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# *The Impact of Early Sexual Activities to Mental Health for Adolescents*

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***Abstract:*** The initiation of sexual activity in adolescents at an early age could not only cause reproductive problems, such as unintended pregnancy and sexually transmitted infections, but also hinder the normal development of mental well-being. As puberty is an important stage of biological and psychological changes for teenagers, special attention needs to be paid to the psychological development of adolescents. This article focuses on how the sexual activities of teenagers impact mental development, and analyses it from behavioural, biological, social, and psychological perspectives. Besides, this paper suggests interventions at the family, community, and school levels to better help children with increasing the awareness of sexual education and psychological cognition.

***Keywords:*** sexual activity, adolescents, mental health, puberty, teenagers

## 1. Introduction

The World Health Organization (WHO) defines early initiation of sexual activity as occurring at age 15 or earlier. Sexual behaviours could be a predictive or risky factor, having both positive and negative impacts. Initiation of sexual activity at an early age is related to sexual and reproductive health problems. However, it was little known about the long-term consequences. It is recommended to raising awareness to risk factors and implication.

Risky health behaviours are prioritized in the US in the areas of sexual activity, high-risk substance use, encountering violence, mental health, and suicide. According to the data summary and trends report for the 2009-2019 Youth Risk Behaviour Survey from the Centers for Disease Control and Prevention, the proportion of high school students in the United States who had sex declined from 46.8% in 2005 to 41.2% in 2015 [1]. The earlier the initiation of sexual intercourse, the greater the risk of STIs for adolescents [2].

Further, unintended pregnancy and HIV infection are major challenges in adolescent health globally. For example, in Ethiopia, intended pregnancy among girls under the age of 15 accounted for 54% [3]. The prevalence of early sexual initiation in the study of high school youths in northeast Ethiopia reached 18.4% before the age of 18 years, 55.5% of whom had their first sex with boy/girl friend, and 56.7% of whom had two or more sexual partners. In another study from three waves of the National Longitudinal Study of Adolescent to Adult Health (Add), there were almost 17% of adolescents who had their first sexual intercourse before the age of 15.

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In addition, condom use among youth in the US has decreased from 61.1% to 54.3% of those who were sexually active in the last time of sexual intercourse in 2019. Effective hormonal birth control use includes birth control pills, an IUD or implant, a shot, a patch, or a birth control ring, showing an increase in use from 25.3% in 2013 to 30.9% in 2019. As a result, the low-level of decreasing tendency in HIV testing among youth, from 12.7% in 2009 to 9.4% in 2019, indicates a lack of awareness for sexually transmitted diseases. The practice is associated with sexual and reproductive health problems. However, data collection for monitoring children's and adolescents' health conditions is not always sufficient because questionnaires and interviews are usually conducted with assistance from their parents.

The causes of early exposure to sexual activities may be found in a varied context from the environment they live in, such as in family, society, and culture. In the study of Canadian children aged 11 to 16 years old, it was found that early sexual activities were commonly determined by contextual factors, such as family structure and family support [4]. However, there were differences in individual factors between boys and girls, with time spent in organized sports time being a factor affecting early sexual activities in boys, while negative body image, low socioeconomic status, and screen time using social media could cause a higher risk of early sexual activities among girls [4][5]. Early marriage is one of the cultural factors that influences earlier sexual initiation, especially in women. In Ethiopia, the average age of first marriage for women is 16 years old, which is one of the lowest in the world. However, men had an average age of 23 years old as encouraged for later marriage. This factor also causes inequalities in health, opportunities for occupation and education, and socioeconomic status for women, leading to a worse psychosocial health outcome [6].

Early initiation of sexual activities is a lack of great attention and could be a problem causing later risky behaviours, long-term mental health outcomes, and gender differences in health inequalities. The primary focus for explaining the mechanisms or developmental pathways for mental disorders and persistence beyond adolescence is timing effects [7]. So, this paper is going to review the impacts of early initiation with sexual activities on mental health outcomes from multiple perspectives with qualitative analysis. The primary purpose is to help parents, schools, organizations, and the public health sector focus earlier on behavioural and psychological changes and potential relationships in early childhood development.

## 2. Impact Analysis

### 2.1. Behavioural Perspective

Teenagers in their immature ages will start to be curious, fantasy, and experiment with sexuality. Before they engaged in sexual behaviours, they tried to form their own ideas of sexuality, and sexual roles served as guidelines for what types of sexual behaviours and partners to choose based on sex, race, and ethnicity [8]. However, early initiation may expose adolescents to risky sexual behaviours earlier or more frequently. According to Magnusson, Crandall & Evans, confounder was suggested as executive functions in the model. Self-control, particularly impulsivity or low inhibitory control, was considered a mechanism of action that could influence the association between early sexual initiation and sexual risk taking in adulthood [9]. However, some teenagers may seek excitement for a sexual experience and use inappropriate or ineffective protective measures, even some may not take any action.

