

GENDER DIFFERENCES ON PERSONALITY TRAITS AND INTELLIGENCE QUOTIENT LEVELS DURING ADMISSION IN MEDICAL COLLEGE (QIMS)

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ABSTRACT

Objective: To evaluate the Gender differences on personality traits & IQ levels during admission in medical college 2017. No significant study on the subject has been carried out in Pakistan especially in Balochistan.

Material and Methods: A total of 145 students enrolled in the study, 65 males and 80 females all over the Pakistan and foreign country. A questionnaire along with the IQ test and personality traits Inventory (TIPI) were administered to assess the IQ level and personality traits for the study of medicine. Both questionnaires were in English and distributed to the large group in 4 phases. Approximately an hour was spend on this activity on each phase, some interviews were conducted on Skype (foreign & Rest of country category) both test were taken at the time of admission. Researcher was explained everything to the students.

Results: From QIMS 145 Students males and females enrolled, IQ levels & Personality Traits were tested such as openness to experience, conscientiousness, Extroversion, agreeableness and Neuroticism. Data had been analyzed using SPSS version (21). Described data with percentages for categorical variables means and standard deviations for numerical variables T-test was used to compare the gender differences P Value < 0.05 was consider significant. It can be summarized means of IQ level male (108) and female (109) and calculated P value of IQ (P= 0.447 > 0.05) there is insignificant difference between male and female IQ scores. Agreeable (P = 0.009, N = 145, P < 0.05) . Extroversion (P = 0.372, N = 145, P > 0.05). Conscientiousness (P = 0.244, N = 145, P > 0.05). Neuroticism / emotional instability (P = 0.314, N = 145, P > 0.05). Openness to experience (P = 0.287, N = 145, P > 0.05) indicates that there are insignificant difference between the score of males & females.

Conclusion: scores shows those majority IQ levels of males, (108) & females, (109). A medical student needs minimum IQ level (106 to 119), the significant difference is observed in "agreeableness" This must be considered during the course of instructions. Changes should also be incorporated in method of instruction. Insignificant difference is observed in other four personality traits.

Key words: personality traits, intelligence Quotient

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INTRODUCTION

Gender is a grammatical term that investigates the difference among males and females. It is known

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that males are different from females not only in their appearance but also in developmental process. Gender also emerged as the term of choice in discussion of male/female differences identity, societal roles, motives, attitudes, interest and behavior¹.

An individual behavior towards others, attitude characters, mindset makes his personality. Five major areas or dimensions in psychology, Big Five personality traits , it is also called the five factor model (FFM)². Trait is typically out of order into elements named the Big

Five . Such elements are usually constant over time and approximately half of the discrepancy seems to be credited to a individuals genes relatively than the results of one's surroundings³. The Big five personality character was sculpts to figure out the association between character and educational attitudes. The five factors are openness, conscientiousness, extraversion, agreeableness, and neuroticism/emotional stability. Acronyms commonly used are OCEAN, NEOAC, or CANOE⁴.

Admiration of ability, feelings, voyage, odd ideas, curiosity, and range of experiences. Openness manifest the amount of intellectual interest, creativeness and a inclination for innovation. People who score high on openness are quite broadminded, active, and modern in their outlook. People who score low on it are conservative, reluctant to change and stick to their habits and have tradition approach in life. (proficient/structured vs. lenient/hasty). Inclination of being structured and reliable. Illustrate self-organization, act devotedly (have strong sense of duty) aim for achievement, with good impulse control and goal-directed behaviors and prefer planned rather than spontaneous behavior duty. People who are low in conscientiousness are more spontaneous and freewheeling. They may tend toward carelessness. Conscientiousness is a helpful trait to have, as it has been linked to achievement in school and on the job.

Extraversion involves going out with friends and being energetic. This trait includes characteristics such as excitability, sociability, talkativeness, assertiveness, Energy, positive emotions, surgency, sociability and the tendency to seek stimulation in the company of others and high amounts of emotional expressiveness. Introversion is often confused with shyness, but the two aren't the same. Shyness implies a fear of social interactions or an inability to function socially. Introverts can be perfectly charming at parties — they just prefer solo or small-group activities.

Ability to be concerned and helpful, supportive, warmth, trust, altruism, kindness and affectionate. Disagreeable people are cold and suspicious of others, individual who score low on agreeable openness to experience, conscientiousness, Extroversion, agreeableness and Neuroticism. They find difficulties in adjusting with others and are little unfriendly.

