

# Understanding normal development of adolescent sexuality: A bumpy ride

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## ABSTRACT

Adolescence, derived from the Latin word “adolescere” meaning “to grow up” is a critical developmental period. During adolescence, major biological as well as psychological developments take place. Development of sexuality is an important bio-psycho-social development, which takes an adult shape during this period. During adolescence, an individual's thought, perception as well as response gets colored sexually. Puberty is an important landmark of sexuality development that occurs in the adolescence. The myriad of changes that occurs in adolescents puts them under enormous stress, which may have adverse physical, as well as psychological consequences. Understanding adolescent sexuality has important clinical, legal, social, cultural, as well as educational implications.

**KEY WORDS:** Adolescence, development, puberty, sexuality

## INTRODUCTION

Growth and development are continuous processes, which bring a change in an individual, every moment. Development of sexuality starts as early as in intrauterine life following conception and continues through infancy, childhood, adolescence, adulthood till death.<sup>[1]</sup> During infancy, there is no awareness of gender. The child acknowledges its gender in early childhood as early as by 3 years. Self-awareness about sexuality (gender role, gender identity) evolves during the childhood.<sup>[2]</sup> Biological research evidences are suggestive of the definite role of androgens in deciding the gender sensitive roles and gender-specific behaviors.<sup>[2]</sup> Adolescence is a phase of transition during which major developments of sexuality takes place. Puberty is reached during adolescence, which is a major landmark in the development of sexuality. The hypothalamo-pituitary-gonadal axis function is highly essential for the sexual development during puberty.

Adolescence can be broadly divided into three stages: Early (10–13 years), middle (14–16 years), and late (17–19 years). Physical changes start in early adolescence, where they are very concerned about their body image. During adolescence cognitive

development takes place; adolescents 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 learn to assess their own risk taking.<sup>[3]</sup>

As per the 2014 data, published by U.S Census Bureau, adolescents (10–19 years of age) count approximately 1.2 billion across the globe.<sup>[4]</sup> Nearly, 70% of total adolescent (10–19 years of age) population of the world resides in developing countries.<sup>[5,6]</sup> Developing countries in recent decades are going through a rapid change due to – urbanization, migration, education, and mixing of cultures, which are having a definite impact on the attitude toward sexuality in adolescents.

In developing countries like India, the adolescents are also subjected to early marriage, which results in teenage pregnancy and adolescent fatherhood. In most cases, females in comparison to males are subjected to early marriage. Early exposure to sexual relationship also increases the risk of sexually transmitted diseases. As the culture

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of the developing country facilitates early marriage, as well as early pregnancy and adolescent fatherhood, the family and the society usually prepare the adolescents for the same which colors the adolescents attitude toward sexuality. In some reserved cultures, sexuality is discussed little so there is little scope to explore sexuality, and it still remains as a myth or enigma for the adolescent, which affects their perception of sexuality.

## DEVELOPMENT OF SEXUALITY IN AN ADOLESCENT

During adolescence, the physical growth, psychological as well as cognitive development reaches its peak. Adolescent sexuality development can be better explained with the bio-psycho-social model.<sup>[7]</sup> Biological factors, psychological factors, as well as social factors have equal importance in determining, the development of sexuality in adolescents.

Biological factors are the genetic factors and neuro-endocrinal factors, which determine the biological sex and also having an influence on the psychological sex. During adolescence the gonadal hormones, cortisol, and many other hormones play a role in causing the onset of puberty.<sup>[8]</sup> The secondary sexual characters are expressed due to this neuro-endocrinal influence.

In both males and females-pubic hairs, axillary hairs develop which take a gender specific growth pattern. In males, there occurs enlargement of genitals, appearance of beard and mustache, and the physique takes a typical masculine shape. In females, there occurs development of breast; menstruation starts, genitalia takes an adult shape, and the physique changes to a feminine type. An adolescent's interest in a sexual relationship is also influenced by the hormones.

Individual's personality or temperament is an important psychological factor that also decides the attitude toward sexuality. Introvert adolescents face difficulty in approaching and responding sexually.

Social factors or environmental factors also play a significant role in the development of adolescent sexuality. The attitude of the parents toward sexuality, parenting style, peer relationship, cultural influences are the important social factors which facilitates the sexual learning and decides the sexual attitude of the adolescent.

