



Priority Issues in Adolescent Health

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Abstract

The adolescents and youths experience various monumental changes in their lives as they gradually enter into adulthood from childhood. Today's lifestyle and lackadaisical attitude of youths towards health contributes to a deadly mix, thereby changing the picture of healthy adolescents and youth of our country. Ironically, most of the problems faced by adolescents and youth are preventable. Many severe future adulthood problems could potentially be diminished by educating & promoting health services though technological interventions of today's adolescents. The priority issues under adolescent health that need to be addressed broadly include nutrition, sexual, reproductive and mental health, gender- based violence, non- communicable diseases and substance use. The future still holds a lot of promise in terms of strategies and interventions planning to deal with the problems and sustainable prosperity.

Keywords: Adolescent, Health Promotion, Transition, Technology intervention.

Introduction

The term adolescence, meaning “to emerge”, has been derived from the Latin word, ‘adolescere’. It means “to grow/ to mature” which indicate the features of adolescence. It is interchangeably used

with the term youth. World Health Organization defines adolescence as the time period between 11 and 19 years of life and youth between 15 and 24 years of age, characterized by critical physical and



psychological changes leading to adulthood.

Adolescents and youth represent a significant proportion of population and are considered to be the most energetic and sensitive section of society who will be the future leaders and guardians of the country. Therefore, within this paradigm of population and development related issues, the role of adolescents cannot be ignored. Therefore, there is a dire need to focus more on the issues related to sustainable health and intellectual development of adolescents and youths by investing more resources and efforts.

Current status of adolescents

Adolescents constitute 18 percent of the global population, more than half of whom lives in Asia. India is the home to the highest number of adolescents with around 243 million, followed by China, which contributes around 200 million adolescents. While, in Sub-Saharan Africa, adolescents represents the biggest slice of the population, with 23% of those aged between 10 and 19 years^[1,4].

It is really a matter of concern that in the under developed countries, a quarter of young men and one third of young women are illiterate. Around 75 million young

people between the ages of 15 and 24 years are unemployed – a number that has grown, while educational attainment among adolescents has marginally increased.

If we focus on India, a wide demographic disparity can be seen in the literacy ratios among boys and girls. The main reason behind this is that many parents don't allow their female children to go to school. More intriguing fact is that many adolescent girls are forced to get married at a very young age which results into high teen pregnancy rates. The female literacy rate (65.46%) is lower than the male literacy rate (80%). However, the overall literacy rate is estimated to be 74.04% (Census of India, 2011). Many families, especially in rural areas believe that having a male child is better than a baby girl, thus providing more benefits to male child. Apparently, such social discrimination is a tenacious cofactor in provoking serious health (including mental health) and nutritional consequences on females.

Understanding adolescent health

A phase of transition

The developmental stages of adolescent and youth constitute a critical period of



establishment of lifelong positive and health-related behavior. During this period, adolescents undergo various changes like rapid physical growth along with physiological and psychosocial changes, the development of secondary sexual characteristics, and reproductive maturation. Owing to it, most of the adolescents also develop problems relating to the normal physical or psychological changes like leading to negative body image (acne, iron deficiency, anxiety excess, dieting & malnutrition, obesity, eating disorders, steroid use to build muscle mass etc). Moreover, significant number of teens also experiences some disorders in normal puberty procedures like many adolescent girls experiencing problems related to their menstrual cycling.

As a result of characterized changes that adolescents experience, they develop an intense sexual drive and start exploring relationships with the opposite sex. During this period, development and health trajectories can be altered dramatically in

positive or negative direction. They also start defining social relationships with a behavioral desire of self identity. In other words, the developmental changes of adolescence have a significant impact on their behaviors that influence the ways to resolve the major issues namely, autonomy, sexuality, identity and so on.



Figure 1.A framework for understanding adolescent and youth development & adjustment^[12]

Health outcomes of transition from adolescence to adulthood are grounded in the social environments and are most often driven by their behaviors. However, a large number of problems rising in

adolescents that lead to the emergence of new morbidities/ co- morbidities are preventable. In contrast, many young people bear the burden of poor health owing to the effects of changing lifestyle,



malnutrition, poor basic sanitation & hygiene, new & emerging diseases etc. Some of the most crucial health problems found in adolescents in India and globally are malnutrition/ deficiency disorders, unwanted pregnancies, sexually transmitted diseases, obesity and so on.

