

## ADOLESCENT SEXUAL AND REPRODUCTIVE HEALTH IN INDIA: CHALLENGES AND OPPORTUNITIES

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**Abstract :** In a country like India wherein adolescents (aged 10–19 years) represent over one fifth of the population, the health consequences of neglect of their reproductive health needs takes on enormous proportions. Adolescent reproductive health is poorly understood and ill served in India. While national strategies and programmes have focused on children and pregnant women, neither services nor research has focused on adolescent health and information needs with overall perspective. The objective of the current paper is to focus on the reproductive health profile of adolescents in India, the burning issues in adolescent reproductive and sexual health which still serve as a challenge in the way of bringing about reproductive well being of the adolescent and to explore the various opportunities that would be of further help to overcome these challenges in improvising the quality of adolescent reproductive health care services. These challenges include the consequences of early marriage, unsafe abortions, high risk behaviour, lack of awareness about contraception and reproductive health issues, RTIs/STIs including HIV/AIDS and non-consensual sex. The programme managers have ample opportunities to address these challenges with the main focus of raising awareness about reproductive health issues, making the adolescent health services friendly and accessible and encouraging involvement of the teachers, parents, community leaders and last but not the least –involve the adolescents themselves.

### INTRODUCTION

Approximately 1.5 billion of today's world population consists of young people between 10 and 24 years old and 85% of them live in developing countries<sup>1</sup>. The Government of India considers the age group between 13 to 19 years as a special group of adolescents<sup>2</sup>. However the Planning Commission of India as well the W.H.O consider 10 to 19 years as the age group for adolescents<sup>3,4</sup>. The origins of the term is from the Latin word 'Adolescere' meaning, "to grow, to mature," which indicates the defining features of adolescence.

Adolescents also represent a resource for the future whose potential can either be wasted or nurtured in a positive manner. However, in the absence of appropriate and effective programmes for sexuality and gender equation, and appropriate reproductive health services, adolescents continue to remain at risk, thus calling for development of need based interventions. Therefore, the present paper has been framed with the objective to review the reproductive profile of adolescents in India, the challenges that pose in the way of the adolescent's reproductive well being and exploring the opportunities that are available to overcome these challenges as well the initiatives that have been undertaken in this direction to improve the quality of adolescent reproductive health care services.

### PROFILE OF ADOLESCENTS IN THE SOCIAL CONTEXT IN INDIA

About one-fifth of India's population is in the adolescent age group of 10–19 years. It is estimated that there are almost 200 million adolescents in India.<sup>5</sup>

The following indicators have a bearing on the adolescent's reproductive health.

**Adverse sex ratio :** Female feticide is very much rampant and there is a high maternal mortality among teenage mothers. The National Family Health Survey –2 (NFHS –2), findings have reflected the adverse ratios amongst adolescents wherein the sex ratio in the 10-14 years age group was found to be 902 and 915 in the urban and

rural areas, whereas the sex ratio in the 15-19 year age group was 893 and 953 in the urban and rural areas respectively.<sup>6</sup>

**Educational Status :** There is a wide disparity in the educational achievements of the adolescent boy and girl. According to NFHS reports, only 67% of the young adolescent girls( 10-14 years) attended school as compared to 80.2% males. In the 15-17 year age group, only 40.3% of the females attended school as compared to 57.7% males.

