

## Big Five Personality Factors in Adolescents

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### ABSTRACT

This study investigates Big Five Personality factors in adolescents. The Big Five Model, also known as the Big Five Factor Model, is the most widely accepted personality theory today. The Big Five remain relatively stable throughout most of one's lifetime. They predict certain important life outcomes such as education and health as well as being influenced significantly by genes and the environment. A total number of 300 adolescents (150 Boys and 150 Girls) selected from rural and urban areas from Kanpur, Uttar Pradesh, has been included for the purpose of the study. A self-made socio-demographic sheet and Big Five Personality Inventory used for collection of data. The results of the study indicate that there were no significant differences found on the basis of Socio-demographic status as well as Neuroticism, Extraversion, Openness to Experience, Agreeableness and Conscientiousness.

**Keywords:** *Neuroticism, Extraversion, Agreeableness and Conscientiousness, Openness to Experience*

**A**ustrian physician and psychologist Sigmund Freud (1856–1939), theorising one of the most important psychological approaches to understanding personality, who founded what today is known as the **psychodynamic approach** to understanding personality. He was influenced by the work of the French neurologist Jean-Martin Charcot (1825–1893), who had been interviewing patients (almost all women) who were experiencing what was at the time known as *hysteria*. Although it is no longer used to describe a psychological disorder, hysteria at the time referred to a set of personality and physical symptoms that included chronic pain, fainting, seizures, and paralysis. Personality can be explained as a characteristic way of feeling, thinking, and behaving. It embraces moods, attitudes, and opinions and is most clearly expressed in interactions with other people. It includes inherent and acquired behavioural characteristics that distinguish one person from another and that can be observed in people's relations to the environment and to the social group.

When psychologists define personality, they tend to refer to qualities within a person, characteristics of a person's behaviour, or both. In a now-famous definition, psychologist Gordon Allport (1937) mentioned both inner qualities and behaviour, but he emphasised the inner qualities: "Personality is the dynamic organisation within the individual of those psychophysical systems that determine his unique adjustments to his environment". In a

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more recent definition, psychologist Walter Mischel (1976) mentioned both inner processes and behaviour but emphasised behaviour. Personality, he wrote, consists of “the distinctive patterns of behaviour (including thoughts and emotions) that characterise each individual’s adaptation to the situations of his or her life”. No single definition of personality is acceptable to all psychologists. However, most agree that personality includes the behaviour patterns a person shows across situations or the psychological characteristics of the person that lead to those behaviour patterns.

Personality has been studied in a number of different ways. Some have developed broad theories to explain the origins and makeup of personality. Others have focused only on one or two issues, such as the influence of heredity on personality. One of the aspects of the Big Five Model is its approach to measuring personality. This approach is based on conceptualising traits as a spectrum rather than black-and-white categories. It recognizes that most individuals fall somewhere in between of the spectrum, rather than the polar ends of the spectrum. Below are the descriptions of the big five personality traits as:

### Conscientiousness

Conscientiousness describes a person’s ability to regulate their impulse control in order to engage in goal-directed behaviours (Grohol, 2019). It measures elements such as control, inhibition, and persistence of behaviour. Facets of conscientiousness include the following (John & Srivastava, 1999): Those who score high on conscientiousness can be described as organised, disciplined, detail-oriented, thoughtful, competence, dutifulness, achievement striving and careful. They also have good impulse control, which allows them to complete tasks and achieve goals. Those who score low on conscientiousness may struggle with impulse control, incompetent, careless, procrastinates, indiscipline, leading to difficulty in completing tasks and fulfilling goals. They tend to be more disorganised and may dislike too much structure. They may also engage in more impulsive and careless behaviour.

### Agreeableness

Agreeableness refers to how people tend to treat relationships with others. Unlike extraversion which consists of the pursuit of relationships, agreeableness focuses on people’s orientation and interactions with others (Ackerman, 2017). Facets of agreeableness include the following (John & Srivastava, 1999): Those high in agreeableness can be described as soft-hearted, trusting, and well-liked. They are sensitive to the needs of others and are helpful, straightforward, compliance modesty, sympathetic empathy and cooperative. People regard them as trustworthy and altruistic. Those low in agreeableness may be perceived as suspicious, manipulative, sceptical, demanding, insults and belittles others, stubborn, show-off, unsympathetic, doesn’t care about how other people feel and uncooperative. They may be antagonistic when interacting with others, making them less likely to be well-liked and trusted.

### Extraversion

Extraversion reflects the tendency and intensity to which someone seeks interaction with their environment, particularly socially. It encompasses the comfort and assertiveness levels of people in social situations. Additionally, it also reflects the sources from which someone draws energy. Facets of extraversion include the following (John & Srivastava, 1999): Those high on extraversion are generally assertive, sociable, fun-loving, and outgoing. They thrive in social situations and feel comfortable voicing their opinions. They tend to gain energy and become excited from being around others. Those who score low in extraversion are often referred to as introverts. These people tend to be more reserved and quieter. They prefer

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listening to others rather than needing to be heard. Introverts often need periods of solitude in order to regain energy as attending social events can be very tiring for them, reflective and reserved. Of importance to note is that introverts do not necessarily dislike social events, but instead find them tiring.