Other than the biological, psychological, and social factors, many more factors such as political, legal, philosophical, spiritual, ethical, and moral values significantly influence the sexuality development.<sup>[9]</sup> Media also influences the sexuality in adolescents.<sup>[10]</sup> In the recent decades, there is

an exponential growth in the media coverage worldwide. Adolescents' access literature related to sexuality, sexual crimes, and violence through media which affects the adolescent's perception and attitude toward sexuality.<sup>[10]</sup> Similarly television, internet also exposes the adolescents to literature and movies with sexuality content, influencing their perception about sexuality.<sup>[11]</sup>

Sigmund Freud had proposed his theory of psychosexual development, where he described about – oral phase, anal phase, phallic phase, latency phase, and genital phase as the landmark steps of psycho-sexual development.<sup>[12]</sup> During these phases, different body parts behave as most erotogenic and the individual attempts to explore or stimulate these erotogenic zones in order to get gratification.<sup>[12]</sup> The table 1 below mentions about the onset of the phases of psychosexual development across life time.<sup>[12]</sup>

**Table 1: Phases of psycho-sexual development**

Phase of psychosexual development	Lifetime
Oral phase	Birth to 18 months
Anal phase	18 months-3 years
Phallic (oedipal) phase	3-5 years
Latency phase	5 years to puberty
Genital phase	Puberty to till end of life

During early adolescence, an individual enters the genital phase from latency phase and throughout the adolescence the genital phase is maintained. The sexuality, which remains quiescent during the latency phase, becomes active during the genital phase.

During adolescence, an individual's need for intimacy and love making with opposite gender increases. Adolescents explore about different appropriate ways to express the love and intimacy.<sup>[13]</sup>

The development of an adolescent occurs not in isolation, rather in the background of the family, society in a defined culture, which significantly influences the adolescent sexuality.<sup>[13]</sup> Society's attitude and cultural perception of sexuality largely have an influence on the families in which an adolescent nurtures and his or her sexuality cherishes.

## GENDER AND ADOLESCENCE

Puberty changes differ in both the sexes. On an average females experience these changes 12–18 months earlier than males. Furthermore, the time of attaining maturity can impact the adolescent development differently.<sup>[14]</sup>

Early maturing boys having good body image are more confident, secure, and independent as compared to late maturing boys. However, they may have increased

aggressiveness due to a surge of hormones.<sup>[15,16]</sup> They are more likely to be sexually active and participate in risky behavior.<sup>[15,16]</sup>

Early maturing girls on the other hand, are very self-conscious, insecure, and more likely to develop eating disorders.<sup>[17]</sup> They are more likely to face sexual advances from older boys, more chances of unwanted pregnancies and more likely to be exposed to alcohol and drug abuse.

As per a research in the United States, during childhood-boys as compared to girls are more likely to face negative health outcomes like aggressive behavior and depression.<sup>[18]</sup> On the other hand, during adolescence, the girls are more likely to face the higher risk of negative health outcomes.<sup>[18]</sup> The effect of discrimination, gender, poverty, and abuse make the adolescent girls more vulnerable to the adverse outcomes.<sup>[19]</sup>

In areas of conflict (war prone zones, countries with political instability, and religious conflicts), young girls are at higher risk of sexual abuse and trafficking and young boys are more likely to be recruited as child soldiers.<sup>[20]</sup> The culture influences the roles and expectations from girls and thus has an impact on their access of information, education, and opportunity.

## ADOLESCENT SEXUAL BEHAVIOR

Adolescence is the period during which an individual's thought perception, as well as response gets colored sexually. Adolescence is the age to explore and understand sexuality. Sexual curiosity in the adolescence led to exposure to pornography, indulgence in sexual activities, and also increases the vulnerability for sexual abuse.

