Prevalence and Factors Associated with Sexual Activites among High School Students in Kendal Regency, Indonesia

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A Thesis Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Public Health Program in Public Health
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อุบัติการณ์ และปัจจัยที่เกี่ยวข้องกับกิจกรรมด้านเพศของนักเรียนระดับมัธยมศึกษา ในเขตเมืองเคนเดล ประเทศอินโดนีเซีย

นายเอ็กก้า ริฟกิ เฟาซิ

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาสาธารณสุขศาสตรมหาบัณฑิต
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Field of Study	Public Health
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เอ็กก้า ริฟกิ เฟาซิ : อุบัติการณ์ และปัจจัยที่เกี่ยวข้องกับกิจกรรมด้านเพศของนักเรียนระดับมัธยมศึกษาในเขตเมืองเคนเดล ประเทศอินโดนีเซีย (Prevalence and Factors Associated with Sexual Activites among High School Students in Kendal Regency, Indonesia) อ.ที่ปรึกษาวิทยานิพนธ์หลัก: ปีเตอร์ ซีนอส, อ.ที่ปรึกษาวิทยานิพนธ์ร่วม: มนทกานติ์ เชื่อมชิต, 113 หน้า.

บทนำ: ความเสี่ยงต่อการมีเพศสัมพันธ์ทั่วโลกสูงขึ้นในกลุ่มวัยรุ่นช่วงอายุ 15-24 ปี ปัญหาการตั้งครรภ์โดยไม่พร้อม โรคติดต่อทางเพศสัมพันธ์ และการติดเชื้อเอชไอวียังคงเป็นปัญหาสาธารณสุขในกลุ่มวัยนี้ ดังนั้นการวิจัยนี้จึงต้องการศึกษาความชุกและปัจจัยที่สัมพันธ์ต่อพฤติกรรมทางเพศในกลุ่มนักเรียนระดับมัธยมศึกษาตอนปลายเมืองเคนดัลล์ ประเทศอินโดนีเซีย

วิธีการศึกษา: การศึกษาภาคตัดขวางในอาสาสมัครนักเรียนชาย 145 คน และนักเรียนหญิง 315 คน โดยมาจากการสุ่มตัวอย่างแบบหลายขั้นตอน เก็บข้อมูลโดยอาสาสมัครตอบแบบสอบถาม Illustrative Questionnaire for Interview-Surveys with Young People, Sexual Activity Scale and Sex Education Inventory ด้วยตนเอง วิเคราะห์ข้อมูลโดยสถิติเชิงพรรณนา การทดสอบไคสแคว์ และการวิเคราะห์การถดถอยโลจิสติกพหุกลุ่ม

ผลการศึกษา: ความชุกและปัจจัยที่ส่งผลต่อพฤติกรรมทางเพศแบ่งออกเป็น 4 กลุ่ม ได้แก่ ในกลุ่มนักเรียนชาย 60.8% นักเรียนหญิง 21.4% เขตชนบท 32.9% และเขตชุมชนเมือง 35.2% จากการวิเคราะห์เชิงสัมพันธ์พบว่าปัจจัยที่สัมพันธ์ต่อพฤติกรรมทางเพศอย่างมีนัยสำคัญได้แก่ สื่อลามก (p<0.001) การใช้สารเสพติด (p<0.001) การสูบบุหรี่ (p<0.001) และการเข้าถึงพฤติกรรมทางเพศผ่านอินเตอร์เน็ต (p<0.001) เมื่อวิเคราะห์พหุตัวแปร พบว่าสื่อลามก [OR: 7.50, 95% CI = 2.50-22.50] ความรู้เรื่องอนามัยเจริญพันธ์ [OR: 6.49, 95% CI= 2.29-18.35] และการใช้สารเสพติด [OR: 2.67, 95% CI= 1.02-6.97] มีความสัมพันธ์ต่อพฤติกรรมทางเพศในกลุ่มนักเรียนระดับมัธยมศึกษาตอนปลาย

สรุป: การจัดโปรแกรมให้สุขศึกษาเรื่องเพศสัมพันธ์และการติดเชื้อเอชไอวี มีความจำเป็นอย่างยิ่งในกลุ่มนักเรียนระดับมัธยมศึกษาตอนปลาย อีกทั้งเพื่อจัดให้บริการการเรียนรู้แก่เยาวชนและชุมชน

สาขาวิชา สาธารณสุขศาสตร์ ลายมือชื่อนิสิต .....

ปีการศึกษา 2560 ลายมือชื่อ อ.ที่ปรึกษาหลัก .....

ลายมือชื่อ อ.ที่ปรึกษาร่วม .....

5978834253 : MAJOR PUBLIC HEALTH
KEYWORDS: SEXUAL BEHAVIORS, ADOLESCENTS, URBAN & RURAL AREA, INDONESIA

EKHA RIFKI FAUZI: Prevalence and Factors Associated with Sexual Activites among High School Students in Kendal Regency, Indonesia. ADVISOR: PROF. PETER XENOS, Ph.D., CO-ADVISOR: MONTAKARN CHUEMCHIT, Ph.D., 113 pp.

Background: The risk of sexual activities among adolescents is high in globally. Unwanted pregnancy, sexual transmitted infections, and HIV are still the big problem in adolescents. This study was involved to exam the prevalence and factor associated with sexual activities among high school students.

Methods: A cross-sectional study was conducted around 145 male students and 315 female students. The total populations was 460 students with multistage random sampling technique. A self-reported questionnaire was used including Illustrative Questionnaire for Interview-Surveys with Young People, Sexual Activity Scale and Sex Education Inventory. Descriptive statistics, Chi-square test, and multivariate logistic regression were used to analyze the data.

Results: The prevalence and factor associated with sexual activities were separated 4 groups to be 60.8% of male students, 21.4% of female students, 32.9% of rural area, and 35.2% of urban area. Factor associated with sexual activities where were to be significant association in the bivariate analysis pornography $p<0.001$, substance use $p<0.001$, and smoking $p<0.001$, accessed sexual activities by internet $p<0.001$. In the multivariate analysis, pornography [OR: 7.50, 95% CI = 2.50-22.50], knowledge of reproductive health [OR: 6.49, 95% CI= 2.29-18.35], substance use [OR: 2.67, 95% CI= 1.02-6.97) conducted significant factor associated with sexual activities among high school students.

Conclusions: The comprehensive sexual and HIV-AIDS education programs are extremely needed for adolescents. To provide some availability learning services, including health clinic for young people and community.

Field of Study: Public Health
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Student's Signature .....
Advisor's Signature .....
Co-Advisor's Signature .....

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ABRREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ADD HEALTH	National Longitudinal Study of Adolescent to Adult Health
BKKBN	Indonesian Family Planning Association
CDC	Center of Disease Control and Prevention
EH	Environmental Health
HIV	Human Immunodeficiency Virus
HPV	Human Papilloma Virus
IYARHS	The Indonesia Young Adult Reproductive Health Survey
NGO	Non-Government Organization
PBT	Problem Behavior Theory
PKBI	Indonesian Planned Parenthood Association
PILAR	Youth Center
PRECEDE	Predisposing, Reinforcing, Enabling Contructs in Educational/Environment Diagnosis and Evaluation
NAC	National AIDS Commission of Republic of Indonesia
SPSS	Statistical Package for The Social Sciencess
STI	Sexually Transmitted Infection
UNAIDS	The Joint United Nations Program on HIV-AIDS
WHO	World Health Organization
YRBS	Youth Risk Behavior Surveillance

CHAPTER I

INTRODUCTION

1.1 **Background and Rationale**

Sexual activities is a part of reproductive health risk indicator (Kothari, 2012). For teenager females in many ways, marriage is a milestone importantly related with the onset of sexual behavior, and consequently with the risk of pregnancy. Further early sexual debut, outside or within of marriage, is related to STIs (Sexually Transmitted Infections), including HIV (Human Immunodeficiency Virus), unplanned pregnancies, and coerced sex by older spouses (Bearinger, Sieving, Ferguson, & Sharma, 2007; Hindin & Fatusi, 2009; Kaestle, Halpern, Miller, & Ford, 2005). The CDC (Centers for Disease Control and Prevention) has estimated that about 19 million new infections of STIs in each year (Weinstock, Berman, & Cates, 2004). The CDC also had estimated that the rates of Chlamydia heightened, and the biggest numbers of documented cases of chlamydia and gonorrhea showed between adolescents aged 15-19 years old (CDC, 2009). Roughly 50,000 Americans have been diagnosed with HIV every year, with regard to HIV-AIDS (Hall et al., 2008), and over 1 million Americans are staying with HIV(CDC, 2010).Whereas adult population got HIV infection to reveal 39% for women and men especially aged > 25 years old, then adolescent and young people also took HIV to show 11% for boys and girls especially aged 15-24 years old (UNAIDS, 2016)

