Research Paper
Impact Factor: 3.029
Peer Reviewed & Indexed Journal

IJMSRR
E- ISSN - 2349-6746
ISSN -2349-6738

MANAGEMENT OF AT RISK BEHAVIOUR OF ADOLESCENTS IN INDIA: REVISITED

Jomon K.J* Romate J**
**Research Scholar, Department of Psychology, Central University of Karnataka, Gulbarga, Karnataka, India.*
*** Associate Professor, Department of Psychology, Central University of Karnataka, Gulbarga, Karnataka, India.*

Abstract
The aim of this study is to review the various efforts in understanding the prevalence of risky behaviour among Indian adolescents, and to evaluate the socioeconomic and emotional factors potentially influencing these behaviours. Like other cities in the developing world, cities in India are reporting a higher prevalence of risky behaviours among their young people. Due to globalization, the country's improved economic status and the effect of the media, the frequency of risky behaviours among India's urban adolescents is approaching that of developed countries. Despite the link between health and behaviour, studies are less on the basic prevalence of risky behaviours in the Indian youth population.Both internal and external (contextual) factors contribute to an individual's propensity to engage in or refrain from health risk behaviors. Limited research exists on isolating process variables and causal pathways involved in the initiation, treatment, and cessation of health risk behaviors. The development of effective prevention and intervention strategies for health risk behaviors should include theory-driven models and hypotheses, and the identification and evaluation of mediators and moderators involved in the behavior change process. This study attempts to pool together the various efforts in India in understanding health risk behaviors and behavior change by resorting to secondary sources of information.

Key Words: Risk Behaviour, Health Risk, Adolescents.

1. Introduction

The study aims to review the various efforts in understanding the prevalence of risky behavior among Indian adolescents, and to evaluate the socioeconomic and emotional factors potentially influencing these behaviors. The first part of this paper deals with theoretical frame work of the risk behavior of adolescents and the second part of this paper deals at length on the various studies conducted and intervention made to understand and reduce risk behavior of adolescents.

Like other cities in the developing world, cities in India are reporting a higher prevalence of risky behaviours among their young people. Due to globalization, the country's improved economic status and the effect of the media, the frequency of risky behaviours among India's urban adolescents is approaching that of developed countries. Despite the link between health and behaviour, studies are less on the basic prevalence of risky behaviours in the Indian youth population. (Mohanan, P.et al.2014))

In the United States, 70% of all deaths among youth and young adults aged 10–24 years result from four causes: motor vehicle crashes (23%), other unintentional injuries (18%), homicide (15%), and suicide (14%)(Centre for Disease Controle and Prevention,(2013)High-risk behaviors are those that can have adverse effects on the overall development and well-being of youth, or that might prevent them from future successes and development. This includes behaviors that cause immediate physical injury (e.g., fighting), as well as behaviors with cumulative negative effects (e.g., substance use). Risk behaviors also can affect youth by disrupting their normal development or preventing them from participating in typical experiences for their age group. For example, teen pregnancy can preclude youth from experiencing typical adolescent events such as graduating from school or from developing close friendships with peers.(*Rosario M T. G., Pohlmeier, L. A., (2014)*

In general, risk behavior in adolescence is quite common. It comprises patterns such as smoking, alcohol consumption, hazardous driving, drug use, delinquency, dares, sporting risks, rebellious behavior, school-related risks, sexual intercourse as well as other socially inconspicuous behavior that nonetheless poses a risk to health.(Becker, K.2010), The knowledge of adolescent risk behaviour and the possible causes as well as prevention strategies is important for all professionals dealing with adolescents and young adults.

2. Risk Taking Behaviour

Risk-taking behaviours refer to volitional behaviours including sexual activity, eating behaviours, substance use, delinquency, and injury- related behaviour (Irwin.C, et al. 1987) including suicide. Negative health outcomes of these behaviours include sexually transmitted diseases, unplanned pregnancy, school failure, habituation, premature cardiovascular disease, hypertension, obesity and its associated medical sequelae, physical and psychological disability, and death (Irwin et al. 1987).

