



ADOLESCENCE HEALTH REPRODUCTIVE

Ferina¹, Dian Nur Hadiani¹

¹ Bandung Midwifery Department, Bandung Health Polytechnic Ministry of Health R.I.

* Corresponding author: jewelferina28@gmail.com, diannurhadiani80@gmail.com

Abstract,

Background: Reproductive health is an important aspect of the normal growth and development of a teenager.¹² To achieve healthy adolescent reproductive development, involves managing the many physical, social and emotional changes that are experienced during adolescence.¹ Adolescent reproductive health education is right can help achieve the development of healthy reproduction. According to WHO, the ability to achieve and maintain sexual and reproductive health is a basic human right.³ The aim of this study was to describe adolescence health reproductive condition.

Methods: It was descriptive study with survey approach. The sampling technique used purposive sampling. It was involved 184 female students from Junior High School 40 Bandung, who have at least three times menstruation. Analysis data use SPSS descriptive statistic.

Result : Mean of responden age was 14,07 years old. Body Mass Index (BMI) was 20,17 (Normal). They experiences first menstruation/menarche at the age of 12,06 years. Most respondents experienced regular menstruation cycle. They used to replaces the pads 2-3 times a day.

Conclusion : Teenagers are forerunners for new life in the future. Adolescent health status, especially reproductive health and healthy sexual behavior during adolescence encourage a generation of quality.

Keyword : Adolescent, health reproductive

Introduction

Adolescence is a period of transition from children to adulthood which is marked by physical and psychological changes where these changes significantly provide opportunities and affect the future of adolescents who need special attention because they can affect their long-term health and social life.⁴

The increase in the population of adolescents in the world over the last 25 years deserves attention because reproductive health during adolescence will determine their long-term health as adults with their reproductive health status. Adolescents who lack supervision regarding their reproductive and sexual development will be driven to free sexual behavior and are at risk for reproductive health disorders.

During adolescence, adolescents will negotiate puberty and completion of growth, grow in body shape according to sex, develop new cognitive skills (including the capacity for abstract thinking), develop a clearer sense of personal and sexual identity, and develop levels of emotional, personal, and financial independence from their parents.⁵

The physical changes that mark the start of adolescence occur in addition to the psychological and social changes that mark this period as a critical stage of becoming an adult. In early adolescence, adolescents gradually begin to develop abstract thinking that is, the ability to use symbols or internal images to represent reality. In contrast to more childlike concrete thinking—where objects must represent “things” or “ideas” to solve a problem—

abstract thinking allows us to think hypothetically about the future and assess various outcomes.⁵

Adolescence is usually described as a time when independence is achieved. However, it is more accurate to talk about changing the balance of independence and dependence with other parts of the adolescent system (parents, peers, community, and even health professionals). The timing of this change depends on the different social and cultural expectations of the environment in which the teenager lives.⁵

It is important to recognize psychological interactions development with puberty, especially in the context of develop a sense of sexuality and body image. Body image and self-esteem is vulnerable to

differences in the timing of puberty between peers and the physical effects of chronic illness.⁵

Methods

It was descriptive study with survey approach. The data used in this study was primary data. The instrument in this study was a questionnaire. The questionnaire consist of statement to collect base data of adolescent health reproductive.

The sample of this study was involved 184 female students from Junior High School 40 Bandung, who have at least three times menstruation. The sampling technique used purposive sampling. Analysis data use SPSS 26 descriptive statistic.

Results and Discussion

The measurement results are shown in the following table :

Table 1. Description of Adolescent Health Reproductive Characteristic

Category	Age	Menarche	Menstruation Cycle	Change pads	BMI
N	184	184	184	184	184
Mean	14.07	12.06	1.20	2.94	20.17
Std. Deviation	0.5	1.02	0.4	0.78	2.67
Minimum	13	9	1(regular)	2	14.54
Maximum	16	14	2(irregular)	6	32.49

*Tes Descriptive statistic SPSS 26

Mean of respondent age was 14,07 years old. Body Mass Index (BMI) was 20,17 (Normal). They experience first menstruation/menarche at the age of 12,06 years. Most respondents experienced regular menstruation cycle. They used to replace the pads 2-3 times a day.

Based on the survey results obtained at SMP 40 Bandung, it shows that the growth and development of adolescents in SMP 40 Bandung is normal. This is indicated by the visible signs of puberty as an event of maturation of the reproductive organs which is marked as one of the prominent changes during puberty. Generally, this period of puberty is in the age range of 8-13 years, where the next 6-12 months menarche occurs. The average menarche data at SMP 40 Bandung is 12.06 years which shows that the maturity of the reproductive organs of this teenager is in the normal range.⁶

How did this event start? Beginning with an increase in FSH at the age of about 8 years, then followed by an increase in LH in the next period. In the next period, FSH will stimulate granulosa cells to produce estrogen and inhibin. Estrogen will stimulate the emergence of secondary sex signs while inhibin plays a role in the control of feedback

mechanisms on the hypothalamic-pituitary-gonadal axis. LH hormone plays a role in the process of menarche and stimulates ovulation. Adrenal androgen hormones, in this case dehydroepiandrosterone (DHEA) begin to increase early before puberty, before an increase ingonadotropins occurs. DHEA hormone plays a role in the adrenarche process.⁷

