

# Perceptions of teachers regarding the significance and level of implementation of sexual education content for ethnic minority students in Vietnam

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## Abstract

Comprehensive sex education is one of the most critical tools for providing young people with the knowledge they require to make wise decisions. Sex education has a reputation for being delicate due to the intimate and personal nature of the topic. A survey involved 45 administrators (including principals, vice principals and heads of expertise), 15 teachers of social science disciplines and 15 classroom teachers. The results indicated that the importance of sex education for ethnic minority students was not appreciated by teachers and that the implementation level of sex educators must consider when establishing strategic plans for successful and acceptable sex education in a societal context or with ethnic minority students.

Keywords: Ethnic minority students, Primary school, School administrator, Sexual education, Teacher, Vietnamese.

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## Contribution of this paper to the literature

This study adds to the theoretical foundation of the issue of sex education for ethnic minority students and it is also a rare study on ethnic minority people in Vietnam. In terms of practice, this study suggests that educators should take this into account when developing strategic plans for successful and acceptable sex education in a societal context or with ethnic minority students.

## 1. Introduction

Sex education also referred to as "sexuality education" encompasses instruction on all aspects of sexuality such as family planning, reproduction, body image, sexual orientation, sexual pleasure, values, decision-making, communication, dating, relationships, sexually transmitted infections and how to avoid them and birth control methods (Collins, 2008). Comprehensive sex education is one of the most critical tools for providing young people with the knowledge they require to make wise decisions (Parker, Wellings, & Lazarus, 2009). Sex education has a reputation for being delicate due to the intimate and personal nature of the topic (Buston & Whight, 2001; Timmerman, 2004). During this period of life, adolescents go through physical, psychological and sexual maturation. They also have a greater interest in sex and relationships (Anderson, 2013). Sexuality is prevalent in adolescence as there are dangers of engaging in transactional sex having several concurrent relationships and facing sexual assault and coercion (Mmari & Blum, 2009).

Approximately fifty percent of the world's population is under the age of twenty and has the highest risk of sexual and reproductive health problems. Therefore, sexuality is the root of most sexual and reproductive health problems (Iwu, Onoja, Ijioma, Ngumah, & Egeruoh, 2011). The education of adolescents regarding their reproductive health occurs throughout a period of transition between childhood and maturity. When a person reaches puberty, receiving reproductive health care and education is extremely vital. This not only helps to ensure the population's quality but also the future of each individual's career. According to the American Psychological Association (APA) Dictionary of Psychology (VandenBos, 2007), adolescence is the period of human development that starts with puberty (10–12 years of age) and ends with physiological maturity (approximately 19 years of age), although the exact age span varies across individuals. During this period, major changes occur at varying rates in physical characteristics, sexual characteristics and sexual interest resulting in significant effects on body image, self-concept and self-esteem.

Adolescence is accompanied by several physiological shifts. Boys lag behind girls in the majority of observable physical changes during adolescence (Hazen, Schlozman, & Beresin, 2008). Girls begin exhibiting adolescent characteristics as early as 8 years old and as late as 13 years old. The minimum age for boys is 9 years old and the maximum age is 14 years old (Abaci, Gönül, & Büyükgebiz, 2013; Solorzano & Mccartney, 2010). The development of secondary sexual characteristics in girls begins with the growth of breast tissue and continues with the maturation of pubic and axillary hair as well as the onset of menstruation (Ozdemir, Utkualp, & Palloş, 2016). The development of secondary sex traits in boys results in the growth of the testes and the penis, the development of pubic, axillary and facial hair, the breaking of the voice and the generation of sperm (Ozdemir et al., 2016). Boys can display the whole spectrum at 13 years old. Though girls appear to initiate puberty far sooner than boys. The earliest symptom in boys (growing testicular volume) begins at a mean age of 12 years hardly six months after the formation of breast buds in girls (the first sign of puberty). As the female growth spurt happens sooner in puberty (mean age 11-12 years) compared to later in puberty in boys, girls also appear much more developed earlier (mean age 14 years) (Christie & Viner, 2005). In addition to physical changes, adolescents also go through a period of significant psychological development. Typically, adolescence is defined as "a stage of attaining independence." However, it is more accurate to speak of a shift in the ratio of independence to dependency in the young person's other systems (parents, peers, the community and even health professionals) (Christie & Viner, 2005).

