the total was 0.80, and the internal consistency was calculated using Cronbach Alpha method, and was 0.82.

The final scale form was administered to (1200) students who constituted the whole subjects of the study sample.

Data Analysis

To answer the study questions, the means and standard deviations were calculated, and the Multivariate analysis was utilized to find the significant differences of independent variables among students in the type A behavior, as well as post - hoc comparisons Bonforoni

were also computed, to find the significance of differences among the students which may be due to the research independent variables: gender, (male and female), college (science, economic, educational sciences, arts and physical education), and the study level (first, second, third, and fourth).The completed questionnaires were scored, the means and standard deviations and multivariate analysis and post hoc Bonforoni were calculated by the SPSS program to answer the study questions.

Research Results

The first part of the study is concerned with answering the first question of the study: what are the domains of type A behavior of the Hashemite University students according to the study variables: college, gender and study level?

The answer of the Hashemite University students within each domain, according to the study variables are shown in table (3).

It has been noticed from table (3) that the means of the urgency domain according to the study variables were as the following:

The college variable, female students who are at the art college, had the highest mean (69.58), in comparison with female students at the economic college with mean of (69.28), the female students at the education college with mean of (68.72), the female students who are at the physical education college with mean of (68.59), and the female students at college of science with mean of (65.78). The male students who are at the art college had the highest mean (70.71) in comparison with male students at the economic college with mean of (69.21), male students at the education college with mean of (68.21), male students at the physical education college with mean of (67.30), and male students at the science college with mean of (63.19).

Study level, female students who are at level 60-89 hours had the highest mean of (69.70), in comparison with female students at level 90 hours and more with mean of (67.57), female students at level less than 30 hours with mean of (68.29), and female at level 30-59 hours with mean of (66.94). But the male students who are at level 60-89 hours had the highest mean of (68.20), in comparison with male students at level less than 30 hours with mean of (66.59), and male students at level 90 hours and more with mean of (67.40), and male students at level 30-59 hours with mean of (65.61).

It has been noticed from table (3) that the means of the ambition domain according to the study variables were as follows:

The college, female students who are at the physical education college had the highest mean (73.33), in comparison with female students at the education college with mean of (70.67), the female students at the art college with mean of (69.19), the female students who are at the economic college with mean of (69.19), and the female students at the college of science with mean of (67.72). The male students who are at the physical education college had the highest mean (76.33), in comparison with male students at the economic college with mean of (72.4), male students at the art college with mean of (71.10), male students at the education college with mean of (69.19), and male students at the science college with mean of (68.54).

Study level, female students who are at level 60-89 hours had the highest mean of (72.15), in comparison with female students at level 90 hours and more with mean of (70.41), female students at level less than 30 hours with mean of (70.10) and female students at level 30-59 hours with mean of (67.96). But the male students who are at level 90 hours had the highest mean of (74.85), in comparison with male students at level 60-89 hours with mean of (72.52), male students at level less than 30 hours with mean of (70.10), and male students at level 30-59 hours with mean of (68.66).

It has been noticed from table (3) that the means of the agressiveness domain according to the study variables were as follows:

The college, female students who are at the economic college had the highest mean (54.59), in comparison with female students at the education college with mean of (53.57), the female students at the art college with mean of (53.46), female students who are at the physical education college with mean of (53.10), and the female students at the college of science with mean of (50.92). The male students who are at the art college had the highest mean (59.96), in comparison with male students at the economic college with mean of (58.32), male students at the physical education college with mean of (57.02), male students at the education college with mean of (56.96), and male students at the science college with mean of (54.13).

Study level, female students who are at level 60-89 hours had the highest mean of (54.38), in comparison with female students at level 90 hours and more with

mean of (52.43), female students at level less than 30 hours with mean of (53.12), and female students at level 30-59 hours with mean of (52.18). But the male students who are at level 60-89 hours had the highest mean of (57.65), in comparison with male students at level 90 hours and more with mean of (57.42), and male students at level with less than 30 hours with mean of (56.01), and male students at level 30-59 hours with mean of (55.85).

