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Factors That Influence Knowledge About Pregnancy In Adolescents

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ABSTRACT

Adolescence is a transitional period from childhood to adulthood, marked by physical, hormonal, and emotional changes. Adolescents' intense curiosity, particularly regarding sexuality and reproductive health, can lead to risky sexual behavior if not accompanied by adequate knowledge. Lack of knowledge about reproductive health can increase the risk of teenage pregnancy, which can impact the health of both mother and baby. This literature review aims to determine the factors that influence adolescent knowledge about pregnancy during adolescence. The method used was a literature review, searching for articles in the PubMed and Google Scholar databases using the keywords knowledge, teenage pregnancy, adolescents, and reproductive health. Sixteen articles were obtained, consisting of eight national and eight international articles, which were then analyzed according to the research objectives. The results of the study show that adolescents' knowledge about pregnancy is influenced by several factors, namely education, information sources, family, peers, and social environment. Adolescents' knowledge about pregnancy is influenced by various internal and external factors, so it is necessary to increase reproductive health education and the role of the family and environment in providing accurate information to adolescents.

Keywords: teenage pregnancy, reproductive health, knowledge, causes, teenagers, 7 factors

INTRODUCTION

Adolescence is a transitional period from childhood to adulthood, beginning with puberty. During this period, various changes occur, both physical, social, and emotional.(Salfadila et al., 2023)Puberty is a crucial transitional period in an adolescent's life, marked by significant physical, hormonal, and emotional changes. Typically occurring between the ages of 9 and 18, puberty marks the transition from childhood to adulthood, playing a crucial role in the formation of self-concept and individual identity.(Maharani, 2024)Furthermore, adolescence is often referred to as a "grey period" because it is not yet clear whether the role of adolescents is no longer considered children, but also not yet accepted as adults, so they are in between the two. Therefore, adolescence is referred to as a phase of searching for identity. At this stage, adolescents are not yet able to function optimally in their physical and psychological aspects. In addition to physical changes, psychological changes also

occur that cause emotional instability. This condition can give rise to psychological problems, such as mental stress due to demands from family, friends, the environment, and themselves. This pressure often creates conflict within adolescents, causing them to hesitate in making decisions and have difficulty understanding themselves.(Tarwiyyah, 2022)

Delinquency and promiscuity among adolescents are increasingly complex social problems within the context of law and community life. Promiscuity refers to adolescent behavior involving sexual freedom, alcohol consumption, drug use, or other actions deemed contrary to prevailing social and moral norms.(Mbayang, 2024)Teenagers engage in premarital sexual activity due to internal and external factors. Internal factors include sexual knowledge, self-esteem, self-control, and religious understanding. External factors include family and peer influences.(Febriana & Pratiwi, 2022)The heightened sexual interest and curiosity in adolescents is due to the sexual maturity that occurs at this age. Any interaction with the opposite sex driven by sexual desire is called sexual behavior. This behavior, ranging from attraction to flirting, dating, and sexual intercourse, is a result of the development of sex glands and hormones that trigger sexual desire in adolescents, which are marked by the physical changes that occur during puberty.(Mukminun, 2022)If left untreated, some adolescents may engage in risky sexual behavior. This situation can lead to various physical health problems, such as early pregnancy, sexually transmitted infections, HIV, AIDS, and other risks.(Dewi & Kurniasih, 2023)

Teenage pregnancy is a pregnancy that occurs in women aged 11-19 years. Pregnancy is a difficult time for a mother, therefore pregnant women need support from various parties, especially their husbands, so that they can go through the pregnancy process until giving birth safely and comfortably.(Ayuni et al., 2022)The underlying factor for teenage pregnancy is the lack of knowledge among teenagers, which can be obtained through education.(Agustina, 2023)Lack of knowledge about sexual and reproductive health not only encourages teenagers to try positive behavior, but teenagers who lack knowledge tend to exhibit negative behavior such as premarital sex which tends to lead to teenage pregnancy.(Ayuni et al., 2022)A child's anatomy is not yet ready for pregnancy and childbirth, which can lead to complications. Pregnancy at a very young age also carries risks for both mother and baby, including birth defects, high blood pressure, premature birth, low birth weight, sexually transmitted infections, and postpartum depression.(SM & Putri, 2022)