Risk-taking behaviours can be distinguished from developmentally appropriate exploratory behaviour by their potentially serious, long-term, and negative consequences. Whereas adolescent exploratory behaviour in a safe or positive context enhances competence and confidence, risk-taking behaviours jeopardize health and well-being. Some risk-taking behaviours are defined by their adolescent age of onset. For example, sexual activity, certain eating behaviours, driving a car, drinking alcohol, or leaving home may be considered risk-taking behaviours at age 13, but may not be at age 21 . Some behaviours are risky regardless of age such as unhealthy eating behaviours, sexual behaviour, cocaine use, or driving under the influence of alcohol (Irwin et al. 1997)

3. Paradigms of Risk Taking Behaviour

The paradigm of risk is described in the following section using three general explanatory approaches: dispositional, ecological, and biological bases for risk-taking behaviour
(IRWIN. &Millsiein S. G. 1986).

i). Risk Taking As A Dispositional Trait

Dispositional based theories of risk taking focus on individual differences associated with a tendency to engage in risky behaviours. These theories view risk taking as deviant. The hypothesized deficits leading to deviancy include poor self-esteem, depression, inadequate social skills, impulsivity characteristic of attention deficit disorder, ora general propensity for unconventionality and deviance.(Kaplan, H. B. 1980)

There is also an emerging body of evidence that may contradict some of the evidence. For example, in the area of self-esteem, poor self-esteem appears to be associated with a number of risky behaviours and forms the basis of many intervention programs. However, a careful examination of the relationship of self-esteem and risk leads to a body of evidence that risk taking itself can raise self-esteem' or that certain risky behaviours, for example, sexual behaviour, are correlated with a higher level of self-esteem.(Mccord, J., 1990; Orr, D . P., M. Beite&RG.Ingersol 1991)

ii). Risk Taking From an **Ecological Perspective**

In contrast to an individually oriented theory of risk taking, an ecological theory considers the human organism within its social and environmental context. These theories propose that contextual factors such as economic status, cultural background, and the general social environment provide social norms, models, opportunities and reinforcements for adolescent participation in risky behaviours. (Irwin et al. 1997)

An ecological paradigm is used by Bronfenbrenner to describe the social world of adolescents. The most proximal contexts are referred to as micro-systems, and include those elements of the social environment with which adolescents interact directly, such as peers, family members, and social institutions such as schools or churches. More distal social contexts such as the community, the mass media, and social policies are called exo-systems. The most distal social contexts are referred to as macro-systems, which reflect things such as cultural, economic, and political contexts. Many of the conceptual models of risk taking described in the literature can be overlaid onto this general ecological model. (Bronfenbrenner,M.1979).

iii). Biological Models of Risk-Taking Behaviour

Biological models of risk-taking behaviour have considered the roles of genetic factors, neuro-endocrine processes, including hormonal influences, and the timing of pubertal events. The first two of these are hypothesized as having direct effects on behaviour. Genetic predisposition has been implicated in adolescent alcohol abuse. The biological children of alcoholic parents are more likely to later abuse alcohol than are the children of non-alcoholics, even when they are separated from their parents. Neuro-endocrine factors are viewed as the etiological agent in some sensation seeking theories. (Zuckermamn.,1990). The most familiar model positing direct effects of biology on behaviour comes from theories about the role of sex hormones in behaviour. Udry and his colleagues have demonstrated the importance of testosterone levels to heterosexual intercourse and the onset of other risk behaviours in males. In females, the link between testosterone and sexual behaviour appears to be mediated by the social environment.(Udry,et al.1986).

Adolescents make decisions about eating, sexual behaviour, substance use, and driving vehicles based on biological, social, and psychological phenomena. Understanding these processes will enable us to develop more effective health-promoting programs for adolescents.