It has been noticed from table (3) that the means of the physiological signs domain according to the study variables were as follows:

The college, female students who are at the art college had the highest mean (58.78), in comparison with female students at the education college with mean of (58.54), the female students at the economic college with mean of (57.50), the female students at the physical education college with mean of (56.82), and the female students at the college of science with mean of (55.83). The male students who are at the education college had the highest mean (61.27), in comparison with male students at the art college with mean of (61.21), male students at the economic college with mean of (60.36), male students at the physical education with mean of (55.01), and male students at the science college with mean of (53.97).

Study level, female students who are at level 60-89 hours had the highest mean of (59.50), in comparison with female students at level 90 hours and more with mean of (57.77), female students at level 30-59 hours with mean of (57.02), and female students at level less than 30 hours with mean of (55.84). But the male students who are at level 90 hours and more, had the highest mean of (60.13), in comparison with male students at level 60-89 hours with mean of (59.49), male students at level 30 -59 hours with mean of (56.44), and male students at level less than 30 hours with mean of (55.68).

It has been noticed from table (3) that female students had different means from male students at the different domains of type A behavior, the highest domain of the type A behavior of the female students is the Ambition domain, with mean of (350.10), then the urgency domain with mean of (341.89), physiological signs domain with mean of (287.41), and last is the agressiveness domain, with mean of (272.64).

The highest domain of the type A behavior of the male students is the ambition with mean of (353.53), then the urgency domain with mean of (338.68), physiological signs domain, with mean of (296.82), and last is agressiveness domain with mean of (286.39).

The second part of the study was concerned with answering the second question of the study: Are there significant differences at $(P < 0.05)$ among Hashemite University students in type A behavior domains (urgency, ambition, agressiveness and physiological signs) due to study variables: college, gender, and study level?

The multivariate analysis was computed to find the significance of differences among the Hashemite University students in the domains (urgency, ambition, agressiveness and physiological signs) of type A behavior, as provided in tables (4), (5) and (6).

Table (4) shows "F" values, which indicated that there were significant differences among the students, due to the gender variable, "F' value (17.04) was significant at level 0.00, also indicated were significant differences among students due to the college, "F" value (4.89) was significant at level 0.00, also indicated were significant differences among students due to the study level (number of hours) "F" value (3.19) was significant at level 0.00, also indicated were significant differences among students due to the study level (number of hours) and college "F" value (2.39) was significant at level 0.00, but there weren't significant differences among students due to the interaction between gender and college, gender and study level, and gender, college and study level.

Table (5) shows "F" values, which indicated that there were significant differences among the students, due to the gender variable and the type A behavior domain: ambition, "F' value (3.87) was significant at level 0.05, agressiveness domain "F' value (26.53) was significant at level 0.00, and the total of domains "F" value (5.17) was significant at level 0.02, but there were not significant differences in urgency and physiological sign domains due to gender.

There were significant differences among students, due to the college and the type A behavior domain: urgency "F" value (7.59) was significant at level 0.00, ambition, "F" value (4.96) was significant at level 0.00, agressiveness "F' value (5.26) was significant at level 0.00, physiological signs "F' value (8.96) was significant at level 0.00, and the total of domains "F' value (6.50) was significant at level 0.00.

There were significant differences among students due to the study levels and the type A behavior domain: urgency "F" value (4.10) was significant at level 0.00, ambition, "F' value (4.73) was significant at level 0.00,

agressiveness "F' value (5.26) was significant at level 0.00, physiological signs "F' value (8.43) was significant at level 0.00 and the total of domains "F' value (5.43) was significant at level 0.00, but there were not significant differences among students due to gender, college and the type A behavior domains, there were no significant differences among students due to gender and study level and the type A behavior domains.