Additionally, the behavioural perspective looks at risky behaviours that cause serious physical or mental health outcomes. Unintended pregnancy, sexually transmitted diseases, and HIV are globally challenging problems and aims that need to be solved or reduced as soon as possible. From a life course perspective, the onset was thought to originate in childhood and adolescence. Younger ages at the first time for intercourse were associated with increased odds of STDs, which means

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teenagers aged 13 who had their first sexual intercourse had double the odds of having a STD when they were 18 years old compared to those aged 17 who had their first intercourse [8]. STD was strongly associated with early initiation of sexual intercourse, which occurred earlier in teenagers as the age of first having sexual intercourse increased.

So multiple consequences could have an impact on academic achievement and future occupational and financial opportunities in later life. If there were lots of negative experiences or consequences before they entered adulthood, they could have accumulated to affect not only sexual functions but also skills in relationships, sociability, physiology, and survival. Long-term psychological burden may also simultaneously interact with teenagers.

Besides, engaging in sexual activity might disappoint family members or parents. Support and relationships from family or parents are especially important in encouraging positive influence in children. Furthermore, being ashamed of virginity, and a lack of recognition and understanding of teenage sexual behaviour, sexual attraction, sexual identity, and gender identity from parents, peers, teachers, or the public are more likely to negatively affect teenagers in the long-term.

## 2.2. Biological Perspective

Hormone changes caused by sexual activities may lead to an imbalanced status, which might influence psychological changes. In a study by Ankita analyzing sexual activity in relation to reproductive hormones and function, women who had greater levels of luteal progesterone, mid-cycle LH, and estrogen, had a decreased risk of experiencing sporadic anovulation [10]. For males, results from research on male rats indicate that sexual experience may cause both short- and long-term alterations in the blood levels of many hormones, including total testosterone, free testosterone, estradiol, and LH [11].

Puberty timing shows an important role for hormone changes and pubertal maturation. Early maturing girls and late maturing boys are exposed to higher risks of serious psychopathology [7]. Early maturing boys might be related to low self-esteem and higher smoking use in later life.

Besides, it was shown that pubertal maturity was a predictor of greater dating between girls and boys [12]. However, secondary sexual characteristics that depend on sex and different hormonal changes could be the reason for accelerating the initiation of early dating. Problems usually happen in a dating or romantic relationship. For example, facing peer pressure could cause a special vulnerability in early maturing adolescents [12]. Early puberty was also found to be a predictor for depression in those who had emotional problems in childhood, shown in both girls and boys. It is because early maturation is associated with internalising and externalising symptoms in the early and middle years of adolescence.

## 2.3. Social Perspective

Social context is always one of the essential determinants of health, but it was considered a potential confounder between early sexual activity and depression.

Religion and ethnicity contribute to differences in people's health-related problems. Religious institutions often have specific religious beliefs, and most religions advise adherents to discourage premarital sex before marriage and delay sexual initiation. And these perceptions somehow influence young people to stimulate the development of healthy behaviours while also instilling the idea not to engage in risky behaviours. Studies in the USA, Addis Ababa, and Ethiopia found that some adolescents who participated in religious education programmes were less likely to be exposed to sexual activities at an early age [3][13][14].

Parental monitoring and support are a contextual factor at the family level and play an important role in children's development. Connolly demonstrates that biological and social predictors like

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early maturation, parental monitoring, and peer affiliations all contribute to the onset of early dating in adolescence [12]. Adolescent troubles and emotional challenges have, however, been connected to early dating aberrations, both now and in the future [15].

Peer affiliations may influence how others perceive secondary sexual characteristics. Boys have thicker body hair, pelvic structures (no rounded hips), an upper body muscular build, and the capacity to gain muscle mass more quickly as they enter puberty. Girls' rounded hips and figures, increased body fat percentage, decreased capacity to build muscular mass quickly, decreased upper body strength, breasts, the capacity to nurse infants, and the monthly cycle are all signs of the development of secondary sexual traits. Judgements of physical body or sexually related behaviours could be discussed between peers with their own negative or positive opinions, which may lead to negative thoughts about the people being discussed.

Negative mental health after the first sexual activity may arise due to a number of personal and relational situations. When teens fall into a relationship for the first time, there are few relevant experiences that can help with emotional, relational, and sexual problems. A breakdown in a relationship could have negative psychological consequences.