The affinity to go through unlikable sentiments easily, like rage, nervousness, depression, and susceptibility. Individuals high in this trait tend to experience emotional instability, worry, moodiness, irritability, and sadness. If all is going well, neurotic people tend to find things to worry about. People who are low in neuroticism tend to be emotionally stable⁵. Unsurprisingly, neuroti-

cism is linked with plenty of bad health outcomes. Neurotic people die younger than the emotionally stable, possibly because they turn to tobacco and alcohol to ease their nerves⁶.

A number of businesses companies , and evaluator approach persons relied on the Big Five personality character. studies has proposed that persons that are assumed leaders normally show lesser numbers of neurotic qualities⁷. While it comes to producing revenue, study has proposed that one's who are high in agreeableness (particularly males) are not as victorious in gathering profits⁸.

Gender differences: Females constantly report elevated Neuroticism, Agreeableness, extraversion and openness to emotions, and males mostly report elevated insolence (a surface of extraversion) and openness to suggestions⁹.

Frank Sulloway argues that first borns are more conscientious, more socially dominant, less agreeable, and less open to new ideas compared to later born¹⁰. Adler studied the relationship between personality & birth order. He found that the oldest, middle, a youngest children, because of their positions in family, have varying social experiences. The oldest child receives a great deal of attention until the birth of the second child .single child may experience difficulties in adjusting to the world outside the family, where they are not center of attention¹¹

Personality disorders: Dr. Lee Anna Clark described that "the five-factor model of personality is accepted as representing the higher-order structure of both normal and abnormal personality traits"¹². An intelligence quotient (IQ) is a score derived from one of several standardized tests designed to assess human intelligence¹³. IQ scores are used for educational placement, assessment of intellectual disability, and evaluating job applicants¹⁴. In research contexts they have been studied as predictors of job performance, and income¹⁵. IQ can change to some degree over the period of childhood¹⁶. Environmental and genetic factors play a vital role in determining IQ¹⁷. One proposed explanation is that people with different genes tend to reinforce the effects of those genes, for example by seeking out different environments¹⁸. Debate is ongoing about whether these heritability estimates are too high, owing to inadequate consideration of various factors-such as the environment being relatively more important in families with low social and economical status,¹⁹.

Several neuro physiological factors have been associated with intelligence in humans, including the proportion of brain weight to body weight and the size, shape and activity level of different parts of the brain.

precise features that may affect IQ include the size and shape of the frontal lobes²⁰. Health is essential in understanding differences in IQ test scores and other measures of cognitive ability²¹.

The APA 's report states that children with high scores on tests of intelligence tend to learn more of what is trained in school than their lower-scoring peers²². Job performance: According to Schmidt and Hunter "for hiring employees without previous experience in the job the most valid analyst of future performance is general mental capacity". IQ-test scores predict performance ratings in all occupations²³. While IQ is more strongly linked with logic and less so with motor function²⁴. It is basically through the faster attainment of job-relevant knowledge that higher IQ meets with job performance²⁵.

MATERIAL AND METHODS

In present study purposive sampling teaching was used the total sample consisted of 145 students including male, 65(44%) and females, 80(58%) from all over the Pakistan and foreign Country. Their age ranges were between (18 -22) years and mean calculated ages of females were (18.83) and males were (19.40). Following instruments were used demographical information: consisted on age, birth order, Medium of instructions, parent's education, family size and mother language. IQ test: consisted of 15 items. Personality test: (the ten items personality inventory, (TIPI) was used. It was consisted of 10 items, which measures big five personality traits such as openness to experience, conscientiousness, Extroversion, agreeableness and Neuroticism. there is difference between male & female scores on IQ & Personality traits. there is no difference between male & female scores on IQ & Personality traits. For data collection a formal permission was taken from commandant & principal of QIMS. Tests were conducted in 4th Phases. 1st phase based on open merit, rest of country and army personal categories on 19th January to 23 January 2017. 2nd Phase open merit Balochistan, Law enforcement agencies, Foreign, rest of country, Army Personal categories were enrolled on 26th Jan to 28 January 2017, 3rd phase open merit Balochistan Category was enrolled on 30 January 2017, 4th Phase based on Subsidized category, Quetta, Kalat, Sibi, Zohb, Makeran, Naseerabad Region, Minorities, and Shuhada Category were also included on 4 march to 5 March 2015. After taking consent from all students they were seated in QIMS Seminar hall at appropriate distance. A short demographical Questionnaire along with the Booklets of IQ and personality tests were administered to the students. Approximately one hour was spent on this activity on each phase; researcher explained everything to the students. After test com-

pletion the researcher thanked to the students. Some interviews were conducted on Skype (foreign & Rest of country category) both test were taken at the time of admission.