There were significant differences among students due to college and study level and the type A behavior domains: ambition, "F' value (3.59) was significant at level 0.00, and physiological signs "F' value (2.41) was significant at level 0.00.

There were significant differences among students due to gender and college and study level with the type A behavior physiological signs domain, "F' value (2.36) was significant at level 0.00,

Table (6) shows the values of Bonforoni multiple comparisons of type A behavior domains, according to the study variables, which indicated that there were significant differences among the students, due to the college variable and the type A behavior domains: urgency domain, differences between the economic college students and the science college students, were significant at level 0.00, differences among education college students and science college students were significant at level 0.00 and, among physical education college students and science college students were significant at level 0.02, ambition domain differences among the physical education college students, and the other colleges; science college students, economic college students, education college students and arts college students, were significant at level 0.00, but with economic college students were significant at level 0.02, agressiveness domain differences among the economic college students and the sciences colleges students, were significant at level 0.00, in the physiological signs domain, differences among the economic college students and the sciences college students, were significant at level 0.00, among education college students and science college students were significant at level 0.00, and among art college students and sciences college students were significant at level 0.01, and in the total domains, differences among the economic college students and the sciences colleges students, were significant at level 0.00, among education college students and science college students were significant at level 0.00, and among art college students and science college students were

significant at level 0.02.

Also, table (6) shows the values of Bonforoni multiple comparisons of type A behavior domains and the study levels variable, which indicated that there were significant differences among the students on type A behavior domains, due to the study variables, in the ambition domain the differences between the study level 60-89 hours and the study level 30-59 hours were significant at level 0.00, and between the study level of 90 hours and more with study level 30-59 hours were significant differences at level 0.00, in the physiological signs domain the differences between the study level 60-89 hours, and the study level less than 30 hours were significant at level 0.00, and in the total domains the differences between the study level 60-89 hours and the study level 30-59 hours were significant at level 0.00.

Discussion and Recommendations

The present study investigated and explored the type A behavior among male and female undergraduate students at the Hashemite University. The results of the study indicated that the male students had higher mean in the total type A behavior, and its domains: ambition, agressiveness, and physiological signs than the female students. This is due to the fact that the males have a wide spectrum of goals in their life without obstacles or restrictions, and the family and the tradition give them more freedom and opportunities than women, it is acceptable that female means get less than male means in the other domains, because females' goals toward the future are restricted by the society or family rules, this may get the females frustrated more than the males which means that the females have less degree of the type A behavior in comparison to the males although the female students had higher mean than the male in urgency domain only, which means the obligation in the dialy life gives opportunity to be more urgent than males. These results agree with the other studies' results such as the Buke (1985) study results, which indicated that younger men appeared more hostile than younger women, and Smith and Jackson (1992) study results which revealed four primary factors: hurriedness, irritability, tension and restlessness which contribute to understanding of type A behavior, also the study results: Clarke (1995); Buke (1985); Birbilis and Seals (1991); and Kopper (1993), but are not consistent with the findings of Northam and Bluen (1994), and Buke (1985) study results which are

related to the time urgency. The female students at the different levels of study: the first level, the second level, the third level and the fourth level had higher means than the males in urgency domain only. The females and males at the first level had the same means in the ambition domain, but the males at the second level had higher mean than the males at the third level and the fourth level, in the agressiveness domain the males had higher mean than the females at the different levels, in the physiological signs domain, the female had higher means at the first level, second level and the third level, but the male students at the second level had lower mean than the first level students, the third level students and the fourth level students, but the female students at the second level had lower mean than the first level female students, the third level female students and the fourth level female students, but "F " values showed there were significant differences at (0.05) among the third level and first level students,the fourth level students and the second level students in the ambition domain, and among the third level students and the first level students in physiological signs domain. It has been noticed that gender, college, and study level had significant effects on most of the domains, and there were significant differences at (0.05) among the different colleges and the study levels, the significant differences among the students at the different levels are because of the different levels of achievement of the students, this is consistent with Atkinson(2000) and Friedman and Ulmer (1983) which indicated that type A behavior influenced the students'achievement.