### Openness to Experience

Openness to experience refers to one's willingness to try new things as well as engage in imaginative and intellectual activities. It includes the ability to "think outside of the box." Facets of openness include the following (John & Srivastava, 1999): Those who score high on openness to experience are perceived as creative, imaginative, unconventional and artistic. They prefer variety and value independence. They are curious about their surroundings and enjoy traveling and learning new things. People who score low on openness to experience prefer routine. They are uncomfortable with change and trying new things so they prefer the familiar over the unknown, predictable and traditional. As they are practical people, they often find it difficult to think creatively or abstractly.

### Neuroticism

Neuroticism describes the overall emotional stability of an individual through how they perceive the world. It takes into account how likely a person is to interpret events as threatening or difficult. It also includes one's propensity to experience negative emotions. Facets of neuroticism include the following (John & Srivastava, 1999): Those who score high on neuroticism often feel anxious, angry, hostility (irritable), insecure and self-pitying. They are often perceived as moody and irritable. They are prone to excessive sadness and low self-esteem. Those who score low on neuroticism are more likely to be calm, emotionally stable, confident, and resilient, rarely feel sad or depressed, secure and self-satisfied. They are less likely to be perceived as anxious or moody. They are more likely to have high self-esteem and remain resilient.

## REVIEW OF LITERATURE

**Tetzner Julia, Becker Michael and Bihler Lilly-Marlen (2022)** in a study entitled "Personality development in adolescence: Examining big five trait trajectories in differential learning environments" analysed the knowledge of how and why personality changes occur across adolescence. A total number of 1162 adolescents were included in the study. It was found that overall increases in mean levels for all personality traits from early to middle adolescence due to latent change modeling. It was found that conscientious, agreeable, extroverted, open and emotionally stable sixth graders were more likely to transit into an academic rather than a non-academic secondary school track. These initial differences in personality traits seemed to diminish between sixth and ninth grade for all personality traits. Controlling for selection effects, a contextual effect was discernible for conscientiousness, the potential role of differential learning environments for modifying changes in personality traits during adolescence.

**Giammarco Alderotti, Chiara Rapallini and Silvio Traverso (2021)**, conducted a study on "The Big Five Personality Traits and Earnings: A Meta -Analysis" and analysed that the empirical literature had an association between personal earnings and the Big Five personality traits. A total number of 65 peer-reviewed articles published between, 2001-2020, had been taken for the study. Study found that on one hand, the primary literature provides robust support for a positive association between personal earnings and the traits of Openness, Conscientiousness, and Extraversion, on the other hand, revealing a negative and significant association between earnings and the traits of Agreeableness and Neuroticism.

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There was no evidence of a substantial publication bias; further, Meta-regression estimates suggest that Openness and Conscientiousness are positively associated with earnings even when primary researchers control for individual cognitive abilities and educational attainments. There were found weaker associations between earnings and Extraversion and Agreeableness in the studies that include labour market control variables.

**Lester (2021)**, in a study named “Depression, Suicidal Ideation and the Big Five Personality Traits” aimed the association of the big five personality traits with current depression and a history of suicidal ideation and suicide attempts. A total number of 115 undergraduate students were selected for the purpose of the study. It was found from the study that conscientiousness, extraversion, agreeableness and neuroticism were associated with depression; among the traits neuroticism was positively associated with depression, while conscientiousness, extraversion, and agreeableness were negatively associated with depression. Further, there were no history of suicide attempts were found in samples, only neuroticism were associated with a history of suicidal ideation.

**Pawar D. P. and Palve P. A. (2021)**, conducted a study on “Big Five Personality Factors and Suicidal Ideation among Adolescents”, and examined that the effects of big five factors of personality on suicidal ideation. A total number of 80 adolescents were included in the study. It was found from the study that, there were exert differential effects on suicidal ideation of big five personality factors. The study found that all personality factors i.e. openness to experience, conscientiousness, agreeableness and extraversion correlates negatively with suicidal ideation, whereas, only neuroticism which is negative factor correlates positively with suicidal ideation. Although, there was a weak relationship between the variables, yet we cannot deny the fact that they are somewhat related Big Five Personality Factors and Suicidal Ideation among Adolescents.

**Philippe Jawinski, Sebastian Markett, Christian Sander, Jue Huang, Christine Ulke, Ulrich Hegerl and TilmanHensch (2021)**, in a research article named “The Big Five Personality Traits and Brain Arousal in the Resting State” investigated the associations between the Big Five personality traits and brain arousal by using the validated EEG- and EOG-based analysis tool Brain Vision Analyzer add-on (VIGALL). It was found from the study that lower levels of brain arousal in the resting state were exhibited in the participants who reported higher levels of extraversion and openness. Among the lower-order personality traits, the strongest evidence for neuroticism facet ‘impulsivity’ and reduced brain arousal were obtained. Further, both impulsivity and openness have previously been conceptualised as aspects of extraversion. The study found that although there was some support for extraversion yet no support for neuroticism to be linked to brain arousal. There was convincing evidence for a link between openness to experience and lower levels of brain arousal. In addition, among the lower-order personality traits, we obtained evidence for neuroticism facet ‘impulsivity’ and reduced brain arousal.