Due to the aforementioned changes, adolescents are easily persuaded, tricked, bribed, abused and emulate harmful behaviors. Early initiation of sexual activity is frequently accompanied by hazardous sex due to ignorance, lack of access to contraceptives, lack of negotiation skills and self-efficacy, having sex while intoxicated or high, or insufficient self-efficacy to withstand pressure (Tripp & Viner, 2005). Adolescents are forced to face the consequences of their risky sexual habits including the possibility of unintended pregnancies and the spread of sexually transmitted diseases (Williams & Jensen, 2016), an increased risk of miscarriage, premature birth, toxicity and an increased risk of the mother's death, the young mother, babies born with low birth weight which can lead to malnutrition, sickness or even death (Tripp & Viner, 2005), dropping out of school in middle which can have negative consequences, early marriage, marriage within the same family, a depressed attitude, societal biases and an economic burden on raising children are all problems that are prevalent in this region. Abortion can result in consequences such as infections, uterine perforation and infertility. Women who have had abortions are also more likely to be susceptible to sexually transmitted illnesses and even the Human Immunodeficiency Virus or Acquired Immunodeficiency Syndrome (HIV/AIDS), making it simpler for these infections to be transferred to their children (Lerdboon et al., 2008). In 2021, adolescent girls were responsible for three-quarters of all new HIV infections among adolescents worldwide. In the 35 HIV-priority countries identified in the United Nations Children's Fund's (UNICEF) strategic plan, adolescent girls are responsible for four-fifths of all new HIV infections among adolescents. In sub-Saharan Africa, approximately six times as many adolescent girls and boys became newly infected with HIV. In East Asia and the Pacific, more adolescents are infected with HIV each year than boys (UNICEF Data, 2022). Children go through several crises and a period of psychological disorientation while they are adolescents. Adolescent knowledge about the changes during puberty, sexuality, modes of transmission and prevention of sexually transmitted infections, HIV and maintaining a healthy and safe sexual life is crucial for the health and welfare of the population and for preventing unwanted pregnancies and the spread of HIV/AIDS (Subramanian, Kowli, Dehmubed, Patil, & Kavadia, 1995). Even though they are physically mature, teenagers still require guidance and instruction from their families and educational institutions in order to develop optimally.

Parents can play a vital role in sex education. School-based programs can significantly increase their impact by reaching huge numbers of adolescents from various backgrounds (Gordon, 2008). In addition, a school

environment facilitates the transmission of sex education at the optimal age and in a developmentally appropriate sequence throughout time with new information based on previous information (Gordon, 2008). However, prior to creating and implementing such a curriculum-based program, it is essential to obtain the support of parents and educators (Nadeem, Cheema, & Zameer, 2021). Educators and teachers must consider the following factors while developing sex education materials for students in lower secondary schools: The capability, general development level and ability of ethnic minority students in lower secondary schools in severely challenging places to perceive, receive and process information are still limited. Intentional or unintentional interest in getting specific information about a student's gender based on the student's behavior toward the opposing sex. According to the individual's stage of development in terms of their body, mind, conduct and attitude physiological shift occurs in students of different ethnicities attending secondary schools in severely challenging environments. According to the general laws of the formation of the class collective as well as the peculiarities of the class and the effects it has on the psychological makeup of the students' sexuality.