According to the college variable, the liberal art college students had the highest mean in urgency domain, then the economic college students, the education college students, the physical education college students, and last is the science college students. According to the ambition domain, the physical education college students had the highest mean, then the economic college students, the liberal art college students, the education college students, and last is the science college students. In the agressiveness domain, the liberal art college students had the highest mean followed by the economic college students, the physical education college students, the education college students, last is the science college students. In the physiological signs domain, the education college students had the highest mean, then the liberal art college students, the economic college students, the physical education college students, and last is the science college students. In the total type A behavior, the

liberal art college male students had the highest mean, then the economic college male students, the physical education college male students and the education college male students, and last is the science college male students. But the female students who had the highest mean were at the liberal art college, then the economic college, the education college, the physical education college, and last is the science college. But the liberal art college male and female students had the highest mean, then the economic college students, the education college students, the physical education students, and last is the science college students. On the other hand, "F" values showed significant differences in the domain of urgency among science college students and the other college students. In the domain of ambition significant differences exist among physical education college students and science college students, economic college students, education college students and liberal art college students. In the domain of agressiveness, significant differences exist among the economic college students and science college students, and in the domain of physiological signs significant differences among science college students and economic college students, education college students, and liberal art college students. This means that the college and the study level played an important role in responding to stress and type A behavior, and in coping with it, therefore it is acceptable that differences among colleges and study levels exist, because usually there are differences among specialties in context and content and the nature of information provided for the students. For example, human sciences deal with human problems and crises, but natural sciences deal with substances, materials, particles and natural phenomena; therefore, human sciences students have information about stress anxiety emotions, social relationships, personality, literature etc… so their reaction to these subjects may be easy to be handled. This may affect their ambition and objectives, the ambition of natural science students differs from that of human science students who may be filled with anxiety, and may be directed to things but the latter may be directed to prestige and getting distinctive status in the society. In addition, the study level may play an important role in the type A behavior, the students of the fourth level have rich and good experience making their reaction to the questions related to type A behavior which differ from the first level students, who are still in milling, the students of advanced level has ambition, or urgency or

even agressiveness which are different from those of the first level students. It is ordinary that each student pays his attention, and stimulates his interest into his inspirations and ambitions and looks forward to achieving more and reach the best, all of the above results agree with Alvarez (1998) study results which revealed that the Type A behavior domains were significantly related to sex and age variables.

It can be concluded that the ambition domain has the highest mean, by the Hashemite University students, then the urgency domain and the physiological signs domain and last is the agressiveness domain. This means that the Hashemite University students focus more on ambition and future goals because ambition for both males and females is considered as the main but the vital force in their life; namely they are concerned in their future, and their future goals are directed to many fields or canals such as higher education and work; these fields require achievement, competitiveness, and persistence.

In light of these findings the researchers have made the following recommendations:

1. The researchers in this study developed a scale used to assess type A behavior, the scale is the first one in Jordan, which is developed to assess this behavior; therefore the other researchers will benefit from it, if they intend to conduct research on Type A behavior, and it is expected that counselors, psychologists and social workers in schools and mental health centers will benefit from this research scale and results.

2. The counselling programs at the university should get the students to benefit from the positive impact of type A behavior.

3. Conducting research and studies on the type A behavior to explore the causes behind this type of behavior among the students at different majors of studies at schools and universities.

4. Administrating the study scale of type A behavior to other groups of students from different sites of the society such as: hospitals, medical centers, military agencies... etc.