RESULT

Data had been entered and analyzed using SPSS version (21). Descriptive statistics were used to describe the data frequencies along with percentages for categorical variables means and standard deviations for numerical variables T-test was used to compare the gender differences P Value < 0.05 was consider significant.

Total 145 students male, 65(44%) and females, 80(58%).Their age ranges were between (18 -22) years and mean calculated ages of females were (18.83) and males were (19.40).

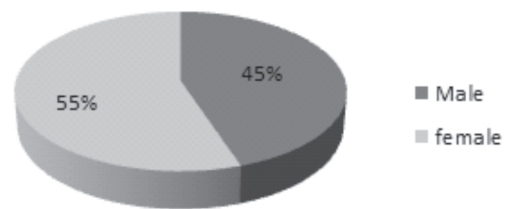


Fig 1: Ratio of Males & Female Students

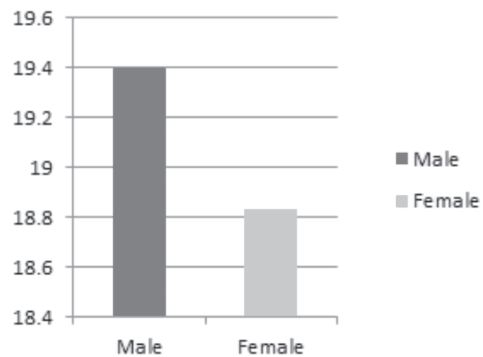


Fig 1: Means Age of Male & Females Students

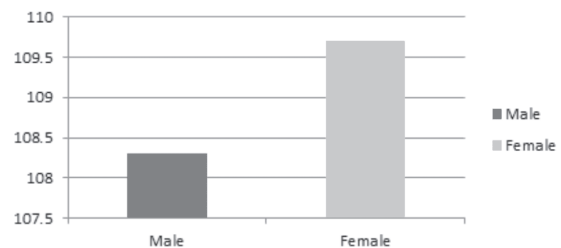


Fig 3: Means IQ level of Male & Females Students

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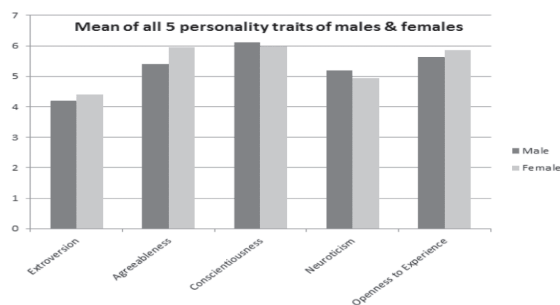


Fig 4: Means of all 5 personality traits of Male and Female

Table 1: The mean, standard deviation, standard error of difference and T value of male and female on IQ levels are summarized in following table.

| Gender | N | X | SD | SE (diff) | P |
|--------|----|-------|-------|-----------|--------------|
| Male | 65 | 108.3 | 10.87 | 1.34 | 0.447 > 0.05 |
| Female | 80 | 109.7 | 10.73 | 1.20 | |

Table 2: The mean, standard deviation, standard error of difference and T value of males and females on 1st Personality trait (extraversion).

| Gender | n | X | SD | SE (diff) | P |
|--------|----|-----|------|-----------|--------------|
| Male | 65 | 4.2 | 1.11 | 0.13 | 0.372 > 0.05 |
| Female | 80 | 4.4 | 1.25 | 0.13 | |

Table 3: The mean, Standard deviation, Standard error of difference and T value of males and females on 2nd personality trait (agreeable).

| Gender | n | X | SD | SE (diff) | P |
|--------|----|------|------|-----------|--------------|
| Male | 65 | 5.41 | 1.31 | 0.16 | 0.009 < 0.05 |
| Female | 80 | 5.95 | 1.07 | 0.12 | |

