

## Big Five Personality Factors and Suicidal Ideation Among Adolescents

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### ABSTRACT

Approximately one million people commit suicides every year in world and adolescents constitute the most vulnerable group (WHO, 2012). There may be many risk factors including personality for suicidal ideation acts. In view of the above, this study was conducted to examine the effects of big five factors of personality on suicidal ideation. 80 adolescents enrolled from various colleges of Nashik, aging between 14 to 18 years sample. NEO-PI-R (McCrae & Costa, 1992) was administered to assess their personality in terms of extraversion, neuroticism, agreeableness, open to experience and conscientiousness. Its reliability ranges from 0.89 to 0.93. Adult Suicidal Ideation Questionnaire (ASIQ) by William M. Reynolds, the internal consistency reliability as well as test-retest reliability of ASIQ was investigated using coefficient alpha, and index. The analyses of the data revealed that personality factors such as Openness, Conscientiousness, Extraversion and Agreeableness correlates negatively with Suicidal Ideation whereas the factor Neuroticism correlates positively with Suicidal Ideation. The proposed hypotheses were approved. The findings are discussed in the light of related previous researches and implications, suggestions and limitations are also highlighted.

**Keywords:** Personality Factors, Suicidal Ideation, Adolescents

The suicidal tendency has been declared as a major health problem all over the globe. In India situation is even graver. It has been estimated that more than one lac people kill themselves in India every year and there has been noticed an increasing tendency in it (NCRB-2000). There may be number of reasons behind it, but psychopathological problems, like depression, are said to be strongest predictors of suicidal ideation and suicidal deaths (ICMR-2006). The poverty and family related problem are also said to play important role in suicidal ideation and suicidal deaths. The problem has been studied from different point of views, but no conclusive view could be presented so far. The causal variable of suicidal ideation and death may be many and there may be interaction also between them. This makes the task of identification relatively more difficult. The occurrence of suicide may be related with either of the several factors and they can be classified as risk of vulnerability factors and resiliency or protective factors and precipitation factors (life events).

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**Suicide Ideation:** Suicidal Ideation is a relatively common phenomenon among youngsters and also among other groups and suicide is a major cause of ultimately death and loss of precious human resources. So, there is great need to identify factors that will distinguish those ideators who are at high risk of suicidal behavior. There is epidemiological evidence that those who consider suicide (ideators) a way to deal with problems of the life formulate a plan of self harm, are thus a greater risk of killing themselves. (Nock, Kessler, & Franklin, 2016).

**Big Five Factors:** Interest between the relationship of personality traits and suicidal ideation has been increasing for the past few years (Brezo, Paris, & Turecki, 2005). According to Brezo, Paris, & Turecki (2005), personality traits are linked to suicide behavior because traits contribute to a diathesis for suicide behavior. In the diathesis model, pathological behavior is seen as the product of internal characteristics and external events. Internal characteristics constitute a vulnerability that can, in conjunction with precipitating external events, create a window of opportunity for the emergence of pathological behavior. Personality traits reflect a propensity or disposition toward those cognitions, emotions, and behaviors which are consistent with the trait. Since situations are also important, traits do not determine behavior, but instead influence its baseline probability. The connection between personality traits and any actual, concrete behavior is therefore indirect and probabilistic. Personality traits are determined by genes, environment, and the interaction between genes and environment (Brezo, Paris, & Turecki, 2005).

Everybody has a unique personality and it plays important roles in human behavior that is why it has been a well debated and researched topic in Psychology. In modern Psychology, Big Five model of personality is a very popular trait approach to personality. This model was propounded by Costa and McCrae (1992). This model assumes that there are five major factors which can successfully describe the whole personality of people. The factors are extraversion, neuroticism, agreeableness, open to experience and conscientiousness. The Big Five Personality Traits, also known as the Five-Factor Model (FFM), and the OCEAN model, is taxonomy for personality traits. It is based on common language descriptors. When factor analysis (a statistical technique) is applied to personality survey data, some words used to describe aspects of personality are often applied to the same person. For example, someone described as conscientious is more likely to be described as “always prepared” rather than “messy”. This theory is based therefore on the association between words but not on neuropsychological experiments. This theory uses descriptors of common language and therefore suggests five broad dimensions commonly used to describe the human personality and psyche. Beneath each proposed global factor, there are a number of correlated and more specific primary factors. For example, extraversion is said to include such related qualities as gregariousness, assertiveness, excitement seeking, warmth, activity, and positive emotions.

