

Relation between blood type A and depression in Dezful students

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ABSTRACT

Depression is an unpleasant emotion that is expressed by words such as concern, worry, fear, and panic. Some theories have addressed the etiology of depression based on physiologic aspect. One of the physiological factors that could explain the depression is the blood type of people. According to the most important classifications human blood is divided into four types of AB, B, A and O according to another division it is grouped into positive and negative types. This study was conducted to determine the relationship between blood type and depression.

Method: This study was a cross-sectional study conducted in 2012-2014 in treatment center for the University of Dezful Given the number of centers in each area and the number of clients referring to the centers according to the availability of samples, 200 of them were selected by random probability sampling. After selecting the samples the laboratory expert detected blood groups by Diagnostic reagents and then the psychologist took the Cattell test from the subjects. For descriptive study of the collected data statistical tables and general status data were used and test the hypotheses covariance analysis models were applied.

Findings: The results revealed no significant difference between blood groups in terms of depression. The results of this study indicated that there is no significant difference between blood groups in terms of depression; also there is no significant difference between men and women in this regard. Finally blood type in interaction with gender has no significant effect on depression.

KEY WORDS: Blood Type, Depression, Students, Learning Centers

INTRODUCTION

Depression is the greatest problem that threatens human health and in fact has so widely expansion among psychological disorders can be imagined as the common cold (1). The term of depression in normal conversations to describe an emotional state, a response to a specific situation and a style of specified behavior, can be used. A feeling of sadness and depression usually has been known. Another type of depression is dejection reactions or bereavement; Kind of grieved that occurs following the death of a family member or disappointment with the loss of a love theme. (2) Almost every person who is suffered from depression, at least in milder forms and its more elusive, but clinical depression, frequency, severity and duration of symptoms of depression with the person's life situations do not have proportion. (3) For real depression cannot be perceived single and clearly cause. Depression is caused by a combination of several factors, hereditary or genetic factors, factors related to period of growth and psychological factors that the combination of these factors makes a person prone to depression. (4) Since depression in some patients can be associated with other biological causes so this study will examine the relationship between blood group and depression. Blood group classifies the blood based on the presence or absence of antigens inherited. Gender of these antigens depending on the blood group system may be protein, glycoprotein or glycolipid carbohydrate. There are some of these antigens on the surfaces of other blood cells of other tissues. Several antigens of red blood cells arise from one allele and constitute blood group system. Two of the most important antigens are ABO and RHD. These antigens determine type of blood group (O AB BA or sign +RHD or -).

Blood type is hereditary and shows the share of both parents. (5) Furukawa 1927 in his first study of blood groups and character came to the conclusion that human blood group is one of the most important of factors determining their mood. He believed that the blood group are from type of O and B (active, aggressive, progressive and positive), as the blood groups of A and AB are (conservative, passive, defensive, negative) are. (7) Furukawa 1930 showed that the majority of people with O blood group features such as: warm, optimistic, sociable and strong-willed and phlegmatic, also found that people with blood groups of A are individuals of melancholy, shy, popular, alarmingly, conservative, and impressionable, people with blood group of B, are frank and courageous mood, light-hearted, happy and sociable, fast and attentive, and people with blood group of AB have contradictory nature and did not commented on them simply. (6) Although studies and research in

this regard is limited and from very few resources we have shown that people with blood groups of A are individuals of melancholy, shy, popular, alarmingly, conservative, and impressionable (6) as well as blood group of A are (conservative, passive, and defensive, negative). (7) This research aims to examine the relationship between blood groups A and depression.

METHODOLOGY

This cross-sectional study was conducted in 2014 at the University of Dezful. In this study, depression test, 200 students who during a week, have referred to the booth of research within the university will be tested. From the all participants in the study form of consent was taken and the study was approved by the university ethics committee. Laboratory expert by diagnostic reagents of blood group, diagnose blood groups of individuals and then psychologist expert takes the Beck Depression test, which consists of 21 questions from the participants. (17)

For data analysis the mean, standard deviation, and ANOVA test as well as spss software version 18 were used.

RESULTS

A total of 200 people were participated in this study. Given that the probability is 0.791, there is not significant different among the depression mean of blood groups at 5% level. (Means cannot conclude that blood group influences on depression) (Table 1).

Table 1: Analyse of variance

The source of changes	Total squares error	Degree of freedom	Mean Square Error	F statistic	P_ Value
Between blood groups	109.504	3	36.501	0.348	0.791
Within groups	18986.280	181	104.897		
Total	19095	184			

Table 2: T-test

		F statistic	Degree of freedom	P_ Value	mean differences	confidence interval %95 for the mean difference	
						Lower bound	upper bound
Depression	Assuming equality of variances	-0.263	182	0.793	-0.45	-3.838	2.936
	Assuming non - equality of variances	-0.294	103.992	0.796	-0.45	-3.491	2.589

Given that, probability value is equal to 0.522, so there is no significant difference at 5% level of depression in men and women. Table 2. Among the 184 people who have filled depression questionnaire are 136 women and 48 men.