Table (1): Distribution of the population according to gender, level of study, and college.

variables	First		Second		Third		Forth		Total	
	male	female	male	female	male	female	male	female	male	female
Science	894	736	643	624	384	454	077	154	1798	1968
Economic	375	434	225	204	82	88	115	56	797	782
Education	112	331	133	356	181	385	92	233	518	1305
Liberal Art	132	341	090	207	29	83	44	59	295	690
Physical Edu.	75	141	88	145	60	92	24	48	247	426
Total	1388	1983	1179	1536	736	1102	352	550	3655	5171

Table (2): Distribution of the research sample according to gender, level of study, and college.

variables	First		Second		Third		Forth		Total	
	male	female	male	female	male	female	male	female	male	female
Science	58	60	48	60	58	62	26	29	190	211
Economic	42	49	40	38	24	25	40	18	146	130
Education	22	60	35	61	21	60	12	47	90	228
Liberal Art	16	43	13	35	6	13	9	9	44	100
Physical edu.	19	36	34	58	24	45	6	12	83	151
Total	157	248	170	252	133	205	93	115	553	820

**Table (3): Means and standard deviations of type A behavior
of the Hashemite University students according to the study variables.**

Variables			Urgency		Ambition		Agressiveness		Physiological		The Total	
			Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
College	Science	male	63.19	20.10	68.54	20.93	54.13	18.22	53.97	18.33	236.83	72.66
		female	65.78	18.95	67.72	18.04	50.92	15.69	55.83	18.19	237.20	65.38
	Economic	male	69.21	11.40	72.40	10.71	58.32	11.14	60.36	13.15	257.10	38.00
		female	69.23	10.18	69.19	7.64	54.59	8.93	57.50	10.88	247.63	28.72
	Education	male	68.21	10.30	69.16	7.82	56.96	10.00	61.27	12.42	252.62	33.77
		female	68.72	11.71	70.67	8.92	53.57	10.61	58.54	13.01	248.45	36.60
	Art	male	70.71	12.77	71.10	10.10	59.96	11.14	61.21	15.30	260.00	41.52
		female	69.58	13.81	69.19	9.98	53.46	12.16	58.78	14.21	247.93	42.53
	Physical Education	male	67.30	11.41	76.33	9.81	57.02	10.39	55.01	12.82	252.30	35.90
		female	68.59	12.16	73.33	10.58	53.10	12.10	56.82	12.90	249.22	37.28
Study level	Less than30	male	66.59	13.76	70.10	13.68	56.01	12.70	55.68	13.86	245.27	47.40
		female	68.29	13.58	70.10	11.41	53.12	12.35	55.84	13.74	244.12	43.44
	30-59	male	65.61	16.65	68.66	16.59	55.85	15.10	56.44	16.44	243.65	58.76
		female	66.94	15.92	67.96	14.98	52.18	13.13	57.02	15.56	241.19	53.62
	60-89	male	68.20	17.14	72.52	16.12	57.65	15.52	59.49	17.01	254.62	59.53
		female	69.70	13.14	72.15	10.92	54.38	11.40	59.50	13.77	252.71	41.30
	90&>	male	67.40	10.69	74.85	9.55	57.42	10.55	60.13	13.13	256.39	35.40
		female	67.57	12.35	70.41	8.34	52.43	10.16	57.77	13.75	245.10	37.93
Total		male	338.68		353.53		286.39		296.82			
		female	341.89		350.10		272.64		287.41			

**Table (4): The multivariate tests of the of type A behavior domains according
to the study variables: Gender, college and study level.**

Effect	test	Value	F	Hyp.f	Error df	Sig.
Gender	Hotlling's Trace	.064	17.04	5.00	1329	.000
College	Wilks' Lambda	.930	4.89	20.00	4408.74	.000
study levels	Wilks' Lambda	.965	3.19	15.00	3669.19	.000
Gender/College	Wilks' Lambda	.980	1.36	20.00	4408.74	.130
Gender/Hours	Wilks' Lambda	.986	1.24	15.00	3669.19	.235
College/Hours	Wilks' Lambda	.899	2.39	60.00	6226.97	.000
Gender/College/Hours	Wilks' Lambda	.950	1.14	60.00	6226.97	.219

