



SciVerse ScienceDirect

Procedia - Social and Behavioral Sciences 30 (2011) 2010 – 2018

---

---

**Procedia**  
Social and Behavioral Sciences

---

---

WCPCG-2011

## Relationship between Type A Personality and Mental Health

HosseinAli GhorbaniAmir<sup>a\*</sup>, Teymor AhmadiGatab<sup>b</sup>, Nasram shayan<sup>c</sup>*a staff of educational, babol, babol, Iran**b Islamic Azad University, Qhaemshahr Branch, Young Researchers Club, Qhaemshahr, Iran**c Alzahra University, Tehran, Tehran, Iran*

---

### Abstract

**Introduction:** One of the constitutional factors on mental health can be effective, is the concept of personality types. Because the major segments of the active population consist of students form, paying attention to mental health in this group of people is very important and vital. This study reviews the relationship between type A personality and mental health. **Methods:** The method of this study is a descriptive and correlation method. Therefore, the sample group consists of 50 psychology students in Payam-e-Noor University in Babol, which were randomly selected and answered to two type A personality questionnaire and general health Goldberg. In data analysis, Pearson correlation, T test and SPSS software were used. **Results:** The results show that between type A personality and mental health, there is a significant relationship. In number of subjects with type a personality, mental health is lower than the number of subjects having Type B personality, The results indicate that there is no significant differences between mean mental health in the two groups of male and female respondents. **Discussion:** The assessment of personality types, despite the valuable information about the psychiatric diagnosis given to experts and psychologists; it can assess the mental health of patients and be helpful in preventing dimension so that assessment of personality types can be discussed in the introduction of mental health.

© 2011 Published by Elsevier Ltd. Open access under [CC BY-NC-ND license](http://creativecommons.org/licenses/by-nc-nd/3.0/).

Selection and/or peer-review under responsibility of the 2nd World Conference on Psychology, Counselling and Guidance.

*Keywords: personality type A - student mental health.*

---

### 1. Introduction

In the current age, the range of mental health is so broad that the comprehensive definition of the concept of mental health and its similar terms is difficult to provide. Chahlen (2000) considers mental health a condition of the psychological maturity that is simply the maximum effectiveness and satisfaction of personal productivity and social interactions that involve the feelings and the positive feedback towards yourself and the others. Most researchers believe that health concerns the physical, social and psychological states (Vasykiew, 2002). On the other hand, we can say that with the settlement of biological, psychological, social, spiritual patterns for the explanation of health and disease concepts, the patterns of behavior and personality played an important role in their mental health. In this context, Alport believed that the formation of personality and the need for uniting the principles of life are the important factor of mental health (Vyntes, 1995). Research results show that personality dimensions predict some

healthy behaviors which explain the health states (Wright, 1997). Also, the personality dimensions are related to the negative health consequences including asthma, stomach ulcers (Vasylkiew, 2002), heart disease (Malam, 2002), hypertension (Rikonen, 1999) and mild disease (Honor, 1996). In the range of health psychology, behavioral pattern of type A, for more than three decades, has had a central role in investigation of the personality effect and behavioral factors on coronary heart disease (Rozenman, 1990). Type A behavioral pattern is defined as a collection of action - excitement which consists of the behavioral preparation including intense ambition, competitive driving, time-bound, competitiveness and impatience, muscle tension, alertness, acceleration, the purpose of activities and emotional responses such as irritability, hostility. Note that type A behavioral pattern) is associated with the higher rank and professional career, earning more and competencies to more facilitation (Rozenman 1990, Green Glass, 1991) and based on studies, the growing emphasis on self-confidence (and Kelytkangaz Et al 1990) is a type A behavioral characteristics.

**Methods**

The method of this study is a descriptive correlation one. Statistical population consisted of the psychology students of Payame Noor University in Babol. The sample consisted of 50 students selected by a simple random sampling method. Tools used in this study are type A personality questionnaire and the General Health Questionnaire Goldberg and Hillary. For data analysis, the methods of descriptive and inferential statistics and Pearson Correlation coefficient, T-test of independent groups and through the SPSS software was used.

**Results**

**1-4 - the features of respondents:**

**1-1-4 - the age of respondents:**

According to data obtained from the age of respondents, the frequency of the respondents' age is presented in Table (1-4). The following table shows the age distribution of the respondents.