4. Adolescent risk behaviour in India: Prevalence, Determinants and Interventions

Adolescents defined by the United Nations as those between the ages of 10 and 19 are estimated to be 1.2 billion in the world today.(UNICEF-Progress for Children:a report card on Adolescents 2012) Therefore World is home to 1.2 billion

adolescents. Adolescents aged between 10 to 19 years account for more than one-fifth of the world's population (UN: Department of Economic and Social Affairs, World Population Prospects: The 2008 revision.)

India has the largest national population of adolescents (243 million), followed by China (207 million), United States (44 million), Indonesia and Pakistan (both 41 million),(United Nations (UN): Department of Economic and Social Affairs, World Population Prospects: The 2012 revision.) In India, this age group forms 21.4% of the total population. Adolescents are also entitled to enjoy basic human rights- economic, political, social and cultural- but their inability to exercise these rights places the onus on the policy makers and adults to implement separate measures to ensure their rights. Moreover it is necessary to invest in adolescents as the future leaders and guardians of nation's development (Rao M:2001) Behaviours often established in adolescents such as using tobacco, alcohol and drugs accounted for 2/3rd of premature death and one third of total disease burden in adults. (World Health Organization.2008)

Smoking, alcoholism and drug use among adolescents are indeed social evils which are on alarming rise globally (Johnson J L&, Leff M. 1999). Global Youth Tobacco Survey (GYTS) results in India revealed that 22% of boys and 10.3% of girls were current users of tobacco, 18.5% boys and 8.4% girls were current users of smokeless tobacco with 10.5% of boys and 4.4% of girls being current smokers.(Reddy KS, & Gupta PC. 2004)

In India alone, nearly one in ten adolescents in the age group 13-15 years have ever smoked cigarettes and almost half of these initiate tobacco use before 10 years of age. (Asma S. 2006) The epidemiological research model on the causal association of smoking and lung cancer has highlighted the importance of focusing on primary prevention in adolescents for successful cancer control.(Wynder FL.1998). Alcohol use may directly increase the risk of organic diseases, accidents and suicides. Even though diseases may manifest in adulthood, these risky behaviours usually begin during adolescence. But most of these risk behaviours are potentially preventable ones. The risk behaviours also depend on family background, parental and peer factors.(Kariwal P, Srivastava S, Singh AK, Mathur BP. (2012))

Adolescents are generally perceived as a healthy age group, and yet 20% of them, in any given period, experience a mental health problem, most commonly depression or anxiety. In many settings, suicide is among the leading cause of death in young people . Mental well-being is fundamental to good quality of life. Happy and confident adolescents are most likely to grow into happy and confident adults, who in turn contribute to the health and well-being of nations. Mental health problems among adolescents carry high social and economic costs, as they often develop into more disabling conditions later in life. (Kumar, V, &. Talwar, R. (2014). It is relevant to mention here that in India, in the year 2011 alone, 2381 children, or more than six children per day, committed suicide because of failure in examinations.(National Crime Records Bureau NCRB, 2014)

Sheela A. Moni, et al.(2013)conducted a study on Pregnancy Among Unmarried Adolescents and Young Adults in Kerala in 2006 in the 3 medical colleges of Kerala concluded that, despite a high female literacy rate in Kerala, observational studies suggest that many unmarried adolescents seek abortion. 181Unmarried girls ranging from age 13 to 24 reported for pregnancy termination Between 2004-2006 . Out of the total 181 abortion seekers, 20 cases (11.1 %) were below the age of 16; 70 cases (38.6 **%)** were between 17 and 19 years; and rest of them, i.e. 91 cases were (50.3 %) above 19 years. Lack of parental control, family problem, poor intra-family relationship, lack of knowledge on sexual and reproductive health, and lack of engaging in any productive activity were found to be significant predictors for unmarried adolescent pregnancy.(Sheela . Moni, M. K. C. Nair, and Rema S. Devi.2013).