### CHALLENGES AND OPPORTUNITIES TOWARDS ADOLESCENT REPRODUCTIVE AND SEXUAL HEALTH IN INDIA

#### 1) Challenge: Reproductive health challenges of the unmarried adolescent

(a) **High risk behavior:** Over the recent years in India, the decline in old family structures, greater liberalization of economy and the advent of technological aids like internet, mobile phones etc have appeared to have a major impact on the sexual behavior of the adolescent thus bringing in its wake a number of health consequences which pose as a major challenge. Family Planning Association of India (FPAI), in their multicentric study amongst 4,709 youth males and females noted that premarital sex was relatively more acceptable to boys (18%), particularly in the group aged 20-23, than girls (4.2%).<sup>7</sup> Homosexual activity is fairly common among adolescents as a study conducted among 121 street children in Bangalore observed that 74 of them engaged in homosexual as well as heterosexual activities to the same degree.<sup>8</sup>

(b) **Low contraceptive usage:** Among the unmarried adolescents, contraceptive usage is quite low as observed by Abraham in a study conducted among male college students in Mumbai wherein less than half of them who claimed to be sexually active said that they used condoms or some other form of contraception.<sup>9</sup>

- (c) **Lack of awareness about reproductive health issues:** Adolescents tend to be extremely poorly informed regarding their own sexuality and reproductive health issues. In rural Haryana, less than 50 % of the girls preferred to consult parents and doctors for help at times of having reproductive health problems.<sup>10</sup> Regarding the experience in an urban slum of Delhi, it was seen that a culture of silence surrounds menarche, an event that took the adolescents by surprise.<sup>11</sup> Even in a Mumbai urban slum, as many as 40 % of the adolescent boys considered nocturnal emission and masturbation as major health concerns.<sup>12</sup>

## OPPORTUNITIES

- (i) **Strengthening of Life Skill Development among Adolescents:** Many Adolescent Reproductive health programmes include “life skills” either as one component or as the central focus of their work. Life skills are behaviors which help equip an individual to adapt and deal effectively with all the challenges in life. The CEDPA (Centre for Development and Population Activities) has been conducting a life skills development programme entitled as “Better Life Options” for out-of-school adolescent females since 1987. School teachers could also be trained so that they are well equipped to impart life skills to school going adolescents.

- (ii) **Involvement of the adolescent in creative activities:** The formation of youth clubs and forums which would serve to channel the energy of youths towards constructive activities and encourage participation in sports, martial arts, talent competitions etc should be encouraged. A recent approach in this aspect was undertaken by CEDPA in collaboration with four other NGOs, namely Prayatan, and Young Women’s Christian association in Delhi slums, Bhartiya Grameen Mahila Sangh in Madhya Pradesh and Society for the promotion of Youth and Masses in Haryana wherein a comprehensive package consisting of reproductive health, nutrition services and skills development as well as recreation was provided to more than 9000 adolescent boys in girls.

- (iii) **Development of a separate curriculum incorporating lessons on sexual health:** A variety of educational programs are underway which are being implemented at the school and college level by government and non-governmental sectors. These include programs such as the National Population Education project (A Govt. and United Nations Population Fund collaboration) as well as the programs run by Indian NGOs’ such as Family Planning Association of India and Parivar Sewa Sasthan

- (iv) **Involvement of the adolescent themselves :** Establishment of Youth forums wherein the adolescent can play the role of a peer educator should be promoted. A Youth convention was recently organized by CARE international in Jabalpur wherein as many as 4500 adolescent boys were involved in spreading messages about reproductive health through posters, quiz programmes, slogans and street plays.

- (v) **Parental involvement:** Parents should be involved in reproductive education which would require that parents be

able to communicate with their children about various reproductive health issues without any hesitation.

- (vi) **Making health services accessible and friendly:** As the adolescents in India face a number of social obstacles and other constraining factors in accessing adolescent health services, the same could be overcome by adopting the following strategies: (a) Provide clinic based preventive, promotive and curative services. (b) Specialized training of the staff to understand the felt needs of the adolescents needs to be stressed upon during the training. (c) Ensure the establishment of services in poorly served areas (d) Clinic should also be open after school/college hours and on holidays as well. (e) Availability of a Help line service.