Table (1-4) distribution of respondents by age group

Age groups	Frequencies	Percentages	Cumulative percentages
Less than 20 years	15	30/0	30/0
From 21 to 22 years	18	36/0	66/0
More than 22 years	17	34/0	100/0
Total	50	100/0	

According to this table, 18 respondents, the equivalent of 36/0 percent of respondents were in the age group of 21 to 22 years which have had the highest frequency. While only 15 respondents were in the age group of less than 20 years and have had the lowest frequency.

Meanwhile, the average age of respondents was equal to 21/42 years.

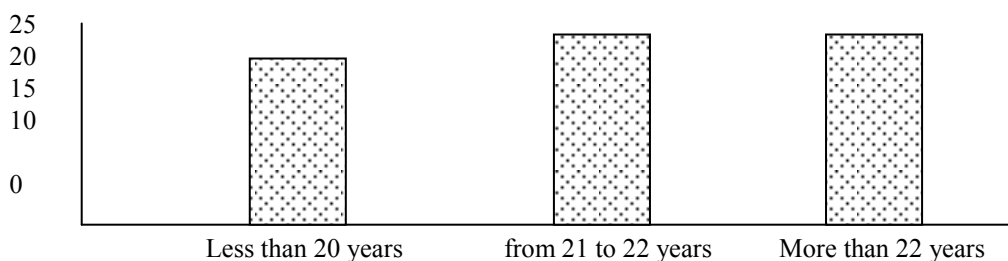


Figure (1-4) distribution of respondents by age group

**2-1-4 - mother's educational level:**

Maternal education represents years of employment or unemployment of the respondents' mothers to study. Accordingly, the collected data is described below:

Table (2-4) distribution of respondents by educational level of mothers

Mother education	Frequencies	Percentages	Cumulative percentages
Primary	24	48/0	48/0
Guidance	3	6/0	54/0
Secondary	18	36/0	90/0
Associate Degree	4	8/0	98/0
Bachelor and above	1	2/0	100/0
Total	50	100/0	

Table shows that the highest frequency of 24 respondents' mothers, the equivalent of 48/0 percent of mothers in this table has formed the basic education (primary) level. While only one person, the equivalent of 2/0 percent of their mothers, had undergraduate education and higher.

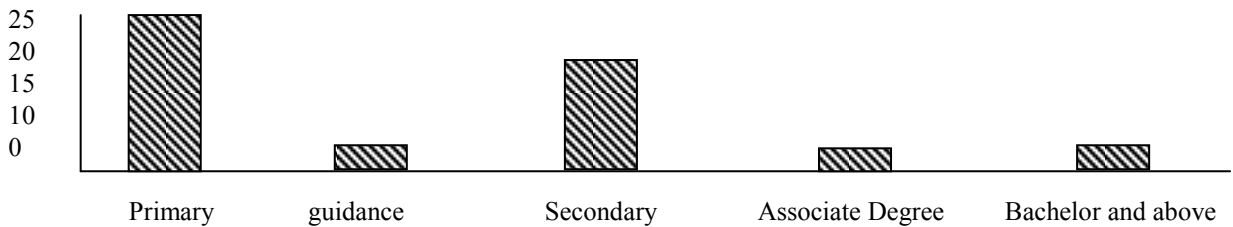


Figure (2-4) distribution of respondents by educational level of mothers

**3-1-4 - Father education:**

Fathers' educational level represents the years of employment or unemployment of the respondents' fathers to study. Accordingly, the collected data is described below:

Table (3-4) distribution of respondents by educational level of fathers

Father education	Frequencies	Percentages	Cumulative percentages
Primary	14	28/0	28/0
Guidance	7	14/0	42/0
Secondary	15	30/0	72/0
Associate Degree	7	14/0	86/0
Bachelor and above	7	14/0	100/0
Total	50	100/0	

Table shows that the highest frequency of 14 respondents' fathers, the equivalent of 28/0 percent of mothers in this table has formed the basic education level. ,while only 7 people, the equivalent of 14/0 percent of their fathers had undergraduate education and higher.