Globally, the ABR declined from 64.5 births per 1,000 women aged 15–19 years in 2000 to 41.3 per 1,000 in 2023. However, this decline was uneven, with the sharpest declines in South Asia (SA) and slower in Latin America and the Caribbean (LAC) and sub-Saharan Africa (SSA), which remained the highest in 2023 at 97.9 and 51.4 per 1,000 women, respectively. In the WHO African Region, the ABR was 97 per 1,000 adolescents, compared to 13.1 per 1,000 in the European Region, and there were large variations within countries, such as in Zambia (14.9% in Lusaka to 42.5% in Southern Province in 2018) and the Philippines (3.5% in the Cordillera Administrative Region to 17.9% in the Davao Peninsula Region in 2017). Despite the decline in global ABR, the number of adolescent births remains high, with the largest number of adolescents aged 15–19 years in 2021 occurring in SSA (6,114,000) compared to Central Asia (68,000), and among 10–14 years in SSA (332,000) compared to Southeast Asia (22,000).(WHO, 2024)

RESULTS

Researchers	**title**	**Objective**	**Sample characteristics**	**Method**	**Results**
Fadila Agustina (2023)	Risk factors for early pregnancy In the working area of the Loa Kulu Community Health Center Kutai Kartanegara Regency	to find out the risk factors for pregnancy young age in the working area of Loa Kulu Health Center, Kutai Kartanegara Regency.	young pregnant women (15-20 years) who registered at the Loa Kulu Health Center based on Loa Kulu Health Center profile data period 2	clinical descriptive data analysis with a quantitative approach.	The research results obtained that the age characteristics of most of 18 years old were 9 people (40.9%), most of the respondents are educated

	Risk factors for young pregnancy in the working area of Loa Kulu Kutai Kartanegara District Health Center		the last month is January and February as many as 22 people. Total sample as many as 22 respondents.		9 people (40.9%) graduated from high school. most respondents are housewives as many as 16 people (63.6%) and all of them 22 people are married (100%).
Sri Wahyuningsih, et al. (2024)	Knowledge and Attitudes of Adolescent Girls regarding Early Pregnancy Knowledge and Attitude of Adolescent Girls about	For to find out the level of knowledge and attitudes of adolescent girls about early pregnancy.	32 female students at a private Islamic school (Darul Istiqomah Girls' School) in the Regency Maros.	descriptive quantitative	The results of the data analysis showed that 50.0% of subjects had a high level of sufficient knowledge, whereas in terms of attitude 81.75% of subjects

	Early Pregnancy				have a positive attitude towards pregnancy prevention efforts early age. So it can be concluded that the level of knowledge the majority of subjects are still in the sufficient category, whereas in terms of the attitude of most subjects has supported prevention efforts early pregnancy.

Sefryani Nursari, et al (2022)	Factors Associated with Pregnancy and Age Adolescents in the Rantau Pandan Community Health Center Work Area Factors Associated with Teenage Pregnancy in The Working Area of The Rantau Pandan Public Health Center	to find out the factors Related to Teenage Pregnancy in the Rantau Community Health Center work area Pandan Year 2021.	68 pregnant women who located in the working area of Rantau Pandan Health Center	Descriptive Analytical. Cross Sectional	Based on the statistical test table, it can be seen that from the chi square test the results obtained were knowledge (P-value=0.038) which was smaller than sig a (0.05), education (P-value=0.607), socio-economic (P-value=0.314) is greater than sig a (0.05).
Novida Ariani, et al (2024)	Differences in levels of	to determine the differences in	pregnant women undergoing	Descriptive, qualitativ	The results of the study

	knowledge about the risks of early pregnancy Regarding the incidence of early pregnancy at Wagir Community Health Center Malang Regency	the level of knowledge about the risks of early pregnancy and the incidence of early pregnancy at the Wagir Community Health Center, Malang Regency.	antenatal examination Care at Wagir Community Health Center, Malang Regency, and live in the Wagir District, Malang Regency Malang when the research was conducted.	e, case control	showed that the level of knowledge in pregnant women aged >20 years was better than the level of knowledge in pregnant women aged <20 years. The results of the Chi-Square test obtained p = 0.000 < 0.05, indicating that the null hypothesis was rejected.
Corrinna, et al. (2023)	The Relationship between Knowledge, Attitudes,	To determine the relationship between knowledge, attitudes, and	65 students from class X (totaling 21 students) and XI	Quantitative, Cross-sectional	After the data was tested using the Chi-Square