Some studies also revealed 3.4% and 1.4% HIV prevalence rates among women and men, especially in Sub-Saharan Africa in 2009(Mavedzenge, Olson, Doyle, Changalucha, & Ross, 2011). Female teenagers and young women aged 15-24 years have high risk of HIV infection, calculated for 20% of new HIV infections among adults globally in 2015, although calculating for just 11% of the adult population. Young females and girl teenagers calculated for 25% of new HIV infections among adult, and females calculated for 56% of new HIV infections among adults in Sub-Saharan. Distribution of new infection of HIV among adults showed 27 % for women aged > 25 years old, 39% for men aged > 25 years old,

but 20% for female aged 15-24 years old and 14% for men aged 15-24 years old by age sex in global (UNAIDS, 2016)

Sexual behavior relates early sexual debut, inconsistent of condom use, high-risk partners (example drug user of injection, survival sex {sex in exchange for food, shelter, money, drugs} (Kaestle et al., 2005), or sex with inconsistent of partners where has a partner, other partners, and more one partner at a time) (Aral, 1994). Based on data of CDC, sexual behavior of adolescent indicated that adolescents got 43% of never-married female teenagers and 42% of never-married male teenagers where they had experiences of sexual intercourse at least once in 2006-2010 (Martinez, Copen, & Abma, 2011). According to Youth Risk Behavior Surveillance Survey 2015 (YRBSS) of USA had found some risk behaviors of adolescent. The survey showed 32.8% drunk alcohol, 10.8% smoked cigarette, 7.3% used smokeless tobacco. The survey also found 41.2% ever having sexual intercourse, 11.5% having sexual intercourse with four or more people, and 56.9% having condom in the last intercourse (Kann, 2016).

Sexual activities, actually, relates more likely to get that adolescents use drugs and alcohol (Koniak-Griffin & Brecht, 1995). Moreover, low of knowledge about the impact of these negative attitudes and poverty have been classified as factors where grow up the opportunities of adolescent engaged in risk of sexual behaviors. The rate of sexual behavior and the large of sexual transmitted disease sustain to be on the growing up to many aspects relating lack of information concerning adolescent sexuality (Adegoke, 2003).

Every year, roughly 1 million young female aged 15-19 having pregnancy; the big majority of these pregnancies are unwanted (Avert, 2010). There is growing up number of sexual active teenagers and high risk sexual activities among adolescents (Djamba, 2004). The new studies had revealed that teenagers became sexual active at later age different in past years. Thus adolescents are getting a longer period of time during which they get sexual mature and pre-marital sexualy active (WHO, 2006). Moreover, the period of risk of unsafe sexual behavior with all of impacts such as unplanned pregnancy, sexual transmitted infections, and

HIV-AIDS (Lansford et al., 2010). The other studies of semi-urban area of Amhara, Ethiopia showed that initiation sex and recent sexual behavior showed that teenagers had initiated sexual intercourse roughly 78.6%. The frequency distribution indicated that the sexual initiations revealed 46.5% for aged 20 years old. The youth who had initiated sexual act showed 9.3% of having condoms, 88.9% and 1,8% that they did not use and remember condom use during their first sexual intercourse (Tadesse & Yakob, 2015). Dearth of knowledge and information about sexuality and sex make teenagers vulnerable to get diseases, emotional, economic, and physical exploration. Based on unknown, they get in risky sexual behaviors where might reveal them to get unwanted pregnancy and diseases (Oluwatoyin & Oyetunde, 2014).

The other studies indicated that youth responses of the first sexual act revealed as below 25.2% curiosity, 36.1% marriage, 19.9% peer pressure, 1.4% alcohol or substance use influence. Sexual activities revealed that 71.6% had taken sexual act in the last 12 months. For substance use, the adolescent had taken sexual intercourse under the influence of substance use, such as alcohol and cigarette approximately 68.8%. (Tadesse & Yakob, 2015). For sexually active behaviors among girl teenagers had been reported 62.1% for not use and inconsistently condom use, 54.6% having multiple sexual partners (two or more partners), 99.4% for substance use, 73.3% for watched pornography, and 42% for sexual intercourse without condom use. Once or more sexual risk behavior had showed 70.7% of the participants, calculating of 98.8% of those who had sexual act in the last 12 months form 711 respondents in the research (Tadesse & Yakob, 2015).

In Indonesian context, the Indonesian young people population is vulnerable to teenager health problems. National survey of health problem of adolescent revealed that 10 percent of females aged 15-24 years old having smoking, 5 percent having alcohol, and 1 percent having drugs, while males have more risk, like 80 percent having smoking, 40 percent having alcohol, and 4 percent having drugs (Statistic, 2012). Further, 1 percent of females and 8 percent of males had been documented engaging intercourse of unmarried sexual (Statistic, 2012), and 5 percent of young people aged 10-24 years have been documented to engage in a

large range of activities, like masturbation and unmarried sexual intercourse ((I.MOH), 2013). For secondary sexual development influences dating of risk behavior (Koo HP, 2011) where Indonesian teenagers call courtship (*pacaran*) (Musthofa & Winarti, 2010), as well as affecting the activities of those who have been engaged (Blackwood, 2007) or in an unregistered marriage (*nikah siri*) (Vignato, 2012).

Based on data of Directorate General CDC and Environmental Health of Ministry of Health of Republic of Indonesia, the rate of new HIV-AIDS infections showed 32,711 of HIV infection and 7,864 of AIDS in 1 January-31 March 2016. The total of cumulative cases revealed 900 cases for aged 5-14 years old, 2,208 cases for aged 15-19 years old, and 24,628 cases for aged 20-29 years old from 1 April 1987 until 31 March 2016 (MOH, 2016). National survey of Indonesia Demographic and Health Survey of Adolescent Reproductive Health showed aspect of dating experiences where the survey found holding hands 66.7%, kissing 23.6%, petting 4.3% on women, and holding hands 72.8%, kissing 37.3%, petting 21.6% on men. The aspect of sexual experience also showed women 0.7% and men 4.5% ever having sexual intercourse where the condom use showed data of women at first sex 16% and at last sex 20%, men at first sex 22.5% and a last sex 23.5%. The item of cigarette smoking had data of current smoker on women 0.5% and men 43.3% and the aspect of alcohol drinking showed current drinker (occasional) for women 0.8% and men 13.8%. The aspect of drug use showed 3.4% on men (Statistic, 2013).

The survey of PILAR (The Youth Center) of PKBI (Indonesian Planned Parenthood Association) of Central Java 2013 revealed 26.8% having kissing, 41.7% hug, and 10.9% touching the genital partner in Semarang City of Central Java. The survey of PKBI of Central Java 2015 also showed the adolescent having courtship 39.6%, kissing 24.6%, hug 43.7%, touching 10.2%, and intercourse 2.2% from 2,843 adolescents (PKBI, 2015). For active and not-active sexual activities, the previous study indicated that 49.4 percent of not-active, such as 43.3 percent for males and 56.3 percent for females. Furthermore, the study also showed that 50.6 percent of active, such as 56.6 percent for males and 43.7 percent of females.

The detail of active sexual activities indicated 39.2 percent of touching (43% for males & 36.2% for females), 13.2 percent of kissing (16.2% for males & 10.7% for females), and 13.9 percent of masturbation (23.1% for males & 6.6% for females). Not active sexual behaviors could be defined as no having of any of 3 behaviors (touching, kissing, and masturbation) and active sexual behaviors could be defined as having in any of those 3 behaviors (touching, kissing, and masturbation) (Susanto, Rahmawati, Wuryaningsih, & Saito, 2016).

Based on United Nations, adolescence had been defined as the period of age 10-19 years old (Ashford, 2001), where is a crucial period in a person's transition from childhood to adulthood. In Indonesian study, adolescents could be defined as young people age 15-24 years old (I. Utomo, 2012). Based on Ministry of Health of Indonesia, adolescent are the ranged age roughly 10-19 years (Irdjiati, 1997), while the BKKBN (National Indonesian Family Planning Organization) had defined adolescents as aged 10-24 years. But in the recent study adolescents have defined the age approximately 13-16 years where the adolescents take in Junior and Senior High School (Situmorang, 2003).

Kendal Regency is one of the regency of Central Java Province of Indonesia that has problems with adolescent behaviors. The case of unmarried pregnancy of adolescent increased in Kendal Regency that the case had been reported 105 cases for 2012, 106 cases for 2013, and 114 cases for 2014. The totally, the cases could get 325 cases of unmarried pregnancy of Indonesian adolescent in Kendal Regency 2012-2014. The average of adolescent still studied in high school where the effect of the problem, the adolescent could get to drop out from their school (Setiawan, 2015). Then there are a number of cultural and social aspects that have been related with sexual behaviors. These factors are like social isolation, poverty, and especially cultural beliefs relating gender expectations and roles. Adolescents who are grown in conditions of poverty are revealed to various situations where can become to engage in sexual activities (Oluwatoyin & Oyetunde, 2014).