Prevalence of Alcohol Consumption, Tobacco Use and Sexual Behaviour among Adolescents in Urban Areas of the Udupi District, Karnataka, India a study by Padma Mohanan et al (2014) revealed that the mean age of the participants' first sexual activity, consumption of alcohol and tobacco use was reported to be approximately 16.8 years. Out of the 201 male participants, 9.5% revealed their drinking status compared to 1.7% of female participants. Nearly 41% of students smoked daily. It was noted that 55.6% of students with a smoking habit had tried to quit smoking at least once before.78% of students mentioned 'home' or 'parties' as a source of obtaining or consuming alcohol. Nearly 10% of the male students in the current study reported having had a sexual relationship. Nearly 62% of the respondents who had had a sexual relationship did not use any kind of contraceptive during their last sexual encounter. Studies on premarital sex and risky sexual behaviours among adolescents are still unexplored in India.(Mohanan.P.et al.(2014)

A comparative cross-sectional study on risk behaviour of adolescents from urban and rural population ,by J. Kishore, et al.(1999), among 199 and 152 male adolescents from an urban village of south Delhi and a rural village in Uttar Pradesh revealed the following. Consuming alcohol, smoking, pre-marital sexual Intercourse and consuming bhang (cannabis) were

present in 32.2%,25.1 %, 12.5%and 11.5%of the urban village adolescents and In 1.3%, 48.7%, 11.2%, and 16.5% of those residing In the rural village, respectively. About 66.8% of urban and 51.3% of rural adolescents had indulged in physical fights and 12.5% of urban and 6.6% of rural adolescents were in possession of assault weapons. The results of the study indicate that there is a high prevalence of risk behaviour in both urban and rural adolescents. (Kishore,et.al.1999).

Kariwal, P. (2010) conducted a study in Urban areas of Jhansi District on the health risk behavior amongst 14-19 year adolescents in 2010 was an eye opener. The main risk behavior was found to be cigarette/bidi smoking, drinking alcohol and tobacco use. 15.3% students had smoking habit and of which 5.46% tried smoking at age less than 14 years. 19.9% had the experience of alcohol consumption and of which 4.64% had their first drink of alcohol below the age 14. 4.85% female students and 3.42% of male students seriously considered suicide and 2.91% females and 0.76% male students reported multiple attempts at committing suicide.(Kariwal, P.et.al.2010))

Geethadevy,M. et. al (2014),Conducted a study among the school going adolescents from Kottayam, the first district in Kerala to attain 100% literacy revealed the magnitude of the adolescent risk behaviour with regard to the use of alcohol and tobacco. Of the 975 respondents 18% were highly involved in one or more risk behaviour related to tobacco, alcohol, and drug use. Tobacco, alcohol and drug use among adolescents are significantly associated with socio-demographic factors, peer and parental behaviours. This highlights the need for action at family, school and community level to prevent risk behaviours (Geethadevi M, et al.2014)).

A study by Vikram Patel and Gracy Andrew (2001) among the 812 school going students of Goa regarding Gender, Sexual abuse and risk behaviours in adolescents revealed that
33% had experienced at least one type of sexual abuse in the previous 12 months and 6% of adolescents experienced coercive sexual intercourse(anal, vaginal or Oral).Victims had poorer educational performance, worse physical health, worse mental health with greater levels of suicidal ideation, higher rates of substance abuse and gambling behaviour. They had poorer relationship with their parents, especially girls, and more active consensual sexual behaviour.(Vikram, P., &Gracy, A., 2001).

Parent-Adolescent Relationship Enhancement training.(Kalathananickal, P. B. (2014) and Counseling Sessions (H. Vijanyapillai., 2013)found that the risk behaviour reduced substantially after the interventions. Response to adolescents risk behaviours in Kerala, India, among 40 parents and adolescents found that enhancing parent-adolescent relationship with secure attachment helps adolescents to reduce risky behaviors significantly.(Kalathananickal, P. B. 2014).