- (vii) **Addressing Special needs of Adolescent boys:** In Indian settings, boys are generally raised to be self-reliant and independent, not to show emotions and not to be concerned with or complain about their physical health, nor to seek assistance during times of stress. These beliefs, and other factors significantly affect boy access to health care. Efforts to address the special needs of adolescent boys are being undertaken by NGOs’ like CEDPA and India-INCLIN in Lucknow etc

## 2) Challenge: Married adolescents: the health consequences of early marriage and childbearing.

In India, traditionally the transition from childhood to adulthood among females has tended to be sudden as a result of early marriage. According to NFHS-2, nearly one third of female adolescents were ever married compared to only 6 % of male adolescents.<sup>6</sup> The awareness level amongst the female adolescents about the legal age of marriage has been found to be less. Pattanaik D. et al in their study conducted amongst 254 girls aged 13 to 17 years belonging to a rural area in Haryana observed that only 65 % of them knew the correct legal age and only a few could correctly define the needs and advantages of a small family.<sup>10</sup>

### Consequences of early marriage :

- (i) **Impact on maternal health and pregnancy outcome:** Findings of NFHS – 2 reflected the infant mortality rate (IMR) of 93 per thousand live births to be much higher among children born to adolescent mothers. Early pregnancy also has an impact on population size as adolescent mothers will have more children than those who start childbearing later. Moreover the poor nutritional status of adolescent girls in India has been well documented.<sup>13</sup> Pregnant adolescents are more likely to suffer eclampsia and obstructed labor than women who become pregnant in their early twenties.<sup>14</sup>

- (ii) **Unmet need for contraception:** The findings of NFHS-2 also revealed that only 8 percent of married adolescents were currently using a method of contraception to avoid pregnancy. The use of contraceptives was lower in rural areas compared with urban areas, at 7.7 percent and 9.9 percent, respectively.

- (iii) **Accessibility to Reproductive health services :** The married adolescent female is also prone to face social and psychological barriers in accessing reproductive health services. In rural Maharashtra a study showed that many of them did not seek treatment for several reasons: shame and embarrassment; not being taken seriously by those with influence (husband and mother-in-law); and lack of financial

independence.<sup>15</sup>

### **Opportunities:**

#### **(i) Raising the age of marriage among adolescent girls**

It is important to raise awareness among girls, their parents, schools and communities of the harmful health consequences of early marriage and early pregnancy. This can be done by means of (i) Educating the community (ii) A stricter enforcement of the law regarding the legal age of marriage of girls (iii) Women empowerment. The National Population Policy 2000 underscores the need for such programs which encourage delayed marriage and child bearing. The Adolescent girl scheme which has been launched under the ICDS also envisages imparting skills and involvement in useful economic activities. At present the scheme covers 3.9 million adolescent girls in 507 blocks across the country.<sup>16</sup>

#### **(ii) Addressing the adverse health implications of married adolescent girls :** Very few programs have been able to distinguish between the special reproductive health needs of married and unmarried adolescents. For example the Planned Parenthood Federation has implemented a project known as "Couple to couple" wherein peer couples are employed to work with newly weds and young couples so as to motivate them to plan their families and attain positive reproductive health.

### **3) Challenge: Unwanted pregnancy and induced abortions amongst adolescents**

The female adolescent is highly vulnerable to unplanned, unwanted and mistimed pregnancy, mainly as result of lack of contraceptive usage and high risk sexual behaviour. Also, a large number of abortion seekers become pregnant as a result of rape or sexual coercion. Adolescents comprise about 1 to 10 % of the abortion seekers.<sup>17</sup> Although the Medical Termination of Pregnancy (MTP) Act (1972) has legalized abortion, yet the existing MTP health services are generally ill equipped to address the needs of these young girls.