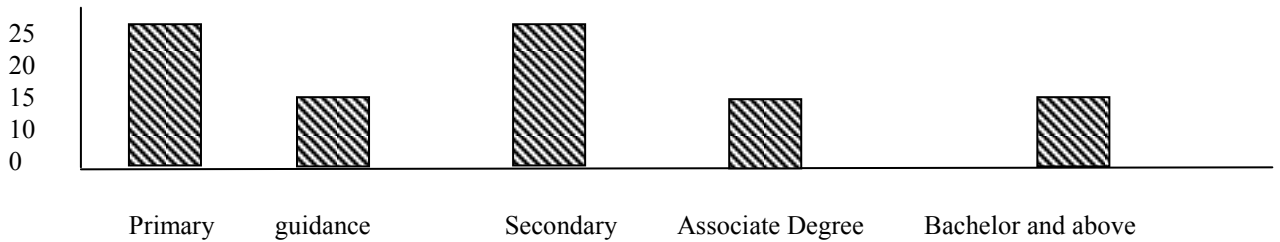


Figure (2-4) distribution of respondents by education level of fathers

**4-1-4 - Occupation of Father:**

Father's job represents the type of respondents' activity. Accordingly, the collected data is described below:

Table (4-4) distribution of respondents based on father's occupation

Father's job	Frequencies	Percentages	Cumulative percentages
Unemployed	3	6/0	60/0
Employee	21	42/0	48/0
Worker	14	28/0	68/0
Tradesman (self-employment)	16	32/0	100/0
Total	50	100/0	

The results show that the highest frequency of 16 respondents' fathers, the equivalent of 32/0 percent of fathers in this table related to the tradesmen (self-employments). While only 3 people, the equivalent of 6/0 percent of their fathers' occupation was unemployed and have had the lowest frequency.

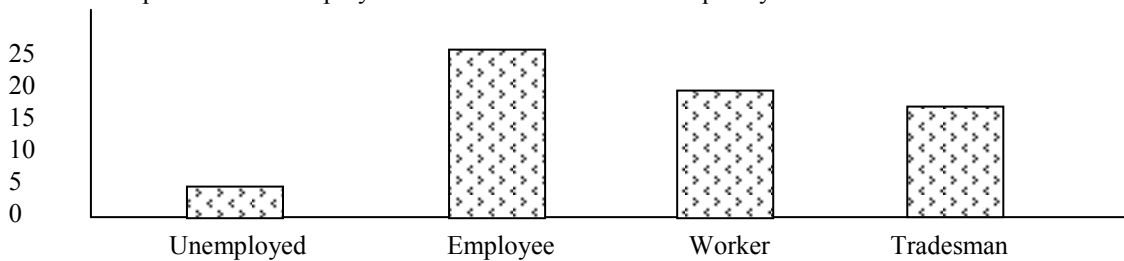


Figure (4-4) distribution of respondents based on father's occupation

**4-1-5 - Mother Occupation:**

Mother's job represents the type of respondents' activity. Accordingly, the collected data is described as below:

Table (4-5) distribution of respondents by mother's occupation

Mother's job	Frequencies	Percentages	Cumulative percentages
Unemployed	42	84/0	84/0
Employee	4	8/0	92/0
Worker	2	4/0	96/0
Tradesman (self-employment)	2	4/0	100/0
Total	50	100/0	

The results show that the highest frequency of 42 respondents' mothers, the equivalent of 84/0 percent of mothers in this table was the mothers who were unemployed. While only 2 persons, the equivalent of 4/0 percent of their mothers' occupation related to both the workers and self-employment mothers which have had the lowest frequency.

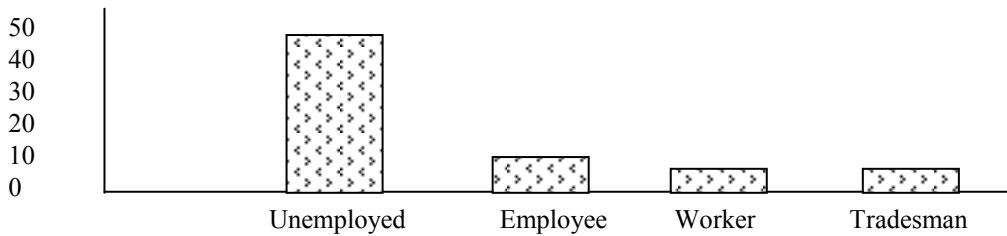


Figure (4-5) distribution of respondents by mother's occupation

**6-1-4 - mental health and its components in boys and girls:**

Mental health represents the ranking obtained by male and female respondents in the General Health Questionnaire Goldberg. Therefore, the data presented in Table 6-4.

