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Evidence concerning potential risk behaviour and psychological distress of Indian emerging adults

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Abstract

From futuristic perspective, emerging adulthood is a crucial phase of life. Due to lack of clarity among the scholars about nature, characteristics and changes taking place during 18-26 years of age group, people of these age groups are neglected and considered as an extension of adolescence till the beginning of the 21st century. Socio-economic changes and new trends and developments in education, work and family system made this group unique with its identity. India is a country with half of the population below the age of 25 and has world's largest youth population. The broad objective of this secondary data based article was to through light on the nature of risk behaviour of emerging adults, potential causal factors and consequences. Evidence demonstrates that Indian emerging adults were involved in a range of risk behaviour like malnutrition, obesity, addiction and alcoholism, unprotected sexual behaviour, dependence on internet, mobile phones and road accidents. Psychological distress experienced by the emerging adults includes stress, depression, anxiety, hypertension, suicidal ideation and attempt. Causal factors behind risk behaviour were heredity and environmental especially family, living and institutional environment, socio-economic background and peer group influence. Risk behaviour of emerging adults and consequent psychological distress lead them in serious problems which affects their career growth, and development, health and relationship.

Keywords: Risk behaviour; psychological distress; emerging adults

Introduction

Emerging adulthood is a critical phase of life. Drastic changes at behavioural, physiological and psychological realms occur along with new pattern of interaction and relationship (Stang & Story, 2005) [17]. Compared to adolescence- *an age of storm and stress*, environmental, social patterns and situational affairs have significant role in behaviour formation in emerging adulthood (Arnett, 2014) [14].

These environments can have positive and negative influence on the health and well-being of an individual. Risks and problems rises when it negatively influence. Most of these problem behaviours are either connected to social and environmental determinants or to the lifestyles and its interaction with these complex environment precipitate or trigger these conditions or behaviours (Banerjee, Middleton, & Faraone, 2007) [15]. Environmental factors including family, peer group, neighbourhood, societal cues, policies, socio-economic status and the place of living can both facilitate and deteriorate emerging adults' health and well-being (Lönroth, Jaramillo, Williams, Dye, & Raviglione, 2009) [71].

Although this stage is considered as a healthy stage of life, majority of the public health and social behavioural problems either start or peak during this period of life (Sunitha & Gururaj, 2014) [121]. Researchers have mainly focused on the adolescent period because of its characteristics and rapid physiological and psychological changes that take place (Bronte-Tinkew, Moore, & Carrano, 2006; Steinberg, 2008; Steinberg, 2010; Chein, Albert, O'Brien, Uckert, & Steinberg, 2011) [18, 119, 120, 22]. Due to the ambiguity of the characteristics and lack of clear cut distinction from other developmental stages, the behavioural and social peculiarities of the emerging adults were less explored.

Only in the end of 1990s and in the early part of 2000s, when Jeffrey Jensen Arnett (2000) came up with a distinct term-*Emerging Adulthood* and explained this age group is totally different from what they early considered, researchers noticed the drastic changes that occurred at this age group and started to explore it further. Modern education and the industrial revolution provided distinctive characteristics to this age group (19-25) which was

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earlier considered as a part of youth (15-24) or young people (10-24) or adults (20 -60) (Arnett, 2007) ^[13]. Their explorative, self-focused, instable, in-between and possibilities nature gave them new identity and uniqueness that separated them from above mentioned terms (Arnett, 2006) ^[12]. Unfocused, unorganised emerging adulthood not only creates problems in day to day life but it extends its impact to the person in long run. Emerging adulthood is the cornerstone on which a healthy and productive adulthood and reduced health problems built in later years.

Indian Scenario

In India, about 30 percent of the population is aged between 13 to 35 years (National Youth Policy India, 2014) ^[154]. This population has significant role and impact on the developmental index of the nation. Nations future rests on the hands of this population who are dynamic, creative, productive, skilled and young and fresh. If this population move in wrong direction then the future might be disastrous. The present reports and study findings are warning bells. According to International Monetary Fund Jobless rate in India is 9.9 per cent (IMF, 2015) ^[56]. Kerala is on the top in terms of literacy (Office of the Registrar General and Census Commissioner, 2011) ^[86] and provides the major share of youth with formal skills in India (State of the Urban Youth, India, 2012; Raghunath, 2013) ^[118, 94] but the same state has the highest unemployment rate and rank (Fourth Annual Employment & Unemployment Survey Report 2013-14, 2015) ^[38]. Past few years' record shows that the starting age of alcohol consumption has come down thirteen (Prasad, 2009) ^[53]. Alcohol and drug abuse rate among adolescents and emerging adults have increased alarmingly. Motor accidents and accidental deaths of this age group are also high (Accidental Deaths & Suicides in India-2014, 2015) ^[5, 6]. Present media reports show that lots of young people are engaging in crimes (The Hindu, June 21, 2007; The Hindu, July 29, 2012; Kaumudiglobal, August 17, 2015; The Hindu, October 7, 2014) ^[124, 125, 61, 126]. All these reports indicate that the emerging adults, the national asset, are moving towards a wrong direction. Hence there is a need to look into the emerging issues which are effecting emerging adult population in India.