The corpus of knowledge classifies individuals based on their gender and the features that distinguish them from one another. Gender and gender's function (Galambos, 2004), the stages of human development and the sex characteristics present at each stage, the psychological and physiological changes that occur during puberty (Patton & Viner, 2007), menstrual phenomena, problems with the first ejaculation in men and genital hygiene in both women and men (Chad, 2020) reproductive health measures (Culhane & Elo, 2005). The ability to conceive carries a pregnancy to term, terminate a pregnancy and understand how to prevent sexually transmitted diseases require a comprehension of reproductive health and the protection of adolescents' reproductive health as well as questions about gender ethics and sexual requirements among other topics. Education of sexual needs, gender needs and sex ethics for students of ethnic backgrounds who are enrolled in lower secondary schools and who are struggling with particular concerns about adolescent reproductive health teaching students on the importance of healthy families and family planning. Education about topics such as gender stereotypes, gender inequality and concerns about discrimination based on gender.

Educating students about gender and gender issues, having a sense of respect for people, having polite communication, respecting communicators, communicating with people of the opposite sex, having the appropriate mentality and a high level of responsibility towards their health and the health of others, raising their understanding of the harm and danger caused by sexual interaction and paying attention to the gender characteristics of others is an important part of the educational process. Teaching students sex and gender-appropriate skills and behaviors, the ability to self-evaluate their behavior toward other and the difference between good and bad in relationships with people of the opposite sex a system of behavioral skills that are gender-appropriate, including life skills, communication skills, the ability to adjust to different settings, gender-specific and gender-neutral standards and the ability to know how to defend yourself from being sexually abused. Skills necessary for maintaining heterosexual friendships and romantic relationships across long distances, skills necessary for preserving and protecting reproductive health, skills necessary for preventing sexually transmitted diseases etc.

According to the findings of a study conducted by Project VIE/97/P12 (2001) on the topic of adolescent reproductive health education, " adolescence and youth are stages in human existence." This group of adolescents will eventually become adults, so they must receive instruction regarding reproductive health for adolescents. There is a new cohort of adolescents that needs education on adolescent reproductive health and they need to be informed. There is a continuing and unending demand for knowledge regarding the education of teenagers in reproductive health education. School-based treatments are logistically well-suited to educate students about sexual activity because they may reach large numbers of youth in an environment that is already equipped to facilitate educational lessons and group learning (Gallant & Maticka-Tyndale, 2004).

In high schools that are highly challenging for ethnic minority students, "sex education" refers to pedagogical techniques that aim to assist students in developing awareness, attitudes and actions that are appropriate to sex and gender. The curriculum for gender education that is taught to students in junior high school takes into account the students' ages as well as the educational objectives of the school. Some of the topics that are covered in this type of education are gender ethical education, gender needs, sex-cultural behavior, reproductive health education, gender equality issues, gender prejudices and gender discrimination. This study aimed to investigate the perceptions of teachers regarding the significance and level of implementation of sexual education content for ethnic minority students in Vietnam.

#### 2. Method

#### 2.1. Participants

A survey involved 45 administrators (including principals, vice principals, and heads of expertise), 15 instructors of social science disciplines and 15 classroom teachers, including six schools in disadvantaged and ethnic minority areas at the lower secondary level in Dien Bien district, Dien Bien province: Muong Pon Secondary School, Pa Thom Commune High School, Na U Commune High School, Nua Ngam Commune Secondary Ethnic Minority School, Muong Nha Commune Ethnic Minority School and Phu Luong Commune High School.

#### 2.2. Procedure

A quantitative research design was used to achieve the research objectives. The participants were asked to voluntarily fill out a questionnaire. Prior to the administration of the survey, the volunteers will be briefed on the objectives and parameters of the research and their privacy and confidentiality will always be protected. After obtaining their informed consent, each participant was given a self-reporting survey to complete. Before the participants fill out the questionnaire, the research staff will first take them through the process that will be followed.

#### 2.3. Measurements

This study employed a survey designed specifically for educators and administrators. Learn about the teacher's awareness and comprehension of the aim and substance of sex education activities, the outcomes of the school's educational activities and sex education metrics. Conduct interviews, conversations and discussions with instructors and school administrators regarding sex education activities. The questions were asked on a scale of 1 to 3 (1 = not important/ never/ ineffective; 2 = normal/ sometimes/ average; 3 = important/ regular/ effective).