Table 4: The mean, Standard deviation, Standard error of difference and T value of males and females on 3rd Personality trait (conscientiousness).

| Gender | n | X | SD | SE (diff) | P |
|--------|----|------|------|-----------|--------------|
| Male | 65 | 6.12 | 1.13 | 0.14 | 0.244 > 0.05 |
| Female | 80 | 5.98 | 1.20 | 0.13 | |

Table 5: The mean, Standard deviation, Standard error of difference and T values of male and female on 4th personality traits (emotional stability /Neurotism).

| Gender | n | X | SD | SE (diff) | P |
|--------|----|------|------|-----------|--------------|
| Male | 65 | 5.2 | 1.60 | 0.19 | 0.314 > 0.05 |
| Female | 80 | 4.93 | 1.49 | 0.16 | |

Table 6: The mean, Standard deviation, Standard error of difference and T values of male and female on 5th personality trait (openness to experience).

| Gender | n | X | SD | SE (diff) | P |
|--------|----|------|------|-----------|--------------|
| Male | 65 | 5.63 | 1.37 | 0.17 | 0.287 > 0.05 |
| Female | 80 | 5.86 | 1.19 | 0.13 | |

DISCUSSION

The purpose of this study is to determine the gender difference on personality traits and IQ in medical College. In this study demographical characteristics of sample (that is family size, birth order, age, parent's education, mother tongue and medium of instructions) were also studied that determine the influence of these variables on IQ and personality traits of male and female. Total 145 students, males 65 and females 80 were included. The mean age of males were, (19.40). And females (18.83). Mostly students, male (57.7%) and female (42.7%) were used Pashto language at home. 82.5% students got their previous education is English & Urdu. (18.75%) fathers of students were masters, (60.0%) mothers of students were illiterate. (59.0%) students were fall (1-3) birth order. IQ and personality tests were used. Personality traits (TIPI) were such as Extroversion, Agreeable, Conscientiousness, Neuroticism and openness to experience.

It can be summarized in table 1 illustrate means of IQ level male (108) and female (109) and calculated P value of IQ ($P = 0.447 > 0.05$) there is insignificant difference between male and female scores. So null hypothesis is being accepted. Table 2 shows that the calculated P value of Extroversion ($P = 0.372, N = 145, P > 0.05$) indicates that is insignificant differences between the score of male and female on extroversion.

so null hypothesis is being accepted. Table 3 shows that calculated p value of agreeable ($P = 0.009$, $N = 145$, $P < 0.05$) it indicates that significant difference between the score of male and female. So null hypothesis is being rejected.

Table no 4 shows the calculated P value of conscientiousness ($P = 0.244$, $N = 145$, $P > 0.05$) indicate that there is insignificant difference between the scores of male and female on conscientiousness. So null hypothesis is being accepted. Table 5 shows the calculated P value of Neuroticism / emotional instability ($P = 0.314$, $N = 145$, $P > 0.05$) indicates that there is insignificant difference between the score of male and female on emotional stability. So null hypothesis is being accepted. Table 6 shows the calculated P value of openness to experience ($P = 0.287$, $N = 145$, $P > 0.05$) indicates that there is insignificant difference between the score of male and female on openness to experiences. so null hypothesis is being accepted.

CONCLUSION

An effort has been made to find out the differences in personality traits on gender basis. This is the first paper on this topic; therefore scope has been kept limited. A large room for researcher is still available in each of the trait separately. The significant difference is observed in "agreeableness" This must be considered during the course of instructions. Changes should also be incorporated in method of instruction. And insignificant difference is observed in Extroversion, conscientiousness, openness to experience and neuroticism

Recommendation

Researcher should try to use a relatively large sample, so that the result can be generalized all over the Pakistan. The personality test should be adapted for Pakistani students. These tests should be used in Urdu language, so that everyone can understand easily. It should be consider that these five factors keep changing with time. Agreeableness and Conscientiousness increase, while Extroversion, Neuroticism, and Openness generally decrease as a person grows in age. IQ also changed with time. Therefore it is strongly recommended to re-evaluate the test after 6 months to quantify the change.

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AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under:

- Khilji MH:** Introduction, literature Review.
Shahzadi S: Data collection, methodology, analysis Result & Discussion.
Zahoor A: Bibliography.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.