There is no research that mentions about predisposing, reinforcing, and enabling factors to examine associated factors with sexually active adolescent

among high school student in Urban and Rural in Kendal, Indonesia. This study focused on the predisposing factors where link socio-demographic characteristic, knowledge of HIV and reproductive health, attitude to reproductive health. The reinforcing factors relate peer influence, social & cultural influence, and spiritual attendance. The enabling factors indicate sexual development, internet use, and substance and pornography use. Therefore, the aims of this study examine factors associated with sexually active adolescent among high school students in Kendal Regency, Indonesia. The result of this study can be evidence for Local Government to improve the educational regulation and prevention program to revise sex and HIV-AIDS education programs.

1.2 Research Questions

1. What are the prevalence of sexual characteristic among high school students?
2. What are socio-demographic characteristics, knowledge of HIV, attitude to reproductive health, knowledge of reproductive health, reinforcing factors, enabling factors, and sexual activities among highs chool students?
3. Is there any association in each variable of socio-demographic characteristic, knowledge of HIV, attitude to reproductive health, knowledge of reproductive health, reinforcing factors, enabling factors, and sexual activities among high school students?

1.3 Research Objectives

General Objective:

1. To describe the prevalence and factors associated with sexual activities among high school students in Kendal Regency, Indonesia

Specific Objective:

1. To explore the prevalence sexual activities among high school students
2. To describe socio-demographic characteristic, knowledge of HIV, attitude to reproductive health, knowledge of reproductive health, reinforcing factors, enabling factors, and sexual activities among high school students
3. To identify association each variable of socio-demographic characteristic, knowledge of HIV, attitude to reproductive health, knowledge of reproductive health, reinforcing factors, enabling factors between sexually active among high school students

1.4 Research Hypothesis

H_0: There is no association predisposing, reinforcing, and enabling factors with sexual acitivities among high school students in Kendal Regency, Indonesia

H_1: There is an association predisposing, reinforcing, and enabling factors with sexual activities among high school students in Kendal Regency, Indonesia

1.5 Conceptual Framework

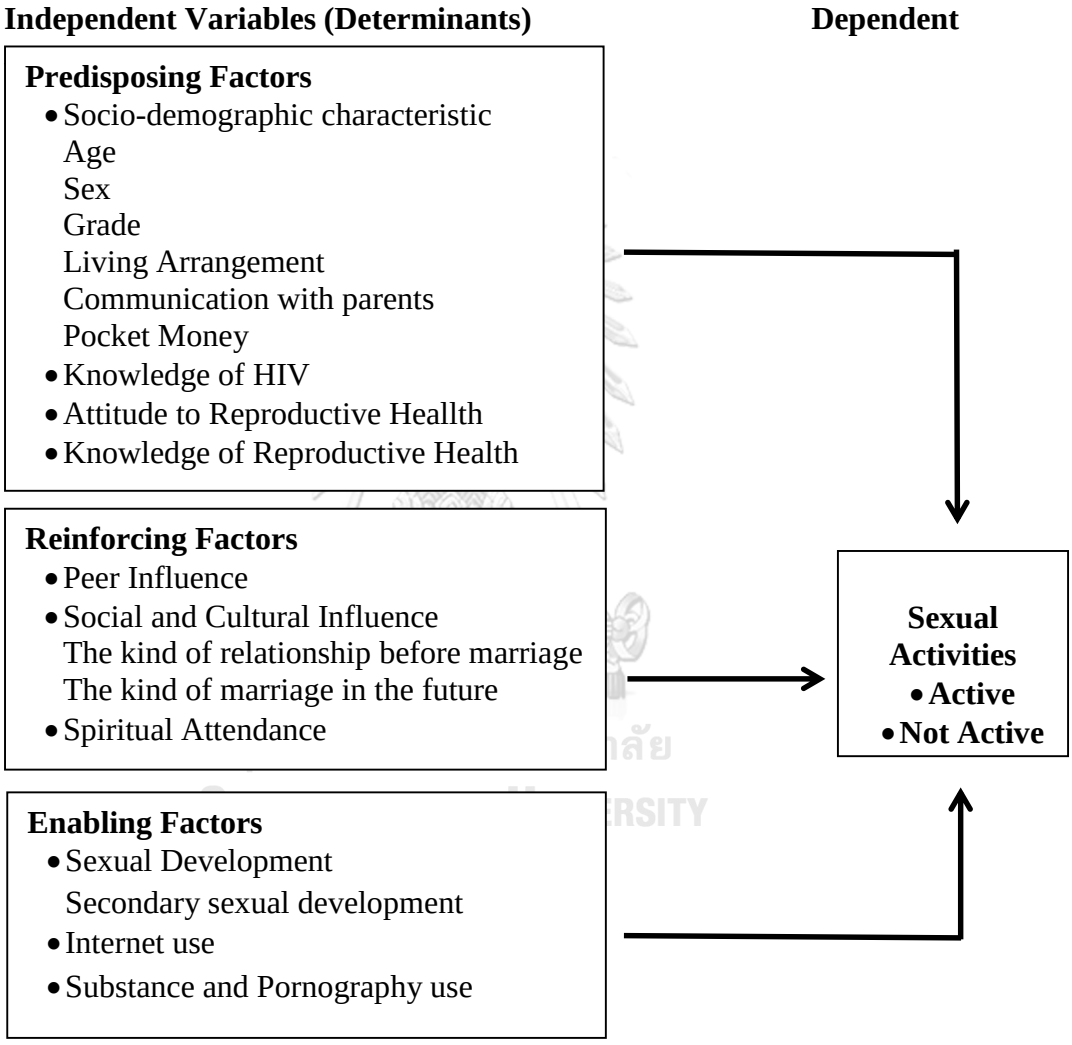


Figure 1 Conceptual Framework

1.6 Operational Operations

Dependent Variable

1. **Sexual activities** are a variable used to consider the activities of teenagers, such as intercourse, kissing, petting, touching, and masturbation. Then this study

will be classified the two group for active and not active sexual activities based on Indonesian topic

2. **Active** is defined to consider having any activities before marriage such as touching, kissing, masturbation, petting, and intercourse, not only one activity but also more than one activity
3. **Not active** is defined the participant never engaged in any of the 5 sexual activities (Kissing, Petting, Intercourse, Touching, Masturbation) before marriage
4. **Kissing** is defined to touch someone through your lips because of having sexual feeling
5. **Touching** is defined to put your hand on someone's body in a sexual manner
6. **Intercourse** is defined such as oral sex, anal intercourse, and vaginal intercourse
7. **Masturbation** is defined as to touch one-self in a sexual way
8. **Petting** is defined when two persons hold, touch, and kiss each other in a sexual way without intercourse

Independent Variables

Predisposing factors relate to behavior that provide the motivation or rationale for the behavior

- **Age** refers to how old participant at the last birthday
- **Sex** refers to male and female of the participant's sex characteristics
- **Grade** refers to the level of participant's grade such as 10^{th}, 11^{th}, 12^{th}
- **Living arrangement** is defined the participant staying together with any family member, friend, relative while the participant attended in school
- **Communication with parents** refers to discuss about sex, reproductive health, and relationship
- **Pocket money** relates to the participant's own money in school attendance per day
- **Knowledge of HIV** refers to about HIV-AIDS, such as difference of HIV-AIDS, transmission of women pregnancy with HIV, preventive HIV-AIDS

- **Knowledge of Reproductive Health** refers to know about reproductive physiology, contraception, HIV or STIs, and Condom
- **Attitude to reproductive health** refers to perception about contraception, unplanned pregnancy, STIs and HIV-AIDS prevention

Reinforcing factors are those factors following a habit that provide continuing reward or incentive for the persistence or repetition of the behavior

- **Peer influence** relates to perceive pressure having substance use and having sexual activities
- **Social and cultural influence** refers to teenager relationship in Indonesian culture
- **Spiritual attendance** relates to attend in any religious services and average times to attend in religious activities

Enabling factors relate to environmental or behavioral change that allow a motivation

- **Sexual development** relates to happen in participant's body, such as growth in height, body hair, and pimples
- **Internet use** refers to average hours to use internet per week and get source information about puberty, reproductive system, and relationship
- **Substance and pornography use** refers to use substance, such as cigarette, alcohol, marijuana, reason to start smoking, and family member of having substance use and the participant access to have pornography materials

CHAPTER II

LITERATURE REVIEW

The literature review of the prevalence and factor associated with sexual activities among high school students of Kendal Regency, Indonesia will be showed in some parts as bellows:

1. Sexual Activities
2. Kind of Sexual Activities
3. Socio-cultural Influence
4. Family Influence
5. Psychological and Behavioral Influence
6. Behavioral Theory
7. Research Related The Prevalence and Factors Associated with Sexual activities

2.1 Sexual Activities

Sexual activities had been defined at immediate having risk of STIs (Sexually Transmitted Infections) and unwanted pregnancy. Adolescents that engage in certain sexual activities, like adolescents don't use contraceptives, having multiple sex spouses, and inconsistently to use contraception, become at even high risk behaviors (Diclemente et al., 2002; Kirby, 2007). Sexual activities also have more likely than adolescent that have not sexually active to report problem with substance use (Anderson & Mueller, 2008) and depression (Hallfors et al., 2004). Some studies had revealed some factors associated with delaying the onset of sexual behavior among adolescent. The adolescents that grow up in harmonic families with more communicate with their parents about sex (Commendador, 2010), who express more religiosity (Manlove, Logan, Moore, & Ikramullah, 2008), who economic resources (Price & Hyde, 2009), and who get more connected to their schools become more likely to postpone sexual intercourse (Hipwell, Keenan, Loeber, & Battista, 2010). Sexual activities relates to sexual practices such as masturbation, kissing, hungging, oral sex, and vaginal intercourse (Palacios-Ceña et al., 2012).