A study named “Building Emotional Resilience with Big Five Personality Model against COVID-19 Pandemic” conducted by **Sahni Shalini, Kumari Shyama & Pachaury Prachi (2021)**. The study is based on the outbreak of novel coronavirus, which has affected around 210 countries and India also. Because it is an unprecedented public health emergency and so there is a need to prevent people from prolonged depression or any other unhealthy psychological condition. With the concern about the population at risk, the study investigated how the big five personality model could help in building emotional resilience during pandemic conditions. For the requirement of building emotional resilience, the

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cluster analysis and stepwise regression analysis were conducted to establish the relationship and identify significant personality traits. Further, it was found from the study, the stepwise regression showed that individuals high on conscientiousness, openness and neuroticism were found to be associated with more change in emotional resilience whereas, the cluster analysis showed three main personality types as resilient, over controllers and emotionally deregulated.

**Sara Filipiak and Beata Lubianka (2021)** conducted a research article entitled “On the Rocky Road to Independence: Big Five Personality Traits and Locus of Control in Polish Primary School Students during Transition into Early Adolescence”. The study was analysed about personality traits and locus of control of students in the last (sixth) grade of primary school, who were entering adolescence. The study was conducted over 455 Polish primary school students who were experiencing changes in the education system. The goal of the study was to identify the relationships between the Big Five personality traits, measured with locus of control, and determined using the locus of control questionnaire, the picture-based personality survey for children. It was found from the study that there were no significant differences between boys and girls in the way they interpret the causes of situations and events that happen to them, and primary school students do not have an established locus of control of either success or failure. As compared to girls, boys scored significantly higher on traits related to seeking and enjoying the company of others. Locus of control strongly correlated with Conscientiousness, Openness to Experience, and Agreeableness, it was significantly affected by Extraversion and Conscientiousness. Locus of control of failure was significantly predicted by Extraversion, Openness to Experience, Agreeableness (positively), and Neuroticism (negatively).

**Bashir Shazia and Ravindra Dr. Kumar (2020)**, in a study entitled “Differences in Big Five Personality Traits: A Cross Cultural Study of Kashmir & North East Adolescents” and investigated that to find out the differences in Big Five Personality Traits i.e. extraversion, agreeableness, openness, conscientiousness and neuroticism, among Kashmiri and North East Adolescents. A total of 60 participants were included in the study. It was found that, on one side, there were significant differences between north east adolescents and Kashmiri adolescents in relation to big five personality traits (Openness, Conscientiousness, Agreeableness and Neuroticism), on the other side, there were no significant difference between North East Adolescents and Kashmiri Adolescents in relation to the dimension of Extraversion. Further, north east adolescents have higher openness, extraversion, agreeableness, conscientiousness and neuroticism than Kashmiri adolescents.

**E.T. Maziriri (2020)**, conducted a study on “The big five personality traits influencing habitual Facebook usage, life satisfaction and psychological well-being of Generation Y students”, the study determined that five big personality traits influenced South African Generation Y students’ habitual use of Facebook, life satisfaction and psychological well-being. It was found from the study that extraversion, neuroticism, openness and agreeableness had positive and significant influences on habitual Facebook usage, although, conscientiousness seemed to have a positive yet insignificant relationship with habitual facebook usage. Further, study found that there was a positive and significant impact found on life satisfaction and psychological well-being of habitual use of facebook, further, life satisfaction positively and significantly influences psychological well-being.

**Marengo Davide, Sindermann Cornelia, Heackel Daniela, Settanni Michele, Elhai Jon. D and Montag (2020)** conducted a study on “The association between the Big Five

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Personality traits and Smartphone use disorder”. The study investigated association between personality and individual differences in addictive smartphone use, and it was aimed to understand if some personality traits pre-dispose technology users to develop addictive behaviours. By using a meta-analytic approach and based on existing empirical literature, the study aimed to determine the strength of associations between Big Five Personality traits and smartphone use disorder. The two models such as Interaction of person-affect-cognition-execution model and the framework on problematic mobile phone use by billieux were found in twenty-six eligible studies. Further, it was found from the study that there was a positive association between neuroticism and smartphone use disorder, while the association between extraversion and smartphone use disorder was not significant, conscientiousness was negatively associated with smartphone use disorder and remaining traits showed less association with smartphone use disorder.