A recent study by the World Health Organization country office for India in collaboration with the Johns Hopkins Bloomberg School of Public Health across seven states in India shows that banning Gutka, a form of chewing tobacco, helps users kick the habit. India is estimated to be the world's largest consumer of smokeless tobacco: WHO estimates indicate that 26% of adults use smokeless tobacco, a major cause of death and disease. Nearly one million people die in India every year because of tobacco. These findings have a strong message that regulatory mechanisms are effective and can have a positive impact on the consumption pattern. (The Hindu, 2014)

5. Summary and Conclusions

The various studies reviewed so far reveals that the problem of adolescent risk behaviour is rampant in the country due to globalization, technological advancements, change of life styles, parental and social stress and pressure and above all immediate economic advancement that the country has achieved recently. Developed countries do face similar problems in a much more critical way but they have created systems and intervention in place to address and reduce the problem of adolescent risk behaviour. We are yet to look at such issues as a nation. Targeted Interventions are required focusing on reducing adolescent risk behaviour in India for both urban and rural adolescents, particularly those who are already victims of at risk behaviour. India the second fastest developing country in the world cannot neglect its most resourceful segment of the population. The studies conducted so far on adolescent risk behaviour had been in isolated segments lacking a consolidated approach to the problem. There has to be concerted effort to understand the magnitude of the adolescent risk behaviour in our country to attract the attention of policy makers to effectively intervene and design remedial measures.

The coexistence and development of multiple risky behaviours such as alcohol consumption, tobacco use and sexual activities indicate the dangerous interconnection between such behaviours among adolescents. There is an urgent need to initiate interventions at various levels to generate awareness regarding the potential health hazards of tobacco, alcohol and premarital sexual relationships. The incorporation of educational material regarding the ill effects of risky behaviours in the syllabi of schools and colleges might be helpful. A focus on an increased awareness among school students through health

and peer education, counseling and policy advocacy might influence the target population in adopting and supporting health promotion activities.

It seems that the kind of analysis presented here and the shared awareness of this worsening plight of young people growing up poor in our Country demand something more from us than collegial and scholarly interchange.

Risk behaviours impact not only the adolescents who obviously put themselves at serious and lasting risk but also families and societies in general. The emotional and economic burdens of such behaviors are quite huge both on the individual and on the country at large. Further studies must attempt to isolate, examine and understand some of these potential causes of the adolescents's complex conundrum. The future research should shed light on how we may be able assess the risk behaviour patterns of adolescents in India as a whole, how to design educational strategies and how best to treat or modify adolescents' at risk behaviours.