**Table (5): Tests between subjects' effects of type A behavior domains due
to the study variables: gender, college and study level.**

source	Dependent variable	Sum of Squares	DF	Mean Square	F	Sig.
Gender	Urgency	12.65	1	12.65	.061	.804
	Ambition	649.4	1	649.4	3.87	.050
	Agressiveness	4319.10	1	4319.10	26.53	.000
	Physiologcal signs	571.58	1	571.58	2.74	.098
	Total	11910.04	1	11910.04	5.17	.023

College	Urgency	6259.51	4	1564.88	7.59	.000
	Ambition	3334.32	4	833.58	4.96	.001
	Agressiveness	3423.32	4	855.87	5.26	.000
	Physiologcal signs	3423.48	4	1871.47	8.96	.000
	Total	59860.264	4	14965.10	6.50	.000
Hours	Urgency	2518.23	3	839.41	4.10	.007
	Ambition	2383.78	3	794.59	4.73	.003
	Agressiveness	1192.70	3	397.57	2.44	.063
	Physiologcal signs	5283.15	3	1761.10	8.43	.000
	Total	37524.89	3	37524.89	5.43	.001
Gender and College	Urgency	717. 56	4	179.39	.871	.481
	Ambition	863.87	4	215.97	1.29	.274
	Agressiveness	754.17	4	188.54	1.16	.328
	Physiologcal signs	1420.74	4	355.19	1.70	.147
	Total	9209.78	4	2302.44	.999	.407
Gender and Hours	Urgency	629.38	3	209.80	1.02	.384
	Ambition	176.48	3	58.83	.350	.789
	Agressiveness	606.74	3	202.25	1.24	.293
	Physiology signs	1549.55	3	516.52	2.47	.060
	Total	8923.65	3	2974.95	1.29	.276
College and Hours	Urgency	3755.23	12	312.94	1.52	.111
	Ambition	7244.95	12	603.75	3.59	.000
	Agressiveness	1314.30	12	109.53	.673	.779
	Physiologcal signs	6025.89	12	502.16	2.41	.004
	Total	39059.42	12	3254.95	1.41	.153
Gender, College and Hours	Urgency	3359.36	12	279.95	1.36	.179
	Ambition	1474.61	12	122.88	.732	.721
	Agressiveness	43443.60	12	236.19	.136	.136
	Physiology	5916.67	12	493.10	2.36	.005
	Total	43443.60	12	3620.30	1.57	.094
Error	Urgency	274686.0	1333	206.10		
	Ambition	223927.15	1333	167.99		
	Agressiveness	219685.54	1333	162.78		
	Physiologcal signs	278401.87	1333	208.85		
	Total	3071330.9	1333	2304.10		
Total	Urgency	6563068.0	1373			
	Ambition	7050902.0	1373			
	Agressiveness	4304445.0	1373			
	Physiologcal signs	4834685.0	1373			
	Total	86929059	1373			

Table (6): Benforoni multiple comparisons of type A behavior domains due to the study variables: Gender, college and study level.

dependent variable	independent variable		mean differences	Std. Error	Sig.
Urgency	Economic	Science	4.66	1.22	.00
	Education	Science	4.03	1.08	.00
	Art	Science	5.37	1.40	.03
	Physical Ed.	Science	3.58	1.18	.02
Ambition	Physical Education	Science	6.29	1.10	.00
		Economic	3.51	1.15	.02
		Education	4.15	1.12	.00
		Art	4.62	1.37	.00
Agressiveness	Economic	Science	4.12	1.00	.00
Physiologcal signs	Economic	Science	4.10	1.13	.00
	Education	Science	4.36	1.10	.00
	Art	Science	4.57	1.40	.01
Total domain	Economic	Science	15.61	3.75	.00
	Education	Science	12.61	3.60	.00
	Art	Science	14.53	4.66	.02
Ambition	60-89hours	30-59hours	4.10	.946	.00
	90 & >	30–59 hours	4.15	1.10	.00
Physiologcal signs	60-89	less than 30	3.72	1.10	.00

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