Table (6-4) distribution of respondents by mental health component in both boys and girls

	Quantity	Minimum	Maximum	Mean	Standard deviation	
Girls	Physical symptoms	25	1	19	5/43	4/178
	Anxiety symptoms	25	1	15	6/23	3/545
	symptoms of social dysfunction	25	2	15	7/72	2/606
	Depression Symptoms	25	1	19	4/48	5/382
	Public Health	25	3	55	21/52	134/742
Boys	Physical symptoms	25	1	10	4/48	2/468
	Anxiety symptoms	25	2	15	6/75	3/260
	symptoms of social dysfunction	25	1	12	6/68	2/340
	Depression Symptoms	25	1	14	4/05	3/348
	Public Health	25	9	40	21/88	8/141

As noted in the above table, boys have more average physical symptoms and anxiety symptoms and mental health than girls. But in contrast, the girls have also more average symptoms of social dysfunction and depression symptoms than boys.

**7-1-4 - personality types and gender:**

Personality type represents the type of male and female respondents' characters according to the rankings obtained in this study via the questionnaire. Accordingly, the collected data is described as below:

Table (7-4) distribution of respondents according to personality types in both male and female

Sex	Personality types	Frequencies	Percentages	Cumulative percentages
Girl	A	7	28/0	28/0
	B	18	72/0	100/0
Boy	A	16	64/0	64/0
	B	9	36/0	100/0

The results show that the highest frequency consists of 27 respondents that in male and female, was the personality type. While 23 respondents were jointly in both sexes are type A personality.

**8-1-4 - the relationship between type A personality and mental health:**

Hypothesis 1: "Between type A personality and mental health is a significant relationship."

$$H_1 = \rho \neq 0$$

Null hypothesis is that "between type A personality and mental health, there is no significant relationship."

$$H_0 = P = 0$$

Table (8-4)

Variable	Type A personality	Mental Health
Type A personality	1	
Mental Health	0/45	1

Pearson correlation values (two domains) show that between type A personality and mental health, there is a significant relationship. So it shows that the more the impact of type A personality, the more the mental health in the same ratio will be. So because:

$$r_{(pearson)} = 0/45 \quad , \quad sig : 0/04$$

This assumption is accepted that between type A personality and mental health, a significant relationship exists. So  $H_0$  approved and  $H_1$  with the maximum confidence of 95% will be rejected.

**9-1-4 - the relationship between type A personality and physical symptoms:**

Hypothesis 1: "Between the physical symptoms and type A personality, there is a significant relationship exists."

$$H_1 = \rho \neq 0$$

Null hypothesis is that "between type A personality and physical symptoms, there is no significant relationship."

$$H_0 = P = 0$$

Table (9-4)

Variable	Type A personality	Physical symptoms
Type A personality	1	
Physical symptoms	0/27	1

Pearson correlation values (two domains) show that between type A personality and physical symptoms, significant relationship exists. So it shows that the more the impact of type A personality, the more the physical symptoms of the same ratio will be. So because:

$$r_{(pearson)} = 0/27 \quad , \quad sig : 0/000$$

This assumption is accepted that between type A personality and physical symptoms there is a significant relationship. Therefore  $H_0$  rejected, and  $H_1$  with a maximum confidence of 95% is accepted.

**10-1-4 – the relationship between type A personality and anxiety symptoms and sleep disturbance:**

Hypothesis 1: "between type A personality and anxiety symptoms and sleep disturbance, a significant relationship exists."

$$H_1 = \rho \neq 0$$

Null hypothesis is that "between type A personality and anxiety symptoms and sleep disturbance does not exist any significant relationship."

$$H_0 = P = 0$$

Table (10-4)

Variable	Type A personality	Anxiety symptoms and sleep disturbance
Type A personality	1	
Anxiety symptoms and sleep disturbance	0/41	1

Pearson correlation values (two domains) show that between type A personality and anxiety symptoms and sleep disturbance significant relationship exists. So it shows that the more the impact of type A personality, the more the anxiety symptoms and sleep disturbance in the same ratio will be. So because:

$$r_{(pearson)} = 0/41 \quad , \quad sig : 0/01$$

This assumption is accepted that between type A personality and anxiety symptoms and sleep disturbance, a significant relationship exists. Therefore, H<sub>0</sub> rejected, and H<sub>1</sub> with a maximum confidence of 95% is accepted.

