

Gender Differences in Locus of Control and Sensation Seeking among Late Adolescents: A College Based Cross-Sectional Study

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Abstract

The Sensation seeking behavior is very common among adolescents as they most often desire for varied, novel, complex and intense sensations and experience, and are willing to take physical, social, legal and financial risks for the sake of such experience. The locus of control deals with the perception or belief about the degree of control people have over the events occurring in their lives. The objective of this research study is to identify the locus of control and sensation seeking behaviour among late adolescents. The sample comprised of 100 students, 50 girls and 50 boys each, belonging to the age group of 16 -18 years from urban locality. The tools used to assess locus of control and sensation seeking were Leven son's Locus of Control scale and Zukerman's Sensation Seeking Scale respectively. The statistical analysis was done using Independent Sample t-test. The Results indicated that there is no significant gender difference in the sensation seeking behavior among late adolescents but there were significant gender differences with findings that boys were found to have external locus of control.

Keywords: Locus of Control; Sensation Seeking; Late Adolescents.

Introduction

It was the social learning theorist Julian Rotter who developed the concept of locus of control in 1966. During this time, the dominant perspective in clinical psychology was Freud's Psychoanalysis, which focused on people's deep-seated instinctual motives of childhood as determining activities. Rotter however, believed that reinforcement helped to modify the behavior [1]. He exposed through reinforcements individuals got to know about the causes of their actions, and these beliefs then lead them what type of attitudes and actions they accept in the future [2].

Locus of control is an incorporated in both the Expectancy-Value Theory (1970) which was developed by Martin Fishbein, and the Social Learning Theory (1954), which was developed by

Rotter. Both theories claim that reinforcements act to make stronger the expectancy that an exact actions or events will be followed by that same reinforcement in the future [1]. On the other hand, once a relationship is established between a behavior and reinforcement, the absence of the reinforcement will reduce or extinguish the expectancy. Expectancies from exact situations to situations were generalized that are perceived as similar or related. These general beliefs and expectancies can influence a variety of behavioral choices in many dissimilar life situations [10].

"Sensation seeking" is defined as "the need for varied, novel and complex sensation and experiences and willingness to take physical and social risks for the sake of such experiences". Findings of new studies on hazardous behaviors have shown a consistent link between high sensation-seeking behavior and engaging in risk-taking actions during

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adolescence [11-12]. An rising number of adolescents and young people are fascinated by intense stimuli and strong sensations [13]. Many youngsters have proved that they have developed a sort of selfishness to get gratification in everyday life events. The threshold of gratification becomes increasingly higher; the low capacity for pleasure makes many young apathetic, bored or incapable to be able to defer the achievement of the desires.

Sensation-seekers are characterized by low sensitivity to stimuli and therefore in need of high levels of stimulation to maintain an optimal state of arousal. To the extent that individuals need sensations, they engage in behavior that increases the amount of stimulation they experience, and they are likely to take risks to that end. Data have indeed highlighted that high sensation-seekers report significant levels of violent behavior, abuse of illegal substance, alcohol use and risky sexual behaviors [14-16].

In recent years, sensation seeking is considered as a personality trait, and it has led to the series of studies on the physiological and temperamental characteristics of sensation seekers. In this sense, this personality trait has been described by Zuckerman in his work on bio-psychological personality research and is often related to biochemical reactions in the brain. Within this conceptual framework, recent studies have underlined that changes in sensation seeking during adolescent development have been hypothesized to be due to maturational changes in the adolescent brain [17-19]. A survey of public and private college students (aged 16-19 years) 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. Taking all these into consideration, this study was planned.

Methodology

Aim

- To assess the gender differences in the locus of control and sensation seeking behavior among adolescent population

Hypothesis

- There is no significant difference between boys and girls in locus of control.
- There is no significant difference between boys and girls in their level of sensation seeking.

Methods

It is a cross-sectional study conducted at a tertiary care teaching medical college and hospital in our city. It was carried out during October 2016. The study involved the distribution of study questionnaire to the participants which included the adolescents studying in 2nd year Pre-University Course in the Basaveshwar Science College, Bagalkot.

Participants

The participants for the present study were selected using purposive sampling method from the urban area in Bagalkot. Selection criteria for participants required that they should fulfill the inclusion and exclusion criteria.

Inclusion Criteria

- Age between 15-18 years.
- Those who give written informed consent.

Exclusion Criteria

- Not giving informed consent.

Instruments

- Socio-demographic data sheet*: It consisted of the subject's details like name, age, gender, year of education, place.
- Levenson's Scale for Locus of Control*: Locus of control scale was developed by Levenson. There are 24 statements pertain to general life outcomes. Each statement has five point scale (Strongly Agree - Strongly Disagree) [21].
- Sensation Seeking Scale*: Sensation Seeking Scale was developed by Zuckerman. Here in this study, Zuckerman's Sensation Seeking Scale form V is used. The scale consists of 40 items, which is made up of the four subscales (disinhibition, Boredom Susceptibility, Thrill and Adventure Seeking, Experience Seeking) of a maximum of 10 points for each of the four subscales and it takes a participant 12 to 25 minutes to complete. Each question has two responses and participants should mark the response relevant to their opinion [22].

