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Original Research Paper

Risk Taking Behavior among Adolescents: An Exploratory Study

Saranya T.S.[1]*, Nigesh K.[2]

ABSTRACT

Adolescence is the most critical stage of development with identity achievement and formation. Due to the lack of maturation and incomplete brain development, they tend to indulge in various risk-taking behaviors and sensation seeking activities. The present study attempts to find out the various risk-taking behaviors like alcohol consumption, reckless driving, smoking, impulsive behavior and binge eating among adolescents of Kerala. The data was collected using a semi-structured questionnaire and Background Information Schedule. The analysis of the data revealed that 17% of adolescents indulge in smoking, and 8% of the participants consume alcohol due to peer pressure. 20% of the participants revealed that they indulge in impulsive behaviors like fighting with peers, elders, teachers etc. The findings of the study recommend an immediate intervention among adolescents to sensitize them about the issues of alcohol consumption, reckless driving, smoking, binge eating etc.

Keywords: *Risk-Taking Behavior, Adolescence, Sensation Seeking*

Adolescence, which means "to grow" or "to develop towards maturity (Feixa, 2011), is the most crucial period of human growth. The term adolescence derives from the Latin word *Adolescence*, After the sudden growth in infancy, adolescence is the second and the final growth spring in the lifecycle. It is a time of rapid physical change that includes periods of abrupt growth and the emergence of secondary sexual characteristics, along with sometimes prominent changes in mood and behavior. Although these changes in body appearance and behavior are more apparent, they are no more dramatic than the physiologic changes occurring internally in the adolescent, transitions that include significant increases in hormone release as well as a dramatic metamorphosis of the brain. Internal activities like secretion of hormones, basal metabolism, and biochemical reactions will increase during this stage until full growth is achieved. Due to these phenomenal growths that occur in this period the need for energy and nutrients intake also increases. Total nutrient needs are higher during adolescence than any other time in the lifecycle. During adolescence, a child gains about 20 percent of adult height and 50 percent of their adult weight and 50 percent of their adult skeletal mass during their rapid growth period. (Tiwari & Kumar, 2004)

[1] Ph.D. Scholar Dept. of Applied Psychology, Pondicherry University, Kalapet, Puducherry, India
[2] Clinical Psychologist, Calicut University, Malappuram District, Thenhipalam, Kerala, India
*Responding Author

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WHO identifies adolescence as the period of human growth and development that occurs after childhood and before adulthood, specifically from ages between 10 to 19. As the population of India moves towards the 1.25 billion mark, our estimated number of adolescents is 243,492 million. If one were to extrapolate the prevalence figures to a reasonable and approximate 20 %, in India alone, the numbers would be 48 million or about 5crore adolescents, in need of therapeutic mental health services (Naik, 2015).

Risk taking behavior among adolescents

Individual differences in impulsivity underlie a good deal of the risk-taking that is observed during adolescence, and some of the most hazardous forms of this behavior are linked to impulsivity traits that are evident early in development. However, early interventions appear able to reduce the severity and impact of these traits by increasing control over behavior and persistence toward valued goals, such as educational achievement. One form of impulsivity, sensation seeking, rises dramatically during adolescence and increases risks to healthy development.

Adolescents seek to develop their own identity, opinions, and values (Miller et al., 1989). When adolescents take risks, the consequences can be negative: car accidents can occur while driving drunk, smoking can lead to unwanted pregnancies and disease (Worrell & Danner, 1989). The morbidity in the second decade of the life is mainly behavioral in nature. The reasons for life loss in adolescence are due to substance abuse, risky sexual behaviors, reckless driving, suicidal behavior, eating disorder and delinquency.

The personality factors and risk-takingbehavior among adolescents

Lots of studies suggested that risk-taking is linked to neuroticism, a personality trait. It is an expression of neurotic conflict, a form of acting out or counterphobic behavior. Our previous research on physical risk-taking refutes such an explanation; it suggests that risk-takers do not expressly exhibit traits of neuroticism or anxiety.

It has also been suggested that high-risk behaviors like reckless driving and antisocial activity are a vehicle for expressing aggressiveness and hostility. Or perhaps risk-taking might be just an expression of a generalized need for the activity itself, as is the case with hyperactive individuals, who provide their own stimulation through activity to overcome boredom. Yet many risky activities, such as drinking and drug use, are done in a social setting. So it is possible that these activities, particularly in a college population, may be related to sociability.