**Nathawat SS and Gawas CS (2020)** conducted a study on “Internet addiction among college students in relation to five factor personality and loneliness”. The study was conducted to know about the association between internet addiction, personality factors and loneliness measure; it was also investigating the prevalence of internet addiction, also comparing among students considering the level of addiction and gender on personality factors and loneliness. It was found from the study that neuroticism was positively and significantly correlated with loneliness, whereas other personality factors were significantly but negatively correlated. Furthermore, correlation analysis revealed a positive and significant correlation of internet addiction with neuroticism as well as loneliness, whereas other measures of personality were negatively correlated. Further, study found that significant differences were observed on two personality factors as neuroticism and extraversion, and loneliness measure in students with different levels of internet addiction.

**Neema Gupta and Ashish K. Gupta (2020)**, conducted a study entitled “Big Five Personality Traits and Their Impact on Job Performance of Managers in FMCG Sector”, and determined the impact of five traits of personality on managers' performance at the workplace particularly in FMCG Sector. A total of 400 managers of the FMCG sector were taken for the purpose of study. It was found from the study that the managers' personality traits affect their job performance in the organisation. From the dimension of the big five personality, openness to experience acts as the significant predictor of all the three dimensions of career commitment (career identity, career resilience, and career planning), conscientiousness was found as the significant predictor of only career identity, which indicated Indian managers who are focused identify well with their career line. Further, the big five personality dimension of agreeableness was found to have a positive significant influence on career planning, low scores of neuroticism were found not suitable for sales jobs. There was a strong significant positive correlation between trait extraversion and employee's work performance.

### *Objectives*

- To study the socio-economic background of adolescents.
- To find out the effect of big five factors among adolescents.

### *Hypothesis*

- There is no significant difference in socio-economic background among adolescents.
- There is no significant difference on the basis of big five factors among adolescents.

### **METHODOLOGY**

#### *Research Design*

For testing the proposed hypothesis of investigation & achieving the cited objectives 2\*2 randomized group designs were used.

#### *Independent Variable*

- Big Five Personality Inventory

#### *Dependent Variable*

- Impact of Rural and Urban Boys
- Impact of Rural and Urban Girls

#### *Sample*

The study was based on adolescents (Boys and Girls). The sample of present study consisted of 300 boys and girls. Out of 300 adolescents 150 boys were selected from rural areas and 150 girls were selected from urban areas. Out of 150 adolescents 75 Girls and 75 Boys were selected from urban areas, and another, 75 Girls and 75 Boys were selected from rural areas. The main area of the sample was Kanpur district. The age of the boys and girls was from 14 years to 19 years. School Students (N= 300) Boys = 150 Rural Area = 75 Urban Area = 75, Girls =150 Rural Area = 75 Urban Area = 75.

#### *Statistical Techniques*

In order to analyse the research, work the following statistical tools like Critical Ratio and ANOVA were used.

#### *Tools Used for the Study*

Three standardized scales were selected on the basis of the objectives of the study. Below are the brief descriptions of standardized tools which were used to collect data:

1. **SOCIO DEMOGRAPHIC SHEET:** A self-made, semi structured socio-demographic sheet especially designed for the study will be developed to collect information from the participants. It will include details of name, age, sex, educational qualification, residents, occupation of father and family type. The items will be a type of multiple-choice question.
2. **BIG FIVE PERSONALITY INVENTORY:** The Big Five Personality Inventory designed by Dr. R. N. Singh will be used to collect data. The five dimensions of inventory are Openness to experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism. The Hindi version of 'Big Five' scale can be administered individually or in groups also. The items in the Hindi version are accompanied by the five response categories ranging from strongly agree to strongly disagree. The positive items are scored on the pattern of 5,4,3,2 and 1 for the five categories respectively whereas the negative items are scored in reverse order {Table-2}. The higher scores indicate higher strength of the factors and vice – versa. The maximum and minimum possible scores are 50 and 10 respectively on the five subscales. The BFI also shows high convergent validity with other self-report scales and with peer ratings of the Big Five. Previously tested reliability of the BFI typically ranged from 0.79 to 0.88.

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### **Procedure**

The Sampling was based on a simple random sampling method. No incentives were awarded and voluntary participation was emphasized. The study emphasized that responses are anonymous and confidential, and no identifying information was requested from participants. A paper-pencil questionnaire was given to the participants in the classroom, which took 10-15 minutes to complete. All participants gave informed consent prior to starting the study. A significant difference was identified among adolescents with the help of big five personality scale with mean, SD and Critical Ratio.

### **RESULTS**

The analysis of the results are presented in the same order as the research questions, i.e. first the socio-demographic details, such as age, sex, educational qualification, residents, occupation of father, family type, are given separately for Boys and Girls, after that, the results of the analysis of significant differences among boys and girls on the basis of big five factor personality scale are separately presented.