Ethical Considerations

Permission was obtained from the institutional ethical committee where the study was conducted.

Participants were informed of the study’s aims and procedures so that they could decide if they were willing to participate. The investigator explained explicitly that students’ responses would have no influence on their further course of the study. Written informed consent was taken from all study subjects, before enrolment in the study. After taking the consent, the principal investigator gave them the questionnaires. Data collection tools contained no identifying information and thus kept individual responses confidential.

Procedure

The participants were personally met and one of the authors verbally explained the aims and method of the research and how to complete the questionnaires. After taking the consent to participate in the study, socio-demographic data sheet was distributed. Later, both the Levenson’s Scale for Locus of Control and Sensation Seeking Scale were distributed to the subjects individually at various times. The subjects who were willing to participate in the study completed both questionnaires. All the instructions were given in simple language. After completion of the assessment the tools were collected back and the participants were thanked for their

participation. The scoring of each response sheet was done as mentioned in the respective manual.

Statistical Analysis

The data were tabulated in Microsoft excel and analyzed using SPSS software version 13. Results were presented in narratives and tables. The obtained results were analyzed using descriptive statistic and independent sample t-test. Statistical significance was assumed at $p < 0.05$.

Results

The questionnaires were given to 110 students but six girls and four boys did not give consent. Hence, to fulfill the sample size, 100 students were included. Sample included fifty girls and fifty boys. All were from 12th standard (PUC-II) as per our study criteria and were belonging to urban domicile. Mean age of the students was 16.8 years (SD-1.25). Table 1 explains the mean, standard deviation(SD) and the minimum and maximum values on the individual parameters on both the scales used.

Table 1: Descriptive Statistics (N-100)

Variables	Mean	SD	Minimum Score	Maximum Score
Disinhibition	4.99	1.474	1	8
Thrill & Adventure	6.33	1.741	2	10
Boredom Susceptibility	3.85	1.459	1	8
Experience Seeking	4.65	1.395	2	8
Powerful to Others	27.07	4.632	13	36
Chance control	26.28	4.557	16	37
Internal control	29.66	5.578	14	41

Table 2: Gender differences in Locus of control

Locus of Control	Gender	N	Mean	SD	t- value	Sig.(p-value)
Powerful Others	Girls	50	25.78	4.409	-2.886	0.005
	Boys	50	28.36	4.530		
Chance Control	Girls	50	25.60	4.634	-1.502	0.136
	Boys	50	26.96	4.421		
Internal Control	Girls	50	29.64	6.197	-0.036	0.972
	Boys	50	29.68	4.946		

As in Table 2, it shows that the girls and boys do not differ significantly on chance control and internal in locus of control scale as the p-value for chance control and internal control are statistically insignificant ($p > 0.05$). We retained the null hypothesis. But as seen in powerful others in locus

of control as the t-value of -2.886, which is statistically significant with $p < 0.05$. Hence the null hypothesis is rejected and alternative hypothesis is accepted that there is a significant gender difference (boys > girls) with respect to powerful others in locus of control scale.

Table 3: Gender differences in Sensation Seeking

Sensation Seeking	Gender	N	Mean	SD	t- value	Sig.(p-value)
Disinhibition	Girls	50	4.82	1.561	1.156	0.251
	Boys	50	5.16	1.376		
Thrill & Adventure	Girls	50	6.14	1.412	1.092	0.277
	Boys	50	6.82	1.483		
Boredom Susceptibility	Girls	50	4.08	1.738	-1.588	0.115
	Boys	50	3.62	1.741		
Experience Seeking	Girls	50	4.48	1.403	1.221	0.225
	Boys	50	4.82	1.380		

Our hypothesis was stating that there is no significant difference between boys and girls in their level of sensation seeking. Now, Table 3 depicts that t-values for disinhibition, thrill and adventure, boredom susceptibility and experience seeking are 1.156, 1.092, -1.588 and 1.221 respectively and p-value is not significant for any of them. This shows that there are no significant gender differences with respect to disinhibition, thrill and adventure, boredom susceptibility and experience seeking in sensation seeking scale. Hence the null hypothesis is accepted.

Discussion

Adolescence is a period of transition between childhood and adulthood that involves biological, cognitive and socio-emotional changes. Social Scientists who study adolescence usually divided the adolescence into three stages such as early adolescence, which covers period from about age 14 through 13; middle adolescence from about age 14 through age 18; and late adolescence from about 19 through age 22. A key task of the adolescence is preparation for the adulthood.