Adolescence is a period of life with specific health and developmental needs and rights1. It is also a time to develop knowledge and skills, learn to manage emotions and relationships, and acquire attributes and abilities that will be important for enjoying the adolescent years and assuming adult roles. The period between childhood and adulthood is growing longer and more distinct. Puberty is starting earlier in many countries, although in general the timing of menarche has leveled off in high-income countries at 12–13 years. At the same time, key

social transitions to adulthood are postponed until well after biological maturity. Young people spend more years in education and training, their expectations have changed, and contraception is increasingly available to prevent pregnancy.

Epidemiologic studies have consistently found an inverse association between risky behaviors, such as smoking, and Parkinson's disease (PD) (Evans et al., 2006; Allam et al., 2004; Herman et al., 2002; Checkoway et al., 2002). It has been suggested however that this association is being confounded by a third factor such as personality (Graves & Mortimer, 1994).

A personality type characterized as being rigid, introverted, cautious, low on novelty seeking, conscientious, and aversive to risk-taking, has been described as a ëparkinsonianí personality (Ishihara & Brayne, 2006; Paulson & Dadmehr, 1991). Given that patients who develop PD are generally disinclined to engage in risk-taking behaviors such as smoking; it is possible that the ëparkinsonianí personality type is also inversely associated with risk-taking and that the inverse association seen between smoking and Parkinson's disease is due to the confounding effect of personality.

Dopamine is an association with PD and personality lends biologic plausibility to an association between personality and risk taking. Dopamine is central to the reward system and provides the motivation to engage in risky behaviors (Chinta & Anderson, 2005). Since PD is associated with the loss of dopaminergic neurons in the substantial nigra of the midbrain (Chinta & Anderson, 2005), it is expected that PD patients are less likely to have traits associated with risk taking. A study comparing 50 PD patients and 31 controls with the unrelated disease, found the PD patients to score significantly lower on novelty seeking, a trait characterized by impulsiveness, excitability, and a quick-temper 2 (Menza et al., 1993).
The trait of novelty seeking, which is associated with high levels of dopamine (Stuettgen et al., 2005), is also the basis of sensation seeking, a trait known to be associated with risk-taking (Zuckerman & Kulhman, 2001). Based on the observed associations between PD patients and risk taking, I hypothesize that risk-taking is inversely associated with a ëparkinsonianí personality characterized by high conscientiousness and agreeableness and low openness, extraversion, and neuroticism.

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 conflict. These traits are associated with behavioral inhibition in novel situations, particularly those of a social nature. Sensation seeking has been associated with participation in a number of risky experiments, sports, vacations, criminal activities, sexual behavior, smoking, and heavy drinking. Findings in most of these areas have been replicated many times, in different decades, and in different countries (Zuckerman, 1979).

Eysenck (1976) found that both extraversion (E) and psychoticism (P) in his "big three" were related to risky behaviors such as promiscuity. Drinking and sexual activity often begin in parties of the type enjoyed by extroverted and impulsive sensation seekers more than introverted and controlled low sensation seekers (Zimbardo, 1997).

Gilligan and Roger in 2014 found that female adolescent antisocial behavior is increasing, but little is known about the neuroendocrinology aspects of this disorder. On the basis of reports of decreased cortisol levels in antisocial males, we investigated morning plasma cortisol levels in adolescent girls with conduct disorder (CD).

METHODOLOGY

Geographical Area

The data was collected from Bharat Institute of Management and Commerce, Malappuram.

Sample and Sampling

The sample consists of 45 adolescent Boys of Graduation. The data was collected using purposive sampling method.

Tool

The tool used was a structured questionnaire titled "a study on adolescent risk-takingbehavior developed by Saranya TS, Department of Psychology, Bharath Institute of Management and Commerce. It has 2 sections, containing questions regarding various aspects of adolescent risk-taking behavior and demographic details.

Data Analysis

For statistical analysis the following tests were applied;

- Chi-square
- Percentage analysis

Ethical Considerations

- The college authority and subjects were briefed about the objectives of the study and their informed consent was obtained.
- Subjects were allowed to withdraw themselves when they wish to withdraw themselves during the study period.

RESULTS

Table 1, Shows the demographic details of the study population (n=45)

Demographic Variables	n (%)
Education	
Science	15 (33.33%)
Arts	15 (33.33%)
Commerce	15 (33.33%)

Demographic Variables	n (%)
Religion	
Hindu	10 (22.22%)
Muslim	30(66.66%)
Christian	5(11.11%)
Age	
18	11(24.44%)
19	20(44.44%)
20	8(17.77%)
20 & above	6(13.33%)

The table shows that 33.33% of adolescents belong to Science group, 33.33% belongs to Arts stream and 33.33% belongs to Commerce Stream. 22% of the adolescents belong to Hindu religion and 66% of them belong to Muslim religion and 11.11% belong to the Christian religion. The data shows that 44% of adolescents belong to age 19.