Sexual activities also has been defined as an person's behavior that grow up the susceptibility of the individual to get HIV and STIs (Sexually Transmitted Infections), unplanned pregnancy and psychological distress (Cherie & Berhane, 2012; Luster & Small, 1994; Urassa, Moshiro, Chalamilla, Mhalu, & Sandstrom, 2008). Based on data of UNAIDS, teenager females and young girl age 15-24 years old are at especially high risk of HIV transmission, calculating for 20 percent of new HIV transmissions between mature globally in 2015, while calculating for only 11 percent of the mature population. In geographical regions with greater HIV rate, the sex imbalance is more marked. In sub-Saharan Africa, teenager females and young girls calculated for 25 percent of new HIV transmissions between matures, and females calculated for 56 percent of new HIV transmissions between mature. Painful sex norms and differences and inadequate access to educate sexuality and heightened HIV risk of young females and teenager women (UNAIDS, 2016). In Indonesian context, the rate of HIV-AIDS infections revealed 22,869 of HIV infection and 1.876 of AIDS in 1 January-30 September 2014. The total of cumulative cases indicated 441 cases for aged 5-14 years old, 1,717 cases for aged 15-19 years old, and 18,352 cases for aged 20-29 years old from 1 April 1987 until 30 September 2014 (Spiritia, 2014). The sexual behavior data of PKBI of Central Java also found that male adolescent indicated masturbation 16.78%, cyber-sex 4.69%, necking 4.87%, touching 4.78%, kissing 15.09%, hug 19.68%, watching porn video 32.80%, sexual intercourse 0.94% and kissing & hug 7.31% and female adolescent got watching porn video 18.18%, kissing 10.59%, hug 16.03% masturbation 1.31%, sexual intercourse 0.09%, and kissing & hug 3.47% (PKBI, 2016).

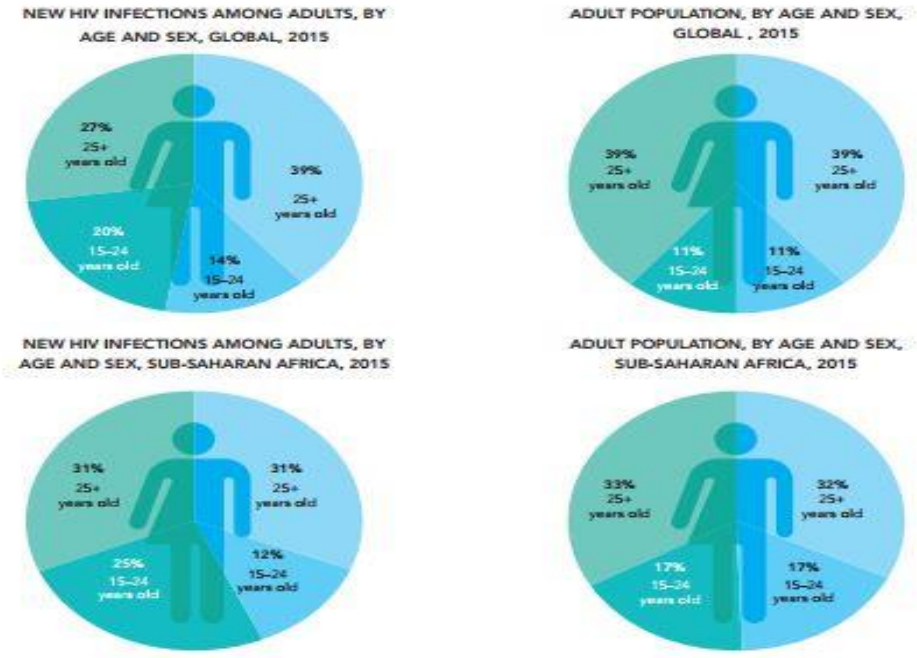


Figure 2 New HIV Transmission by Age, Sex

Based on published study, sexual risk behavior may relate as having unsafe sex (inconsistently or without a condom use), having sexual intercourse under the affecting of stimulus substance, having multiple sexual intercourse spouses, and having sexual intercourse immediately after watched pornographic consumption(Cherie & Berhane, 2012; Luster & Small, 1994; Urassa et al., 2008). The recent study, during period of 2014-2015, the rate of documented gonorrhea occurrences heightened 5.2 percent for people aged 15-19 years old and 7.2 percent for people aged 20-24 years old (Barton et al., 2016). Then the calculation of data usable of UNAIDS propose that more than 90 percent of new HIV transmissions in North Africa, North America, Central Asia, the Middle East, and Europe in 2014 were between people from key communities and their sexual spouses. In the Asia and Pacific area, the Caribbean and Latin America, people from key communities and their sexual spouses calculated for closely two-thirds of new transmissions. Key communities calculated for more than 20 percent of new transmissions, and HIV prevalence between these communities is often hugely high in sub-Saharan Africa. For example, surveillance data released in 2015 approximated HIV prevalence between sex laborers was 71.8 percent in Johannesburg, 53.5 percent in Durban, and 39.7 percent in Cape Town, in South Africa (UNAIDS, 2016).

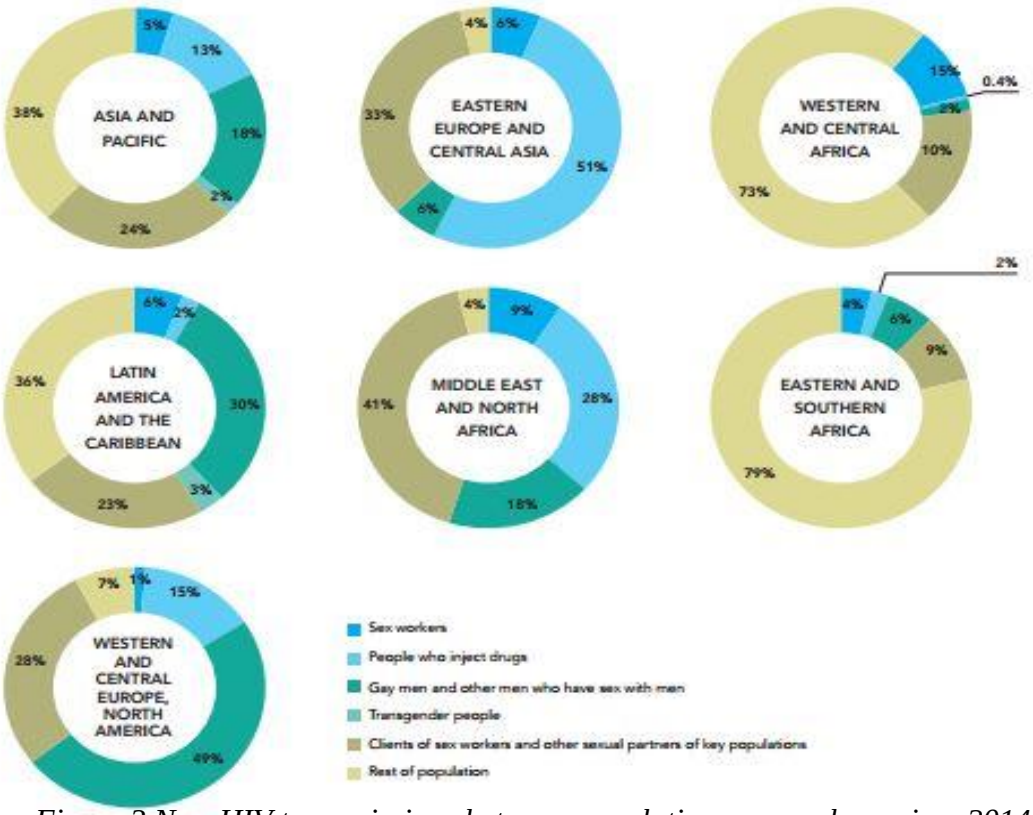


Figure 3 New HIV transmissions between population groups, by region, 2014 ***(UNAIDS, 2016)***

