RESEARCH ARTICLE

ADOLESCENCE - VULNERABLE PERIOD FOR ALCOHOL USE.

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Abstract

It is important to understand the concept of health and its problems, internal & external factors that affecting the health, and to have a sound knowledge on preventive and promotive aspects of interventional approaches enhancing the health and development among the general population. The present review focuses on the health behaviors and problems affecting adolescents in the age group of 10-19 yrs. The review also examines some literatures related to statistics, policy initiatives and interventions and highlighting issues that need to be addressed for health and safety among adolescents. The main objective of this concept paper is, highlighting the alcohol abuse and other substance use/abuse among adolescents particularly in INDIA and preventive measures of alcoholism among adolescents. This paper concludes that since adolescence is age period of risk and experimentation, many adolescents initiates the use of substance like alcohol,tobacco etc and making their future in to dark period of entering into the dependence stage. Hence prevention of substance use among theses age group is vital and essential.

Introduction:-

Adolescence (from Latin: Adolescere meaning "to grow up") is a transitional stage of physical and psychological human development that generally occurs during the period from puberty to adulthood. Adolescents are not a homogenous population. They exist in a variety of circumstances and have diverse needs. The transition from childhood to adulthood involves dramatic physical, sexual, psychological and social developmental changes, all taking place at the same time. In addition to opportunities for development, this transition poses risks to their health and well being.

Since it is considered as a formative period of life, boys and girls are starting their habit under peer pressure, household influence, parental influence, and by dint of inquisitive mind and experimentation.

According to WHO, Adolescents are the individuals in the 10-19 years age group and 'Youth' as the 15-24 year age group. While 'Young People' covers the age range 10-24 years. There are about 350 million adolescents, who
comprising about 22% of the population in the countries of the South-East Asia Region (SEAR). Adolescence can be broadly divided into three stages: Early (10–13 years), middle (14–16 years), and late (17–19 years).

In general, adolescence and late childhood is a time of experimentation, exploration, and a search for self and risk taking.

**Statistical figure of adolescents:-**
In 2009, there were an estimated 1.2 billion adolescents in the world, forming around 18 per cent of the global population. The vast majority of the world’s adolescents – 88 per cent – live in developing countries. The least developed countries are home to roughly 16 per cent of all adolescents, and about one-quarter of India’s population are adolescents.

Among those, 243 million estimated number of adolescents in India, every fifth person in India is an adolescent (10-19 years) and every third – a young person (10-24 years). Population of Adolescents (253.2 million) and Youth (231.9 million) is quite large in the country (INDIAN CENSUS report 2011)

| Country  | Population (in million) | Adolescent Population (10-19yrs) (in million) | Proportion of Adolescents(%) |
|----------|-------------------------|-----------------------------------------------|----------------------------|
| China    | 1358.8                  | 191.2                                         | 14.1                       |
| India    | 1205.6                  | 236.5                                         | 19.6                       |
| USA      | 312.2                   | 43.0                                          | 13.8                       |
| Indonesia| 240.6                   | 43.4                                          | 16.8                       |
| Brazil   | 195.2                   | 33.8                                          | 17.3                       |
| Pakistan | 173.1                   | 30.9                                          | 23.1                       |

*Source: World Population Prospects – The 2012 Revision, UN 2013*

**Physical Development:-**
A myriad of biological changes occur during puberty which includes increase in height and weight, completion of skeletal growth, sexual maturation and changes in body composition. The succession of these Events during puberty is generally consistent among the adolescents which often influenced by age of onset, gender, duration, along with the individual variations. It is also an age of impulsivity accompanied by vulnerability, influenced by peer groups and media that result in changes in perception and practice, and characterized by decision making skills/abilities along with acquisition of new emotional, cognitive and social skills.

**Psychological development:-**
During adolescence cognitive development takes place and they develop abstract thinking and reasoning. Emotionally, they develop a sense of identity during late adolescence; social involvement, peer interaction, as well as sexual interest, develop in this phase. Different behavioral experimentation is seen in early adolescence, risk taking in middle adolescence, and later adolescents learns to assess their own risk taking.

**Health Problems among Adolescents:-**
The world’s adolescents health report (WHO) reveals that depression is the predominant cause of illness and disability for both boys and girls aged between 10 to 19 years. The main three important causes of adolescent deaths globally contribute to road traffic injuries, HIV/AIDS, and suicide.

Worldwide, an estimated 1.3 million adolescents died in 2012. Published literatures evidence and consultations concludes that the health issues affecting adolescents includes tobacco, alcohol and drug use, HIV, injuries, mental health, nutrition, sexual and reproductive health, and violence.

**According to WHO, the top causes of deaths in adolescents are summarized below**
- Road traffic injuries
- HIV/AIDS
- Suicide
- Lower respiratory infections
- Violence
Adolescence: a period of opportunity or a period of risks?
Since major changes in physical and psychological development occur during the period of adolescence, which is considered to be the second decade of life, they were also confronted with, enormous changes in social interactions and relationships. The behavioral patterns established during this developmental phase determine their current health status and the risk for developing some chronic diseases in later years. Adolescence and young people in developing countries like India have been exposed to various stresses like competition both in the fields of education and employment, Changing roles in the family and society, new found responsibilities and a changing identity, both physically and emotionally.

Adolescence is a time of opportunity, but also one of risk. It presents a window of opportunity to set the stage for healthy and productive adulthood and to reduce the likelihood of problems in the years that lie ahead.

At the same time, it is a period of risk: in which health problems that have serious immediate consequences can occur or when problem behaviors that could have serious adverse effects on health in the future are initiated.