Objective

The objective of this review based article was to explore the nature of risk behaviours emerging adults are involved in India, the potential causative factors behind such risk behaviour and their consequences. Further the article attempted to identify the official programmes and policies initiated by the Government of India for the healthy development of the emerging adults.

Major Risky Behaviours

Risk is anything that hinders the fullest and finest development of the individual or the as a result of which the actualization of his/her full potential is endangered (French, Vedhara, Kaptein, & Weinman, 2010) ^[39]. In other words, it can be said that those behaviours which expose individual to harm or risk of harm which will prevent them reaching their potential (Penny, Bennett, & Herbert, 1994; Richter, 2009) ^[90, 100]. Some behaviour is the part of the growing up process, but when it crosses the desired line of control it became dangerous and risky to the individual either in long run or in short run. Evidence indicates that the explorative

and experimental nature of the emerging adults increases the chances to engage in different types of risk behaviours like addiction to different substance and drugs (Chakravarthy, Shah, & Lotfipour, 2013; Tsering, Pal, & Dasgupta, 2010; Rai, Gaete, Girotra, Pal, & Araya, 2008) ^[20, 134, 95], alcoholism, smoking (Dhavan, Stigler, Perry, Arora, & Reddy, 2009; Jindal, Agarwal, Gupta, Kashyap, & Chaudhary, 2005; Gururaj, Murthy, Girish, & Benegal, 2011) ^[34, 58, 49], obesity and over weight (Shetty, 2002; Laxmaiah, Nagalla, Vijayaraghavan, & Nair, 2007; Midha, Nath, Kumari, Rao, & Pandey, 2012) ^[110, 68, 88], under nutrition, unhealthy food and lifestyle (Wasnik, Rao, & Rao, 2012; Parasuraman, Kishor, Singh, & Vaidehi, 2009; Rao *et al.*, 2003) ^[142, 89, 98], suicidal tendency (Soman, Safraj, Kutty, Vijayakumar, & Ajayan, 2009; Aaron *et al.*, 2004) ^[114, 1], depression (Sahoo & Khess, 2010) ^[106], stress (Latha & Reddy, 2007) ^[67], rush driving (Sharma, Singh, Sharma, & Sumedha, 2004) ^[109] and accidents (Jagnoor *et al.*, 2012; Dandona, Kumar, Ameer, Ahmed, & Dandona, 2008) ^[57, 31]. These are some of the common risk behaviours seen among the emerging adults in India. More research based evidence about some of the common risk behaviours are provided below.

Nutrition Deficiencies

The broad term nutrition deficiency includes a variety of conditions. High prevalence of malnutrition and stunting in the age 15-30 will have adverse impact on the health and well-being of an individual in future (Parasuraman, Kishor, Singh, & Vaidehi, 2009) ^[89]. A number of study reports show that 47 % of men and 44 % of women between the age of 18-24 are abnormally thin and suffering from malnutrition and under nutrition (Parasuraman, Kishor, Singh, & Vaidehi, 2009; Wasnik, Rao, & Rao, 2012) ^[89, 142]. The prevalence of nutrition deficiency is high in rural areas (Maliye *et al.*, 2010; Deshmukh *et al.*, 2006; Choudhary, Mishra, & Shukla, 2003) ^[74, 32, 26] and the nutrition deficiency disease especially anaemia is predominant among girls (Parasuraman, Kishor, Singh, & Vaidehi, 2009) ^[89]. Vulnerability to stillbirths, miscarriages and maternal mortality is also very high among adolescent mothers with anaemia (Rao *et al.*, 2003) ^[98]. The lack and loop holes of socio-economic policies especially with the food security, unwillingness to ensure the basic necessities in the rural area are some of the reasons for nutrition deficiency in India. Besides this unhealthy diets, skipping of breakfast and meals give raise to serious health issues. Among the youngsters especially among girl's beauty means 'size zero' or lean, thin and slim (Tiggemann & Slater, 2013) ^[133]. To make the body like that they go for unhealthy sudden weight loss and diets which in turn produce serious health and well-being problems (Cherian, Cherian, & Subbiah, 2012) ^[23]. Unhealthy food habits gave rise to the lifestyle diseases like diabetics to the younger generation and other health problems which will have a long lasting effect on individual (Kotian, Kumar, & Kotian, 2010) ^[64].