**11-1-4 - the relationship between type A personality and social functioning:**

Hypothesis 1: "Between type A personality and social function, there is a significant relationship."

$$H_1 = \rho P0$$

Null hypothesis is that "between type A personality and social function, there is no significant relationship."

$$H_0 = P = 0$$

Table (11-4)

Variable	Type A personality	Social functioning
Type A personality	1	
Social functioning	0/39	1

Pearson correlation values (two domains) show that type A personality and social functioning are significantly related. So it shows that the more the impact of type A personality, the more the social functioning will be proportionally. So because:

$$r_{(pearson)} = 0/39 \quad , \quad sig : 0/000$$

This assumption is accepted that between type A personality and social functioning, there is a significant relationship. Therefore, H<sub>0</sub> rejected, and H<sub>1</sub> with a maximum confidence of 95% is accepted.

**12-1-4 - the relationship between type A personality and depression symptoms:**

Hypothesis 1: "type A personality and depression symptoms are significantly related."

$$H_1 = \rho P0$$

Null hypothesis is that "between type A personality and depression symptoms, there is no significant relationship."

$$H_0 = P = 0$$

Table (12-4)

Variable	Type A personality	Depression Symptoms
Type A personality	1	
Depression Symptoms	0/39	1

Pearson correlation values (two domains) show that between type A personality and depression symptoms are significantly related. So it shows that the more the impact of type A personality, the more the depression in the same ratio will be. So because:

$$r_{(pearson)} = 0/33 \quad , \quad sig : 0/02$$

This assumption is accepted that between type A personality and depression symptoms are significantly related. Therefore H<sub>0</sub> rejected, and H<sub>1</sub> with a maximum confidence of 95% is accepted.

**13-1-4 - the relationship between gender (male and female) and type of personality A:**

Hypothesis 1: "Between gender (boys and girls) and type A personality, there is a significant difference."

$$H_1 = \mu_1 \neq \mu_2$$

Null hypothesis is that "between gender (male and female) and type A personality, there is no significant relationship."

$$H_0 = \mu_1 = \mu_2$$

To test this hypothesis, an independent samples T-test was used.

Table (14-4)

	Fisher statistics	sig	T statistic	Degrees freedom	of sig	Mean difference	Standard error
assumption of variances equivalence	3/108	0/08	0/780	58	0/08	3/72	20/141

Because according to Sig<sub>F</sub>=0/08, the assumption of variances equivalence is accepted, thus because Sig<sub>T</sub>=0/08, the null hypothesis is not rejected. Considering that the average type A personality in girls is 14/16 and the average type A personality in boys was equal to 17/88 and this means that there is no significant difference between the averages of type A personality in boys and girls. Thus, H<sub>0</sub> confirmed and H<sub>1</sub> with the maximum confidence will be rejected.

**Conclusion**

**1-5 - Detailed assumptions**

**Hypothesis 1:** Between type A personality and mental health, there is significant correlation. According to data analysis, the above hypothesis is confirmed and between average people with type A personality and mental health, there is a significant correlation. This result is similar to the findings of the previous researchers (Friedman and Rozenman, 1950) and Ghorbani (1373). According to this research findings and Rozenman 's and Friedman's researches who claimed that the primary risk factors for coronary heart disease such as hypertension, smoking and increased cholesterol levels cannot explain the outbreak of diseases in the past 50 years, a behavioral pattern of type A was studied such that in 1981, Medical Society of the United States (National Institute of Heart, Lung and Blood) considered this factor as a significant psychological independent risk factor in the suffering coronary heart disease (quoting Denovelt according to najjaryan, Makvandi, Dabbagh, Nikfar, 1374).