**Hypothesis 1** There is no significant difference in socioeconomic background among adolescents.

**Table-1 Distribution Of Boys And Girls Based On Socio-Demographic Details**

<b>AGE GROUP OF BOYS N=300</b>	<b>Mean</b>	<b>SD</b>	<b>CR</b>	<b>Sig Level 0.01</b>
14 to 19 Years (Rural Boys)	16.96	0.95	2.14	NS
14 to 19 Years (Urban Boys)	17.19	0.83		
14 to 19 Years (Rural Girls)	16.81	1.09	2.57	NS
14 to 19 Years (Urban Girls)	16.42	1.11		
<b>Educational Qualification N=300</b>				
Rural Boys	37.5	12.5	0.5	NS
Urban Boys	37.5	17.5		
Rural Girls	37.5	8.5	0.6	NS
Urban Girls	37.5	2.5		
<b>Occupation of Father N=300</b>				
Rural Boys	37.5	21.5	0.81	NS
Urban Boys	25	6.16		
Rural Girls	25	16.87	0.56	NS
Urban Girls	18.75	10.73		
<b>Family Type N=300</b>				
Rural Boys	37.5	18.5	0.5	NS
Urban Boys	37.5	31.5		
Rural Girls	37.5	16.5	0.7	NS
Urban Girls	37.5	32.5		

The data related to socio-demographic background i.e. age, sex, educational qualification, residence, occupation of father and family type are presented above with the help of table. An age can be defined as a period of human life, measured by years from birth, usually marked by a certain stage or degree of mental or physical development and involving legal responsibility and capacity. For the purpose of study both Boys and Girls, from rural and urban areas age range from 14 to 19 have been taken. The above table shows the mean, SD and critical ratio of rural boys and urban boys. Table 1 indicates that the mean value of two classified groups seems to differ from each other on age group. The mean and SD value obtained by the rural boys (14 to 19 years) was 16.96 and 0.95, respectively, whereas, for



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urban boys (14 to 19 years), mean was found 17.19 and SD was found 0.83. The critical value between rural boys and urban boys is found 2.14. The table value of z critical one-tail is 2.32 and z critical two-tail is 2.57 on 0.01 levels of not significance, Therefore, null hypothesis is Accepted and Alternative hypothesis is Rejected because table value is higher than calculated value. It means that there is no significant difference found between rural boys and urban boys on age. The data related to rural girls and urban girls indicates that the mean value seems to differ from each other on age group. The mean and SD value obtained by the rural girls (14 to 19 years) was 16.81 and 1.09, respectively, whereas, for urban girls (14 to 19 years), mean was found 16.42 and SD was found 1.11. The critical value between rural girls and urban girls is observed at 2.57. The table value of z critical one-tail is 2.32 and z critical two-tail is 2.57 on 0.01 levels of not significance, therefore, null hypothesis is Accepted and Alternative hypothesis is Rejected because table value is higher than calculated value. It means that there is no significant difference between rural girls and urban girls found on age.

Another criterion for socioeconomic background is sex of boys and girls. The sex distribution can be defined, the number of Boys and Girls in a given population. The distribution may refer to how many boys or girls or what proportion of either in the group. One fourth 25 percent of rural boys, one fourth 25 percent of urban boys, one fourth 25 percent of rural girls and one fourth 25 percent of urban girls had been included in the study. One of the criteria of the first hypothesis is educational qualification. It can be defined as the official confirmation in the form of a certificate, degree or diploma, certifying the successful completion of an education program or a stage of a program. The above table shows the educational qualifications of adolescents. The above table defines that the mean value for rural boys and urban boys seems not to differ from one another on educational qualification. The mean and SD value obtained by the rural boys was 37.5 and 12.5, respectively, whereas, for urban boys, mean was found 37.5 and SD was found 17.5. The critical value between rural boys and urban boys is found 0.5. The table value of z critical one-tail is 2.32 and z critical two-tail is 2.57 on 0.01 levels of not significance, therefore null hypothesis is Accepted and Alternative hypothesis is Rejected because table value is higher than calculated value. It means that there is no significant difference between rural boys and urban boys found on educational qualification. Further, the above table indicates that the mean value of two classified groups seems not to differ from one another on educational qualification. The mean and SD value obtained by the rural girls was 37.5 and 8.5, respectively, whereas, for urban girls, mean was found 37.5 and SD was found 2.5. The critical value between rural girls and urban girls is observed 0.6. The table value of z critical one-tail is 2.32 and z critical two-tail is 2.57 on 0.01 levels of not significance, therefore null hypothesis is Accepted and Alternative hypothesis is Rejected because table value is higher than calculated value. It means that there is no significant difference between rural girls and urban girls found on educational qualification.

Another criterion of socio economic background hypothesis is distribution of boys and girls on the basis of residence. This can be defined as a place, especially the house or a structure serving as a dwelling, in which a person lives or resides. The data related to residential or belonging of boys and girls had been taken from the study. As one can see from the above table that 25 percent of boys belonged to Kanpur rural area and 25 percent of boys belonged to Kanpur urban area, and 25 percent of girls belonged to Kanpur rural area and 25 percent of girls belonged to Kanpur urban area.