Overweight and Obesity

Together with malnutrition and under nutrition, overweight and obesity is also a grave issue to be addressed in the present Indian scenario with a serious note. In India, prevalence of overweight rose from 2 to 17.1% (Ramachandran & Snehalatha, 2010) ^[97] and is the third most obese country in the world (Ng *et al.*, 2014) ^[85]. There

has been a rapid increase of obesity among adolescents, emerging adults and among middle class people (Kalra & Unnikrishnan, 2012; Shetty, 2002; Ramachandran & Snehalatha, 2010) ^[60, 110, 97]. Increased acceptability of fast food and junk foods and rapid life style changes creates serious health issues to the youngsters and lead them to self-destruction (Ng *et al.*, 2014) ^[85]. Obesity is considered as main cause of disability and premature death in less developed countries (Wang & Lobstein, 2006) ^[141]. The risk of many diseases including hypertension, cardiovascular diseases (CVDs) (Ng *et al.*, 2014) ^[85], hyperlipidemia, diabetes mellitus, and certain cancers accrues its vulnerability in association with obesity (Ramachandran & Snehalatha, 2008; Ng *et al.*, 2014; The Time of India, Oct.12, 2013) ^[60, 85, 130]. Joint disorders and knee pain has become common among obese (Woolf & Pfleger, 2003) ^[150]. Researchers have uncovered the correlations between obesity and socio-economic status, junk food tendencies and even video gaming (Mistry & Puthussery, 2015) ^[80].

Addictive Behaviour

The umbrella term addictive behaviour covers a variety of behaviours including alcoholism, drug abuse, smoking, tobacco use, internet addiction. India is the third largest consumer of alcohol in the world (Organisation of Economic Cooperation and Development, OECD, 2015) ^[87], and over the past two decade the per capita consumption of alcohol has increased in a gigantic rate of 55% (WHO, 2014; DNA Correspondent, 2015) ^[146, 35]. WHO Reports reveal that near to 30% of Indians consume alcohol and among them 4-13% are regular drinkers and up to 50 % of them are harmful drinkers (WHO). Starting age of alcohol use has come down to 13 from 19 in India (Juyal *et al.*, 2006; Prasad, 2009) ^[59, 93]. Students going to school with alcohol in water bottle, attending classes after consumption of alcohol etc. are reported in newspapers (Times of India, July 23, 2015) ^[131]. Researches point out steady increase of risky drinking behaviour among younger generation and women over the past few years (Gururaj, Murthy, Girish, & Benegal, 2011) ^[49]. Researches' also point out the relationship between watching cinemas, peer pleasure, stress etc with alcoholism (Dal Cinet *et al.*, 2009; Miller, Naimi, Brewer, & Jones, 2007; Gibbons *et al.*, 2010) ^[30, 79, 45]. It makes people dull, lethargic and depressive in short term and creates long term physical and psychological problems including liver sclerosis, depression, anaemia, cancer, cardiovascular diseases, dementia etc. Alcoholism is linked with absenteeism in work, lower productivity, less effectiveness, low wage and problems in work environment (French, Maclean, Sindelar, & Fang, 2011) ^[40]. It decreases productivity of an employee and makes the future of the nation gloomy (Girish, Kavita, Gururaj, & Benegal, 2010) ^[46]. It is one of the main causes for disability and disease (WHO, 2015) ^[145].

Illicit Drugs

The illicit use of drugs among the youngsters is at an alarming rate and it is higher than the general population. As per UN reports, one million heroin addicts are registered in India and unofficially there are as many as five million (Mangoli, 2012) ^[75]. Reports reveal that professional students especially those who are staying in the hostels are more prone to consumption of illicit drugs (Chakravarthy, Shah, & Lotfipour, 2013) ^[20]. In most cases they start it to

experiment but after one use they become addicted to it. Among patients those who are coming for treatment, 63% of them started to use drugs before the age of 15 (Tsering, Pal, & Dasgupta, 2010; Rai, Gaete, Girotra, Pal, & Araya, 2008) ^[134, 95]. Heroin, Opium, Alcohol, Cannabis and Propoxyphene are the five most common drugs used by the youngsters in India (UNODC, 2002; Tsering, Pal, & Dasgupta, 2010) ^[137, 134]. The use of cocktail of drugs and sharing the same needle increases the risk of HIV infection. The number of suicides in India due to drug abuse is steadily increasing since 2004 (World Drug Report, 2013) ^[151]. Substance and drugs have become something inevitable to the emerging adults' day to day life. Report on secret drug parties among urban emerging adults (The time of India, May 31, 2015; The Indian Express, March 13, 2015) news paper report reveals that in the rural area drug suppliers are aiming the adolescent and emerging adults either by giving them the drugs free in initial times to make them addicted and regular customers.