References

1. Asma, S., (2006).Linking Global Youth Tobacco Survey (GYTS) data to the WHO Frame Work Convention on Tobacco Control- The case for India.Indian Journal of Public Health 50: 76-89).
2. Becker, K.,(2010), Risk Behavior in adolescents, what we need to know, The Journal of the European Psychiatric Association. Volume 25/1 page 85)
3. Bronfenbrenner, M.,(1979). The Ecology of Human Development: Experiments by Nature and Design. Harvard Univ. Press. Cambridge, Mass. in, Irwin C. E., Igra, V., Stephen E.,& Millstein, S.,(1997) Risk-taking Behavior in Adolescents:The Paradigm. Annals New York Academy Of Sclences, Vol. 817,P.1-35.
4. Centre for Disease Controle and Prevention,(2013), Morbidity and Mortality weekly report Vol/63 /No.415, US department of health and human Service.
5. Geethadevi, M., Elsheba, Mathew.,, Manjula V. D., Sobha, A., Anita,Bhaskar., Bindu,Vasudevan., &Ajith R. (2014)"Prevalence and Determinants of Tobacco, Alcohol and Drug Use among Adolescent High School Students in an Urban Area of Kottayam District, Kerala". Journal of Evolution of Medical and Dental Sciences .Vol. 3, Issue 36, Page: 9456-9464.
6. H,Vijayanpillai., (2013), The effects of Counseling on the Reduction of Risk behaviour of Adolecents, Indian Journal of Scientific Research, Vol.2, issue:12. Pp.519-521.
7. Irwin,C. E.,& J.R.,.(1987). Adolescent social behaviour and health.Child Development. 37: 1-12. in, Irwin C. E., Igra, V., Stephen E.,& Millstein, S., Risk-taking Behavior in Adolescents:The Paradigm. Annals New York Academy Of Sclences, Vol. 817,P.1-35.
8. Irwinc,. E., JR.,& S. G. Millsiein.,(1986). Biopsychosocial correlates of risk-taking behaviors during adolescence: Can the physician intervene? Journal.Adolescents Health Care.Vol 8.in, Irwin C. E., Igra, V., Stephen E.,& Millstein, S.,(1997) Risk-taking Behavior in Adolescents:The Paradigm. Annals New York Academy Of Sclences, Vol. 817,P.1-35.
9. J. Kishore., A. Singh., Indu, Grewal., Sushma R. Singh., &K,Roy., (1999)Risk behaviour in an urban and a rural male adolescent population. The national Medical Journal of India, .Vol.12.No.3 Pp.107-110
10. Johnson, J L., (1999). Children of Substance abusers; Overview of research findings.Paediatrics 5 (2): 1085-1089.)
11. Kalathananickal, P. B., (2014)Parent-Adolescent Relationship Enhancement Training: A Response to Adolescents Risk Behaviors in Kerala, India. Indian Journal of Positive psychology.Vol. 5 No.1.Pp.11-16.
12. Kaplan, H. B., (1980). Deviant Behavior in Defense of Self.Academic Press. New York. in, Irwin C. E., Igra, V., Stephen E.,& Millstein, S.(1997), Risk-taking Behavior in Adolescents:The Paradigm. Annals New York Academy Of Sclences, Vol. 817,P.1-35.
13. Kariwal, P., Srivastava, S., Singh,AK.,& Mathur BP. (2012). A study of Health Risk Behaviour among 14-19 year adolescent students in urban area of district Jhansi. Indian Journal of Community health; 21 (1): 39-42.)
14. Kariwal, P.,Srivastav,S.,Singh,A.K.,& Mathur B.P.,(2010)). A study of Health Risk Behaviour Amongst 14-19 year adolescent students in Urban areas of District Jhansi. Indian Journal of community Health,Vol.21 No.2. P. 39-42.
15. Kumar, V., &. Talwar, R., (2014) ,Determinants of psychological stress and suicidal behavior in Indian adolescents: a literature review, J. Indian Assoc. Child Adolesc. Ment. Health 10(1)47-68)
16. Mccdori. J.,(1990). Problem behaviors.in.At the Threshold: The Developing Adolescent,G. S. Feldman and G. R. Elliott, Eds.: 414430. Harvard Univ. Press. Cambridge, Mass. C. in, Irwin C. E., Igra, V., Stephen E.,& Millstein, S.,(1997) Risk-taking Behavior in Adolescents:The Paradigm. Annals New York Academy Of Sclences, Vol. 817,P.1-35.