### **Opportunities:**

- (i) Ensuring availability, accessibility and quality of safe and client friendly abortion services
- (ii) Use of safer methods of abortion such as manual vacuum aspiration techniques and medical.
- (iii) Raise awareness about the legal implications of abortion and rights of the woman in availing safe abortion services
- (iv) Expansion of access and use of Emergency contraception. Various studies have shown the existence of inadequate levels of knowledge about emergency contraception, such as a study which was conducted in Bhopal among the sexually active group in the age group of 15-25 years wherein as many as 83 % of them had low levels of awareness.<sup>18</sup>

### **4) Challenge : Reproductive tract and sexually transmitted infections including HIV/AIDS**

The vulnerability of adolescents to reproductive tract infections (RTI s') and sexually transmitted infections (STI s') are mainly attributed to their high risk behavior. Moreover, adolescents who are involved in a steady relationship tend to use oral contraceptives because of the fear of risk of an unwanted pregnancy. Inexperience with proper use of condom is also an important cause of failure of protection

offered by it. About a third of the 333 million new sexually transmitted disease (STD) cases each year, excluding HIV occur among people younger than 25.<sup>19</sup> Findings from NFHS -2 have shown that as many as 32.1 % of the ever married adolescents complained of abnormal vaginal discharge or symptoms of UTI.

### **Opportunities:**

- (i) **Raising awareness levels, availability and utilization of barrier contraceptives:** Easy accessibility to condoms, especially by the unmarried adolescents would significantly enhance their utilization rates. This could be done by installation of vending machines in public toilets, games arcades, internet cafes, night clubs etc. Easy accessibility should also be combined with peer education and proper diagnosis, treatment and referral services in the Adolescent health clinic.
- (ii) **Range of Choices :** Availability of a range of choices such as abstinence, fidelity, monogamy and condom use could give a greater momentum to STI prevention initiatives, as this helps to bring about a respectful recognition of the different choices of the adolescent.

### **5) Challenge : Sexual violence as an emerging issue of concern**

Sexual abuse is a violation perpetrated by a person who holds, or is perceived to hold, power over someone who is vulnerable. It includes such sexual violations as rape, sexual assault, sexual harassment, incest and sexual molestation. As a taboo subject, sexual violence is rarely reported or studied. Sexual abuse results in acute as well as long term consequences. The acute consequences for both male and female victims include physical injury, sexually transmitted infections (STIs), and psychological trauma whilst for female victims, there is the added danger of unwanted pregnancy. The long term consequences include a likelihood to engage in high-risk sexual activity, inability of self defense. Patel et al in their study on sexual abuse in schools in Goa reported that one third of the students had experienced at least one type of sexual abuse in the previous 12 months.<sup>20</sup>

### **Opportunities:**

- (i) Imparting training skills in self defense
- (ii) Raising awareness about laws which protect the victim and punish the accused
- (iii) Victims of sexual abuse should be identified by health providers and teachers by including questions about abuse in health assessments
- (iv) Supportive services should aim at addressing the physical, mental and emotional needs of the abuse victims.

## **CONCLUSIONS**

The present has sought to provide a brief overview of sexual and reproductive health situation of adolescents in India and the strategies that could have been adopted by various agencies dealing with adolescents. Further research and evaluation on some issues such as investigating the sexual and reproductive choice among married youth, adolescent's access to health care and the problem of non-consensual sex is no doubt genuinely needed. There is a need for evolving information, education and communication strategies to

focus on raising awareness on reproductive and sexual health matters and gender sensitive issues and for the programme managers and various stakeholders to gain a wider vision pertaining to this issue.

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## LITERATURE REVIEW

### *Correction of Anemia with Erythropoietin in Chronic Kidney Disease ( stage 3 or 4): Effects on Cardiac Performance* Konstantinos D. Pappas et.al. *Cardiovasc. Drugs Ther.* 2008, 22,37-44