Tobacco

According to World Health Organization (2008) ^[144], "if current trends continue, 250 million children alive today will be killed by tobacco." In India, 20 million children a year and nearly 55,000 children a day are drawn into a tobacco addiction (Childlineindia, 2015) ^[24]. Indian youth perceives smoking as fashionable (IANS Kolkata, June 13, 2013; HP Hill Post, June 13, 2013) ^[54, 53] and most of them become dependent on it because of peer pressure (Dhavan, Stigler, Perry, Arora, & Reddy, 2009) ^[33] and many see it as method of relief from stress (Somborac-Bačura *et al.*, 2013) ^[115]. Many youngsters believe that smoking or chewing tobacco is an act of heroism and maturity and provides the status of an adult and independence among the peers. The tobacco prevalence among girls is alarming (Gajalakshmi, Asma, & Warren, 2004) ^[41]. Easy access of the tobacco products and large media exposure through attractive and repeated advertisements increase the vulnerability (Chadda & Sengupta, 2002) ^[19]. Smoking or tobacco chewing is root cause of serious health problems including different forms of cancers, chronic obstructive pulmonary disease, tuberculosis, asthma and in children and teens it slows down the growth.

Internet and Social Networking sites

Another form of disorder which has serious impact on physical and mental health is addiction to technology. It reduces the direct face to face communication and makes individual an island as a result of it the communication became emotionless. Even though there are emoticons in social networking and chatting the respondent are unaware of the real emotions of the communicator. Continues use of social networking sites is another form of deviant behaviour currently spreading among youngsters in India. Facebook or whats app addiction continues video gaming for long hours etc are common among the youngsters' which in turn creates problems including different form of mental and physical problems among youngsters (Liu, 2014) ^[70]. Researches reveal the greater vulnerability for a group of disorders including social withdrawal, anxiety, depression, suicidal tendency has seen among people who are addicted to internet especially social networking sites and gaming (Christakis, Ebel, Rivara, & Zimmerman, 2004; Gentile *et al.*, 2011) ^[27, 43]. Continuous and long term violent video

gaming is linked to aggression (Anderson, 2004; Gentile, Lynch, Linder, & Walsh, 2004) [8, 44]. Besides these the Crime in India Report reveals that emerging adults aged between 18 to 30 years accounts for 56.7 % of the offences that comes under IT Act (Crime in India, 2013) [29].

Unprotected High Risk Sexual Behaviour

It is broad term covering the early sexual activity before the age of 18 and the unprotected sex with male and female without condom use for a long time, with multiple partners, and having a partner who is not expected in long term. Unprotected mouth to genital contact expect in monogamous long term single partner, having sex with a partner who has multiple partners etc. single partner relationship and having sex with a multiple partner and who inject drugs puts them in high risk of sexual diseases (Pandey *et al.*, 2012) [88]. A survey conducted among Indian youth revealed high prevalence of unprotected sex among youngsters (The Times of India, October 3, 2011; India Today Online, October 3, 2011) [129, 55]. Among the total HIV/AIDS infected in India, 83% are of the age between 15-49 years. Recent days a decline in HIV prevalence among younger generation (15-25 years) at national level and state level are noticed. However, a rising trend is noticed among some states including Orissa, Assam, Kerala, Chandigarh, Jharkhand and Meghalaya (HIV/AIDS in India, 2012) [52].

Recent researches also revealed that the age of puberty has come down steadily from 14 to 9 in case of boys and girls (Khadilkar, Stanhope, & Khadilkar, 2006) [62]. It creates enormous psychological and physiological problems to the child. Their body become sexually active and mature at an early age but attaining mental maturity is not as fast as physical maturity. So the disparity between physical maturity and sexual maturity creates confusion and tension in the child and that last for long. Life style changes and the changes in the food habits are the main reasons for such a decline.

Common Psychological Disorders

About one-fifth (20%) of the youngsters are likely to experience psychological problems like depression, suicidal tendency, substance abuse, eating disorders and hypertension (Sunitha & Gururaj, 2014) [121]. Gender differences were noticed in Indian sample in the case of prevalence of different psychological disorders (Narayanappa, Rajani, Mahendrappa, & Ravikumar, 2012) [83]. A Meta analysis of different psychiatric epidemiological studies revealed that the prevalence of many mental and behavioural disorders were 22.2 per 1000 population among 15 to 24 years (Reddy & Chandrashekar, 1998) [99].

Stress

Stress arises when the individual is unable to meet the demands i.e., stressor. It is the most common form of psychological disorder among youngsters with high prevalence rate. Its co morbidity with anxiety and depression is very high (Sahoo & Khess, 2010) [106]. It is also associated with mood disturbances and other psychological problems (Waghachavare, Chavan, Dhumale, & Gore, 2013) [138] including depression, social withdrawal and suicidal tendency. Academic pressure, career decisions, unemployment, emotional and sexual adjustments, conflicts in values and roles may be some of the basic stressors for emerging adults in India (Sahni, 2005) [105].