The normal menarche process consists of three phases, namely the follicular phase, the ovulation phase, and the luteal (secretory) phase. In the follicular phase, a pulsatile increase in GnRH from the hypothalamus will stimulate the pituitary to secrete FSH and LH which then stimulates follicular growth. The follicle then secretes estrogen which induces cell proliferation in the endometrium. Approximately seven days before ovulation there is one dominant follicle. At the peak of estrogen secretion, the pituitary secretes more LH and ovulation occurs 12 hours after the increase in LH. The luteal phase that follows the ovulation phase is characterized by the presence of a corpus luteum which is formed from the luteinization process of follicular cells. In the corpus luteum, cholesterol is converted to estrogen and progesterone. Progesterone has the opposite effect with estrogen

on the endometrium, namely inhibiting the proliferation and changes in glandular production so as to allow implantation of the ovum. Without fertilization of the ovum and the production of human chorionic gonadotropin (hCG), the corpus luteum cannot survive. Regression of the corpus luteum results in decreased levels of progesterone and estrogen causing the endometrium to shed, a process known as menstruation. Menstruation occurs approximately 14 days after ovulation.⁷

In the puberty phase, physical changes occur so that in the end a child will have the ability to reproduce. There are five specific changes that occur at puberty, namely, rapid increase in height (stimulating growth), secondary sex development, development of reproductive organs, changes in body composition and changes in the circulatory system and respiratory system related to body strength and stamina.⁷ In this survey, the average body mass index data for female adolescents at SMP 40 Bandung was 20.17. It shows physical growth within the normal range. This is an important point needed in the ability to reproduce normally.⁷

Menstrual cycles are often irregular until adolescence, especially the interval from the first to the second cycle. According to the results of an international and multicenter study by the World Health Organization of 3073 girls, the average length of the first cycle after menarche is 34 days, with 38% of cycle lengths exceeding 40 days. The variability is wide: 10% of women have more than 60 days between their first and second menstruation, and 7% have a first cycle length of 20 days. Most women experience bleeding for 2 to 7 days during their first period.⁸ The results of this survey also show data that the average menstrual cycle of adolescents after 2 years of menarche is regular.

Adolescent girls are susceptible to infection of reproductive organs. This happens because of the lack of behavior in maintaining personal hygiene, especially during menstruation. Adolescent girls have a low level of attention related to reproductive health.⁹ The normal time limit recommended for changing pads that are full and damp, is 4 to 5 hours. If you change your sanitary napkin beyond the recommended normal time, bacteria can easily enter the reproductive tract. Therefore, an increase in the incidence of infection in reproduction will occur.⁹

The survey data show that on average, students who experience menstruation change their sanitary napkins 2-3 times a day. This means they change pads a day for more than 5 hours as recommended by maintaining hygiene during menstruation to prevent bacteria from entering the genitals. This shows that health education is still

needed so that adolescent girls who have normal growth and development will be protected from the risk of genital infections due to lack of understanding of how to keep their genital organs clean during the menstrual period.⁹ It is important to pay attention to genital hygiene during menstruation because during menstruation the blood vessels in the uterus are more easily infected. Therefore, genital hygiene must be maintained because bacteria are very easy to enter and the reproductive system is disrupted. The application of healthy behavior to oneself during menstruation is supported by knowledge, attitudes and appropriate actions so that healthy reproductive organs are achieved.⁹

Conclusion

Adolescents in their growth and development include various aspects including hormonal aspects, physical aspects, and psychosocial aspects. In girls, it occurs at the age of eight years, each marked by a sign of puberty and culminates with the occurrence of menarche as evidence of maturation of the reproductive organs. The process of maturation of reproductive function is certainly not running alone. It is important to pay attention to physical health and normal physical growth with good emotional maturity so that they can accept the changes that occur pleasantly and carry out healthy behaviours in maintaining their reproductive health.

References

1. Burke PJ, Coles MS, Di Meglio G, et al. Sexual and reproductive health care: A position paper of the society for adolescent health and medicine references. *J Adolesc Heal.* 2014;54(4):491-496. doi:10.1016/j.jadohealth.2014.01.010
2. Atuyambe LM, Kibira SPS, Bukenya J, Muhumuza C, Apolot RR, Mulogo E. Understanding sexual and reproductive health needs of adolescents: Evidence from a formative evaluation in Wakiso district, Uganda Adolescent Health. *Reprod Health.* 2015;12(1). doi:10.1186/s12978-015-0026-7
3. Hensel DJ. Supporting Adolescent Sexual and Reproductive Health Rights Through Innovative Research Approaches. *J Adolesc Heal.* 2019;64(3):288-289. doi:10.1016/j.jadohealth.2018.12.011
4. Liang M, Simelane S, Fortuny Fillo G, et al. The State of Adolescent Sexual and Reproductive Health. *J Adolesc Heal.* 2019;65(6):S3-S15. doi:10.1016/j.jadohealth.2019.09.015
5. Deborah Christie RV. Adolescent Development. *BMJ.* Published online

- 2005:300-304. doi:10.1007/s00398-018-0209-y
6. Putriyanti CE, Ratnawati E. Normal Puberty Knowledge and Adolescent Menstrual Cycles. *J Info Kesehatan*. 2019;17(2):119-133. doi:10.31965/infokes.vol17.iss2.296
 7. Batubara JR. Adolescent Development (Perkembangan Remaja). *Sari Pediatr*. 2016;12(1):21. doi:10.14238/sp12.1.2010.21-9
 8. Diaz A, Laufer MR, Breech LL. Menstruation in girls and adolescents: Using the menstrual cycle as a vital sign. *Pediatrics*. 2006;118(5):2245-2250. doi:10.1542/peds.2006-2481
 9. Katarina Canggih Pythagoras. Personal hygiene remaja putri ketika menstruasi. *J Promkes*. 2017;5(1):12-24. doi:10.1007/978-3-319-93701-4_44