Some studies have found that first sexual experiences can lead to increased depressive symptoms or lower self-esteem in some adolescents [16]. However, sex outside of a romantic relationship can occur, whether consensual or coerced, and young girls are more vulnerable to low self-esteem [16].

### 2.4. Psychological Perspective

The development of psychological in externalising, internalising and comorbid disorders is the focus of the psychological perspective. As previously stated, behavioural, biological, and social factors may ultimately contribute to mental changes. Girls with early maturation effects may have higher internalising and externalising symptoms than boys, indicating a greater severity on mental health. In contrast to girls, maturation usually occurs later in boys. Late maturation, which happens in mid-and-late adolescence or young adulthood, has a relationship with elevated depressive symptoms like disruptive behaviour disorders and externalising behaviours [17][18]. The association between early sexual initiation and mental health could be disruptive for girls, but it shows a decreasing association directly with internalizing symptoms and emotional significance [19]. However, it was concluded that sexually active may have mental health and a gradual decrease in internalising symptoms [19]. This has paved the way for research in the psychology of sexuality.

Adolescence is immature in terms of sexuality from both biological and psychological perspectives. Fortenberry pointed out that there are four key aspects of sexuality that emerge with puberty, including sexual desire, sexual arousal, sexual behaviour, and sexual function, which helps to better understand the ontogeny of sex [20]. Sexual desire is a kind of motivational state that generates increased attention to sexual stimuli and is linked to self-regulation or self-control [21]. It depends on sexual cognition, objectified desire by others, and objectified desire for others, in other words, identifiable sexual thoughts and sexual attractions. Before or after their first experience with sexual activity, teenagers usually have lots of thoughts about sex. Sexual arousal differs from sexual desire in that it is more like the onset of sexual stimulation, referred to as 'excitement' or other similarly expressed words, and a further stage. Sexual arousal was associated with complex psychological and physiological activations and was considered to be linked with sexual behaviours contributing to sexual psychology.

## 3. Interventions

For developing prevention strategies, it is vital to focus on adolescence, especially on the timing of puberty, which is the onset of biological and psychological changes. Besides, family, community,

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and school levels are considered to be influential on both sexual behaviours and mental health. Psychotherapy and psychological counselling should be provided to children and parents as early as possible when observing inner changes or hormonal imbalances in children, and tendency to internalise behaviours.

For parents, they could be educated with awareness and guidance about supporting children by their community or organisations and have the duty of supervision, monitoring risky behaviours, and regulating dating activities, working together with professional counselling. There is also a greater focus on the specific vulnerabilities of early adolescents in the face of peer pressure.

However, individual education is the underlying cause of awareness of sexual education and psychological cognition. According to Fortenberry, there are four key aspects of adolescent sexuality that can lay the foundations for understanding how children think and behave [22]. Sexuality education programs should address how young people cope with or prevent the negative consequences of sexual activity so that the decision to give it up is beneficial and the decision to engage in sexual activity is motivated by maturity and readiness.

## 4. Conclusion

Mental health issue represents global disease burden chronically. Early sexual activity may have short or long-term negative health outcomes, interacting at least behaviourally, biologically, socially, and psychologically.

To some extent, almost every system of the body undergoes transformation during puberty, while reproductive capacity also develops at the same time. However, the prevalence of maladaptive psychological adaptations can be catastrophic.

Interventions should therefore focus on developing adolescence, especially at the timing of adolescence, developing individual education policies on sexuality and psychology, while encouraging family-level support and monitoring. Counselling and psychotherapy are also available at the community and school levels for children and their parents.

Although the analysis is not complete and has not been proven by data analysis, it provides an understanding of possible influential variables and contributes to increasing awareness of children's sexual activity and mental development.

## References

[1] *Ethier, K. A., Kann, L., & McManus, T. (2018). Sexual intercourse among high school students—29 states and United States Overall, 2005–2015. Morbidity and Mortality Weekly Report, 66(51-52), 1393.*

[2] *Kaestle, C. E., Halpern, C. T., Miller, W. C., & Ford, C. A. (2005). Young age at first sexual intercourse and sexually transmitted infections in adolescents and young adults. American journal of epidemiology, 161(8), 774-780. https://doi.org/10.1093/aje/kwi095*

[3] *Kassahun, E.A., Gelagay, A.A., Muche, A.A. et al. Factors associated with early sexual initiation among preparatory and high school youths in Woldia town, northeast Ethiopia: a cross-sectional study. BMC Public Health 19, 378 (2019). https://doi.org/10.1186/s12889-019-6682-8*