Depression, Anxiety and Hypertension

Even though the community-based studies show high prevalence of overall psychiatry morbidity (depression, conduct disorder, social anxiety, panic disorder) among youngster in India, variations across the studies are also noted (Anita, Vohra, Subash, & Khurana, 2003; Srinath *et al.*, 2005) [9, 116]. Frequency of hypertension and pre-hypertension among children in rural area were 2% and 2.8% as compared to 2.8% and 2.9% in urban areas of Mysore (Narayanappa, Rajani, Mahendrappa, & Ravikumar, 2012) [83]. Prevalence of hypertension among emerging adults is less studied. Researches also throw light into the co-morbidity between depression, anxiety, conduct disorder etc (Anita, Vohra, Subash, & Khurana, 2003) [9].

Suicide

The rate of suicide among youngsters in India is very high (Business Standard Reporter, 2014) [153] even though overall rate of suicide in India are below the global rate (India 21.1; Sri Lanka, 28.8; Guyana 44.2 and North Korea 38.5). In the age group of 15-29 years, the suicide rate was 35.5 per 100,000 during the year 2012. Compared to the north, the rate of suicide in south India is very high (Accidental Deaths & Suicides in India-2014, 2015; Aaron *et al.*, 2004; Mohanty, Sahu, Mohanty, & Patnaik, 2007) [5, 6, 1, 81]. Illness, mental illness, marriage related problems, dowry issues, failure in examinations, family problems are the main causes of suicides among youngsters. 44883 (male=27343; female=17527) suicides happened in the 2014 in the age group 18-29. The figure gives the number of suicides happened in India from 2010 to 2015 in the age group of 18 to 29 years.

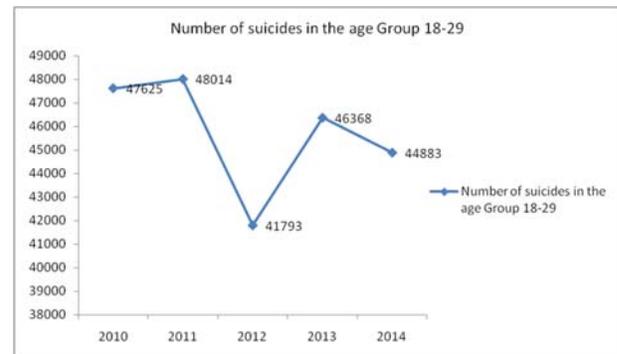


Fig 1: Number of suicides in the age group 18-29 from 2010 to 2015

Road Accidents

Over the years there is a steady growth in road accidents in India. Compared to 2013, road accidents increased about 1.8% in 2014. It covers near to 37.4 % in case of all accidental deaths and the victims of road accidents have also increased at 2.9% over the year. Significant gender difference is seen in the case of youngsters' road accident deaths (5835 females and males 40241) in 2014 (Accidental Deaths & Suicides in India-2014, 2015) [5, 6]. Latest reports on accidental deaths and suicides in India by the Ministry of Home Affairs, Govt. of India reveal that 47.9% of the road accidents are the result of over speeding and other 41.5% for dangerous and careless driving and/or over taking. In India, two wheelers passengers are mostly the victims of road accident deaths (26.4%). Truck/ lorry accounts for 20.1 %, cars 12.1% and buses 8.8% respectively for all the road

accidental deaths in India. In 2014, out of 141526 road accident deaths, 46076 individual (5835 females and males

40241) were of the age group of 18 to 30 (Accidental Deaths & Suicides in India-2014, 2015) [5, 6].

Table 1: Number of Persons Injured and Died Due to Road Accidents, the Gender-Wise Distribution of Road Accident Death among the Age Group 18-30 and Their % Share to Total Road Accident Death

Sl. No	Year	Injured	Died			Death due to Road Accidents of the age 18-30			% share of 18-30 years old to total Road Accidental Deaths
			Male	Female	Total	Male	Female	Total	
1	2010	470687	113935	20003	133938	35291	5511	40802	30.5
2	2011	473927	140667	24405	165072	36533	5488	42021	25.5
3	2012	469913	118533	20558	139091	37161	5592	42753	30.7
4	2013	469882	117055	20368	137423	36767	5686	42453	30.9
5	2014	477731	121132	20377	141526*	40241	5855	46105*	32.6

*added the number of transgender also.

These statistics show the gravity of the problem and the carelessness of the emerging adults about their life while driving. Emerging adults explorative and risk taking nature increases their vulnerability to road accidents (Accidental Deaths & Suicides in India-2014, 2015) [5, 6]. In some cases the perception of over speed driving, unsafe bike stunts etc as acts of heroism puts the emerging adults' life in danger on road (The Hindu, March 30, 2009) [123].