**Hypothesis 2:** between the average of mental health of girls and boys, there is a significant difference.

According to data analysis, the above hypothesis is rejected and between the average of mental health of girls and boys, there is no significant difference. This result is similar to the findings of the Shari'ati (1381), Dadkhah (1385) and Farahbakhsh (1386). In this study, the gender variety does not significantly associated with mental health. Furthermore, this result is similar to the studies of Kohret (1977 according to Shari'ati, 1381), Hashemi (1384), Dadkhah (1385), Farahbakhsh (1386) about the lack of relationship between gender and mental health. No relationship between gender and mental health represents the impact of environmental factors on gender differences in mental health field. However, although the findings related to the role of gender differences in mental health are different, what is important is the understanding of the processes underlying these differences and also that, the biological differences and the different socialization practices and their interaction with each other on how gender differences can have an effect. Entering the university causes a major change in social, personal, family, culture life and alongside these changes, new roles and expectations come into existence that the compatibility with them often causes pressure and concerns. Student mental disorders and emotional problems can result from problems associated with the exam or problems relating to the late adolescence and in general problems before or after entering the university. But the research has shown that men having a series of hormones such as testosterone show more aggression and neural activity that it can cause them to be more vulnerable against diseases such as coronary heart disease.

**Hypothesis 3:** between type A personality and physical symptoms, there is a significant correlation.

According to data analysis, the above hypothesis is confirmed and between average people with type A personality and physical symptoms, there is a significant correlation. This result is similar to the findings of Rozenman and Friedman (1959). About the personality and heart disease, people with Type B behavioral pattern who characterized by intense competition, rush, and malice, are risky type of behavioral profile (more relaxed, quieter and no rush) (Fathi Ashtiani, Azimi Ashtiani, 1388). Also, this result is similar to the findings of Howard and his colleagues (1987). According to the results of this study, Because of the type A individuals having severe emotional experiences such as aggression, hostility and having the time-bound, they are most likely to be infected by coronary heart disease. In fact, because of these individuals experiencing severe stress, they are more risky against heart attacks and coronary heart disease. In type A people, sympathetic nervous system is constantly alert and in this case, the body's organs are sensitive to pressure and this pressure causes heart disease, hardening of the brain's arteries



and other vessels in the body. Apparently, even the nervous system of the hostile people is different from the type B individuals and you can see this as genetic traits in the chart.

**Hypothesis 4:** between type A personality and anxiety symptoms and sleep disturbance, there is a significant correlation. According to data analysis, the above hypothesis is confirmed and between average people with type A personality and anxiety symptoms and sleep disturbance, there is a significant correlation. This result is similar to the findings of Jazayeri, Ghomari, 1382 and is against to the research of Mousavi (1386). In the research conducted among 205 medical students he found that anxiety and sleep disorders in females were greater.

**Hypothesis 5:** between type A personality and symptoms of social dysfunction, there is significant correlation. According to data analysis, the above hypothesis is confirmed and between average people with type A personality and symptoms of social dysfunction, there is a significant correlation. This result is similar to the findings of Askari (1372) and Banaee Borujeni (1376). These studies show that there is a significant difference between mental health in type B and A individuals. In people with type A features such as hostility, competitiveness, time-bound and aggression, because of experiencing pressures and stress of everyday life, there is low self-esteem and also because of less job satisfaction than type B people, there is lack of mental health. **Hypothesis 6:** between type A personality and depression symptoms, there is a significant correlation. According to data analysis, the above hypothesis is confirmed and between average people with type A personality and depression symptoms, there is a significant correlation. Samety (1376) conducted a research about the relationship between the student's stressors and type A personality and also anxiety and depression. Data analysis in this study shows that there is a significant correlation between student's stressors and anxiety and depression and type A personality.

**Hypothesis 7:** between the number of individuals with type A personality in boys and girls, there are significant differences.

According to data analysis, the above hypothesis is rejected and between the number of individuals with type A personality in boys and girls, there is no significant difference and they are more vulnerable against diseases such as coronary heart disease.

## References

- Akse, J. (2007) Stability and change in personality type membership and anxiety in adolescence, *Journal of Adolescence*, 30, 813- 834.
- Bentz, V. J. (1985) Research findings from personality assessment of executives In: Bernadine, H., & bownas, D. (Eds) *Personality Assessment in organizations*, Praeger, New York.
- Byrne, D. G. & Reinhart, M. I (1995); Type A behavior in the Australian working population *Australian and Netherlands Journal of psychiatry*, 29, 270-277.
- Das, I., & Mathur R. (1992) Need achievements related to type A/B behavior patterns amongst working and non- working and non- working women. *Indian Journal of clinical psychology*, 19, 18-22.
- Feather, N. T., & Volkmer, R. E (1991); "Task preference in relation to achievement striving and impatience in relation to achievement striving and impatience irritability components of type A behavior", *Australian Journal of psychology*, 43, 23- 27.