Evidences reveal that adolescents are most probably to take on sexual risk behaviors when compared to mature (Luster & Small, 1994). The early debut of sexual intercourse, the vast sexual risk behavior is probably to become and the bigger the opportunity of gaining STIs (Sexually Transmitted Infections) (Kaestle et al., 2005). The prevalence approximates propose that teenagers aged 15-24 years old get half of all new sexually transmitted infections (STIs) and that one in four sexual active teenager girls has a sexually transmitted infections, like HPV (Human Papillomavirus) or Chlamydia. Compared with older matures, sexual active teenagers aged 15-19 years old and young people aged 20-24 years old are at greater risk of having sexually transmitted infections (STIs) for a combination of cultural, behavioral, and biological reasons. For several sexual transmitted diseases, like Chlamydia, teenager girls may have heightened susceptibility to transmission because of heightened cervical ectopy. Cervical ectopy relates to columnar cells, which are especially placed within the cervical canal, being placed on the outer surface of the cervix. Although this is a normal detecting in teenager

and young females, these cells are more hypersensitive to transmission (Barton et al., 2016).

In the developing country, the risks of sexual transmitted infection or HIV to adolescents have been greater due to gender inequality, low of education, resource scarcities to increase safer sexual practices and poverty (Fako, 2010; Madise, Zulu, & Ciera, 2007; Whiteside, 2002). These data also indicate that the dispersion of new HIV transmissions between key community changes by area. Persons who inject substance calculated for 51 percent of HIV transmissions in Eastern Europe and Central Asia and 13 percent of new HIV transmissions in Asia and Pacific in 2014. Gay males and other males who get sex with boys calculated for 30 percent of new HIV transmission in Latin America, 49 percent of new transmissions in western and central Europe and North America and 18 percent of new transmissions in Asia and the Pacific. This underline the emergency need to assure that key communities are fully surrounded in AIDS reactions and services are created usable to them. Data reveal when services are created usable within an environment devoid of discrimination and stigma, new HIV transmissions have decreased importantly (UNAIDS, 2016).

Sexually active activities may find from being easily determined by low bonding with and limited encourage from parents, peer, inappropriate role models and parents, and living in unprofitable communities (Boyer et al., 2006; Cherie & Berhane, 2012; Kaestle et al., 2005). Those who perform poverty at school, are from unfavorable environments and look for attention from peers and boys are more probably to get on sexual risk behaviors (Dryfoos, 1991). Due to low of awareness about the risks affiliated with unsafe sexual intercourse, teenager often get STIs (Sexually Transmitted Infections), while the young women many have unplanned pregnancies (Luster & Small, 1994; Urassa et al., 2008).

The greater prevalence of sexual transmitted diseases between teenagers may also speculate multiple restrictions to getting at management services and the quality sexual transmitted diseases prediction, like incapability to pay, low of transportation, many waiting times, dispute among clinic hours, work and school schedules, embarrassment attached to looking for sexual transmitted diseases services, manner of sample collection, and attentions about confidentiality (explanation of profits for services obtained mailed to guardians or parents). During period of 2014-2015 of STIs showed

that the rate of documented P & S (Primary and Secondary) Syphilis occurrences heightened 10.2 percent between people aged 15-19 years old and 14.9 percent between people aged 20-24 years old (Barton et al., 2016).

This activities may also be due to a low of enough information and basic skills to appropriate with their emotions and strong peer influence to practice with sexual intercourse (Cherie & Berhane, 2012; Mazengia & Worku, 2009). Social cultures in which the adolescent live and can increase the risks even if teenager has adequate education (Walter et al., 1992). Conventionally, intervention attempts have pointed individual level factors related with sexual transmitted disease risk which do not direct greater level factors (media influences and peer norms) that may also determine behaviors. Interventions for at risk teenagers and young people that direct underlying expressions of the cultural and social circumstances influencing sexual risk-having behaviors are demanded, as are strategies created to revise the underlining social circumstances themselves (Barton et al., 2016).

2.2 Kind of Sexual activities

Some sexual cerebration and behavior grow up above the youth period (Halpern, Udry, Campbell, & Suchindran, 1993). Adolescent involveto a scope of sexual activitiesrevolvingin self-stimulus & fantasy for several types of sexuality (Crockett, Raffaelli, & Moilanen, 2003).

1. Non-Coital Activity

a) Illusion

Sensual illusion is the vast general sexual activities for teenager. In a non-representative population of three-teen to eight-teen years old, seventy-two percent reveal making sexual illusion (Coles & Stokes, 1985). Sensual illusion serves various significant functions to teenagers. By making gratify sexual elicitation and showing sexual demands, the offer perceptiveness within sexual orientations and desires and get a chance to practice sexual encounters (Katchadourian, 1990).

b) Masturbation

Likewise illusion, masturbation permits adolescents to stimulate their sexual desire within a protection and exclusive ways, and has been commonly involved as a perspective behavior (Katchadourian, 1990). For a survey, 41% for males and 24% for females had been documented masturbation (Coles & Stokes, 1985)., between student of university, 67% for boys and 34% for females had been revealed masturbation at aged 15 years old (Leitenberg, Detzer, & Srebnik, 1993). However, the history of masturbation has stayed a taboo theme in the USA. The taboo like real in a capacity of analysis of six-indicated aspects released in 17 Magazines: masturbation couldn't be referred all of in 1974 and looked in less than five percent of aspects in 1984 & 1994 (Carpenter, 1998).

c) Making out

Majority US's teenagers involve in physically close activity, if the teenagers are not making sexual intercourse. In a specimen for ethnical minority fourteen to seventeen years old that had not taken yet sexual intercourse, eighty-six percent got kissing, 40 percent got scratching their body opposed to another, and sixteen percent got engaging in petting (Miller et al., 1997). In a multi-ethnical majority of twelve-fifteen years old, a research had found where white teenagers adopted a typical advance such as petting, necking, touching, and intercourse (E. A. Smith & Udry, 1985), but black teenagers revealed no foreseeable succession for sexual activities and some studies had documented sexual intercourse anterior to get hard petting (E. A. Smith & Udry, 1985)

d) Sexual intercourse

The vast of US's teenagers experience sexual intercourse through eighteen years old. The new survey showed that 50 percent of nine to twelve grades had been revealed that they had made sexual intercourse (Blum et al., 2000; Kann et al., 2000). The case of sexual intercourse heightens by age, so that with twelve grades, roughly 2-3 of teenagers had made sexual intercourse

(Kann et al., 2000). The prevalence of teenager sexual intercourse diverges with ethnicity or race. From Add Health (The National Longitudinal Study of Adolescent to Adult Health), less than half of Hispanic 47 percent & white 46 percent high school student had showed sexual intercourse, opposed to 2-3 of adolescent 67 percent of blacks (Blum et al., 2000). Sometimes, adolescent forced to have sexual intercourse where based on YRBSS 2015, 6.7 percent of adolescents had ever been physically pushed to get intercourse when they ignored it. The prevalence of making been pushed to make intercourse was greater between girl 10.3 percent than boy 3.1 percent adolescent, greater between white girl 9.9 percent, black girl 10.3 percent, and Hispanic girl 10.1 percent than white boy 2.0 percent, black boy 4.4 percent, and Hispanic boy 4.0 percent adolescents, severally, and greater between 9th grade girl 9.4 percent, 10th grade girl 7.9 percent, 11th grade girl 12 percent, and 12th grade girl 11.9 percent than 9th grade boy 2.1 percent, 10th grade boy 3.9 percent, 11th grade boy 2.8 percent, and 12th grade boy 3.5 percent adolescents, severally (Kann, 2016).

e) Partners

2-3 of females and half of males aged fourteen to eighteen years old show having less than 2 spouses of sexual intercourse in their span (Santelli, Brener, Lowry, Bhatt, & Zabin, 1998). However, thirteen percent of high school females and nineteen percent of high school males reveal having more than 4 spouses (Kann et al., 2000). Between sexual active teenagers, older adolescent have more to get multiple spouses, twenty-one percent of twelve graders opposed to twelve percent of nine graders indicated more than 4 spouses (Kann et al., 2000). Then, the vast teenagers get in monogamy relationship, because their relations just get short-period, they can get some spouses over their lifetime (Moore & Rosenthal, 2007)

The survey of USA, 11.5 percent of adolescents had made intercourse with 4 or more people throughout their span. The prevalence of making made intercourse with 4 or more people was greater between boy 14.1 percent than girl 8.8 percent adolescents. The prevalence of making made

intercourse with 4 or more people was greater between black 19.0 percent than white 9.9 percent and Hispanic 11 percent adolescents, greater between black boy 28.2 percent and Hispanic boy 15.3 percent than white boy 10.6 percent adolescents, and greater between black boy 28.2 percent than Hispanic boy 15.3 percent adolescents (Kann, 2016).