Locus of Control refers to individual's very common and cross-sectional belief about what it determines whether or not, the yare reinforced in lifetime. Individual can be classified from internal to external personality trait [1,2]. Previous studies have suggested that affective execution is related to the locus of control. Many studies have revealed that the peripheral expectancies for locus of control are positively associated to depressive tendencies. results show that an external locus of control appear to be positively related to a feeling of powerlessness, alienation from self and work, and a tendency to avoid challenge. Locus of control also seems evidently associated to physical and psychological health problems. People who had more internal locus of

control indicated less mental and physical health problems and expressed less stress than those who had a more external locus of control [3-8].

Previous studies reported of significant gender differences with respect to powerful others with evidence bearing on the division of control, in both the sexes (M=16.65, t=12.41, p<0.001), in the chance control (M=13.94, t=13.28, p<0.001), and on individual control on the scale (M = 14.64; F = 4.86, p< 0.05) [23]. These above results are partially contrast to our study stating there is no significant difference between males and females with respect to two areas on the locus of control scale but our study also say there is gender difference in powerful others. In addition to that comparison with earlier studies by using locus of control scale on psychiatric patients, neurotic males had higher internal scale scores than neurotic females. Paranoid males scored higher on the powerful others scale than paranoid females [24].

As per the study done by Levenson [25], analyses of scores on the internal and chance scales indicate that neither the effect of activism nor that of the activism plus ideology interaction is significant. However, the effect of ideology approaches significance. Compared with the liberals, the conservatives tended to score higher on the internal scale and lower on the chance scale. The factorial analysis of scores on powerful others scale show there are no main effects, but the predicted interaction is significant with p <0.05 [25].

The theory of individual differences in responses to the experimental situation of sensory deprivation, and the consistent work of early 1960's is based on the idea of Zuckerman's sensation seeking which showed that individual differences in optimal level of stimulation and arousal and the difference was measured using Zuckerman questionnaire, which developed to examine the traits of sensation seeking by using sensation seeking scale (SSS). The four sub factors in this scale were thrill and adventure seeking

: aspiration to engage in games or activities involving in physical danger or risk, experience seeking: aspiration to look for new experiences through the mind and senses by living in a out of the ordinary life style, boredom susceptibility: an hatred towards repetitive experience of any kind, everyday work, or even dull or predictable individuals etc, disinhibition: wish to disinhibit and individual's behavior in the society by drinking, partying and seeking variety in sexual partners etc [20].

As per previous studies regarding the SSS scale, in order to determine how each sample group differed in the Sensation-Seeking Scale V (SSS-V), it is theorized that the students should measure higher regarding sensation-seeking given their interest in high-risk recreation. Based on the results, there is a significant difference between the two sample groups on each of the sub-scales of the SSS-V [26].

But, in the present study, we did not find any significant gender differences with respect to disinhibition, thrill and adventure, boredom susceptibility and experience seeking. Studies conducted in the Europe, USA, China and Australia have all reported higher average scores in males than females on three of the four subscales on sensation-seeking scale, namely, Disinhibition (Dis; favorable attitudes to uninhibited social interactions), Thrill and Adventure Seeking (TAS; interest in physically challenging activities) and Boredom Susceptibility (BS; dislike for repetition and predictability), but not difference was found on Experience Seeking (ES; interest in low-risk, novel experiences) [28,29]. Males also have higher average scores than females on few measures of risk-taking that could lead to damaging or undesirable outcomes [30].

A meta-analysis by Cross et.al., investigated whether gender differences in sensation-seeking have changed over the past years. They found that gender differences in total SSS-V scores have remain constant across years, as have gender differences in Boredom Susceptibility and disinhibition.

Whereas the gender difference in Thrill and Adventure Seeking has declined attributing this to outdated questions on this sub-scale or changes in social norms. Their study results supported the view that male and female differ in their propensity to report sensation-seeking characteristics, while behavioral manifestations of sensation seeking change over a period. Gender differences in sensation-seeking could imitate hereditarily predisposed interacting with socially transmitted information [31].

Conclusion

The present study aimed to determine whether male adolescents involve in a considerably level of high-risk recreational activities, would differ with regards to sensation-seeking. Our study found significant result. As per our study hypothesis, the findings of this study state that there are no such gender differences in chance control and internal control but in powerful others on locus of control scale, there is significant gender differences with boys showing more of external locus of control. Most of the findings in the literature are in favor of this finding. In modern society, men and women are still viewed as different but equal. Consequently, the corroboration for gender differences in LOC may no longer be pertinent, so that gender differences in LOC might no longer become visible in a modern people or may now be moderated by an unnoticed variable [27]. The results of the study show that the boys are more external and influenced by others than girls in powerful to others compare to chance control and internal control. However, it was highly limited in its ability to accurately represent, or be representative of, the general population. This warrants studies on larger sample size.

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Conflict of Interest: None declared

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Abbreviations

PUC:Pre-University College, SSS-V: Sensation-Seeking Scale V, LOC-Locus of Control.

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