	and the Role of Parents in Preventive Behavior Teenage Pregnancy at PGRI 1 High School, Sidoarjo	the role of parents in preventing pregnancy in adolescents in PGRI 1 High School Sidoarjo.	(totaling 44 students) who attended PGRI 1 High School		statistical test, it showed that the respondents had good knowledge and good attitudes. support for pregnancy prevention behavior in adolescence, and there is a role for parents in pregnancy prevention behavior in adolescence.
Nurhikmah, et al. (2021)	Factors Associated with Early Marriage In Young Women.	Knowing several factors related to early marriage in adolescent girls in Pulau Laut Kepulauan District,	78 teenagers consisting of 39 teenagers in the case group and 39 teenagers in	Case Control.	The results of the study showed that there was no premarital pregnancy (75.6%), high

		Kotabaru Regency	the control group.		family income (57.7%), pornographic media (62.8%), lack of knowledge (65.4%), negative culture of early marriage (65.4%), negative peer influence (51.3%). Bivariate results showed premarital pregnancy (p=0.000), income family (p=0.000), pornographic media (p=0.101), knowledge (p=0.000), culture of

					early marriage (p= 0.000), peer influence (p=0.000).
Agi Y, et al (2020)	Relationship of Knowledge of Young Women About Maturation of Marriage Age Against Risk Early Marriage.	to find out the relationship Knowledge of adolescent girls about the maturity of marriage age and the risk of early marriage at SMPN 9 Kota Cirebon	8th grade female adolescents of SMPN 9 Cirebon City using accidental sampling technique were obtained a sample of 32 teenage girls	quantitative descriptive with cross sectional method	shows that the knowledge of young women about the maturity of the age of marriage with the highest frequency is a sufficient category (50%) and the highest risk level of early marriage in young women is in the category sufficient (40.6%). The results

					of the bivariate analysis show a significant relationship (p value < α) between Knowledge of adolescent girls about the Maturation of Marriage Age towards the risk of Early Marriage at SMPN 9 Cirebo City
Nur S, et al (2021)	Relationship between Knowledge Level and Health Behavior Adolescent	to find out the relationship between knowledge and Reproductive health behavior of	probability sampling of 176 people with chi-square test analysis.	descriptive Analytical, with a Cross Sectional approach.	The sources of information obtained from schools and teachers

	Reproduction in Vocational High School Students Semarang Regency.	adolescents at vocational schools in Semarang Regency			were only 5.1%. Teenagers' knowledge reproductive health knowledge is quite good (47.2%) and reproductive health behavior is positive (90.9%).
Lusiana G, et al. (2022)	Counseling on reproductive health and KTD with interactive media Young Women at Talitakum School	provide counseling on reproductive health teenagers in preventing KTD using interactive media so that they can increase their insight teenagers about the importance of maintaining	30 teenage girls at the Medan Talitakum School	media interactive and jingles in School	the level of knowledge of most teenagers has 23 people (76.66%) had insufficient knowledge, and a small proportion had sufficient

		reproductive health			knowledge. only 7 people (23.33%), no teenagers have good knowledge.
Somayyeh, et al. (2022)	Knowledge and attitudes of adolescent girls and their mothers about early pregnancy: a cross-sectional study	to determine the knowledge and attitudes of adolescent girls and their mothers about early pregnancy, causes, consequences, and predictors in Tabriz-Iran in 2020-21.	540 people (270 adolescent girls and 270 mothers) in Tabriz health center.	Cross-sectional study	The mean (SD: Standard Deviation) knowledge of adolescent girls and their mothers about early pregnancy was 5.17 (3.11) and 5.57 (3.01), respectively (score range: 0 to 9). Most girls (94.1%) and

					mothers (87.1%) were against pregnancy before 18. There was a statistically significant relationship between girls' ($p < 0.001$) and mothers' ($p < 0.001$) knowledge and attitudes about pregnancy at a young age.
Wondimagegn, et al. (2023)	Prevalence of teenage pregnancy and associated factors among preparator	To assess the prevalence of teenage pregnancy and associated factors among female students aged	588 (97.8%) 601 randomly selected adolescent school children aged 15-19	Cross-sectional survey.	The prevalence of teenage pregnancy among schoolchildren in Wolaita Sodo town