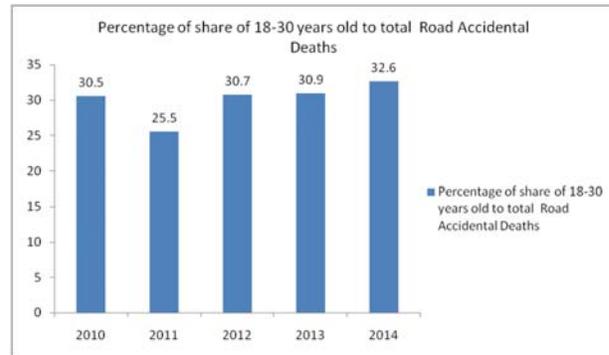


Fig 2: Percentage of Share of 18-30 Years Old to Total Road Accidental Death from 2010 to 2014

Table 2: Road Accidents, Total Unnatural Deaths and the Percentage Share of Road Accident Death to Unnatural Total Death and Total Accidental Death from 2009-2014

Sl. No.	Year	Number of Accidental Deaths		% share of Road Accident death in Un natural total death	% share of Road Accident death to Total Accidental Death
		Road Accidents	Total Un-natural death		
1	2009	1,26,896	3,34,766	37.9	35.5
2	2010	1,33,938	3,59,583	37.2	34.8
3	2011	1,36,834	3,67,194	37.3	35.0
4	2012	1,39,091	3,72,022	37.4	35.2
5	2013	1,37,423	3,77,758	36.4	34.2
6	2014	1,41,526	3,16,828	44.7	37.4

Crime against the Emerging Adults

Evidence indicates that emerging adults are not only vulnerable for risky behaviours but also the victims of different forms of violence and crime. About 44% of the murder victims (14,910 out of 33,901 victims) of the year 2013 were of the age group of 18 to 30 years while 39.5 % (26,240 victims) of the victims of kidnapping and abduction in 2013 were of the age group of 18 to 30 years. About 46.1% (15,556 victims) of the rape victims' in 2013 were females of 18 to 30 years. In case of the victims of culpable homicide not amounting to murder, the age group of 18 to 30 accounted for 43.5% (Crime in India-2013, 2015) [29]. All these information reveal that emerging adults, the cream of the nation, is in danger zone and they require special care and attention from the parents and policy makers.

Potential Risk Factors

An individual's behaviour is the result of dynamic interaction between the genes and the environmental conditions. Environmental influence, such as exposure to drugs or stress, can alter both expression and function of genes. Researches points out that Development and

persistence of risk behaviour is not caused by any single factor, but by the combination of different factors (Youth Violence: A Report of the Surgeon General, 2001) [152]. Researchers also disagree on the extent of influence each factor exerts on the development and persistence of risk behaviour, but they all unanimously agree the importance of each factor. They are of the opinion that the development and persistence of such behaviour is due to the dynamic interaction between the biological and environmental factors.

Biological and Hereditary

Our genes have a distinct role in shaping our behaviour. But the extent of influence the genes enjoy upon human behaviour is a debatable issue. Experiments with the help of animal models conducted on mice identified different genes with special roles in addiction behaviour (Lynch, Nicholson, Dance, Morgan, & Foley, 2010; Phillips, 2003) [72]. Further researchers in this area revealed that genetic variations influence the likelihood of nicotine addiction and an individual's risk for the severe health consequences of tobacco use (Saccone *et al.*, 2007; Thorgeirsson *et al.*, 2008)

[103, 132]. Some researchers say heredity accounts for addictive behaviours i.e. 60% in identical and 39% in fraternal twins (Genetic Testing & Addictions, 2014; Merlo, Klingman, Malasanos, & Silverstein, 2009) [42, 76]. The heritability estimate of drug dependence is high among females as compared to males in the case of drugs like cocaine, marijuana, tobacco and alcohol (Koob & Moal, 2007; Rutter, Moffitt, & Caspi, 2006) [77, 102]. There is no single gene that accounts for addictive behaviour or risk behaviour but the combination of different genes and the presence of some genes increase the vulnerability of the individual to get into those behaviours. Certainly heredity cannot account for all causation in risk behaviour, but it is one of the causes which cannot be neglected. Studies on substance abuse, smoking, drug abuse etc. has showed that in the development of these risk behaviours genes has significant role.

Socio-environmental Factors

Biological factors counts for the genetic dispositions for risk behaviour especially addiction, psychological problems and to an extent risk taking or adventurous nature but the socio-environmental factors like family, workplace, peer group, social support, etc provide the atmosphere where the individual can develop and nurture those behaviours.

Family Environment

Among the socio-environmental factors family gets the first priority due to its significant impact on the individuals' development. Emerging adults from vulnerable family atmosphere such as parental neglect, divorced parents, single parents, father away from home, fights within family, financial crisis, abusive parents and family members having such behaviours have greater vulnerability to develop risk behaviour than the normal population (Pergamit, Huang, Lane, 2001; Labrie & Sessoms, 2012; Newman, Harrison, Dashiff, & Davies, 2008; Wang, Stanton, Deveaux, Li, & Lunn, 2015; Guilléna, Rotha, Alfaroa, Fernández, 2015) [91, 65, 84, 140, 48]. Disturbed childhood experience and presence of drug dependent or substance dependent individual in the family and neighbourhood produces opposite results (Schantz, 2012; Saewyc, Magee, & Pettingell, 2004) [108, 104]. If children are guided properly in the initial stages, they tend to avoid all these unhealthy behaviours and to engage in healthy behaviours (Willoughby & Hamza, 2011) [149]. Parental neglect provides them the opportunity to engage in whatever they want. Studies reveal that the unhealthy family environment and the parental negligence and abusive parents increases the chance of risk behaviour as well as psychological disturbance like depression, social withdrawal, suicidal tendency among adolescences and emerging adults and the lack of physical presence and proper guidance from the significant people like father, mother during adolescent development increases the chances for developing risk behaviours and its continuation in later part of life (Willoughby & Hamza, 2011; Morrish, Kennedy, & Groff, 2007) [149, 82]. Family culture familiarity of the addictive, risky and unhealthy behaviours intends to create the image that it is the part and parcel of normal life.