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Further, the above table delineates that the mean value of two classified groups seems to differ from each other on occupation of father. The mean and SD value obtained by the rural boys was 37.5 and 21.5, respectively, whereas, for urban boys, mean was found 25 and SD was found 6.16. The critical value between rural boys and urban boys is observed 0.81. The table value of z critical one-tail is 2.32 and z critical two-tail is 2.57 on 0.01 levels of not significance, therefore null hypothesis is Accepted and Alternative hypothesis is Rejected because table value is higher than calculated value. It means that there is no significant difference between rural boys and urban boys found in the occupation of their father. Results of the study on the occupation of father have been taken from the study. The mean and SD value obtained by the rural girls was 25 and 16.87, respectively, whereas, for urban girls, mean was found 18.75 and SD was found 10.73. The critical value between rural girls and urban girls is observed 0.56. The table value of z critical one-tail is 2.32 and z critical two-tail is 2.57 on 0.01 levels of not significance, therefore null hypothesis is Accepted and Alternative hypothesis is Rejected because table value is higher than calculated value. It means that there is no significant difference between rural girls and urban girls found on the occupation of their father.

The last criteria which covered the first hypothesis i.e. socio economic background is distribution of boys and girls based on family type. Family is one of the most important social institutions. It is an important primary group in the society, a most pervasive and universal social institution, which plays a vital role in the socialisation of individuals. It is regarded as the first society of human beings, or the first school of citizenship. One is born in a family, grows in it, works for it and dies in it, one develops emotional attachment to it. The type of family was identified from the present study. The above table indicates that the mean value of two classified groups seems not to differ from each other on family type. The mean and SD value obtained by the rural boys was 37.5 and 18.5, respectively, whereas, for urban boys, mean was found 37.5 and SD was found 31.5. The critical value between rural boys and urban boys is found 0.5. The table value of z critical one-tail is 2.32 and z critical two-tail is 2.57 on 0.01 levels of not significance, therefore null hypothesis is Accepted and Alternative hypothesis is Rejected because table value is higher than calculated value. It means that there is no significant difference between rural boys and urban boys found on family type. Further, the study found that the mean and SD value obtained by the rural girls was 37.5 and 16.5, respectively, whereas, for urban girls, mean was found 37.5 and SD was found 32.5. The critical value between rural girls and urban girls is observed 0.7. The table value of z critical one-tail is 2.32 and z critical two-tail is 2.57 on 0.01 levels of not significance, therefore null hypothesis is Accepted and Alternative hypothesis is Rejected because table value is higher than calculated value. It means that there is no significant difference between rural girls and urban girls found on family type.

**Hypothesis 2** - There is no significant difference on the basis of neuroticism among adolescents.

**Table-2** Calculations of Mean, SD and Critical Ratio for Neuroticism Among Boys and Girls

Variable	Neuroticism N=150	mean	SD	CR	Sig Level 0.05
Rural Boys	2060	27.4	0.87	0.99	NS
Urban Boys	2071	27.6	0.92		
Rural Girls	2046	27.2	0.94	2.58	NS
Urban Girls	2079	27.7	0.96		

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Neuroticism personality dimension is measured on a continuum ranging from emotional stability to emotional instability, or neuroticism. People with high neuroticism scores are more fearful, often feel anxious, often persistent worries, over-thinking their problems and exaggerating their significance. Rather than seeing the positive in a situation, they may dwell on its negative aspect. Neuroticism can result in a person becoming frustrated with others and may feel angry if events do not occur as they wish, or coping less successfully with common stressors in their day to day lives.

The above table indicates that the mean value of two classified groups seems to differ from each other on neuroticism. The mean and SD value obtained by the rural boys was 27.4 and 0.87, respectively, whereas, for urban boys, mean was found 27.6 and SD was found 0.92. The critical value between rural boys and urban on Neuroticism is observed 0.99. The table value of z critical one-tail is 2.32 and z critical two-tail is 2.57 on 0.05 levels of not significance, therefore null hypothesis is Accepted and Alternative hypothesis is Rejected because table value is higher than calculated value. It means that there is no significant difference between rural boys and urban boys found in Neuroticism. Further, study indicates that the mean value of two classified groups seems to differ from each other on neuroticism. The mean and SD value obtained by the rural girls was 27.2 and 0.94, respectively, whereas, for urban girls, mean was found 27.7 and SD was found 0.96. The critical value between rural girls and urban girls on Neuroticism is found 2.58. The table value of z critical one-tail is 2.32 and z critical two-tail is 2.57 on 0.01 levels of close to significance, therefore null hypothesis is Rejected and Alternative hypothesis is Accepted because table value is Lower than calculated value. It means that there is a significant difference between rural girls and urban girls found in Neuroticism. Urban girls found higher scores on neuroticism than rural girls.

**Table-3 Calculations of mean, SD and critical ratio for extraversion among boys and girls**

Variable	Extraversion N=150	mean	SD	CR	Sig Level 0.01
Rural Boys	2081	27.7	1.30	0.32	NS
Urban Boys	2086	27.8	1.24		
Rural Girls	2086	27.8	1.24	0.06	NS
Urban Girls	2087	27.8	1.18		

Extraversion is characterised as sociable, talkative and often forward in social situations. They enjoy being the centre of a group and will often seek the attention of others. Extraverts enjoy meeting new people and are happy to introduce themselves to strangers, thriving in the company of others. The above table shows data related to extroversion of rural boys, urban boys, rural girls and urban girls.