	y and high school students in Wolaita Sodo town, southern Ethiopia: an institution -based cross-sectional study	15-19 years in Wolaita Sodo town, southern Ethiopia.	years (selected through multistage random sampling technique)		was 14.6% (95% CI 11.9% to 17.7%). The current pregnancy rate was 33.7% (95% CI 23.9% to 44.7%). Having a family history of teenage pregnancy (AOR 3.3; 95% CI 1.3 to 8.4) and access to mass media (AOR 2.5; 95% CI 1.1 to 6.2) were positively associated with teenage pregnancy, while

					condom use (AOR 0.1; 95% CI 0.03 to 0.5) and knowledge of where to obtain modern contraception (AOR 0.4; 95% CI 0.9 to 0.9) were negatively associated.
Joseph, et al. (2024)	Adolescent girls' and young mothers' knowledge and use of antenatal care in the Ahafo Region, Ghana: A cross-sectional study	To assess adolescent and young mothers' knowledge of ANC, utilization and factors influencing its use in Ghana.	440 teenagers and young mothers (between 10 and 24 years).	Descriptive and statistical analysis, Cross-sectional study	Of the 440 respondents, most were aged 20-24 years (61.2%), married (30.0%), Christian (78.2%), completed junior high school (47.8%), and were traders

					(38.9%). Postpartum mothers accounted for 71.6% (315%), and all had used ANC services. Knowledge of antenatal care was good among 75% (330) respondents, with no significant variation based on age. Religion influenced knowledge, with Muslims having lower levels of knowledge.

Nur Aznida, et al (2025)	Prevalence and risk factors of preterm birth among pregnant adolescents in Kuala Lumpur: A cross-sectional study	to determine the prevalence and associated sociodemographic factors of maternal, intrapartum and neonatal preterm birth among pregnant adolescents in Kuala Lumpur.	175 pregnant teenagers in Kuala Lumpur, Malaysia.	cross-sectional	A total of 175 pregnant adolescents were included in this study. The prevalence of preterm birth was 16%. Anemia at delivery (adjusted odds ratio [aOR]: 7.8; 95% confidence interval [CI]: 2.53, 23.997), history of preterm birth (aOR: 11.654; 95% CI: 1.517, 89.498), smoking history (aOR: 6.89; 95%

					CI: 1.397, 34.002), and low birth weight (aOR: 12.503; 95% CI: 3.858, 40.52) were associated with this risk.
Hannah Canter, et al. (2024)	Contraception Use and Pregnancy Risk Among Adolescents in Pediatric Emergency Departments	To measure and describe contraceptive use, pregnancy risk index (PRI), and emergency contraception (EC) prescriptions among adolescent girls accessing the emergency department (ED) for care.	individuals aged 15 to 21 years who presented to the ED who completed a sexual health survey.	cross-sectional	In total, 756 participants (71.1%) reported contraceptive use during their last sexual intercourse. Long-acting reversible contraceptives (LARCs) were the least

					frequently used (164 participants [15.4%]), and 307 (28.9%) reported no contraceptive use.
Kusumshela B, et al (2024)	Prevalence and Factors Associated With Adolescent Pregnancy Among an Indigenous Ethnic Group in Rural Nepal: A Community-based Cross-sectional Study	to determine the prevalence and factors associated with teenage pregnancy in the Chepang community of Raksirang Rural Municipality, Makwanpur District, Bagmati Province, Nepal.	231 Chepang women were selected using simple random sampling from Raksirang Rural Municipality.	cross-sectional	This study revealed that the prevalence rate of teenage pregnancy among Chepang women was 71.4% (95% CI, 65.14 to 77.16). Most participants (72.7%) were married before the age of 18. Poor knowledge about

					teenage pregnancy (adjusted odds ratio [aOR], 10.3; 95% CI, 8.42 to 14.87), unplanned pregnancy (aOR, 13.3; 95% CI, 10.76 to 19.2), and lack of sex education (aOR, 6.57; 95% CI, 3.85 to 11.27) were significantly associated with teenage pregnancy.
Alexandra et al. (2022)	Adolescent pregnancy in Sao Tome and	to identify the main adverse obstetric and perinatal outcomes for	Pregnant women ≤ 19 years (n = 104) compared	cross-sectional	fetal distress with a low first-minute