Socio-economic Status

Another notable point is socio-economic status of an individual and the Family. It determines the standards of living and the access to opportunities and information in all

level (Boričić, Simić, & Erić, 2015) [16]. Financial security provides greater opportunities, independence and freedom to the adolescence and emerging adults. In most occasions socio-economic status determines the nature and type of risk behaviour individual engage in. Researches reveal that the type of behaviour both these groups engage in are similar but the gravity and intensity put them in two different ends (Guzman, 2014) [50].

Place of Living

Yet another factor that cannot be neglected is place of living. It is critical in both childhood and during emerging adulthood. Unhealthy and risky place of living throughout the whole developmental period increases the susceptibility to risk behaviour (Singh & Das, 2011; Rode, 2013). Frequent exposure to such situation in childhood gives the child a false image that these behaviours are acceptable and part of today life. If parents are abusive and careless and significant people are absent to guide them in childhood, the situation becomes worse (Lambert *et al.*, 2013). Children living in suburban areas and slums are in the danger zone compared to the village and individual from wealthy backgrounds (Singh & Das, 2011; Rode, 2013; Sarangi, Acharya, & Panigrahi, 2008) [111, 101, 107]. The presence of antisocial groups, quotation workers, criminals, drug abusers and rowdies and the unquestionable power and supremacy they enjoy, make them heroes in the mind of the child. The economic backwardness compels child or emerging adult to engage in different illegal activities and financial benefits they get force their family to support them. In some case the coercive power behind the continuation of those behaviours is lack of parental education and guidance and the scarcity of resources at all level (Wairimu, 2013) [139].

College/ Work Place Environment

In some instance especially in the case of emerging adults' college, hostels or the work place can have significant roles in the initiation of some of the risk behaviours. The positive support they get from the hostel mates or peer pressure or the feeling of odd among the group may be some of the reasons behind initiation risk behaviour among emerging adults. In few instance mostly in the case of working emerging adults they might have started such behaviour as a part of socialization or for recreational purpose or just to get relaxed from the work place pressure they undergo (Sinha, 2008) [112]. Many cases emerging adults engage in behaviours like over speed driving, disobeying traffic rules, and acrobatic race stunts without safety measures to show that they are someone special and daring and to get the attentions of the girls and group members (Wairimu, 2013) [139]. Some of them have started risky behaviours just for experimentation but due the addictive nature of the drugs or substance they take or the hero image they received they continue such behaviour and get addicted to it (MacPherson *et al.*, 2010) [73].

Social Support

Traditional developmental theories are of the view that identity confusion and identify formation happens in adolescence. But modern researches are of the opinion that emerging adulthood with its explorative and experimental nature has significant role in identity formation. More experimentation in identity formation happens in emerging

adulthood than adolescence. The healthy and unhealthy social support they enjoy at this stage of experimentation plays crucial role in identity formation. The social support and the attention emerging adults' get for risk behaviour—both positive support and negative support (even the criticism and advices) indirectly becomes a motivating factor for them to stick to such behaviour (Mac Pherson *et al.*, 2010) [73]. Social desirability of the behaviour increases individuals chance to accept and adopt that behaviour, it is true in the case of risk behaviours also (Ellis *et al.*, 2012) [36]. Even the false perception of social desirability increases the chance. Males engage more frequently in risk and reckless behaviour than that of females of the same age group.

Peer Pressure

Peer pressure is a form of social support. Normally it means the amount of influence that is exerted on the individual by the circle of friends or by the people around him. In case of emerging adults peer group has significant influence on them than any other significant people. Because the acceptance in the peer group provides them acceptability in group, upper hand in all activities of the group, sense of maturity and heroic look. So the chances to engage more frequently in activities that are acceptable to the group or the activities in which most of the group members are engaging in. In case of initiation and sustenance of risky behaviour peer pressure has vital role. Researches reveal that in the initiation of smoking and substance abuse peer pressure plays a dominant role among emerging adults (Harakeh & Vollebergh, 2012; Akl, Jawad, Lam, Obeid, & Irani, 2013; Dierker *et al.*, 2006) [51, 7, 34]. In case of risky and rush driving, substance abuse and unhealthy life styles and the role of peer pressure could not be neglected (Kim & Kim, 2012) [63].