Substance use among children and adolescents are on the rise and causes of serious concern. There is an alarming increase in the incidence of tobacco and alcohol use among young people. Abuse of volatile substances or inhalants has increased in children and adolescents due to its easy availability.

Why adolescent's health is so important:-
It is estimated that nearly two-thirds of premature deaths and one-third of the total disease burden in adults are associated with conditions or behaviors initiated during adolescence. e.g. tobacco use, physical inactivity, high risk sexual behaviours, injury and violence and others)
Harmful drinking among young people is an increasing concern in many countries and is linked to nearly 60 health conditions. It increases risky behaviours and is linked to injuries and violence resulting in premature deaths.

A national review on harmful effects of alcohol reported greater social acceptability of drinking, increasing consumption in rural and transitional areas, younger age of initiating drinking, and phenomenal socio-economic and health impact, more so among young people

The common public health challenges during adolescence include sexual and reproductive health issues related, early marriage and early child bearing among girls. Adolescent pregnancy is associated with two to five time’s higher maternal mortality, as well as a higher neonatal and infant mortality among their children, as compared to women in their twenties.(who publications)

Adolescents are at a higher risk of depression and suicide. Children and adolescents at times indulge in or are forced into sex in exchange for drugs. Youth substance abusers are prone to delinquent behaviour and anti-social activities. They are at risk of contracting blood borne and sexually transmitted infections like AIDS, when they share used needles or have unprotected sex under the influence of substance. Younger ages at the onset of substance use and dependence like that of opioids are associated with a higher severity of substance use, a higher lifetime use of other substances, higher sensation seeking and higher global psychopathology. Hence it is very much essential to look upon the health of the adolescents.

Why do some adolescents drink?
Although drug abuse and addiction can happen at any time during a person’s life, drug use typically starts in adolescence, a period when the first signs of mental illness commonly appear. Significant changes in the brain occur during adolescence, which may enhance vulnerability to drug use and the development of addiction and other mental disorders.

- Diarrhoea
- Drowning
- Meningitis
- Epilepsy
- Endocrine, blood, immune disorders
Drugs of abuse affect brain circuits involved in learning and memory, reward, decision making, and behavioral control, all of which are still maturing into early adulthood. Early Occurrence Increases Later Risk. Strong evidence has emerged showing early drug use to be a risk factor for later substance abuse problems; additional findings suggest that it may also be a risk factor for the later occurrence of other mental illnesses.

During adolescence period, they encounter dramatic physical, emotional, and lifestyle changes. Developmental transitions, such as puberty and increasing independence, have been associated with alcohol use. Simply just being an adolescent may be a key risk factor not only for starting to drink but also for drinking dangerously.

The risk factors for drug abuse by adolescents may be biological predisposition to drug abuse, personality traits that reflect a lack of social bonding, a low socio-economic status of family, family bonding, family relationship and parental guidance and care, a history of being abused or neglected, low emotional or psychiatric problems, stress and inadequate coping skills and social support, association with drug-using peers, rejection by peers due to poor communication skills, poor academic skills, failure in school, a history of anti-social behavior and delinquency.

In addition, Adolescents also tend to show greater extremes in emotional volatility, anxiety and even self-consciousness also appear to be peak. This anxiety and stress may play an important part in adolescents’ initiation of alcohol or other drug use.

Apart from the influence exerted by genetic and psychosocial factors, the chance of developing problematic alcohol consumption is increased by consumption in a binge drinking manner and by first contact with alcohol at a young age.

Harmful Alcohol Use:-
Substance abuse is one of the pressing problems in most countries and is associated with several social and economic consequences. This assumes greater relevance in developing countries like India which are already burdened with healthcare problems like inadequate health-care facilities.

- In 2003, United Nations Office on Drug and Crime (UNODC) conducted a survey titled "Extent, Patterns and Trends of Drug Abuse in India - National Survey" in which they reported that India has two million opiate-users, 8.7 million cannabis-users and 62.5 million alcohol users among whom 17 to 20 per cent were dependent users.
- Data from the National Household Survey (NHS) by United Nations Office on Drugs and Crime (UNODC), 2002 covering urban and rural areas of 24 States of India revealed a prevalence of 21.4 per cent of alcohol use among men aged 12 to 18 yr.
- The World Health Survey - India reported that among individuals aged 18 to 24 yr, 3.9 per cent were infrequent heavy drinkers and 0.6 per cent were frequent heavy drinkers.
- The NFHS-3 survey showed that 1 per cent women and 11 per cent men aged 15-19 yr and 1.4 per cent women and 28.8 per cent men aged 20-24 yr consumed alcohol.
- Other population based studies have shown the prevalence of alcohol consumption varying from 1.3 to 15.6 per cent across studies with a high consumption among males (12.6 to 20.7%) and more in urban (5.2%) as compared to rural (7.3%) areas.

Prevention:-
In India, children and adolescents manage to obtain psychoactive substances with relative ease. Since the alcohol policy is differs among the individual states and these policies do little to curb its flow, awareness programs like role plays, campaigns and rallies highlighting the ills of substance use can be targeted at school students, college students and their parents.

Parents should also be educated about the psychological development of adolescents, physical and warning signs of substance use in their child, the effects of substance use, effective parenting styles that could minimize the risk of initiation of substance use and other associated behaviours.

Studies from other low income countries have showed that community based and school based preventive strategies are effective in reducing drug and alcohol consumption among adolescents.

Periodical screening and awareness programmes on substance use among adolescents can be made at all schools and colleges functioning with adolescents.
Many more researches focusing on estimating the prevalence of substance use and interventional strategies controlling and preventing the substance use can be planned and conducted at local, national and international level.

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