[4] *Gazendam, N., Cleverley, K., King, N., Pickett, W., Phillips, S.P., 2020. Individual and social determinants of early sexual activity: A study of gender-based differences using the 2018 Canadian Health Behaviour in School-aged Children Study (HBSC). PLOS ONE 15, e0238515.. doi:10.1371/journal.pone.0238515.*

[5] *Nogueira Avelar e Silva R, Wijtzes A, van de Bongardt D, van de Looij-Jansen P, Bannink R, et al. (2016) Early Sexual Intercourse: Prospective Associations with Adolescents Physical Activity and Screen Time. PLOS ONE 11(8): e0158648. https://doi.org/10.1371/journal.pone.0158648.*

[6] *Federal Democratic Republic of Ethiopia Ministry of Health(FMOH),2006,March, National reproductive health strategy. 2006–2015, https://www.exemplars.health/-/media/files/egh/resources/underfive-mortality/ethiopia/ethiopia-fmoh_national-reproductive-health-strategy.pdf?la=en.*

[7] *Graber, J. A. (2013). Pubertal timing and the development of psychopathology in adolescence and beyond. Hormones and behavior, 64(2), 262-269.*

[8] Christine E. Kaestle, Carolyn T. Halpern, William C. Miller, Carol A. Ford, Young Age at First Sexual Intercourse and Sexually Transmitted Infections in Adolescents and Young Adults, American Journal of Epidemiology, Volume 161, Issue 8, 15 April 2005, Pages 774–780, https://doi.org/10.1093/aje/kwi095

[9] Magnusson, B.M., Crandall, A. & Evans, K. Early sexual debut and risky sex in young adults: the role of low self-control. BMC Public Health 19, 1483 (2019). https://doi.org/10.1186/s12889-019-7734-9

[10] Prasad, A., Mumford, S. L., Louis, G. M. B., Ahrens, K. A., Sjaarda, L. A., Schliep, K. C., ... & Schisterman, E. F. (2014). Sexual activity, endogenous reproductive hormones and ovulation in premenopausal women. Hormones and behavior, 66(2), 330-338.

[11] Wu, D., & Gore, A. C. (2009). Sexual experience changes sex hormones but not hypothalamic steroid hormone receptor expression in young and middle-aged male rats. Hormones and behavior, 56(3), 299-308.

[12] Friedlander, L. J., Connolly, J. A., Pepler, D. J., & Craig, W. M. (2007). Biological, familial, and peer influences on dating in early adolescence. Archives of Sexual Behavior, 36(6), 821-830.

[13] Simons LG, Burt CH, Peterson FR. The effect of religion on risky sexual behavior among college students. Deviant Behav. 2009;30(5):467–85.Article Google Scholar.

[14] Gizaw A, Jara DKK. Risky Sexual Practice and Associated Factors among High School Adolescent in Addis Ababa, Ethiopia. Fam Med Med Sci Res. 2014;3(4).

[15] Zimmer-Gembeck, M. J., Siebenbruner, J., & Collins, W. A. (2001). Diverse aspects of dating: Associations with psychosocial functioning from early to middle adolescence. Journal of Adolescence, 24, 313–336.

[16] Meier, A. M. (2007). Adolescent first sex and subsequent mental health. American Journal of Sociology, 112(6), 1811-1847, https://doi.org/10.1086/512708

[17] Andersson, T., & Magnusson, D. (1990). Biological maturation in adolescence and the development of drinking habits and alcohol abuse among young males: A prospective longitudinal study. Journal of Youth and Adolescence, 19(1), 33–41. https://doi.org/10.1007/bf01539443

[18] Graber, J. A., Seeley, J. R., Brooks-Gunn, J., & Lewinsohn, P. M. (2004). Is pubertal timing associated with psychopathology in young adulthood? Journal of the American Academy of Child & Adolescent Psychiatry, 43(6), 718–726. https://doi.org/10.1097/01.chi.0000120022.14101.11

[19] Wesche, R., Kreager, D. A., Lefkowitz, E. S., & Siennick, S. E. (2017). Early sexual initiation and mental health: A fleeting association or enduring change?. Journal of Research on Adolescence, 27(3), 611-627, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5546176/#abstract-1title

[20] Fortenberry, J. D. (2013). Puberty and adolescent sexuality. Hormones and behavior, 64(2), 280-287.

[21] Basson, R., & Weijmar Schultz, W. (2007). Sexual sequelae of General Medical Disorders. The Lancet, 369(9559), 409–424. https://doi.org/10.1016/s0140-6736(07)60197-4

[22] Colman, I., & Ataullahjan, A. (2010). Life course perspectives on the epidemiology of depression. The Canadian Journal of Psychiatry, 55(10), 622-632, https://dx.doi.org/10.1177/070674371005501002