This study just showed several sexual activities including kissing, touching, intercourse, masturbation, and petting. Because the study focus on prevalence and factors associated with sexual activities among high school students within 2 groups “active and not active”.

2.3 Socio-cultural Affecting

Human societies have differed extremely in the cultural rules regulating sexual activities and energy that they have been imposed. Unmarried sexual intercourse has been pushed because pregnancy permits a decision of the fertility of potential married spouses, in the other cultures, unmarried sexual intercourse is hardly deterred, particularly to females, because virginity has been extremely respected in several cultures (Paige & Paige, 1981).

For sexual education, the opposite among the USA and the other Western Countries is impressing. For example, the Swedish State Commission on Sex Education proposes where adolescents could reach knowledge where will outfit them to get sexual life as a root for well-being and happiness in relationship by others (Brown, 1983). In opposite, United States sex education curriculum have generally concerned on the harms of sexual intercourse & on females need to safe of predatory boys (Fine, 1988). Cultural behaviors and values relating sexuality have been filtered by experiences in everyday social circumstances. Interactions with peer communities, families, on the other daily circumstances can determine whether and when a teenager will start having intercourse (Adams & Berzonsky, 2008).

2.4 Family Influence

1. Family processes

Parental communication, parent-child relation, and parental control have all been entailed within teenager sexual activities. Better than parent-child relations have been related in delaying sexual intercourse, less rate sexual intercourse, and fewer sexual spouses (Miller, Benson, & Galbraith, 2001). Although vast adolescents get cross-sectional study, like relations have been observed

longitudinally (Feldman & Brown). Impacts of the quality of mother-child relation have issued for both daughters and sons (Dittus. P. J., 2000).

Some mechanisms may become the relations among teenager sexual behavior and family relation. Lack of parent-child relations can heighten frailty of peer determines or grow up the tendency to relate in deviate peers (Whitbeck, Yoder, Hoyt, & Conger, 1999). Mechanisms can disagree for females and males. Whit Beck & colleagues showed where, for females, the relationship among sexual activities and lack parental warmth was intermediated through depressed mood, whereas for males it worked by alcohol consumption (Whitbeck et al., 1999)). In one research of males, families qualified through lack support, paternal rejection, increased indulgence had fewer self-restraint and more and more sexual spouses (Feldman & Brown, 1993). Such intermediating variables may reveal why the quality of the parent-child relation cannot always have important impacts on teenagers' sexual activities when calculated within multivariate designs (Crockett, Raymond Bingham, Chopak, & Vicary, 1996).

Parental control is also linked to teenager sexual behavior. Generally, better supervising is related with delaying sexual intercourse (Jacobson & Crockett, 2000) or fewer frequent sexual intercourse (Benda & DiBlasio, 1994), although not all researches get this form (East, 1996). Presumably, parental supervising and monitoring decrease teenager intercourse by restricting chances for sexual behavior, however several studies show that sexual behavior is more probably when parental control is extravagant or intruding (Miller, McCoy, Olson, & Wallace, 1986; Upchurch, Aneshensel, Sucoff, & Levy-Storms, 1999). Communication directly becomes another way in which parents may determine their children's sexual activities. However, family communication about sexuality is inadequate (Raffaelli, Bogenschneider, & Flood, 1998), and parents and adolescents often opposite about the rate and capacity of these communications (J. Jaccard, Dittus, & Gordon, 1998).

Study on parent-teenager communication and youth sexual behavior has showed complex and often opposite results. The effect of parent-child communication reveals to appropriate on openness of the communicating, a clear concern on sexual issues, the quality of the parent values and parent-child

relation concerning teenager sexual behavior (Miller et al., 2001). Parents' behaviors about teenager sexuality anticipate their children's sexual activities and attitudes (Thornton, 1990). Furthermore, youth's perceptions of parental disagree of sex are related with delaying intercourse (J. Jaccard, Dittus, & Gordon, 1996). These impacts are heightened when the parent-child relation become closer, showing that values are carried within encourage parent-child relation (Dittus. P. J., 2000).

2. Peer Influence

Peers are assumed to determine a majority social influence on teenager sexual activities. Peer impacts may control at some levels. Same-gender peers are a most root of information about sexuality (Davis & Harris, 1982), and peers supply settings (cars & parties) that sex can happen (D. Rowe, & Linver, M. , 1995). Same-gender peers may determine the comprehended acceptability of sexual activities and sexual received peers may do as role models. Finally, romantic spouses allow for chances for sexual experiment and may also influence presume for sexual intercourse (Wyatt & Riederle, 1994).

Association among best friends' sexual activities are well reported (East, Felice, & Morgan, 1993). Although these ways could reveal a peer socialization impact, selection may also influence a role, if teenagers select friends who are like themselves in behaviors and activities (Bauman & Ennett, 1996). In a longitudinal research, close friends' sexual behavior was highly linked with the debut of sexual intercourse for white girls, but for white boys the association showed to speculate males' selection of peers with levels of sexual activities like to themselves. No witness of peer influence was showed for blacks of either sex (Billy & Udry, 1985).

Relating with deviate peers has been associated to earlier debut of sexual intercourse (D. C. Rowe, Rodgers, & Meseck-Bushey, 1989; Whitbeck et al., 1999). Conversely, expending time with conventional friends in extracurricular activities is negatively linked with teenager intercourse (Miller & Sneesby, 1988). The scholars undertook to insulate peer socialization impacts by holding for potential confuses linked to incorrect documenting of peers' attitude, selection of peers, and general experiences (like grade of pubertal maturation)

(J. Jaccard, Blanton, H., & Dodge, T., 2000). Once statistical controls were enforced, peer impacts were tiny and happened only among peers with like sexual activities. Thus, impacts of friend behavior may be restricted beliefs about peers' sexual activities show more powerful than peers' actual activity (Cvetkovich, 1980).

3. Media

Teenagers are mostly revealed to sexual content in magazines, on television, in movies. Majority sexual activities on television happens among premarital adults and neglects the potentially negative effects of intercourse, music movies often merged sex and violence (Huston, Wartella, & Donnerstein, 1998). However, the consequence of media exposure on teenagers' sexual activities and attitudes has not been adequately analyzed. Experimental researchers indicate that exposure to sexual material can conduct to more indulgent behaviors about unmarried sexual intercourse, but a relation among exposure and teenager intercourse has not been released (Huston et al., 1998).

Especially media influence, males' pornography consumption was importantly more often attended by solitary sexual behavior than females'. Importantly, more females 34.9 percent than males 7.8 percent documented to have made sexual behavior with a spouse during consumption of pornography. For both sexes, pornography had most often taken from house by DVD/VCD or Mobile Phone through the internet and accessed in solitary (Barton et al., 2016)

2.5 Psychological and Behavioral Influence

1. **Behaviors and Values**

Teenagers' behaviors about sexuality are classified by cultural proscriptions and family values as well as personal circumstance. Most of 18-25 years old sustain to agree of unmarried sexual intercourse under several conditions, less than twenty percent say unmarried sex is always incorrect (T. W. Smith, 1994). Nonetheless, there is respectable variability in teenagers' opinions about the appropriateness of unmarried sex, especially casually sexual intercourse. More indulgent behaviors about sexuality anticipate teenagers' level of pre-coital and coital experience and their debut of sexual intercourse (Treboux & Busch-

Rossnagel, 1990). Young males hold more indulgent sexual behaviors than young females (Feldman, Turner, & Araujo, 1999).

Religion is often related to teenager sexual activities(Rostosky, Wilcox, Wright, & Randall, 2004). Adolescent who have no religious association are most probably to start sex as youths (Forste & Heaton, 1988), and those who conduct to churches that encourage abstinence are least probably to have sexual intercourse (Miller & Olson). Bigger religiosity, as listed by frequency or church attending and sensed importance of religions, is related with delaying intercourse (Cvetkovich, 1980). In a national survey, greater frequency of attendance religious services declined the odds of starting intercourse between boys and white, Latina, and black girls (Day, 1992).

2. Academic Achievement and Educational Investment

Teenagers with greater educational aspirations and better academic achievement tend to delay first sexual intercourse (Jessor, Costa, Jessor, & Donovan, 1983), and have sexual intercourse fewer often (Ohannessian & Crockett, 1993). Time use in academic behaviors is also negatively linked to debut intercourse, especially for females (Crockett et al., 1996).

