

## **Relationship between Risk Taking Behaviour, Personality and Sensation Seeking Tendencies among N.C.C cadets**

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**Abstract:** Risk is taken out of sensation seeking and due to personality traits by youths, especially by those who are inclined towards defence services. To find the actuality, the study was conducted keeping the age factor in consideration, especially to know negative risk, if any. The study is conducted on 100 boys and girls in total, of 1st year and IInd year belonging to urban domicile. A survey of public and private college students (aged 16-19) reveals that there is significant relation between personality and sensation seeking. In addition risk-taking is not found to be correlated to personality and sensation seeking.

**Keywords:** Locus of control, personality, risk-taking behaviour, sensation seeking, and urban domicile.

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### **I. Introduction**

Today many career options are open for adolescents. Some of them demand qualification and skills and some demand passion, risk and challenge accepting attitude. Defence service is one of those services which demand bravery. Adolescents especially boys are much interested in serving the nation through these services, however these days girls are also taking much interest in these services due to the special woman entry given by the government, (SSC) Short Service Commission.

The qualities which a person should have, to join defence services are bravery, risk taking behaviour, and the personality which should be bold enough to handle the tough situations. Till date not many researches have been carried out judging the risk taking behaviour of adolescents, youth and other age group in general. Thus a need was there to carry out the research on adolescents considering the level at which they can take the risk, whether it has to do something with their sensation seeking tendency or personality traits. These cadets are the one who are planning to join defence service in their near future. Such effort can help in identifying the reason due to which these cadets join defence services and if any precautions need to be made, can be taken at the right time.

Risk may be defined as “an action that jeopardises something of value” [1]. Risk taking behaviour is the voluntary participation in behaviour that contains a significant degree of risk. People adopt different approaches to risk or risk orientation, and there are three different risk taking types namely, “risk avoider”, “risk reducers” and “risk optimizers”. [2] have suggested that adolescents are aware of the risks; they must be either purposefully seeking them out or preventing themselves from perceiving its severity. According to [3], adolescents purposely seek out risk. They suggest that such behaviours permit adolescents to 1. Take control of their lives 2. Express opposition to adult authority and conventional society 3. Deal with anxiety, frustration, inadequacy and failure 4. Gain admission in peer group and demonstrate identification with sub-culture 5. Confirm personal identity; and 6. Affirm maturity and mark a developmental transition into adulthood. The period of adolescence (aged 11-21) is a time of multiple transitions, namely, the transition to puberty and transitions involving parent-child relationships, school peers and cognitive and emotional abilities. This period is also characterized by an increase in risk taking behaviour. For example:- those linked to careless driving, substance use, unprotected sexual behaviour, eating disorders, delinquency, homicidal and suicidal behaviour, and dangerous sports [4].

Sensation seeking is “a trait defined by the seeking of varied novel, complex, and intense sensations and experience, and the willingness to take physical, social, legal and financial risks for the sake of such experience” [5]. Sensations are more likely to engage in illegal and negative activities i.e. risky behaviours when they:-

1. Are impulsive
2. Lack self-confidence
3. Are aggressive and angry
4. Suffer from negative feelings and attitudes.

Sensation seeking and impulsivity represent the approach aspect of the reward/risk conflict. Rationally, one might expect trait anxiety/neuroticism or harm-avoidance to be traits determining the strength of the risk component of the risk conflict. These traits are associated with behavioural inhibitions in novel situations, particularly those of a social nature [6]. Sensation seeking has been associated with participation of number of risky activities [7] [8] including: potentially risky experiments, sports, vocations, criminal activities, sexual

behaviour, smoking, heavy drinking, drug use and abuse, reckless driving or driving under the influence of alcohol, and gambling. High sensation seekers tend to appraise risk as lower, than do low sensation seekers, even for the activities that they have never tried [9] [10] and they anticipate experiencing less anxiety than low sensation seekers if they were in the same situations. These expectations increase the likelihood of high sensation seekers engaging in such activities given the opportunity to do so. The approach gradient is higher and the avoidance gradient (anticipated anxiety) is lower in high sensation seekers than in low sensation seekers over the range of novel risk taking activities [10].

Personality is defined as the distinguishing characteristic of an individual which differentiate him/her from others when displayed in a wide variety of situations and circumstances especially social ones. In fact, the development of personality which is the outcome as previously mentioned of interaction between genetic make-up of an individual and his environment, starts prenatally or even before conception since genetics has something to do with it. In children, personality has a considerable potential for growth and changes i.e. very flexible, but it is rigid i.e. unalterable, in adults [11]. Personality and its development are under influence of some determinants. Environment is considered the major extrinsic one [12]. Cultural, racial, socioeconomic, educational, social guidance and health conditions could be environmental factors playing a crucial role in personality development. The intrinsic factors could be biological drives, such as the homeostatic, sexual, defensive and assimilatory drives, and hereditary temperamental differences [12]. Parental education, health and emotional states, social interaction are other factors which influence personality development.