17. Mohanan, P., Swain, S., Sanah, N., Sharma, V., &Ghosh D.(2014). Prevalence of Alcohol Consumption, Tobacco Use and Sexual Behaviour among Adolescents in Urban Areas of the Udupi District, Karnataka, India. Indian Journal of Community Medicine .14 (1), pp 104-112).
18. National Crime Records Bureau (NCRB).(2014). Ministry of Home Affairs, Government of India. Available from: URL: http://www.ncrb.nic.in. in Kumar, V, &. Talwar, R. (2014) ,Determinants of psychological stress and suicidal behavior in Indian adolescents: a literature review, J. Indian Assoc. Child Adolesc. Ment.Health. 10(1)47-68)
19. Orr, D. P., M. Beite& R. G. Ingersoll (1991). Premature sexual activity as an indicator ofpsychosocialrisk.Pediatrics 87: 141-147. in, Irwin C. E., Igra, V., Stephen E.,& Millstein, S.,(1997) Risk-taking Behavior in Adolescents:The Paradigm. Annals New York Academy Of Sclences, Vol. 817,P.1-35.
20. Padma,Mohanan., Subhashisa, Swain., NooreSanah,Vikram Sharma., &Deboporna, Ghosh., (2014) Prevalence of Alcohol Consumption, Tobacco Use and Sexual Behaviour among Adolescents in Urban Areas of the Udupi District, Karnataka, India.Indian Journal of Community Medicine 14 (1), pp 104-112.
21. Rao, M., (2001).Promoting children's emotional well-being.Journal of Public Health Med. 23(2):168.
22. Reddy, KS.,& Gupta PC., (2004).Ministry of Health and Family Welfare, Govt. of India. Report on Tobacco Control in India; Nov 2004. p.63.).
23. Rosario M T. G.,&Pohlmeier, L. A., (2014)High-Risk Behaviors inYouth.FamiliesAdolescence and Youth.University of Nebraska–Lincoln)
24. Sheela, M., Nair, M. K. C., & Devi R. S..(2013) Pregnancy Among Unmarried Adolescents and Young Adults in Kerala.The Journal of Obstetrics and Gynecology of India, vol 63/1,pp49-54).
25. The Hindu. (2014), Gutka ban helped many kick the habit: WHO study, SmritiKak, Ramachandran. Wednesday December 17. p.9
26. Udry**j**,.R.., L. M. Talber& T N. M. Morris., (1986).Biosocial foundations for adolescent female sexuality. Demography **23:** 21 7-2 Cited in, Irwin C. E., Igra, V., Stephen E.,& Millstein, S.,(1997) Risk-taking Behaviour in Adolescents: The Paradigm. Annals New York Academy Of Sciences, Vol. 817,P.1-35.
27. UNICEF-Progress for Children: a report card on Adolescents 2012: (No.10) available at www.unicef.org /publications accessed on 29.1.13.
28. United Nations (UN) Convention on the Rights of the Child: Available from: URL: http://www.unicef.org/crc. cited in Kumar, V, &. Talwar, R. (2014) ,Determinants of psychological stress and suicidal behavior in Indian adolescents: a literature review, J. Indian Assoc. Child Adolesc. Ment. Health; 10(1)47-68).
29. United Nations (UN): (2008) Department of Economic and Social Affairs, World Population Prospects:The2008revision.Availablefrom:URL:http://www.un.org/esa/population/publications/wpp2008/wpp2008_highlights.pdf.
30. United Nations (UN): (2012), Department of Economic and Social Affairs, World Population Prospects: The 2012 revision. Available from: URL: http://esa.un.org/wpp/.
31. Vikram, P., &Gracy, A., (2001).Gender, sexual abuse and risk behaviours in adolescents:Across-sectional survey in schools in Goa. The National Medical Journal Of India. Vol.14.No. 5l Pp.263-267.
32. World Health Organization.(2008). Mortality Estimates by Cause, Age and sex for the year 2008. available at www.who.int/healthinfo/global burden disease/en/ accessed on 29-01-13
33. Wynder, FL.(1998) The past, present, and future of prevention of Lung Cancer. Cancer Epidemiological Biomarker Prev. 7 (9): 735-48.)
34. Zuckermamn.,(1990). The psychophysiology of Sensation Seeking. J. Pers. **58:** 313-345.in, Irwin C. E., Igra, V., Stephen E.,& Millstein, S.,(1997) Risk-taking Behaviou r in Adolescents: The Paradigm. Annals New York Academy Of Sciences, Vol. 817,P.1-35.