### ***The five factors are:***

Extraversion refers to energy, positive emotions, surgency, as attention seeking, and domineering whereas low scores indicate reserved and reflective personality leading to aloofness and self-absorbed mood (Toegel & Barsoux, 2012).

Neuroticism indicates the tendency of experiencing negative emotions easily like anxiety, anger, depression and vulnerability. It is also associated with emotional stability-high and low emotionality. The high emotionality indicates that the person is calm and stable but

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something uninspiring and unconcerned also. The low neuroticism may lead to reactive and excitable personality, often very dynamic but such people may feel unstable and insecure. Agreeableness means the tendency of being compassionate and cooperative rather than suspicious towards other people. Higher scores on this dimension indicate nave and submissive personality. And people scoring low on it are often competitive or challenging, so may be argumentative and untrustworthy.

Open to experience factor refers to the nature of appreciation for art, emotions, usual ideas, curiosity and variety of experiences. High openness may be associated with unpredictability or a lack of focus whereas low openness is related with gaining fulfillment through perseverance and pragmatism and sometimes dogmatism and close mindedness.

Conscientiousness is a tendency of being organized, dependable, self-disciplined, committed, achievement seeking and well planned. High conscientiousness indicates stubborn and obsessive attitude while low conscientiousness is related with flexibility and spontaneousness but such people may be sloppy and unreliable too.

### ***The significance of study***

The study involves the impact of the Big Five Personality Dimensions on suicidal ideation in a representative population-based sample of college adolescents. The five-factor model of personality is one of the most comprehensive and best-established models to assess personality. It aims to empirically describe personality along five major dimensions, namely extraversion, openness, agreeableness, conscientiousness and neuroticism. These five personality factors show clear heritable characteristics and have been shown to be associated with different psychiatric disorders such as anxiety, depression, and personality disorders.

## **REVIEW OF LITERATURE**

Velting, D.M. (1999), studied the trait predictors of suicidal ideation were examined within the taxonomic framework provided by the Five Factor model of personality in a sample of 185 young adults (aged 18 – 23 years). Factor-level multiple regression analyses revealed significant gender differences; namely, suicidal ideation was positively predicted by neuroticism in females and negatively predicted by conscientiousness in males. More detailed analyses revealed distinctive patterns of association between facets and ASIQ scores within factor domains. Suicidal ideation was positively predicted by the neuroticism facets, angry hostility and depression, and negatively predicted by the conscientiousness facet, self-discipline.

Singh R.N. And Pathak N. (2017), studied that according to (WHO, 2012), approximately one million people commit suicides every year in world and adolescents constitute the most vulnerable group. There may be many risk factors including personality for suicidal ideation and act. In this study was conducted to examines the effect of the big five factors of personality on suicidal ideation. 315 adolescents enrolled in some of the intermediate colleges of Jaunpur (U.P.), aging between 14 to 19 years. The analyses of the data revealed that adolescents with higher level of extraversion, agreeableness, open to experience and conscientiousness are significantly less indulged in suicidal ideation in comparison to the adolescent scoring low on the above dimensions. The low level on the above factors indicates high risks for suicidal ideation. The higher level of neuroticism was found to be a major risk factor in inducing the feelings of suicidal Ideation. The proposed hypothesis in this study was approved.

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Brezo, Paris & Turecki, 2006 studied that the adults in their twenties appear to be at high risk suicidal behaviors (SBs) and there is substantial evidence suggesting that certain personality traits may increase individual vulnerability to suicide. This study investigated relationships of personality traits with two SBs in a cohort ( $n=1140$ ) of 21 to 24 years old adults, representative of the general population of Quebec. Subjects were assessed using a series of structured diagnostic and personality trait questionnaires. Multivariate logistic regression analyses were employed to identify personality trait correlates of suicide attempts history and serious suicidal ideation in the context of other known risk factors, such as psychopathology and experiences of childhood sexual abuse.