It is not clear whether the correction of anemia with erythropoietin (rhuEpo) in patients with chronic kidney disease (CKD) has any benefit on cardiac function and geometry. Most studies are based on indices of systolic function and left ventricular mass (LVM) and the results are conflicting. Authors sought to investigate the effect of rhuEpo on LV systolic and diastolic performance using conventional and novel echocardiographic indices. Thirty one patients with CKD (stage 3 or 4) were included. Fifteen patients (group I) treated with rhuEpo targeting at Hb e<sup>13</sup>13.0 g/dL, while the remaining (group II) were not treated. Clinical and laboratory parameters were recorded at baseline and 1 year later. Ejection fraction (EF) and LVM were carefully determined. Diastolic function was assessed by mitral inflow indices (E and A wave velocities, Edt deceleration time and E/A) and novel indices of mitral annulus motion using Tissue Doppler Imaging (Em, Am, and E/Em). An index of global cardiac function (Tei) was also calculated. At baseline, the 2 groups had comparable clinical and laboratory characteristics. After 1 year, a significant improvement in Hb levels (13.6 ± 1.2 vs 10.3 ± 1.2 g/dL,  $p < 0.05$ ) as well as in systolic and diastolic function indexes was observed in group I compared to group II patients: EF (70.5 ± 7.6 vs 63.4 ± 9.3%,  $p < 0.05$ ), LVM (116.5 ± 34.9 vs 155.6 ± 51.6 g/m<sup>2</sup>,  $p < 0.05$ ), Edt (233.9±98.6 vs 166.9±45.1 ms,  $p < 0.05$ ), Tei index (0.35±0.12 vs 0.51±0.17,  $p < 0.01$ ) and E/Em (9.7 ± 2.4 vs 14.8 ± 5.2,  $p < 0.05$ ), respectively. Blood pressure and heart rate did not show significant changes. Correction of anemia with rhuEpo in patients with CKD seems to improve cardiac performance and geometry.

## LITERATURE REVIEW

### *Mumbai Stroke Registry (2005-2006) - Surveillance Using WHO Steps Stroke Instrument - Challenges and Opportunities* PM Dalal, Madhumita Bhattacharjee, Jae Vairale, Priya Bhat JAPI 2008, 56, 675-678

India will face enormous socioeconomic burden because life expectancy is increasing placing larger numbers of older people at risk of stroke and other chronic diseases. In order to plan prevention strategies, reliable information on stroke epidemiology is required. For uniform data collection (population based), WHO recommends use of STEPS Stroke instrument. A well-defined community (H-ward) with verifiable census data, and representative of population structure of Mumbai (Bombay), was selected. The manual on WHO STEPwise approach to stroke surveillance (STEPS; <http://www.who.int/chp/steps/Manual.pdf>) was the operational protocol. During the two year study period (Jan 2005 to Dec 2006), 521 new stroke (CVD) cases (males- 275 and females- 246) were identified; of which 456 (238 males and 218 females) had "first ever stroke"(FES) indicating an annual incidence of 145 per 100,000 persons (CI 95%: 120-170); age adjusted Segi rate:152 /100,000/year (CI 95% 132-172). Two thirds of the FES cases were admitted to health care

facilities (Step I: "in-hospital" cases), the remaining 150 (32.8%) either died outside of hospital or were treated at home or nursing homes (Step II: Fatal events in community and Step III: Non-fatal events in community). CVD Diagnosis was supported by CT (Computed Tomography) in 407 (89%) of 456 FES cases: 366 (80.2%) had Ischaemic CVD, 81 (17.7%) had hemorrhagic CVD and 9(1%) were of unspecified category. The mean age was 66 yrs SD±13.60 and women were older compared with men (mean age 68.9rs SD ± 13.12 versus 63.4yrs SD ± 13.53). Hypertension (BP more than140/90 mm Hg) alone or in various combinations was present in 378( 82.8%) cases. Case fatality at 28 days after the FES stroke was 29.8%. Of 320 surviving patients 38.5% had moderate to severe disability. WHO STEPS stroke surveillance Instrument is simple to use and, practical for community surveys. The data are useful for planning stroke prevention campaigns on public awareness and education with regard to diet, exercise, blood pressure control and early symptoms of minor strokes.