3. Problem Behaviors

Consistent relations have been discovered among early sexual behavior and other patterns of mishandle, like delinquent actions (Costa, Jessor, Donovan, & Fortenberry, 1995), substance use (Halpern-Felsher, Millstein, & Ellen, 1996), and such activities as lie on test (Rodgers & Rowe), general deviate character (Rowe) or a personality proneness toward unconventionality (Costa et al., 1995). It could also symbolize an issuing lifestyle or form of adjustment. Bingham and (Crockett et al., 1996) got that teenagers who got begin, intermediate, and late sexual debut exhibited distinguishable developmental ways, with those who started sexual debut indicating a longitudinal form of poorer adaptation in multiple areas, such as academic performance, misconduct, family relations (Adams & Berzonsky, 2008). There are several problem behaviors as bellows:

a. Ever Had Intercourse

A survey of United States showed that 41.2 percent of adolescents made ever having intercourse. The prevalence of making ever made intercourse

was greater between boy 43.2 percent than girl 39.2 percent adolescents, greater between black boy 58.8 percent and Hispanic boy 45.1 percent than black girl 37.4 percent and Hispanic girl 39.8 percent adolescents, severally, and greater between 9th grade boy 27.3 percent than 9th grade girl 20.7 percent adolescents. The prevalence of making ever made intercourse was greater between 10th grade 35.7 percent, 11th grade 49.6 percent, and 12th grade 58.1 percent than 9th grade 24.1 percent teenagers (Kann, 2016). Indonesian context, there was 38% of 414 high school students having intercourse (anal or vaginal intercourse) (Diarsvitri & Utomo, 2011).

b. Ever Drank Alcohol

A survey of United States indicated that 63.2 percent of adolescents had taken at least 1 alcohol drink on at least one day their span. The prevalence of making ever drunk alcohol was greater between female 65.3 percent than boy 61.4 percent adolescents, greater between black girl 57.9 percent and Hispanic girl 68.6 percent than black boy 51.0 percent and Hispanic boy 63.4 percent adolescents, severally, and greater between 9th grade girl 53.0 percent than 9th grade boy 48.9 percent adolescents. The prevalence of taking ever drunk alcohol was greater between 10th grade 60.8 percent, 11th grade 70.3 percent, and 12th grade 73.3 percent than 9th grade 50.8 percent adolescents, greater between 11th grade 70.3 percent and 12th grade 73.3 percent than 10th grade 60.8 percent adolescents (Kann, 2016).

c. Ever Tried Smoking

There was a survey of United States showed that 32.3 percent of adolescents had ever had cigarette smoking (even 1 or 2 puffs). The prevalence of having ever had cigarette smoking was greater between Hispanic boy 37.8 percent than Hispanic girl 32.7 percent adolescents and greater between 11th grade boy 40.5 percent than 11th grade girl 34.4 percent adolescents. The prevalence of taking ever had cigarette smoking was greater between 11th grade 37.5 percent and 12th grade 38.3 percent than 9th grade 25.1 percent adolescents and 10th grade 29.1 percent adolescents (Kann, 2016).

2.6 Behavioral Theory

The following review will explore several major theories as a background of this research. As explained in chapter I, this research is going to seek how individual and environment aspect interact and influence each other generating certain behavior. PRECEED will explain prevalence and factors associated with sexually active adolescent among adolescents, as below:

2.6.1 PRECEDE Theory

The PRECEDE framework had been developed in the 1970s by Green and Colleagues (L. W. Green, Kreuter, Deeds, Partridge, & Bartlett, 1980). The acronym includes for Predisposing, Reinforcing, Enabling Constructs in Educational/Environment Diagnosis and Evaluation. PRECEDE is stood on the assumption that, just as medical diagnosis PRECEDE an intervention plan, so have to educational diagnosis PRECEDE a treatment plan. This approach related a focus between several professionals that health education was concerned too much on applying programs and too little on planning treatments that were strategically designed to get showed needs (Bartholomew, 2006).

These factors of PRECEDE are separated as predisposing, reinforcing, and enabling that they jointly affect the likelihood that environmental and behavioral change will happen. Predisposing aspects become antecedents to attitude that supply the motivation or rationale for the attitude (L. W. Green, and Kreuter, M. W., 2005). They stand individuals' behaviors, beliefs, knowledge, self-efficacy beliefs, persona preferences, and existing skills. Reinforcing aspects become those factors continuing a attitude that supply following incentive or reward for the repetition or persistence of the attitude (L. W. Green, and Kreuter, M. W., 2005). They stand peer influence, vicarious enforcement, social support, and important others. Enabling aspects become antecedents to environmental or behavioral change that permit an environmental policy or motivation to be attained (L. W. Green, and Kreuter, M. W., 2005).

They can influence attitude indirectly or directly by an environmental factor. Enabling aspects stand services, resources, and programs significant

for environmental and behavioral results to be attained and, in several cases, the new attainment needed to usable attitude change (Glanz, Rimer, & Viswanath, 2008).

The level person theories commonly are vast precise for relating predisposing aspects. They will help designers recognize instructions for conduct communication ways such as face to face education and mass media, besides for modern technologies like computer sewing of health instructions (Kreuter, Farrell, Olevitch, & Brennan, 2013). In the level of interpersonal theories are vast precise for reinforcing aspects, and they propose indirect communication ways for example, by important others, social networks) and methods (for example, delivery and organization of services, available products such as laws, policies, and regulations that behaviors and govern products), and methods like advocacy and grassroots organizing (Clark & McLeroy, 1995). For example: community norms and adolescent behaviors may push the contraception use, but adolescents may not get access to have reproductive planning services in a society with high adolescent pregnancy and STIs (Sexually Transmitted Infections) rates. In this condition, the theories of organizational change can supply more efficient guidance, as they would propose channels to usable the delivery of services by on-site school based on clinics of other constructions (Glanz et al., 2008).

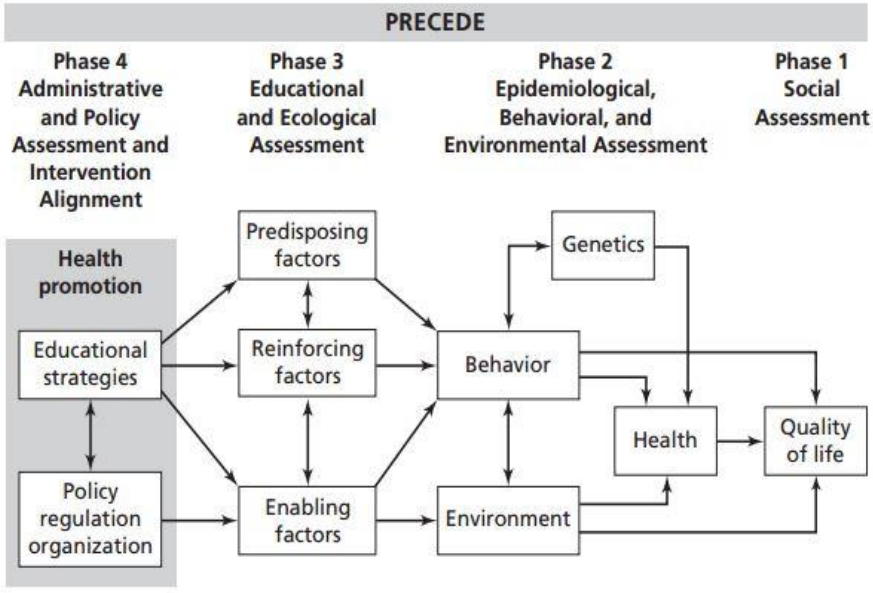


Figure 4 PRECEDE Theory (Glanz et al., 2008)

2.7 Research Related the Prevalence and Factors Associated with Sexual activities among High School Students in Indonesia

2.7.1 Sexuality Among Senior High School Students in Papua and West Papua Provinces, Indonesia

There was a significant association among gender and sexual activities with 47.9 percent of boy students showed having intercourse, compared with only 28.8 percent of girl students ($p < 0.001$). There was also a significant association among current alcohol consumption and sexual activities, with 86.7 percent of respondents who showed currently alcohol use also revealed had having intercourse, compared with only 28.6 percent of participants who documented not currently alcohol consumption ($p < 0.001$) (Diarsvitri & Utomo, 2011).

The study indicated that 60.1 percent of 414 students had been reported having intercourse at the age of 15 years old or older, 30.2 percent of students had it when the students were around 13-14 years old, and 6.5 percent of the students had it when the students had less than 12 years of age and the majority of 74.1 percent were Papuan students. The tha data showed 72 percent of students that had their first intercourse with their friends, 8.9 percent with sex workers, and 11.8 percent with others likerelatives. The vast revealed reason for having the first intercourse had 13.8 percent curiosity, 10.4 percent force, 13.3 percent expressing love, 6.0 percent peer pressure, 26.6 percent sexual drive, 6.8 percent alcohol use, 10 percent others (don't know, watching pornography, and ease the stress), 4.8 percent afraid of breakup (Diarsvitri & Utomo, 2011).