Table 1	. objectives	of sex	education	in sc	hools	(N=75)	

Item	Level (%)				
Item	Not important	Normal	Important		
Helping students lead an ethical lifestyle and act according to gender ethical standards.	6.7	53.3	40.0	1.67	
Students are provided with information about reproductive health care for adolescents	6.7	76.0	17.3	1.89	
Students are equipped with knowledge about gender and sex, the development of the body through stages	17.3	42.7	40.0	1.77	
Students form correct attitudes about sex and gender	21.3	29.3	49.3	1.72	
Forming sex and gender appropriate qualities	25.3	24.0	50.7	1.75	
Students develop communication skills with the opposite sex	26.7	45.3	28.0	1.99	
Students develop skills in adolescent reproductive health care	53.3	32.0	14.7	2.39	
Students have skills to prevent sexually transmitted diseases	25.3	53.3	21.3	2.04	

**Note:** % = Percentage.

## 3. Results

Table 1 demonstrates the objectives of sex education in schools for ethnic minority students. The mean score for "students develop skills in adolescent reproductive health care" was 2.39 followed by "students have skills to prevent sexually transmitted diseases" with a mean score of 2.04 and "students develop communication skills about the opposite sex" with a mean score of 1.99. The level of "students are provided with information about reproductive health care for adolescents" was 1.89 and the level of "students are equipped with knowledge about gender and sex, the development of the body through stages" was 1.77. The mean score for "forming sex and gender-appropriate qualities" was 1.75 followed by "students form correct attitudes about sex and gender" which was 1.72. On the contrary, the level of the objectives of sex education in schools for ethnic minority students for the item "helping students lead an ethical lifestyle and act according to gender ethical standards" was 1.67.

Table 2. the implementation level and results of the implementation of sex education content.

Item	The implementation level (%)			Mean	Results of th	Mean		
Item	Never Sometimes Regular		Wiean	Ineffective				
Build pure friendship and healthy love	0	26.7	73.0	1.3	0	Average 24.0	76	1.2
Rights and obligations of citizens in marriage	6.7	33.3	60.0	1.5	6.7	30.7	63.0	1.4
Gender equality, gender stereotypes and gender discrimination	20.0	40.0	40.0	1.8	17.3	40.0	43.0	1.7
Puberty changes for boys and girls	10.7	38.7	51.0	1.6	10.7	36.0	53.0	1.6
Self-esteem in gender	17.3	40.0	43.0	1.7	17.3	36.0	47.0	1.7
Knowledge about conception, pregnancy and contraception	33.3	45.3	21.0	2.1	33.3	45.3	21.0	2.1
Knowledge of the harmful effects of abortion	46.7	33.3	20.0	2.3	46.7	32.0	21.0	2.3
Ethics and gender needs	40.0	46.7	13.0	2.3	40.0	46.7	13.0	2.3
Educate yourself on how to protect yourself against sexual abuse	40.0	46.7	13.0	2.3	40.0	46.7	13.0	2.3
Educate students in behavioral skills that are appropriate to sex and gender norms	42.7	41.3	16.0.	2.3	42.7	44.0	13.0	2.3
Prevention of HIV/AIDS	33.3	41.3	25.0	2.1	33.3	40.0	27.0	2.1
Prevention of child marriage and consanguineous marriage Note: % = Percentage.	40.0	41.3	19.0	2.2	40.0	41.3	19.0	2.2

**Note:** % = Percentage.

The implementation level and results of the implementation of sex education content are shown in Table 2. The items "knowledge of harmful effects of abortion", "ethics and gender needs", "educate yourself on how to protect yourself against sexual abuse" and "educate students in behavioral skills that are appropriate to sex and gender norms" had the same mean score of 2.3 followed by "prevention of child marriage and consanguineous marriage" with a mean score of 2.2. The average of the items "knowledge about conception, pregnancy and contraception" and "prevention of HIV/AIDS" with a mean score were 2.1. The item "gender equality, gender stereotypes and gender discrimination" had a mean score of 1.7 "Self-esteem in gender" with a mean score of 1.7 for both the implementation level and results of the implementation of sex education content followed by " puberty changes for boys and girls" which had a mean score of 1.6.