Measures of Safety

India has always gave predominant importance to the matters concerning to the emerging adults. Indian Constitution guarantees free and compulsory education and freedom of speech, rights against exploitation and discrimination. The directives of the state policy states that "...it is imperative that children are given opportunities and facilities to develop in a healthy manner and in conditions of freedom and dignity and that childhood and youth are protected against exploitation and against moral and material abandonment" (Article 39 (f), Constitution of India, 1949). The government has come up with policies and programmes for the adolescence and emerging adults. These programmes and policies focused educational aspects (*National policy on education -1986 modified in 1992, Sarva Shiksha Abhiyan, Rashtriya Madhyamik Shiksha Abhiyan*) as well as other aspects (*Welfare- National Policy for the Empowerment of Women 2001, Balika Samridhi Yojana 1997; National Policy on Child Labour 1987, Employment -Swarnjayanti Gram Swarozgar Yojana*). These policies and programmes have taken utmost care for safety and protection of rights of emerging adults.

Some policies are directly focusing on the youth while others indirectly do. Ministry of Youth Affairs and Sports, Government of India focuses on the all-round formation and development of the Indian youth otherwise emerging adults. Institutions like Rajiv Gandhi National Institute for Youth Development focuses mainly on youth development.

Despite these measures, majority of the emerging adults are at the risk of danger. So there is a need for evaluation of the effectiveness of the policies and programmes concerning welfare and well-being youth in India is necessary for taking course corrective measures for the benefits of youths.

Consequences of Risk Behaviour

Always risk behaviour is a blockage to the fullest and finest development of an individual's potentials. In some cases it causes sudden or immediate death and loss of life. And in other cases it can create immediate and long term impairments in psychological and physiological levels (Sitkin & Pablo, 1992) [113]. The very nature of the consequences of risk behaviour shows that categorization of consequences can be different based on different criteria. Based on the time taken to experience consequences, it can be classified into two groups: immediate consequences and gradual consequences. Based on the nature of consequence, it can be classified as psychological or physiological. Whether it is immediate or gradual or psychological or physiological all are blockage to the fullest and finest development of the potentials of the individual.

Death

In many cases, loss of life or death is the immediate consequence of risky behaviour or the cessation of all other consequences, especially risky and drunken driving and other risky adventures without safety measures. In some other cases, it can have many immediate consequences like loss of organs, damage to the brain which intern produce serious behavioural and cognitive changes to the individual, biological dependence etc. which will have long lasting impact on the individual in all walks of life. So let us discuss the consequences other than death.

Retardation in Health

The impact of risk behaviour on health is severe. Addictive behaviours degenerate health (Werner, Walker, & Greene, 1993) [143]. Alcoholism and other drug and substance abuse creates serious health conditions like steatosis, or fatty liver, alcoholic hepatitis, impairment in brain's communication pathways, cardiomyopathy – stretching and drooping of heart muscle, arrhythmias – irregular heartbeat, stroke, pancreas to produce toxic substances, cancer, weakening immune system (French, Maclean, Sindelar, & Fang, 2011; Ciubară *et al.*, 2015) [40, 28]. These physiological conditions become hindrance in actualizing once full credentials.

Blockage in Career Development

Addiction to the different substance create psychological and physiological dependence, impairment in cognition, problems in decision making, problem solving, inability to perform duties, and absenteeism in office (Foster & Vaughan, 2005; Turel, Serenko, & Bontis, 2011) [37, 135]. These behaviours are not welcomed in this highly competitive work environment where the corporate organizations or the government invest huge amount on the individual expecting it getting back in the form of production. So such behaviours make you look lethargic and incompetent and the working environment will be burden for such people.

Retardation in Relationships

Addictive and other risky behaviours which produce harm or which have the threat of harm reduces or limits one circle of relationship to a very small group (Chavarria *et al.* 2015) [21]. In many cases these people are problematic and a matter of tension not only in job setting but also in family. Their relationship in family and other settings like society, working place, neighbourhood etc become either problematic or impaired. Unpredicted behaviour and mood fluctuations isolate them from the majority. In some cases others take advantage of their behaviours to gain their vested interests.

Conclusion

Available evidence demonstrates that emerging adults are involved in a range of risky behaviour because of a combination of factors and risky behaviours are having short and long term impact on good number of emerging adults. The extent and severity of the impact depends on the type and nature of the risk behaviour they engage in. The types of behaviour they engage in include those behaviours which are threat to individuals' physical, mental, and social health. The development and persistence of those behaviours are influenced by different factors including environmental and hereditary factors. The geographic, cultural, and socio-economic diversity of the nation make this combination more complex and the issue becomes more delicate and serious. So proper planning of the policies and programmes, detailed evaluation of its effectiveness and additional investment in overall areas of emerging adults is inevitable from a futuristic perspective.

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