The data related to extraversion has been taken by the study. The mean and SD value obtained by the rural boys was 27.7 and 1.30, respectively, whereas, for urban boys, mean was found 27.8 and SD was found 1.24. The critical value between rural boys and urban on Extraversion is observed 0.32. The table value of z critical one-tail is 2.32 and z critical two-tail is 2.57 on 0.01 levels of not significance, therefore null hypothesis is Accepted and Alternative hypothesis is Rejected because table value is higher than calculated value. It means that there is no significant difference between rural boys and urban boys found on Extraversion. Further, the above table indicates that the mean value of two classified groups does not differ from each other on extraversion. The mean and SD value obtained by the rural girls was 27.8 and 1.24, respectively, whereas, for urban girls, mean was found 27.8 and SD was found 1.18. The critical value between rural boys and urban on Extraversion is

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observed 0.06. The table value of z critical one-tail is 2.32 and z critical two-tail is 2.57 on 0.01 levels of not significance, therefore null hypothesis is Accepted and Alternative hypothesis is Rejected because table value is higher than calculated value. It means that there is no significant difference between rural girls and urban girls found on Extraversion. The results of one way analysis of variance, shown in the summary table, indicates that the mean strength ranges from a low of 27.74 for rural boys to a high of 27.82 for urban girls. In the table the p-value is 0.979454. Because this value is less than our significance level of 0.05, thus we reject the null hypothesis. Our sample data provides strong enough evidence to conclude that the four population means are not equal. Gaikwad Umakant Subhash (2021) found that there is no significant difference between Male and Female Students with Dimensions on Extraversion. The study has confirmed the results of the present study.

**Table-4 Calculations of mean, SD and critical ratio for openness to experience among boys and girls**

Variable	Openness to Experience N=150	mean	SD	CR	Sig Level 0.01
Rural Boys	2256	30.0	1.91	1.2	NS
Urban Boys	2232	29.7	2.0		
Rural Girls	2224	29.6	2.0	0.60	NS
Urban Girls	2209	29.4	2.0		

The openness to experience type of personality is defined as a willingness to try new activities; people of this type are amenable to unconventional ideas and beliefs. They enjoy artistic and cultural experiences, visiting art galleries, theatres, and museums, listening to music and travelling to new destinations. The above table shows the results on openness to experience, it can be seen that mean was found 30.0 and SD was found 1.91 for rural Boys whereas mean for urban Boys was found 29.7 and SD was found 2.0. The t-score was found 0.99, or there were no significant differences found between rural Boys and urban Boys. Rural boys received higher mean scores as compared to urban boys.

The above table indicates that the mean value of two classified groups seems to differ from each other on openness to experience. The mean and SD value obtained by the rural boys was 30.0 and 1.91, respectively, whereas, for urban boys, mean was found 29.7 and SD was found 2.0. The critical value between rural boys and urban boys on Openness to experience is observed 1.2. The table value of z critical one-tail is 2.32 and z critical two-tail is 2.57 on 0.01 levels of not significance, therefore null hypothesis is Accepted and Alternative hypothesis is Rejected because table value is higher than calculated value. It means that there is no significant difference between rural boys and urban boys found on Openness to experience. Further, study found that the mean value of two classified groups seems to differ from each other on openness to experience. The mean and SD value obtained by the rural girls was 29.6 and 2.0, respectively, whereas, for urban girls, mean was found 29.4 and SD was found 2.0. The critical value between rural girls and urban girls on Openness to experience is observed 0.60. The table value of z critical one-tail is 2.32 and z critical two-tail is 2.57 on 0.01 levels of not significance, therefore null hypothesis is Accepted and Alternative hypothesis is Rejected because table value is higher than calculated value. It means that there is no significant difference between rural girls and urban girls found on Openness to experience.

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**Table-5 Calculations of mean, Sd and critical ratio for agreeableness among boys and girls**

Variable	Agreeableness N=150	mean	SD	CR	Sig Level 0.01
Rural Boys	2087	27.8	1.3	1.22	NS
Urban Boys	2068	27.5	1.1		
Rural Girls	2060	27.4	1.1	1.07	NS
Urban Girls	2046	27.2	0.9		

Agreeableness can be defined as people who are friendly and co-operative, often more likeable by their peers and colleagues; they are more trusting of others, more altruistic and willing to help others during times of need. They dislike being involved in arguments, conflict with others and other forms of confrontation. They seek to pacify and appease others, acting as the mediating ‘peace-maker’ of their group. Disagreeable individuals are more suspicious of other people’s intentions and are less charitable. They are less concerned with pleasing other people and making friends. They are motivated to act in accordance with their self-interest, showing less regard for the needs of others.