In contrast, the implementation level and results of the implementation of the sex education content "build pure friendship and healthy love" were the lowest at 1.3 and 1.2 and the average for the response "rights and obligations of citizens in marriage" was 1.5 and 1.4.

Item	The implementation level (%)			Mean	Results of the implementation (%)			Mean
	Never	Sometimes	Regular		Ineffective	Average	Effective	
Integrating knowledge of sex education into subjects	48.0	41.3	10.7	2.37	54.7	42.7	2.7	2.52
Classroom activities	34.7	52.0	13.3	2.21	34.7	52.0	13.3	2.21
Activities during the flag salute	52.0	37.3	10.7	2.41	52.0	38.7	9.3	2.43
Education outside of class time	40.0	42.7	17.3	2.23	40.0	40.0	20.0	2.20
Psychological counseling team	37.3	40.0	22.7	2.15	44.0	42.7	13.3	2.31
Education through experiential activity	26.7	42.7	30.7	1.96	26.7	52.0	21.3	2.05

Table 3. The implementation level and results of the implementation of the form of sex education for students.

Note: % = Percentage.

Table 3 indicated the level of implementation and results of the form of sex education. The average of the response " activities during the flag salute" was highest at 2.41 for the implementation level followed by " integrating knowledge of sex education into subjects" with a mean score of 2.37. But in the section results of the implementation, the highest average was 2.52 in "integrating knowledge of sex education into subjects" and the mean score for "activities during the flag salute" was 2.43. Educators and administrators reported the lowest level for the item " education through experiential activity" with a mean score of 1.96 in the implementation level of the form of sex education and a score of 2.05 in the results of the implementation.

#### 4. Discussion

The study aimed to investigate the perceptions of teachers regarding the significance and level of implementation of sexual education content for ethnic minority students. This research indicates the importance of sex education for ethnic minority students was not appreciated by teachers. The implementation level of sex education content and its form were low and ineffective.

Sex education is a sensitive topic for instructors. Besides "unmentionable" topics like menstruation and childbirth, discussing body and sexuality, responsibility and morality in the classroom is loaded with tension and ambiguity. This is the primary reason why the provision of sex education is consistent and why sex education is a chronically underfunded area of the school (Allen, 1987; Thomson & Scott, 1992). Teachers in the study by Ram and Mohammadenzhad (2020) frequently reported feeling uneasy, insecure and nervous when assigned to teach, consistent with other studies (Buston, Wight, Hart, & Scott, 2002; Mkumbo, 2012). The previous study suggested that all instructors supported the provision of sex education in schools and stated that it was essential to have sex education in schools because sex education was not discussed openly in the majority of homes because it is still a taboo subject (Ram & Mohammadenzhad, 2020). Teachers in this study assessed that the goal of sex education for ethnic minority students is to teach the skills of reproductive health care and prevent sexually transmitted diseases. In contrast to Yarber and McCabe (1984), several essential non-biological subjects such as dealing with peer pressure, teenage emotional or social needs were rated very highly by the teachers.

The findings indicated that teachers gave a favorable rating to the material which included topics such as the prevention of child marriage and marriages between relatives as well as the education of students in behavioral skills that are in line with gender norms and sex. Two topics that must be covered in high schools for children from ethnic minorities who live in severely challenging places. In recent years, there has been a general trend toward a decline in the practices of child marriage and consanguineous marriage; however, these practices are still prevalent in areas populated by ethnic minorities due to the location of residence, the psychological traits associated with ethnicity and the desire to have a family. There was a need for laborers in manufacturing and the occurrence of people marrying and doing so before the legal age of marriage is still common.

Presentation is an explanation and lecture (interpretation) is a teaching style in which the fundamental means of implementation are the vivid words of the teacher which are suited for the perception of students who are members of ethnic minorities in highly challenging places. It is challenging because in this setting, the knowledge is formulated by the instructors and the students only take in the information in one manner and the research indicates that this is the most efficient approach.