The adolescence stage of growth and development, which represent the industry Vs role confusion stage of the psychosocial theory of development, occur from 12 to 20 years of age [13]. Adolescence is a transitional age between childhood and adult life and is characterized by rapid physical growth and psychological, mental and social maturity [14]. This stage of development officially begins at puberty and ends with person achieving a level of maturity enough to deal with and manage realities of life and be able to bear responsibility of him/herself and his/her actions [15]. The development task faced by the child at this age are accepting changes in the body and appearance, developing appropriate relationship with opposite gender of the same age, accepting the male and female role appropriate for one's age, becoming independent from parents and adults, developing morals, attitudes, and values needed for functioning in the society. In accepting the psychological, physical and social changes adolescents, especially who have extrovert personality involve themselves in risky activities.

A study by [16] was distinctive in using a broad range of personality traits assessed at 18 years of age to predict four types of risky behaviours at 21 years of age, including alcohol dependence, risky sexual behaviour, violent offences and dangerous driving habits. All three scales from the constraint factor of the Multidimensional Personality Questionnaire were negatively related to all four types of risky behaviours. Aggression was positively related and social closeness was negatively related to all risky behaviours. Concurrent studies of personality and risky activity like drinking in young adults show a strong predictability of substance use from sensation seeking but practically no correlation with anxiety or neuroticism [17] [18] [19].

[20] Suggest that personality may help explain the apparent inconsistency, offering support to [21] ,who argument that economists should consider a multi-domain approach to measuring risk attitudes.

Anecdotal evidence from media reports, all point to one major effect: the high risk propensity of young males [22], is the reason of the especially strong drive for youthful male distinction and achievement, as evolutionary psychologists point out is rooted in the pervasive Darwinian principle of sexual selection – i.e. why males are especially motivated and hormonally primed to take risks at this time of life [22]. This is the combined result of both a stable sex difference [23] [24] and an inverse age-risk taking function [25] [26]. Accordingly it is predicted:

- a) Men will have consistently higher risk profiles than women.
- b) Risk propensity will be inversely related to age.
- c) Age effects will be more pronounced for men than women

Research has confirmed the importance of the five factor model of personality in understanding risky behaviour [27]. The literature also suggests that repeated risk-takers require resilience [28], which would suggest that they should also score low in emotional sensitivity or neuroticism.

It is also likely that these common factors increase the likelihood of trans-temporal risk taking in view of the stability of personality over the adult lifespan [29]. In addition, there are a number of facets that predict risk taking in just one or two risk domains suggesting that a combination of general and specific personality facets underlie domain specific risk behaviour.

A recent study in a young adult sample examined how both mean-level and individual-level changes in self-reported personality factors (impulsivity, neuroticism, and extraversion) correspond with the “maturing out” process of reductions in problematic alcohol use in older adolescence [30].

Sensation seeking increases from risk taking propensity is suggested by the prior research which demonstrates that overall levels of sensation seeking increase throughout adolescence [31] [32] [33] [8].

Adolescence is a period that evidences substantial personality change, perhaps in part due to neurobiological changes and pubertal development during this time, but there is also expected variability in the magnitude of such changes [34].

### **1.2 Rationale of the Study**

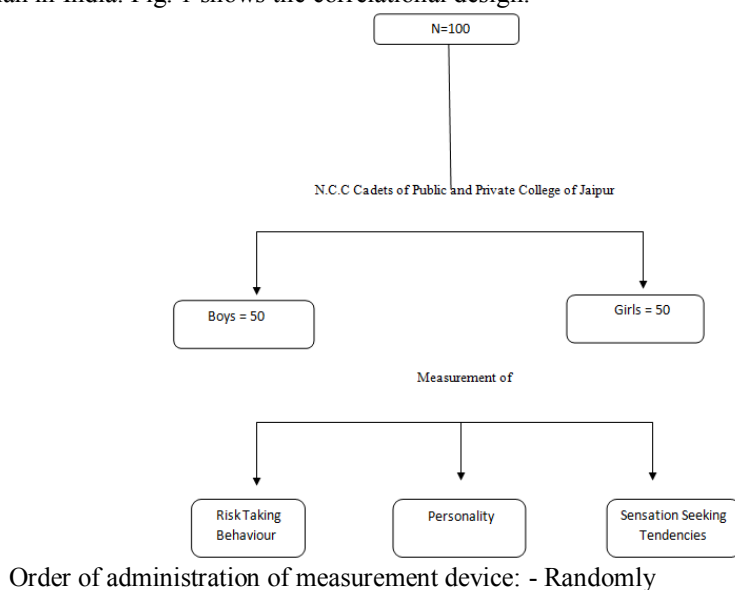
Risk is increasing day by day with the increasing technology and career options. If we talk about the jobs or careers which involve high level of risk, would surely include defence services. These services select the candidates at very early age, if the candidate has just qualified senior secondary or graduation.