Soltaninejad A, Fathi-Ashtiani A, and Pilevarzadeh M, studies that suicidal behavior is one of the most significant mental health problems in the military. Militaries are closed symptoms that operate in particular situations. Military service is associated with certain stressful conditions. On this basis, there is likely of trauma in the military environment. Measures of suicidal behavior are pathologically complex. A range of biological, psychological, social, and institutional factors are involved in the incidence and prevalence of these behaviors. The study on population comprised of the Iranian Armed Forces, to recruit the sample of the research, 1659 soldiers were selected by multistage sampling. Unlike neuroticism, extraversion and conscientiousness personality factors could reduce significantly levels of suicidal ideation. Based on these results, neuroticism might increase suicide, but extraversion and conscientiousness personality traits are associated with a reduced risk of suicide.

Singh R. and Joshi H. L. this study examined relationship of depression, life stress, and personality with suicidal ideation among college students. The data were analyzed by using Pearson Product Moment method of correlation and stepwise multiple regression analysis. Results demonstrated that suicidal ideation was positively associated with depression, stressful life events and two dimensions of personality i.e. extraversion and psychoticism. Stepwise Multiple regression analysis found linear combination of three main predictors of suicidal ideation i.e., depression, extraversion and stressful life events.

### ***Objective***

To ascertain the relationship between Big Five Personality Factors and Suicidal Ideation among Adolescents.

### ***Hypotheses***

- Openness shows a negative significant correlation with Suicidal Ideation
- Conscientiousness shows a negative significant correlation with Suicidal Ideation
- Extraversion shows a negative significant correlation with Suicidal Ideation
- Agreeableness shows a negative significant correlation with Suicidal Ideation
- Neuroticism shows a positive significant correlation with Suicidal Ideation

## **METHODOLOGY**

Sampling Technique: - Purposive Sampling

Sample size :-  $N = 100$  (14 to 18 years) Adolescents

Variables :- Dependent Variables :  
1. Five Personality Factors  
2. Suicidal Ideation

Independent Variables: Adolescents

Controlled Variables: Age – Adolescents of 14 to 18 years age

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### ***Operational Definition***

**Suicidal Ideation:** Total scores of the subjects on Adult Suicidal Ideation Questionnaire (ASIQ) by William M. Reynolds PhD, 1987 which was developed for the assessment of suicidal ideation in adolescents.

**Big Five Factors:** Total scores of the subjects on NEO-PI-R developed by Costa & McCrea, 1992, administered on the participants to assess their personality in terms of extraversion, neuroticism, agreeableness, open to experience and conscientiousness.

### ***Tools to Be Used***

- **NEO-PI-R (Paul T. Costa & Robert R. McCrea, 1992):** The Revised NEO personality Inventory is a concise measure of the five major dimensions of personality. There are 240 items on a 5-point scale and requires 30 to 40 mins to complete the test. The test manual provides good support for both reliability and validity. Internal consistency coefficients were calculated at 0.86 to 0.95 for both the forms (self and observer).
- **Adult Suicidal Ideation Questionnaire (ASIQ) by (William M. Reynolds, Ph.D.):** It is a derivation of 25 items and takes approximately 15 to 20 mins to complete the test. The reliability of the ASIQ was investigated using coefficient alpha, an index of internal consistency reliability, as well as test-retest reliability. The later form of reliability is generally expected to be moderately attenuated (i.e., restricted) when it is calculated for a state construct such as suicidal ideation in contrast to a more stable trait construct.

### ***Statistical Tool to Be Used***

- 1. Means 2. Standard Deviation 3. Pearson correlation

## **RESULT**

The result of the correlational study between Big Five Personality Factors and Suicidal Ideation is described in the table below. The result obtained are in accordance with the hypotheses is framed for empirical verification.