	Principe: are there different obstetric and perinatal outcomes?	adolescent pregnancies at Dr. Ayres de Menezes Hospital (HAM), the only hospital in STP.	with non-adolescent women (n = 414).		Apgar score <7 (OR 1.94, 95% CI 1.18-3.18, p = 0.0009) and performance of neonatal resuscitation maneuvers (OR 2.4, 95% CI 1.07-5.38, p = 0.032). Compared with older mothers, adolescent girls tended to have a statistically insignificant threefold higher risk of obstructed labor (OR

					3.40, 95% CI 0.89-12.94, p = 0.07).

DISCUSSION

Basic concepts of early pregnancy

According to the WHO, teenage pregnancy is a pregnancy that occurs in girls between the ages of 11 and 19. Pregnancy itself begins with the fertilization process, which is when an egg meets a sperm cell and then develops into a fetus. Teenage pregnancy is a high-risk pregnancy, causing complications that can result in death for both mother and child (Tamalla & Azinar, 2022). Pregnancy and childbirth in teenagers can lead to various complications, one of which is miscarriage. This risk can increase if the teenager experiences psychological, social, or economic stress, which can worsen the condition and lead to miscarriage (Icha Puspita et al., 2024).

Concept of adolescent knowledge

The definition of adolescent knowledge about early pregnancy is information that has been processed and understood by adolescents regarding the causes (such as promiscuity and lack of education), risks (maternal/fetal health, psychosocial), impacts (stigma, economic), and prevention (contraception, reproductive education) of pregnancy at the age of under 20 years.(Rukmasari, 2024)

Information regarding the level of knowledge and attitudes of adolescents towards early pregnancy is an important part of understanding the phenomenon of the increasing number of cases of early pregnancy.(Wahyuningsih, 2024)Lack of knowledge about sexual and reproductive health not only encourages teenagers to try positive behavior, but teenagers who lack knowledge tend to exhibit negative behavior such as premarital sex which tends to lead to teenage pregnancy.(Ayuni et al., 2022)

Factors that influence adolescents' knowledge about teenage pregnancy

1. Internal Factors

a. Age

Age is closely related to the level of physical, psychological, and emotional maturity in adolescents. Adolescence, which occurs between the ages of 10 and 19, is a transitional period marked by hormonal changes, reproductive organ development, and increasingly mature thinking skills. As adolescents age, they tend to develop better abstract, logical, and critical thinking skills, making it easier to receive and understand various information, including information about reproductive health. Therefore, older adolescents generally have different levels of knowledge, attitudes, and behaviors and are more mature in addressing reproductive issues than younger adolescents. (Surnasi et al., 2025)

b. Level of education

A student's education level influences their ability to grasp more complex concepts in learning. Students with higher levels of education generally have a better foundation of knowledge and learning experience, making it easier for them to grasp the material. Conversely, a lower level of education can hinder the learning process due to limited basic knowledge and ability to understand the material, which can ultimately reduce learning motivation and academic achievement. Several studies also show that higher levels of formal education have a positive relationship with academic achievement, as the higher a person's education, the greater the opportunity to acquire knowledge and skills that support learning success. (Al Amin & Zakarijah, 2025)

c. Knowledge

Lack of knowledge about sexuality and reproductive health can affect how adolescents understand and respond to behaviors related to sexual relations. Adolescents with good knowledge are generally more able to adopt positive and responsible attitudes in maintaining reproductive health and considering the consequences of each behavior. Conversely, adolescents with low levels of knowledge tend to have a limited understanding of the risks and impacts of sexual behavior, making them more susceptible to negative behaviors, such as engaging in premarital sex without adequate understanding of reproductive health. This condition can increase the risk of teenage pregnancy, which can have various health, psychological, and social impacts.(Ayuni et al., 2022)

d. Cognitive

Cognitive factors, such as immature thought processes, play a significant role in shaping adolescents' knowledge and understanding of the issue of early pregnancy. Between the ages of 12 and 19, adolescents are still in a stage of cognitive development where their ability to think rationally, consider risks, and control impulses has not yet fully developed. This is related to the development of the prefrontal cortex, the part of the brain responsible for decision-making, planning, and self-control, which is still maturing. As a result, adolescents are often more influenced by emotions, curiosity, and environmental or peer pressure than by considering the long-term consequences of an action. This condition can influence adolescents' knowledge, attitudes, and behaviors regarding the risks of early pregnancy and the importance of maintaining reproductive health.(Nurhikmah et al., 2021)