The above table indicates that the mean value of two classified groups seems to differ from each other on agreeableness. The mean and SD value obtained by the rural boys was 27.8 and 1.3, respectively, whereas, for urban boys, mean was found 27.5 and SD was found 1.1. The critical value between rural boys and urban boys on Agreeableness is observed 1.22. The table value of z critical one-tail is 2.32 and z critical two-tail is 2.57 on 0.01 levels of not significance, therefore null hypothesis is Accepted and Alternative hypothesis is Rejected because table value is higher than calculated value. It means that there is no significant difference between rural boys and urban boys found on Agreeableness. Further, the study indicates that the mean value of two classified groups seems to differ from each other on agreeableness. The mean and SD value obtained by the rural girls was 27.4 and 1.1, respectively, whereas, for urban girls, mean was found 27.2 and SD was found 0.9. The critical value between rural girls and urban girls on Agreeableness is observed 1.07. The table value of z critical one-tail is 2.32 and z critical two-tail is 2.57 on 0.01 levels of not significance, therefore null hypothesis is Accepted and Alternative hypothesis is Rejected because table value is higher than calculated value. It means that there is no significant difference between rural girls and urban girls found on Agreeableness.

**Table-6 Calculations of mean, SD and critical ratio for conscientiousness among boys and girls**

Variable	Conscientiousness N=150	mean	SD	CR	Sig Level 0.01
Rural Boys	2783	37.1	2.8	0.41	NS
Urban Boys	2797	37.2	2.7		
Rural Girls	2807	37.4	2.6	0.06	NS
Urban Girls	2805	37.4	2.6		

People who are conscientious have a sense of responsibility towards others and are generally careful to carry out the duties assigned to them. They are more aware of their actions and the consequences of their behaviour than people who are un-conscientiously; they like to keep a tidy environment and are well-organised. They are keen to maintain good timekeeping, and also exhibit more goal-oriented behaviour. People with low levels of conscientiousness are reflected in less motivated behaviour, they are less concerned by tidiness and punctuality; this may result in them arriving late to appointments and meetings, and being more relaxed

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in setting life goals. The above table described the data related to conscientiousness of adolescents.

The above table indicates that the mean value of two classified groups seems to differ from each other on conscientiousness. The mean and SD value obtained by the rural boys was 37.1 and 2.8, respectively, whereas, for urban boys, mean was found 37.2 and SD was found 2.7. The critical value between rural boys and urban boys on Conscientiousness is observed 0.41. The table value of z critical one-tail is 2.32 and z critical two-tail is 2.57 on 0.01 levels of not significance, therefore null hypothesis is Accepted and Alternative hypothesis is Rejected because table value is higher than calculated value. It means that there is no significant difference between rural boys and urban boys found on Conscientiousness. Further, it was found from the above table that the mean value of two classified groups seems to differ from each other on conscientiousness. The mean and SD value obtained by the rural girls was 37.4 and 2.6, respectively, whereas, for urban girls, mean was found 37.4 and SD was found 2.6. The critical value between rural girls and urban girls on Conscientiousness is observed 0.06. The table value of z critical one-tail is 2.32 and z critical two-tail is 2.57 on 0.01 levels of not significance, therefore null hypothesis is Accepted and Alternative hypothesis is Rejected because table value is higher than calculated value. It means that there is no significant difference between rural girls and urban girls found on Conscientiousness.

## CONCLUSION

It can be concluded that there were no significant differences found among boys and girls on the basis of age, educational qualification, occupation of father and family type. There were no significant differences found among boys and girls on the basis of neuroticism. There were no significant differences found among boys and girls on the basis of extraversion. There were no significant differences found among boys and girls on the basis of openness to experience. There were no significant differences found among boys and girls on the basis of agreeableness. There were no significant differences found among boys and girls on the basis of conscientiousness.

### *Strengths and Limitations*

The present study has several strengths.

- First, the large sample size ensures power to detect the small effects that can be expected for social needs and big five personality factor associations.
- Second, the study maximizes representativeness with regards to socioeconomic status.
- Third, the study examined both the significant difference as well as the interaction effect of social needs and big five personality factors. Fourth, the broad age range spanning 14 to 19 years allowed us to investigate whether social needs and big five personality factor associations differ across ages.
- In addition to these strengths, an important limitation of our study is the fact that the participants were taken from only one city of Kanpur. Therefore, the findings cannot be generalized to the whole population of students.

### *Recommendations*

- It is recommended that a longitudinal study need to conduct for further disentangling of these differences as well as, for examining whether, social needs are associated with big five personality factors among boys and girls over time. No detailed

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information was collected on the socioeconomic status of the students' families and variables such as parental education and monthly income, these variables should be controlled for in a future study. Likewise, we did not control for parent-children relations, the current students' achievement level, their sociometric status in the classroom, or their need for psychological support. These factors are important in successful adaptation to new environments and further educational outcomes.

- In addition to taking into account the above mentioned variables in future research, it would also be interesting to examine students' self-descriptions of their personality traits and compare them with assessments made by their parents and teachers.

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## Conflict of Interest

The author(s) declared no conflict of interest.

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