**Table 1: Calculating Mean and Standard Deviation**

| Factors           | Total scores | Mean   | Standard deviation |
|-------------------|--------------|--------|--------------------|
| Openness          | 7984         | 99.8   | 12.77              |
| Conscientiousness | 7948         | 99.35  | 12.55              |
| Extraversion      | 8304         | 103.8  | 16.07              |
| Agreeableness     | 7872         | 98.4   | 9.58               |
| Neuroticism       | 7905         | 98.81  | 13.38              |
| Suicidal Ideation | 1418         | 17.725 | 24.99              |

**Table 2: Value of coefficient correlation**

|                   | Suicidal Ideation |                                 |
|-------------------|-------------------|---------------------------------|
| Factors           | r                 | INTERPRETATION                  |
| Openness          | -0.14             | Negligible Negative Correlation |
| Conscientiousness | -0.11             | Negligible Negative Correlation |
| Extraversion      | -0.18             | Negligible Negative Correlation |
| Agreeableness     | -0.08             | Negligible Negative Correlation |
| Neuroticism       | 0.007             | Negligible Positive Correlation |

### **Interpretation**

After using the Pearson correlation method, the Big Five Personality Factors insignificantly correlates with the Suicidal Ideation.

## **DISCUSSION**

The study of relationship between Big Five Personality Factors and Suicidal Ideation, samples of study was constituted from 80 college students from Science Academy, Nashik aging from 14 to 18 years. The result of this study is described in the tables given. The results revealed that suicidal ideation is considerably prevalent among college adolescents and big five personality factors are among prominent factors in predisposing a person to suicidal ideation. It is evident from the results table that the Personality factors is insignificantly correlates with suicidal ideation as the relationship between the variables is weak.

The trait of Openness to experience indicates person is very social, outgoing, energetic and enthusiastic. The participants with the tendency of openness to experience has total scores ( $N=7984$ ) with ( $M=99.8$ ,  $SD=12.77$ ). The trait of openness to experience also yielded significant differential effects on Suicidal Ideation. The participants scoring higher on this dimension scored significantly low on suicidal ideation scale in comparison to the participants scoring lower on it. It has been reported by the researchers that low tendency of open to experience is related with gaining fulfillment through perseverance and pragmatism and sometimes dogmatism and close mindedness. So, this tendency may interfere with adaptive and coping abilities of the persons concerned (Costa & McCrea, 1992; Toegel & Barsoux, 2012). According to table 2, the significant correlational value and its interpretation are shown. Openness to experience shows Negative correlation with suicidal ideation the value of  $r$  is  $-0.014$ . Although technically a negative correlation the relationship between the two variables is weak(the nearer the value is to 0, the weaker is the relationship) The participants on conscientiousness trait scored with mean= $99.35$ ,  $SD=12.55$ . This trait was found to exert differential effects on suicidal ideation. The people with high conscientiousness are said to be relatively more committed, determined and disciplined, so the people with low conscientiousness may be more likely to fall pray to frustration and puzzling situations, and as a result of it, they may indulge in negative thoughts including suicidal ideation (Velting, 1999). It is also suggested that early identification and therapy for behavioral problems are useful approaches to deal with suicidal behavior and suicidal ideation among adolescents (Korczak, 2015). It suggests that people with low conscientiousness need to be prepared to meet to the frustration situations effectively to live a purposeful life (potter et al., 2004; Pearson et al., 2001). The intervention programmes for adolescents to develop hardy personality may be great implications to meet the adverse situations in life, as such interventions enhance confidence and determination in the person which in turn will instill the sense of optimism, self-worth and meaning in life. It will certainly help people suffering from suicidal ideation to deal with it effectively (Singh, Srivastava and Singh, 2005: Potter et al, 2004). The trait Conscientiousness shows negative correlation with suicidal ideation. The value of  $r=-0.11$ .

The trait Extraversion shows negative correlation with suicidal ideation with value of  $r=-0.18$  with mean= $103.8$  and  $SD=16.07$ ). The person having high score on this trait is attention seeking and domineering whereas low scores reflect that he or she is reserved and has reflective personality which leads to aloofness and self-absorbed mood, so the probability may be higher with introverts in indulging, suicidal ideation and other related behaviors (Toegel & Barsoux, 2012). The introverts find it more difficult to manage the frustrating

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situation and as a result of it, the suicidal ideation may be more prevalent among them. Similarly, some researchers have reported negative association with extraversion. Especially its assertiveness and positive emotions facets (Chioqueta and Stiles, 2005; Lester, 1987; Velting, 1999). A recent study also found relationships between social introversion, irritable temperament, and suicide risk (Pompili et al., 2008). This suggests that suicidal probability is relatively high with the persons having introversion outlook about life and the life events. The family members and relations should take due care of such members especially in the case of failure and frustration.