2. External Factors

a. Parenting Patterns

Authoritative parenting styles support academic achievement, while permissive or authoritarian styles increase the risk of juvenile delinquency. Research highlights parenting styles as a key family factor shaping motivation.(Amanda et al., 2023)Parenting styles have a significant influence on adolescent behavior and decision-making. Permissive parenting, which provides excessive freedom without supervision and clear boundaries, can lead to adolescents lacking self-control and being more easily influenced by their social environment, putting them at risk of engaging in promiscuity and premarital sexual behavior. Conversely, overly authoritarian parenting styles, with strict controls lacking open communication and dialogue, can also foster rebellion in adolescents. Under these circumstances, adolescents tend to hide their activities from their parents, including behavior related to relationships with the opposite sex. Furthermore, a lack of education about reproductive health from parents can lead adolescents to seek information from inappropriate sources, making it easier to believe circulating myths or be influenced by peer pressure. Therefore, open communication and a balanced parenting style are crucial in guiding adolescents to make wiser and more responsible decisions.(Tarwiyyah, 2022)

e. Parent-Teen Communication

Open communication increases emotional support and interest in learning, while poor communication triggers conflict and decreased achievement. Studies emphasize the parent-child relationship as a determinant of development. A lack of open communication makes adolescents reluctant to discuss sexuality, so they rely on misinformation from friends or the media, which encourages risky behaviors such as unprotected premarital sex. Parents who rarely discuss boundaries fail to build emotional attachment, making adolescents more

vulnerable to peer pressure and impulsive decisions.(Rapa et al., 2023)The study showed a significant p-value (0.041–0.048) for the association between poor communication and teenage pregnancy, with an OR of up to 2.738 due to minimal reproductive health education from the family. Effective communication actually delayed sexual activity and increased adolescent responsibility by up to 50% through regular dialogue about pregnancy risks.(Amanda et al., 2023)Parents can provide understanding about sexual issues and teach responsible sexual behavior to adolescents through effective communication. When discussing sexual matters with their children, parents need to plan their discussions based on understanding their adolescent's situation and circumstances. Furthermore, parents need to foster positive interactions to foster closeness and trust. Communication requires understanding the parents' knowledge, skills, and attitudes so that adolescents can openly discuss their concerns.(Nuraisyah et al., 2021)

b. Parental Education

better knowledge about reproductive health and the risks of casual sex, so that they are better able to guide and educate teenagers(Febriana & Pratiwi, 2022)The level of parental education is also related to open communication patterns and supervision of adolescent social interactions, thus functioning as a protective factor (reducing the risk of pregnancy at a young age).(Rapa et al., 2023)Parents with higher levels of education tend to place greater emphasis on the importance of education for their children. This is evident in the encouragement they give their children to pursue higher education and the support they provide during the learning process. Furthermore, highly educated parents often serve as role models for their children, valuing education and fostering higher academic aspirations. Parents' attitudes, mindsets, and educational experiences can influence how they guide and motivate their children to achieve academic success. Therefore, parental education often correlates with children's motivation to learn; the higher the parental education, the greater the likelihood that children will have a strong drive to pursue higher education.(Amanda et al., 2023)

c. Peer Factors

Free Association, Free association behavior in adolescents can be demonstrated through various forms of risky behavior, such as smoking, consuming alcohol, using illegal drugs, and even engaging in violent acts such as brawls. This behavior is generally influenced by high curiosity, the search for identity, and the influence of the social environment and peers. This phenomenon raises concerns because it can have a negative impact on adolescents' physical and mental health, disrupt the educational process, and affect their future.