Table 2, Shows the information on semi-structured questionnaire related to the risk-takingbehaviorof adolescent boys

Sl no	Information related to guidance	Responses	Chi-square value	Df	Sig level
1.	Do you drive without a license?	Yes 18 (40%) No 27(60%)	2.80	1	.05*
2.	Do you drive without following traffic rules? (over speed, over taking etc)	Yes 22(48.8%) No 23(51.2%)	.68	1	.68
3.	Despite knowing the consequences of smoking, do you smoke?	Yes 8 (17.7%) No 37(82.3%)	4.34	1	.01**
4.	Are you influenced by your peers to smoke a cigarette?	Yes 6 (13.3%) No 39 (86.7%)	3.89	1	.02*
5.	Despite knowing the consequence of drinking do you drink alcohol?	Yes 4 (8.8%) No 41(91.2%)	7.50	1	.00**
6.	Are you influenced by your peers to drink alcohol?	Yes 4 (8.8%) No 41(91.2%)	7.50	1	.00**
7.	Do you skip meals? (especially breakfast)	Yes 22(48.8%) No 23(51.1%)	.58	1	.89
8.	Are you fond of consuming fast food? (Burgers, Pizza etc.)	Yes 28(62.2%) No 17(37.8%)	.90	1	.86
9.	Do you have a habit of consuming caffeinated	Yes 15(33.3%)	2.14	1	.04*

Sl no	Information related to guidance	Responses	Chi-square value	Df	Sig level
	beverages (cola, coke etc.)	No 30(66.6%)			
10.	Do you have impulsive behavior? (like fighting with peers, teachers, and elders)	Yes 9 (20%) No 36(80)	3.85	1	.01**

** denotes significant at .01 level of confidence

*denotes significant at .05 level of confidence

Table 2 shows the information related to risk taking the behavior of adolescent boys. The results show that almost half of the respondents (40%) used to drive vehicles without having a license. 48.8% of the adolescent boys reported that they used to drive without obeying the traffic rules. 17% of the respondents stated that they used to smoke and 13.3% of the adolescents stated that they are smoking due to the peer influence. 8.8% of the adolescent boys stated that they consume alcohol and all of them reported that they are drinking due to the influence of their peers. 48.8% of the respondents stated that they skip their breakfast and majority of the respondents (62.2%) stated that they are fond of eating fast food. 33.3% of respondents stated that they consume caffeinated beverages. Only 20% of the respondents stated that they have impulsive behavior.

DISCUSSION

The study revealed that almost half of the adolescents drive without having a driving license and almost half of the respondents stated that they used to drive without obeying traffic rules. Ulleberg and Rundmo (2003) found that younger adults are more prone to unsafe driving behavior than older adults.

Yagil in 1998 found that young drivers motives for compliance with traffic rules are weaker than that of older adults. Adolescents are more prone to take risk-takingbehavior while driving which results in frequent accidents than other age groups (Ulleberg & Rundmo, 2002). This is a serious issue which must be addressed by traffic control board of India.

17.7% of the adolescents of the study reported that they do smoke cigarette. The respondents who smoke a cigarette are doing that to confirm with the friends. The results of this study also revealed that the adolescents who are smoking are doing that due to peer influence. The similar findings are yielded by Kaplan (2011).

Alcohol use and addiction are becoming more prevalent among adolescent boys. 8.8% of the respondents stated that they consume alcohol due to peer pressure. The alcohol addiction can lead to behavioral problems and stress among adolescents. Swamy in 2008 found that alcohol use is mainly due to peer pressure and Anita and Nair (2009) found that the alcohol use can lead to lots of mental health problems in adolescents.

IMPLICATIONS

- The study threw light on the different behavioral problems among adolescents of Kerala.
- The study emphasis on the need for intervention among adolescents and parents related to the problems of risk taking behaviors.

CONCLUSION

- Proper awareness classes must be given to adolescents to sensitize them about the consequences of reckless driving, alcohol abuse, smoking and consuming fast foods and beverages.
- Community awareness program must be conducted to empower the parents to deals with problems of adolescents.

LIMITATIONS

- Sample size was small, different results should have been yielded from a larger population.
- The data was collected from only one state. A cross cultural comparison could have yielded more information.
- The influence of parenting, personality correlates and other factors which are related directly to risk taking behaviour is not studied.

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