In last few years it has been observed that the servicemen even at officer level are also quitting their job or taking some extreme steps to come out of these services. The reasons are still unknown. Many researches have been conducted to find out about risk taking behaviour, personality and sensation seeking tendencies in general but this area need to be probed to find out the answers and solution to the above mentioned problem.

This study may help to know the reason regarding the candidates that why they select this field, due to their risk taking behaviour which might be related to personality or sensation seeking tendencies, or due to their sensation seeking tendencies which might be correlated to personality or vice versa. The result can help to make the defence personnel survive in a healthy way for long term to serve the nation and can assist them in dealing with their problems which is rooted from their behaviour or personality.

### **1.3 Purpose of the Study**

This study sought to determine the interrelationship of risk taking behaviour, personality and sensation seeking tendencies. Sample taken is N.C.C cadets studying in Ist or IInd year of their college in the city Jaipur of the state Rajasthan in India. Fig. 1 shows the correlational design.



### **Hypothesis**

1. There will be significant correlation between risk taking behaviour and sensation seeking behaviour.
2. There will be significant correlation between risk taking behaviour and personality.
3. There will be significant correlation between personality and sensation seeking behaviour.

## **II. Research Method**

The sample comprised of 100 N.C.C cadets of which 50 cadets were boys and 50 cadets were girls. Before conducting surveys permission was obtained from N.C.C officers of girls and boys battalion. To avoid potential bias like boredom, surveys were conducted on different weekends. The questionnaires were distributed to the cadets during their studies and asked them to complete questionnaire. A pen worth about Rs. 10 was given to the participants as an incentive for participation.

### **2.1 Measures**

The scale which was used to test the risk taking behaviour was developed by Dr. N.P Chaubey. The reliability coefficients Spearman-brown split-half method for odd-even items was followed for the samples of three-age group (adolescents, adult and old) which ranges between 0.66 and 0.82. The inventory has 8 items.

The probability level is the unit of measurement. The subject's score on an item is the level of probability chosen by him for the more risky alternative. Thus, scores given for the probabilities 1 in 10, 3 in 10, 5 in 10, 7 in 10 and 9 in 10 are 1, 3, 5, 7, and 9 respectively. The scale which was used to test the personality was developed by Dr. I.S. Muhar, Dr. Prabha Bhatia and Dr. Geeta Kapoor. The reliability coefficient was worked by using test-retest method. The Neuroticism and Introversion-extroversion scales had test-retest reliability of .93 and .92 respectively. The inventory has 50 items. First 25 items are to find out neurotic personality and 25 are to find out introvert and extrovert personality. The items are presented on three point scale. Sensation seeking scale was developed by Marvin Zuckerman and Micheal Kuhlman. The reliability coefficient is alpha coefficient oscillated between 0.62 and 0.82. The inventory has 19 items.

### III. Results

TABLE 1 shows correlation between risk-taking and sensation seeking tendencies. The results indicate that there is a no significant correlation between risk taking and sensation seeking. In the other words, risk taking activities are not taken up to sense or experience anything as such. Therefore the first hypothesis is rejected.

**TABLE 1**  
Correlation between Risk Taking Behaviour and Sensation Seeking Behaviour

		Sensation Seeking
Risk taking	Correlation	-.181
	Total	100
** Correlation is significant at the 0.01 level (2-tailed).		
* Correlation is significant at the 0.05 level (2-tailed).		

As per the TABLE 2, risk taking behaviour is not related with personality significantly. It means that whether the personality is introvert, extrovert or ambivert it has no effect on risk taking behaviour. Therefore the second hypothesis is not proved.

**TABLE 2**  
Correlation between Risk Taking and Personality

		Personality
Risk taking	Correlation	-.080
	Total	100
** Correlation is significant at the 0.01 level (2-tailed).		
* Correlation is significant at the 0.05 level (2-tailed).		