Furthermore, one of the most worrying impacts of free association is the occurrence of promiscuous sex behavior carried out without sufficient understanding and responsibility, which ultimately can lead to early pregnancy and various social and health consequences for adolescents.(Putri et al., 2024)

d. School environment

Reproductive health education in schools plays a crucial role in increasing adolescent knowledge by providing scientific and structured information on various aspects of reproductive health. Through this education, adolescents can gain an understanding of the changes that occur during puberty, the function of reproductive organs, the importance of maintaining personal hygiene, and the risks that can arise from irresponsible sexual behavior, including early pregnancy. Systematically provided information in the school environment helps adolescents better understand their bodies and reproductive health, thus developing more positive and responsible attitudes. Furthermore, educational programs such as health counseling conducted by midwives, health workers, or school health teachers have also proven effective in increasing adolescent knowledge and preventing risky behaviors, such as premarital sex and teenage pregnancy. Appropriate and ongoing education in schools can be a crucial step in protecting adolescents from various reproductive health issues.(Amdadi et al., 2021)

e. Information Media

The internet, social media, books, and television are highly influential sources of information for adolescents in gaining knowledge about various subjects, including early pregnancy and reproductive health. These media can have both positive and negative impacts depending on the type of information and content accessed. On the positive side, easy access to educational websites, informative videos, health articles, and books on reproductive health can help increase adolescents' understanding of puberty, contraception, the risks of early pregnancy, and how to prevent them. This information is especially beneficial for adolescents who lack explanations or guidance from their families or those around them. However, on the other hand, exposure to negative content, such as the promiscuous lifestyle often portrayed on social media or entertainment outlets, can also have a negative impact. This content can stimulate adolescents' curiosity without a proper understanding of the consequences of such behavior. Therefore, digital literacy skills are crucial for adolescents to be able to filter and select accurate and useful information, preventing them from being easily influenced by misleading information.(Nurhikmah et al., 2021)

f. Cultural Factors

Cultural factors also play a significant role in early marriage. In some communities, the view persists that girls who have started menstruating are considered ready for marriage, prompting parents to quickly arrange their daughters for marriage. Furthermore, the tradition of arranged marriages, determined by families and social pressure from the surrounding environment, can encourage parents to marry off their daughters at a young age. Parents' concerns that their daughters will be considered "spinsters" if they don't marry soon are also contributing factors to this practice. These cultural norms and beliefs can influence family decisions regarding the timing of marriage, despite the fact that marrying too young can have various impacts on adolescents' health, education, and psychological development.(Katmawanti et al., 2022)

g. Economic Factors

Unfavorable family economic conditions are also a factor contributing to early marriage. In some families with low economic status, marrying off children at a young age is often seen as a way to ease the family's financial burden. Parents believe that after marriage, responsibility for the child's living needs will shift to the spouse or partner's family, thus reducing the number of dependents in the household. Furthermore, economic constraints can impact a child's educational opportunities, so early marriage is often seen as the most feasible option. This view leads some families to view marriage as a practical solution to the economic pressures they face. In times of economic constraints, parents often believe that marrying off their children can reduce the family's burden, as the responsibility for fulfilling the child's living needs shifts to the spouse or partner's family. Furthermore, marriage is sometimes seen as a way to improve the family's economic situation through relationships with the partner's family. This perspective leads to early marriage being seen as a quick solution to economic problems, despite the fact that early marriage can pose various new challenges, both in terms of mental readiness, education, and the family's future well-being.(Subhan et al., 2025)

Conclusion:

Based on the analysis of several reviewed articles, it can be concluded that adolescents' knowledge about early pregnancy is still influenced by various factors. These factors include internal factors such as education level, understanding of reproductive health, attitudes, and curiosity about sexual information. Furthermore, external factors also play a significant role, including the role of family, peers, social environment, and access to reproductive health

information and education. Adolescents' lack of knowledge about reproductive health can increase the risk of risky sexual behavior, which can lead to early pregnancy. Therefore, improving reproductive health education through families, schools, health workers, and appropriate information media is essential to improve adolescents' understanding and ability to prevent teenage pregnancy.

REFERENCE

Agustina, F. (2023). Risk Factors for Early Pregnancy in the Loa Kulu Community Health Center Work Area, Kutai Kartanegara Regency. Journal of Psychology and Health Sciences (SIKONTAN), 1(3), 239–246.

Amanda, R., Naim, M., & Setiawan, R. (2023). Lack of Parental Understanding of Education Increases Early Marriage. Wahana Pendidikan Scientific Journal, 9(13), 537–547.