Key Issues in Adolescent Health

On the one hand, adolescents undergo a phase of transition while entering into adulthood, while on the other, they also face issues that create anxiety such as domestic violence, abuse (including physical, sexual or emotional), separation and divorce. In addition, a high prevalence of HIV/ AIDS (Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome) is observed in India. Among the multiple risk factors and situations for adolescents contracting HIV virus are childhood sexual abuse, adolescent sex workers, child trafficking, child labor, migrant population, coercive sex with an older person and biological (immature reproductive tract) as well as psychological vulnerability. Along with these, other factors such as the lack of knowledge about HIV/ AIDS, inaccessibility to healthcare services and commodities, lack of education and life skills, and early marriage have also

increased their vulnerability to HIV/ AIDS. It has been reported that there is a limited awareness (only 15%) about sexual and reproductive health among adolescents and youth (IIPS and Population Council 2010).

Some of the critical issues rising among adolescents and youth population are:

Life style related diseases

There is a visible shift from communicable diseases to non communicable diseases which is a dominant cause of current mortality. At the global level, many initiatives have been successfully implemented to control communicable and infectious diseases, though they are still to be implemented in India. India continues to bear a high burden of infectious diseases besides maternal, prenatal and poor nutritional conditions which account for 37% of the total mortality, compared with only 7% in China ^[9].

According to WHO estimates, 53% of all deaths in India are occurring due to rising events of non- communicable diseases (NCD), which is throwing up a new challenge to public health ^[1]. This has also caused significant morbidity among both urban and rural population, with a significant years of potential life



lost (YPLL). The main contributing factors reported by WHO remain – tobacco and alcohol consumption, poor dietary habits, sedentary life style and stress, all of which are otherwise preventable.

Unwanted pregnancies

Underage marriage and teen pregnancy are considered to be major health and economic concerns. As documented, about 70,000 teen girls die every year from complications in pregnancy and childbirth, mostly in the developing world. According to recent United Nations report (2012), India and Bangladesh remain among the countries where a girl is likely to be married before the age of 18 years and has a child at an early stage. However, Pakistan and Sri Lanka show much lower rates of pregnancies among women aged 15 to 19 years^[2].

WHO^[1] in 2010 estimated 76 adolescent births per 1000 girls in India aged between 15 to 19 years as compared to 49 worldwide and 53 in less developed regions. It is a matter to consider that stillbirths and newborn deaths are 50% more likely among infants of adolescent mothers than among mothers aged between 20 to 29 years. Moreover,

infants who survive are more likely to have a low birth weight and to be premature than those born to women in their 20s.

A substantial proportion of adolescent pregnancies are unwanted, of which many end in unsafe abortions estimating to be 3 million globally^[8]. Mostly, adolescents die or experience lasting complications during childbirth and others do not get the care and support they need during childbirth.

Nutrition

Adequate nutrition plays a vital role in the growth & sexual maturation of adolescents. Inadequate nutrition enhances the risk of chronic diseases combined with other adverse lifestyle behaviors among adolescents. India is facing a double burden of malnutrition highlighting both: a high prevalence of under- nutrition and an increased number of overweight and obese children and adolescents. Adolescents tend to eat differently at this period of life. Factors like increased mobility, acceptance by peers and self- image affect adolescent's food choices, leading to erratic and unhealthy eating behaviors found commonly among adolescents. Therefore, awareness about one's body



and its appearance becomes the top priority of adolescence health care.

National and population based surveys state that adolescents often fail to meet overall nutritional status. Many adolescents receive a higher proportion of energy from fat and/ or added sugar and have a lower intake of vitamin A, folic acid, fiber, iron, calcium and zinc. The intake of iron and calcium among adolescent girls is of great concern. Iron deficiency can affect functional and physical performance, and inadequate calcium intake may increase fracture risk during adolescence as well as the risk of developing osteoporosis in later stage of life. Girls skip meals in their anxiety to be thin which reduces their intake of food leading to deficiency of many important nutrients. Also, teenage girls should take more iron as their iron stores are depleted each month following menstruation. UNICEF in 2012 recorded that over half of the girls aged between 15- 19 years (56 per cent) in India are anemic. Studies have also shown that specific deficiencies & poor nutrition can lead to reduced concentration in studies, poor cognitive skills, growth retardation, lower stamina, depression and poor posture^[4].