## **5.** Limitations and Implications

This study has several limitations. Firstly, this research applied an approach to instructors in the challenging area of Vietnam. The results obtained may not be appropriate to other sociocultural contexts and countries. Second, this study has not examined demographic information (such as age, education level or culture). Future research should investigate the age, education level or culture to examine the importance of sex education which is underappreciated by teachers. Third, as this is a cross-sectional study, it was not possible to assess the long-term causal link between components. Teachers' judgments of the significance and level of implementation of sexual education content for ethnic minority students should be studied empirically and qualitatively to design appropriate tactics and intervention procedures for adolescents in the Vietnam context.

Despite the drawbacks mentioned above, this research makes a significant contribution to the current body of knowledge regarding sex education and its physical, behavioral and psychosocial consequences making it possible to transfer the findings to other sample groups that have cultural contexts that are analogous to the ones studied here. In addition, the findings obtained from this research may be able to assist educators and professionals in becoming aware of the significance of sexual education for adolescents and determining appropriate lesson plans and pedagogical approaches.

## 6. Conclusion

Sex education is an important but also sensitive issue in Vietnam especially in difficult areas. In this situation, sex education must have a significant, concrete and specific presence in the school curriculum. This research investigated the perceptions of teachers regarding the significance of sexual education content for ethnic minority students. The results suggested that teachers did not appreciate the importance of sex education for ethnic minority students. In addition, we examined the implementation level of sex education. The study highlights topics educators must consider when establishing strategic plans for successful and acceptable sex education in a societal context or with ethnic minority students.

#### References

- Abaci, A., Gönül, Ç., & Büyükgebiz, A. (2013). Physical and sexual development in adolescent. Turkey Clinics Journal of Pediatric Sciences, 9(2), 1-9.
- Allen, I. (1987). Education in sex and personal relationships. Retrieved from Policy Studies Institute. (No. 665).
- Anderson, R. (2013). Positive sexuality and its impact on overall well-being. Bundesgesundheitsblatt-Gesundheitsforschung-Gesundheitsschutz, 56(2), 208-214. https://doi.org/10.1007/s00103-012-1607-z
- Buston, K., & Whight, D. (2001). Difficulty and diversity: The content and practice of sex education. *British Journal of Sociology of Education*, 22(3), 1–9. https://doi.org/10.1080/01425690125134
- Buston, K., Wight, D., Hart, G., & Scott, S. (2002). Implementation of a teacher-delivered sex education programme: Obstacles and facilitating factors. *Health Education Research*, 17(1), 59-72. https://doi.org/10.1093/her/17.1.59
- Chad, J. A. (2020). The first ejaculation: A male pubertal milestone comparable to menarche? *The Journal of Sex Research*, 57(2), 213-221. https://doi.org/10.1080/00224499.2018.1543643

Christie, D., & Viner, R. (2005). Adolescent development. British Medical Journal, 330(7486), 301-304.