Amdadi, Z., Nurdin, N., Eviyanti, E., & Nurbaeti, N. (2021). Overview of adolescent girls' knowledge about the risks of early marriage in pregnancy at SMAN 1 Gowa. Journal of Research Innovation, 2(7), 2067–2074.

Ayuni, ID, Islami, D., Jannah, M., & Putri, A. (2022). The relationship between adolescent girls' knowledge and the dangers of teenage pregnancy. Indonesian Journal of Midwifery Sciences, 1(2), 47–52.

Dewi, FES, & Kurniasih, FR (2023). Sexually Transmitted Infections in Women in Indonesia: Literature Review. JUKEJ: Jurnal Kesehatan Jompa, 2(1), 1–8.

Febriana, EW, & Pratiwi, TI (2022). Causal factors and efforts to address premarital sexual behavior in adolescents. Jurnal BK Unesa, 12(2).

Katmawanti, S., Yusup, DHD, Sholihah, FZ, & Awaliahmunazila, M. (2022). The Impact of Early Marriage on the Reproductive Health of Adolescent Girls. Proceedings of the National Seminar "Sport Health Seminar with Real Action" Public Health Sciences, State University of Malang.

Maharani, A. (2024). Guidance in dealing with emotional changes during puberty. JBK Journal of Counseling Guidance, 2(02), 60–65.

Mbayang, CM (2024). Free Association Among Teenagers. JLEB: Journal of Law, Education and Business, 2(1), 366–372.

Mukminun, A. (2022). The influence of dating behavior on premarital sexual behavior in Indonesian female adolescents. Preventif: Journal of Public Health, 13(1), 36–46.

Nuraisyah, F., Matahari, R., Isni, K., & Utami, FP (2021). The effect of adolescent reproductive health training on parents' knowledge and attitudes. Scientific Journal of Health, 20(1), 34–39.

Nurhikmah, N., Carolin, BT, & Lubis, R. (2021). Factors Associated with Early Marriage in Adolescent Girls. Malahayati Midwifery Journal, 7(1), 17–24.

Putri, ZJ, Nistiabillah, V., & Bungsu, SP (2024). Free Association of Young People Which Leads to Pregnancy and Unplanned Marriage Becomes a Cause of Structured Poverty. Journal of Multidisciplinary and Equality, 1(2), 54–61.

Rapa, FYR, Aziz, MA, Suparni, MS, Raksanagara, A., & Rowawi, R. (2023). The Effect of Animated Videos on Increasing Adolescents' Knowledge and Attitudes About Early Marriage in the Working Area of the North Moskona Community Health Center, West Papua Province. Dharma Husada Health College, Bandung, 1–7.

Rukmasari, EA (2024). Preventing Unwanted Pregnancy (KTD): Reproductive Health Education for Adolescents. Journal of Civilization, 5(1), 1–8.

Salfadila, A., Sutrisminah, E., & Susilowati, E. (2023). The Influence of Health Education on Preventing Unintended Pregnancy in Adolescent Girls in Junior High Schools: Literature Review. Indonesian Health Promotion Publication Media (MPPKI), 6(8), 1527–1537.

SM, SN, & Putri, P. (2022). Factors Associated with Teenage Pregnancy in the Rantau Pandan Community Health Center Work Area. Journal of Healthcare Technology and Medicine, 8(1), 100–110.

Subhan, A., Yuzari, DS, Muaja, AI, Salsabila, AR, Mazaya, S., Walad, AH, Zaqki, IN, & Aulia, F. (2025). The Phenomenon of Early Marriage: A Community Welfare Perspective in Banjarsari Village. Arus Jurnal Sosial Dan Humaniora, 5(2), 1351–1371.

Tarwiyyah, HL (2022). The influence of religiosity in building self-awareness in adolescents: Literature review. Jurnal Psimawa: Discourse on Psychology and Education, 5(2), 79–85.

Wahyuningsih. (2024). Knowledge and Attitudes of Adolescent Girls regarding Early Pregnancy. Journal of Professional Nursing (KEPO), 5(1), 1–7.

WHO. (2024). Adolescent pregnancy. https://www.who.int/news-room/fact-sheets/detail/adolescent-pregnancy