It is really an alarming situation that, globally, around 10% of school- aged children (5- 17 years of age), are recorded as overweight or obese, while, in India, studies have shown the variance in the prevalence of overweight to be between 10% and 30% among adolescents^[5]. Given the rapid rise in obesity in India, it is important to roll- out the effects of overweight and obesity on health. As a long- term consequence, the condition may drive to increased risks of hyperlipidemia, hypertension, type- 2 diabetes mellitus, sleep disorders and so on. The future research should focus on management of adolescent obesity along with post treatment follow- up of adolescents in lifestyle modification.

Tobacco, alcohol and drug use

A whopping increase has been recorded in the intake habits of tobacco, alcohol & drugs among youths. In particular, tobacco, alcohol, cigarette/ bidis, gutka and other intoxicants are used by young people, both in rural and urban areas. The use of alcohol and drugs by adolescents is associated with many negative outcomes like physical violence, sexual activity, anxiety, suicide and road accidents.



In India, tobacco is consumed in multiple forms by adolescents, which serves as an emerging and a significant concern. Major determinants that contribute to the initiation, experimentation and regular use of tobacco among youth are: exposure to parental, sibling and peer smoking, peer group pressure, easy access to smoking and non- smoking forms of tobacco, aggressive promotion and advertising etc. A nationally representative study covering males in the age group of 12- 60 years across all the 25 states of India in 2002 revealed that the consumption of tobacco was 55.8% among the age group of 12- 18 years ^[12]. The most disturbing fact is the age of initiation, which is progressively falling. Children today begin to consume tobacco at a relatively younger age than they were doing a decade ago. According to WHO (2009), tobacco consumption in India will continue to increase at 2.4 percent per annum and most of the new users will be India's school children. Further, tobacco use may also result in hypertension, heart disease, respiratory infections and other problems among these students. Along with tobacco consumption, alcohol and drug use is also responsible for significant morbidity & deaths, and their treatment creates a tremendous burden on the society.

Prevention of tobacco, alcohol and drug use among young people appears to be the golden opportunity for preventing non-communicable diseases in the world today. Therefore consumption of tobacco, alcohol and drug addiction especially among school students is a matter of great concern which needs to be dealt with a holistic approach.

Mental health

The psychological disorders such as depression and anxiety start becoming evident in early adolescence with the onset of puberty. WHO reported that India has one of the highest suicide rates in the world, i.e. more than 10% of suicides in the world. It is also estimated by the country's health ministry that up to 120,000 people kill themselves every year and almost 40 percent of them are under the age of 30 ^[6]. This data also indicates that many young men and women report symptoms or behaviors indicative of psychiatric/ mental health disorders. It has also been noted that alcohol use and alcoholism indicate high risk for suicide and hence, all the factors are co- related.

Another key healthcare concern is that of gender- based violence in case of female adolescents. As per National Health



Family Survey- 3, nearly one out of every three (31%) ever-married female adolescents, within 15– 19 age group, reported experiencing physical, sexual or emotional violence perpetrated by their spouse.

Implementation Strategies

- The data and statistics captured from different sources on adolescents and youth are limited and show a significant gap. The lack of reliable data and information on the adolescent age group creates a setback in the preparation of profile of adolescents. Most of the data is aggregated on the basis of age in the age groups of 0- 15 years or 15- 24 years. However, information on adolescents (10- 19 years) is rarely considered as a distinct age group in official statistics. Moreover, the emphasis on youth (15- 35 years in India) results in greater and better quality of information on older adolescents in comparison with younger adolescents. The availability of reliable data is a pre-requisite for planning and identification of appropriate programs for adolescents. Research

and data compilation on adolescents, in fact, is itself an area that calls for policy prioritization.

- A healthy life style should strongly be promoted at a very young age which will serve as quality in developing positive behavioral modification to curb the risk factors that lead to non-communicable diseases.