As given in the TABLE 3, personality and sensation seeking tendencies are significantly correlated at the .05 level. This result throws the light on the fact that specific personality has different sensation seeking tendencies; it can be high or low depending on the personality.

**TABLE 3**  
Correlation between personality and sensation seeking

		Sensation Seeking
Personality	Correlation	.036*
	Total	100
** Correlation is significant at the 0.01 level (2-tailed).		
* Correlation is significant at the 0.05 level (2-tailed).		

### IV. Discussion And Conclusion

These days we can see adolescents are becoming mature before the age due to increasing technology and pollution which triggers hormonal disturbance. Girls are attaining puberty between 10 and 12. They want to sense all the sensations around them and are eager to take risk. In fact they pursue that career by which they can fulfil their desire to do something risky. Positive risk can provide advantages but negative can create a problem for both adolescents and others. This study benefits in finding out about those teenagers who have already step forward out of passion or any other reason, in the profession which demands bravery, whether their risk taking is out of sensation seeking tendency or due to their personality.

The first hypothesis was to find out the correlation between risk taking behaviour and sensation seeking behaviour.

The results show that there is no significant relation between risk taking and sensation seeking behaviour. In other words adolescents who are the part of National Cadet Corps do not get involved in risky activities to seek the sensation of that. This shows that the cadets are taught not only to be patient but also aggressive at the suitable demand of the situation not just to sense the risk but in order to fulfil some motto.

However there are certain studies which contradict the above results. Sensation seeking is related to driving speed, with both males and females high in sensation seeking more likely to engage in speeding. Alcohol use has been linked to sensation seeking, especially the disinhibition and experience seeking subscales. Peer influences and sensation seeking appear to mutually reinforce each other in their influence on substance use. Research has found that peer sensation seeking levels are predictive of drug use. Furthermore, individuals are likely to associate with peers whose sensation seeking levels are similar to their own, further influencing drug and alcohol use [35].

The sample taken considering the specific age does not have influence of sensation seeking behaviour. Although earlier research has shown considerable age differences in sensation seeking [7] [36], it is reasonable to believe that 12±16 year olds are different from adults. These are adolescents in the middle of puberty, and girls are often ahead of boys in development during this period.

The second hypothesis was to find out the correlation between risk taking and personality.

The results show that there is no significant relation between risk taking behaviour and personality. To put it simply, whether the personality is neuroticism, extraversion or introversion there is no particular trait to pursue risk. The adolescents in defence field take the risk not because of their attitude but some other factor influencing it. To control the behaviour and emotions, which forms the vital portion of their personality, were the part of training.

However there are studies which identify extroversion, or some component of extroversion (i.e., sociability or sensation seeking), as a possible risk-factor for smoking and drinking activities. People who are highly extrovert are particularly inclined to engage in multiple, risky health behaviours such as smoking and drinking [37]. Personality traits are often predictors of behaviour, and as such they can be used as a guide for the way any given person will react to a situation. This is more aptly expressed in a longitudinal study performed by [38] which suggested that children who showed signs of extroversion at ages between 5 and 8 were more likely to drink 20 years later. People who were measured early in life and subsequently began smoking were more sensation seeking, and were socially extroverted while in college [38]. While these two studies suggest that extroversion may be a factor in risk taking behaviour, they fail to put them in the context of the extrovert. That is to say that they suggest extroversion may be a risk factor, but fail to mention that the extrovert may seek out situations that are more conducive to risky behaviour. One study found that extroversion was related to risk-taking behaviour, but also to sociability. Drinking and smoking often begin in parties of the type enjoyed by extroverted [39].

The third hypothesis was to find the correlation between sensation seeking and personality.

The results show that there is significant relation between sensation seeking behaviour and personality. This shows that the cadets, because of their personality trait like to experience new sensation around them. We can infer that their personality traits trigger the sensation seeking tendencies accordingly. The more outgoing person would have higher sensation seeking tendency, as the correlation in result is positive.

A study supports the result. People who were measured early in life and subsequently began smoking were more sensation seeking, and were socially extroverted while in college [38].

#### **4.1 Limitations**

There are certain limitations of the study which can be taken for further research. Gender consideration would have helped in finding out the actual picture of girls and boys. Opinion of the parents could have helped in finding out the fact that when they are out of N.C.C strict discipline what is their usual behaviour. There are certain exams which are held by N.C.C units, their performance on that must have helped in knowing about their performance and personality more clearly.

#### **4.2 Applications of the study**

Defence services demands the person to have good self control and positive risk taking behaviour. During the selection this research may help finding out their degree of seeking sensation as per their personality.

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