- Collins, L. T. (2008). Assessing middle school sex education programs. Masters of Public Administration, Texas State University, San Marcos, Texas.
- Culhane, J. F., & Elo, I. T. (2005). Neighborhood context and reproductive health. American Journal of Obstetrics and Gynecology, 192(5), S22–S29. https://doi.org/10.1016/j.ajog.2005.01.071
- Galambos, N. L. (2004). Gender and gender role development in adolescence. Handbook of Adolescent Psychology, 233-262. https://doi.org/10.1002/9780471726746.ch8
- Gallant, M., & Maticka-Tyndale, E. (2004). School-based HIV prevention programmes for African youth. Social Science & Medicine, 58(7), 1337-1351. https://doi.org/10.1016/s0277-9536(03)00331-9
- Gordon, P. (2008). Review of sex, relationships and HIV education in schools. Retrieved from Unpublished Report. Paris: UNESCO.
- Hazen, E., Schlozman, S., & Beresin, E. (2008). Adolescent psychological development: A review. *Pediatrics in Review*, 29(5), 161-168. https://doi.org/10.1542/pir.29-5-161
- Iwu, R., Onoja, A., Ijioma, B., Ngumah, M., & Egeruoh, A. (2011). The integration of sexuality education in secondary school Biology curriculum for sustainable development: Teachers perception. *International Journal of Science and Technology Education Research*, 2(4), 62-66.
- Lerdboon, P., Pham, V., Green, M., Riel, R., Ha, N. T. V., & Kaljee, L. M. (2008). Strategies for developing gender-specific HIV prevention for adolescents in Vietnam. AIDS Education and Prevention: Official Publication of the International Society for AIDS Education, 20(5), 384-398. https://doi.org/10.1521/aeap.2008.20.5.384
- Mkumbo, K. A. (2012). Teachers' attitudes towards and comfort about teaching school-based sexuality education in urban and rural Tanzania. *Global Journal of Health Science*, 4(4), 149. https://doi.org/10.5539/gjhs.v4n4p149
- Mmari, K., & Blum, R. W. (2009). Risk and protective factors that affect adolescent reproductive health in developing countries: A structured literature review. *Global Public Health*, 4(4), 350-366. https://doi.org/10.1080/17441690701664418
- Nadeem, A., Cheema, M. K., & Zameer, S. (2021). Perceptions of Muslim parents and teachers towards sex education in Pakistan. Sex Education, 21(1), 106-118. https://doi.org/10.1080/14681811.2020.1753032
- Ozdemir, A., Utkualp, N., & Palloş, A. (2016). Physical and psychosocial effects of the changes in adolescence period. International Journal of Caring Sciences, 9(2), 717-723.
- Parker, R., Wellings, K., & Lazarus, J. V. (2009). Sexuality education in Europe: An overview of current policies. Sex Education, 9(3), 227-242. https://doi.org/10.1080/14681810903059060
- Patton, G. C., & Viner, R. (2007). Pubertal transitions in health. The Lancet, 369(9567), 1130-1139. https://doi.org/10.1016/s0140-6736(07)60366-3
- Project VIE/97/P12. (2001). Research on adolescent reproductive health education (Report No. VIE/97/P12). Retrieved from United Nations Population Fund, Hanoi, Vietnam.
- Ram, S., & Mohammadenzhad, M. (2020). Sexual and reproductive health in schools in Fiji: A qualitative study of teachers' perceptions. *Health Education*, 120(1), 57-71. https://doi.org/10.1108/he-02-2019-0005
- Solorzano, C., & Mccartney, C. (2010). Obesity and the pubertal transition in girls and boys. *Reproduction*, 140(3), 399-410. https://doi.org/10.1530/rep-10-0119
- Subramanian, P., Kowli, S., Dehmubed, A., Patil, V., & Kavadia, V. (1995). Sex education in Indian schools. *World Health Organization*, 16(3), 277-278.
- Thomson, R., & Scott, L. (1992). An enquiry into sex education: Report of a survey into local education authority support and monitoring of school sex education. *Sex Education Forum*, 51(3), 132-135.
- Timmerman, G. (2004). Professional behavior of sex education teachers. Groningen: Universitair Centrum Genderstudies.
  Tripp, J., & Viner, R. (2005). Sexual health, contraception, and teenage pregnancy. British Medical Journal, 330(7491), 590-593. https://doi.org/10.1136/bmj.330.7491.590
- UNICEF Data. (2022). Adolescent HIV prevention. Retrieved from United Nations Children's Fund Data, New York, United States.
- VandenBos, G. R. (2007). APA dictionary of psychology. Washington, United States: American Psychological Association. Williams, E. A., & Jensen, R. E. (2016). Conflicted identification in the sex education classroom: Balancing professional values with
- organizational mandates. Qualitative Health Research, 26(11), 1574-1586. https://doi.org/10.1177/1049732315599955 Yarber, W. L., & McCabe, G. P. (1984). Importance of sex education topics: Correlates with teacher characteristics and inclusion of topics in

instruction. Health Education, 15(1), 36–41. https://doi.org/10.1080/00970050.1984.10615717

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