Table 3: Level of significance

Source of changes	Total of squares error	Degrees of freedom	Mean Square Error	F statistic	P_ Value
blood group	145.671	3	48.557	0.454	0.715
Sex	0.002	1	0.002	0.000	0.997
blood group * Sex	71.480	3	23.827	0.223	0.881
Error	18840.939	176	107.051		
Total	55741.000	184			

It can be seen that in the simultaneous presence of blood group and sex probability value is equal to 0.881, means in the simultaneous presence of these two depression factors will not found significantly change.

DISCUSSION

The results of this study showed that there is no significant difference between blood groups in terms of depression also the mean obtained by the mean male and female groups has no significant difference in terms of depression. Finally the blood group in interaction with gender has no significant effect on the level of depression. The results of this study are in line with the studies in which Furukawa 1927 in its first study on blood type and personality concluded that human blood is one of the most important determinants of his mood. He believed that the blood group type O and B are active, aggressive, progressive and positive while the blood

group type A and AB are conservative, passive, defensive, negative (7). Also Furukawa 1930 showed that the majority of people with blood group O have features such as: warm, optimistic, sociable and willing and phlegmatic, he also found that people with blood group A are melancholic, shy, popular, conservative concerned, and effective, people with blood group B are frank, light-hearted, happy and sociable, reliable and accurate and people with blood group AB have a contradictory moods and it is hard to discuss about them (9). In line with these results Thompson 1936 (3) using High School Personality Questionnaire, Form A and Cattell Inventory found that there is no relationship between blood group and intelligence, emotions, idiosyncrasies or character (10).

The results of Cattell, Boutourline and Hundleby 1964 showed that respondents with blood group A are more tender-minded than those with blood group AB, B, O. However the number of participants has not been reported and the frequency of blood groups are unequal (11). Cattle et al found that blood group O and A are significantly different from each other in depression (A was higher) and both blood groups are significantly different from the other two groups.

Thompson at 1936 with use of high school personality questionnaire, Form A and Cattell found that no relationship between blood group and intelligence, emotions, idiosyncrasies or character not found. (10)

Lester and Gatto 1987 three studies the relationship between extroversion and blood group have reported while in people with blood type of A and B scores of introspection, significantly was higher, Britain and Maurer - Groli realized that the blood group of B more neuroticism and AB blood groups were more introverted. (12) Maurer found that the groups of A, emotionally vulnerable and groups of AB, were more aggressive than other groups, open and extroverted. The results of blood group type of AB, in contrast to the results of Maurer and Groli Angeust were 19747. (13) Adamo & Whitney 2001 are summarized as blood groups: O: extroverted, A: introspective, B: independent, AB: intuitive. (16)

Lester and Gatto 1987 have known the blood group of B, introspective. The findings of the O blood group were relatively stable, which suggests that they are active, optimistic, sociable and extroverted. (14) Few studies on blood group and different dimensions of personality in the scientific literature generally fragile conceptual offers. In very different ways and weak of published studies makes impossible A formal meta-analysis. (15)

Eysenck (1982) analyzed the studies conducted on blood type and personality tests in more than 20 countries in

Relation to personality differences and genetic factors and found that depression levels and OCD of patients differ in

Terms of the people with blood type B. he also found that introversion is related to the AB blood group (8). Lester and Gatto 1987 (6) have reported three studies of the relationship between extroversion and blood group while people with blood type B were more neurotic and people with blood type A and B had higher introversion. Angst and Groli found that AB blood groups were neurotic and A and B blood groups had higher introversion (12).

Maurer found that the group A was emotionally vulnerable and group AB were open and extroverted. The findings of blood group AB are in contrast with the results reported by Angst and Groli 1974 (7).

Whitney (1) and Adamo 2001 summarized blood groups as: O: extrovert, introverted, B: independent, AB: intuitive. (6) Furukawa (1927) found the blood group B active, while in another study Furukawa (1930) showed that group B was light-hearted, happy and sociable, reliable and accurate. Lester and Gatto (1987) considered the blood group B introverted. The findings related to group O were constant which indicated that they are active, optimistic, sociable and extroverted. Cattle et al. two calculations was possible using Howell (1997, p. 333) which provided the value 29% and indicated a low to moderate effect on the tender-mindedness of blood group A. This was for f value and significance level ($F = 6.64$, $P > 10/0$) which compared with other studies frequently. The findings of these restricted studies indicate that the relationship between the blood group and personality has reached its lowest effect (14). This was also confirmed by Cramer and Imai. A few conducted studies on blood group and various 364 personality dimensions provide fragile concept. The various and weak methods of conducted studies make conducting a formal meta-analysis impossible. (15)

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