To promote a healthy lifestyle (physical activity, healthy diet and an increased awareness on risk factors for NCDs), a school serves as a significant platform to educate, aware and counsel adolescents on behavior risk modification. Initiatives like establishment of Adolescent Health Clinics for Child Health Screening and Early Intervention Services (like screening for diabetes etc and adopting peer education approach) and referring the children for better treatment and appropriate management could be replicated to reach out adolescents. It is also proposed to provide adequate knowledge and information about menstrual hygiene among adolescent girls (aged 10 to 19 years) in both rural and urban areas



by providing access to sanitary napkins and ensuring environmentally safe disposal mechanisms. In the fast-paced world of today, digital technology could be utilized as an effective medium to encourage youths to adopt healthy lifestyle practices, nutrition, non-communicable diseases and mental well being, and provide sexual and reproductive health issues related information especially among adolescent girls, now and in the future.

In addition, efforts should be made towards smoking cessation and nicotine de-addiction through various ways which include nicotine replacement therapy (NRT) products and drug therapy.

- Skilled and sensitive childbirth and postpartum care should be ensured to reduce the mortality. The provision of promotive, preventive, and curative care in the pre-pregnancy period will also reduce unintended pregnancies. Strengthening the child survival programs will further reduce the number of child deaths from

diarrhea, pneumonia, vaccine-preventable diseases, and sexually transmitted diseases including HIV. In addition to this, adolescents and youth should be made aware of reproductive and sexual health information which will include access to contraceptives and safe abortion services. These strategies, if appropriately implemented, can effectively reduce the incidences of Sexually Transmitted Infections (STIs) like HIV/ AIDS, unplanned and unwanted pregnancies and unsafe abortions. Advanced pharmacologic individualized therapies, diagnostics techniques (like ELISA and PCR for rapid detection) and antiretroviral therapy for HIV/ AIDS can improve the safety, tolerability, and efficacy of treatments for improved health outcomes. Right information, an enabling environment and supportive services help adolescents take informed decisions regarding important health issues and contribute to a better future.

Moreover, Life Skill Education sessions should be reinforced from



diverse adolescent centric platforms. Newly married couples should be better informed about risks of early conception and importance of keeping an age difference between children. Pregnancy testing kits and contraceptives such as condoms and oral contraceptive pills (OCPs) should also be made available at every doorstep.

In addition, youth, supported by adult professionals, teachers, parents, and concerned community members, could utilize digital media to become activists for sexual health and reproductive issues. Technology tools which can be used by activists include—social networking, text messages, online contests, podcasts, games, etc.

- Furthermore, awareness should be expanded about yoga, meditation, consumption of balanced diet, nutritious food and inter-generational effects of malnutrition to maintain optimal weight of adolescents of our country. It is also proposed to include nutrition education in school curriculum. Moreover, e- learning interventions

could be designed to promote dietary behavior change as a part of nutrition education. Effective use of currently available technology options like GM crops, biosensors, processed food with fortification technologies needs to be put in place for better nutritional care. It is also suggested that under the child health screening and early intervention services, screening of adolescents for low Body Mass Index followed by counseling at adolescent health clinics should be done. Initiatives like bringing together existing programs for iron and folic acid (IFA) supplementation among pregnant and lactating women and children in the age group of 6– 60 months and women in reproductive age group, along with other fortification and nutritional assessment should be prioritized.

- Mental health issues should be addressed under the adolescent health strategy through screening for anxiety, stress, depression, and suicidal tendencies, and should be referred to the appropriate facility center for counseling and management of mental health

disorders by linking them with the

National Mental Health Program.

FRAMEWORK MODEL FOR PROMOTION OF ADOLESCENTS & YOUTH HEALTH



Adopting healthy lifestyle

Developing Information, Education & Communication (IEC) materials to discourage issues like early marriage, teenage pregnancy etc.

Organizing Health clubs/ youth friendly clinics

Life skill education sessions about sexuality through different adolescent centric platforms, boosting healthy relationship with peers and parents

Establish National Mental Health Program/ Strategy

Supportive and safe adolescent friendly environment

Counseling of adolescents & youth and curriculum development for inclusive education

Empowering youth for becoming responsible citizen in future

Networking for sharing their experiences

Training for economic contribution and teen clubs

Figure2. Framework model for promotion of adolescents & youth health



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