Halpern *et al.*, studied on western population regarding sexual behavior patterns of adolescents and explored the possible factors attributing to the sexual behaviors.<sup>[21]</sup> In this study, they studied over 11,000 adolescents between 18 and 27 years of age and found that more than 90% lose their virginity before marriage.<sup>[21]</sup> The virgin population is found to be younger in age, have the poor physical maturity, higher body mass index, more religious inclination, and often had perceived disapproval for sex during adolescence by parents.<sup>[21]</sup> By the late teenage and early 20's, most individuals experience oral or vaginal sex irrespective of marital status as found in different studies from US.<sup>[22,23]</sup> It was seen that early exposure to vaginal sex during adolescence increased the risk of sexual transmitted disease, however, the risk gradually declines with age.<sup>[24-26]</sup> It was also reported that, those who were exposed early to vaginal sex found to have more number of sexual partners which might have a link with the increased risk of sexually transmitted diseases.<sup>[26,27]</sup>

In recent years, internet has brought a revolution in adolescent's attitude and perception toward sexuality.<sup>[11]</sup> Adolescents acquire extensive information related to sexuality, which may be misleading and can have a significant negative impact on the sexual behaviors.<sup>[11]</sup> Sexuality is a complex human behavior, which is largely influenced by factors such as physical appearance, psychological factors, social factors, cultural norms, and past experiences.<sup>[2]</sup>

Most of the studies focus on vaginal sex on the sexual behavior in adolescence and hardly few studies discuss the non-vaginal sexual behavior.<sup>[26]</sup> There is a need to explore the non-vaginal sexual behaviors (oral sex, anal sex) which may be potential routes of transmission of sexually transmitted diseases including HIV infection/AIDS as adequate protections like use of condom is taken in these methods like vaginal sex.<sup>[26,28-32]</sup>

## CHALLENGES FACED

Adolescents face a great challenge in their early adolescence. Many critical biological, as well as psychological changes, occur during this phase for which many adolescents are not prepared enough to cope with, which often puts them under stress. Onset of menstruation, change in voice (puberphonia) in boys, development of secondary sexual characteristics, and psychological changes often perceived as challenges. Family and society's attitude, as well as a cultural influence on these changes, during puberty, plays a major role in deciding the adolescent's sexual behavior after puberty.

Sexual exposure during adolescence is a matter of serious concern due to the risk of transmission of sexually transmitted infections including HIV infection/AIDS, teenage pregnancy, and adolescent fatherhood.<sup>[13,33]</sup> In many developing countries, as well as underdeveloped countries, early sexual exposure leading to HIV infection is a matter of great concern.<sup>[34,35]</sup> Early marriage leading to early sexual exposure, and pregnancy also has adverse consequences on the reproductive health.<sup>[5,36]</sup>

In many developing countries and most of the underdeveloped countries, formal sex education in school mostly does not exist; if it exists, then mostly found to be inadequate. Lack of proper sex education often leads to unprotected sex, unintended pregnancy, and sexually transmitted diseases.

Due to multiple reasons adolescents are exposed to unprotected sex. Lack of awareness and improper sex education is an important reason of unprotected sex in adolescents.<sup>[5]</sup> In developing and underdeveloped countries, the parent – child communication related to sexuality and

sexually transmitted diseases is poor.<sup>[5]</sup> Adolescents get little opportunity to discuss about their sexuality related issues, which likely to hamper the healthy sexual development.<sup>[7]</sup>

Difficulties associated with the sexual approaches and encounters are not the only challenge in adolescence. Interpersonal violence is one of the notable concerns in adolescents.<sup>[13]</sup> It may result in physical, as well as sexual abuse. Most of the interpersonal violence is related to sexuality. Usually, the adolescents are not trained enough in the parenting skills due to, which teenage pregnancy and adolescent fatherhood becomes a challenge.<sup>[13]</sup> Clinical and educational interventions on adolescent sexuality focus mostly on coital sexual activities of adolescents. However, there are plenty of evidence regarding adolescent's involvement in non-coital activities, which are potential routes of transmission of sexually transmitted diseases including HIV infection.<sup>[5,26,28-32,37]</sup> There is a need to focus on non-coital sexual activities during clinical assessment and health education.

## CONCLUSION

Understanding the sexuality development of adolescent is of utmost importance. Without this understanding, one cannot move forward for clinical or educational intervention. Understanding the factors influencing sexuality is also useful for intervention. At the same time, understanding adolescent sexuality, will also help parents to understand the difficulties of their children better and will help them to guide their children in the crossroads of adolescence.

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