The value of  $r$  on Agreeableness is  $-0.08$  with mean =  $98.4$ ,  $SD = 9.58$  which shows negative correlation with suicidal ideation. The participants scoring lower on the suicidal ideation scale as compared to agreeable participants. The higher tendency of agreeableness indicates compassionate and cooperative temperament whereas low tendency indicates suspicious and apprehensive mentality. The suspicious nature is obviously not good from the point of view dealing effectively with various circumstances in life, especially negative events and experiences. This may be strong predisposing factor for suicidal indulgence and needs to be managed properly for enabling the person concerned to deal with stress and frustrations desirably (Bakst, et al., 2014). The people scoring low on the dimension of agreeableness probably find themselves unable to use their social networks as they might feel that others instead of helping may cut joke of their problems. This tendency weakens their psychological strength of coping and may lead to suicidal ideation.

The trait Neuroticism shows positive correlation with suicidal ideation ( $r=0.007$ ) with mean= $98.81$ ,  $SD=13.38$ ). Neuroticism emerged as a very strong determinant of suicidal ideation as the participants scoring higher on this dimension also scored high on the suicidal ideation scale. According to some researchers, Neuroticism is associated with the tendency of negative emotions like anxiety, anger, depression, vulnerability and emotional stability-high and low emotionality (Indic et al., 2012); Velting, 1999). It suggests that people scoring high on the dimension of neuroticism are more likely to indulge in suicidal ideation (Westfeld et al., 2005). Some other previous researchers are also of the view that neuroticism (especially its depressive and anxious facets) as positive association with suicidal ideation and suicidal behavior (Chioqueta and Stiles, 2005; Lester, 1987).

The world Health Organization recognizes suicide as one of the world's leading cause of death worldwide. Research into personality traits related to suicidality suggests substantial variability among suicidal behavior. The study revealed that high neuroticism; low extraversion and low conscientiousness have positive relation with suicidal ideation. Further, the study also revealed that openness to experience and agreeableness have insignificant relation with suicidal ideation. The study highlighted that personality traits/individual differences are key contributing factor to suicidal ideation (Devi W.R. & Prakash, 2015).

## **CONCLUSION**

The findings of this study indicate that all the Big Five Personality Factors were found to exert differential effects on suicidal ideation. As per the hypotheses framed in this study all personality factors (Open to experience, conscientiousness, agreeableness and extraversion except Neuroticism correlates negatively with suicidal ideation and only Neuroticism which is negative factor correlates positively with suicidal ideation. Although the relationship between the variables are weak, yet we cannot deny the fact that they are somewhat related

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to each other. The study shows insignificant correlation between Big Five Personality Factors and Suicidal Ideation.

### **Limitations**

This study was conducted on a sample of particular area of Nashik and the size of the sample was not very large. So, the findings of the study should be generalized with care. Besides, the test NEO-PI\_R contains 240 items which was quite lengthy for the adolescents (as per participants feedback). The test ASIQ was having questions like thoughts of killing self etc. which gave them clear idea of the questionnaire, so the response given is doubtful.

### **Suggestion**

The studies are also needed to be conducted based on correlational design to have a deeper understanding regarding the relationship between suicidal ideation and its correlating variables like demographic characteristics and psychological problems. The study did not take account for the presence of psychological disorders or physical illness. It has been suggested that mental health problems might lead to suicidal thoughts, then attempt to completed suicide.

### **Implications**

The stage of adolescence is no doubt, very critical, so the parents, teachers and other related people should try their best to understand the feeling and emotions of adolescents to show them the desirable path in life during the days of crisis and uncertainty. A better understanding of the personality profile can help not only in better academic and career choice as well as in prevention of mental health problems in the future.

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### **Conflict of Interest**

The author declared no conflict of interest.

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