The greater part of students revealed 73.9 percent who have ever had sexual intercourse showed having one spouse, 21.7 percent having 2-5 sexual spouses, and 4.3 percent having 6 or more sexual spouses.The data of 14.9 percent of students had had 2-5 sexual spouses, and 1.9 percent had 6 or more sexual spouses in the last 2 months, and 68.4 percent revealed having one sexual spouse in the last 2 months.The data showed that 59 percent of students had been documented having intercourse also never condom use, only 1.2 percent had been reported always condom use in the last 2 months, and 4.6 percent also had been documented condom use in the last sexual intercourse (Diarsvitri & Utomo, 2011).

The data also indicated that 31.8 percent of girl students had been documented ever having intercourse and reported ever having unwanted pregnancy. 86.0 percent of girl students that had been documented ever pregnancy also showed experiencing unsafe abortion by trying to terminate their pregnancy by themselves (74.4 percent). Then 50 percent of adolescents aged 10-14 years and 66.5 percent of adolescent aged 15-24 years still had currently alcohol use (21.22 percent). Djoht et al (2005) had found that less than 40 percent of sexually active adolescents in Papua Province have ever used condom, while BPS-Statistic Indonesia and MOH 2007 also had found a much lower percentage 2.8 percent.The study also revealed that 32 percent had having tried alcohol consumption, 4,3 percent having tried drugs, 17 percent currrently alcohol use, 1.8 percent having currently drug use, 38 percent having intercourse (anal and vaginal), and 26.5 percent having several sexual activities including kissing and petting but without intercourse (Diarsvitri & Utomo, 2011).

2.7.2 The beyond Sexual Desire and Curiosity: Sexuality among Senior High School Students in Papua and West Papua (Indonesia) and Implication for HIV Prevention

The Indonesia Young Adult Reproductive Health Survey (IYARHS) 2002-2003 and IYARHS 2007 had documented that approximately 1.3 percent of girl participants and 6.4 percent of boy participants documented having unmarried intercourse (BPS-ORC, 2004, 2008). Several studies have documented an increasing case of unmarried sex among Indonesian adolescents in some provinces in Java and other provinces out of Java (Bennett, 2001, 2005; Situmorang, 2001; I. D. Utomo, 2003). In a survey among 192 indigenous Papuan men and women aged 16 years old and over in Merauke, Jayawijaya, Jayapura, and Sorong (Butt, Numbery, & Morin, 2002) had reported all participants under 20 years old having intercourse, with 29 percent of participants having intercourse by the age of 15 years.

A survey in 2006 had documented 40 percent of the population aged 15-49 years in Papua and West Papua Provinces reported having their debut sexual intercourse with their girlfriend or boyfriend and 1.6 percent having intercourse with sex worker. Approximately 8 percent of girls and 4 percent of boys aged 15-24 years in both provinces having intercourse before they got their 15th birthday (BPS/MoH, 2007). A study involved in 2003 in 37 Junior High Schools (2090 students) in 5 regions in both

provinces had indicated 12 percent of students having intercourse and roughly 60 percent having debut intercourse among 13 and 15 years old, although several students showed their debut sexual encounter as early as 8 years old. For sexually active students, 64 percent indicated having intercourse relationship with their boy/girlfriend, 29 percent with acquaintances and 2 percent of boys had having intercourse with girls sex workers (CHR-UI, 2003)

The study had a significant association between gender and sexual activities, with 47.6 percent of boy students indicating having intercourse, compared only 29.1 percent of girl students. There was also a significant association between age and sexual activities, with 51.8 percent of students aged more than 19.2 years indicating having intercourse, compared to 32.7 percent of students aged between 18.2 to 19.2 years and 30.3 percent students aged less than 18.2 years. For the students 38 percent had been reported having intercourse, 27.5 percent of students had showed anal intercourse and 96.6 percent of students had revealed vaginal intercourse. Of the 26.5 percent of students having sexual activities, 99.7 percent had been documented having kissing or petting from the waist up, 16.4 percent of students had been reported having kissing and petting from the waist down and 4.5 percent had been showed oral sex without penetration (Diarsvitri, Utomo, Neeman, & Oktavian, 2011)

Approximately 71 to 81 percent of students from different ethnicities had showed their debut intercourse with their friend, roughly 10 to 11 percent had revealed it with others (including relatives) and around 7-9 percent had reached it with sex workers. The similar percentage of men and women student revealed watching pornography roughly 10.0 percent and alcohol use approximately 6.7 percent as the reasons. Sexually active students from different ethnicities, 72.3 to 83.9 percent showed having one sexual spouse in their lifetime, while 67.8 to 71.3 percent revealed having one sexual spouse in the last 2 months. The students had never used a condom in the last 2 months and on the last having intercourse had been ranged from 45.2 to 62.3 percent and 80.6 to 97.7 percent, respectively 3 to 4 percent just had used condom in the last 2 months (Diarsvitri et al., 2011)

The study also showed 32.1 percent of girl students who documented having intercourse also revealed having unplanned pregnancy. Approximately 84 percent of female students that documented having been pregnancy also documented that they had

had an unsafe abortion by trying to terminate their pregnancy by themselves 74.4 percent, with the help of a health professional 14.0 percent, and traditional healer 11.6 percent. The three most sources of HIV information had reported students to get 65.2 percent of media, 20.5 percent of school, and others, such as from HIV awareness training for students, from a doctor or a paramedic approximately 5.4 percent (Diarsvitri et al., 2011)

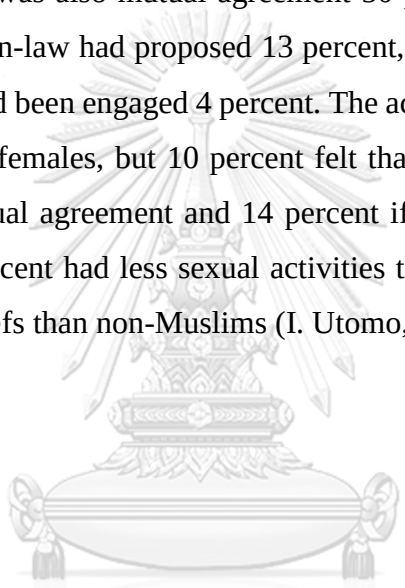
Based on a monitoring survey involved by UNICEF and program monitoring by the Indonesian Ministry of National Education, it had been revealed that only approximately 10 percent of the total 110 schools provided life skills-based HIV education in Indonesia, of these, 2.3 percent took primary schools and 41 percent took secondary schools(NAC, 2007). For STIs and HIV, the study also disclosed the prevalence of HIV, chlamydia, gonorrhea, and active syphilis among all women sex workers was roughly 2-16 percent, 20-55 percent, 8-44 percent, and 1-13 percent, respectively, and the highest HIV prevalence had been found among sex workers in Papua Province (MoH/NAC, 2007)

The other surveys showed that the age of debut intercourse had been associated with HIV infection, of those who had their debut sexual intercourse among the aged 10-14 years, 15-24 years and 25 years or more, 3.3, 2.3, and 1.9 percent had been diagnosed HIV positive in an integrated bio-behavioral surveillance survey. HIV prevalence was bigger between those who conducted in paid intercourse had reached a STIs in the previous years and had never used a condom at last intercourse or had having more than one sexual spouse (BPS/MoH, 2007)

2.7.3 Youth Sexuality and Sex Education Message in Indonesia Issues of Desire and Control

The BKKBN (Indonesian Family Planning Organization) website had reported that in the 1990's, approximately 20 to 30 percent of adolescent living in the Java Cities of Sukabumi, Yogyakarta, and Bandung conducted in unmarried intercourse. The biggest survey to date, involved in 1998 among 4,106 men and 3,978 women aged 15-24 years in West, Central, East Java and Lampung in Southern Sumatra had found that although most participants disapproved of sexual activities before outside married, 12 percent approved unmarried sex if the couple were planning to marry (Hasmi, 2004)

All these studies show that a substantial minority of teenagers are sexually active though “active” is not defined. A study in 1994 of sexual activities in urban, Jakarta, middle class adolescent by Utomo revealed details on this question. Of 344 high school students aged 15-19, 7 percent of men and 2 percent of women had had intercourse. Other sexual activities like kissing on the lips 23 percent, breast 18 percent, genital fondling 11 percent had been documented by more males than females. The study also disclosed that 80 percent of teenager females felt that unmarried sex would never be true, but others had positive about unmarried sex if contraceptives had been used 16 percent, there was also mutual agreement 50 percent, in the case of love 20 percent, if the parents-in-law had proposed 13 percent, if already involved 21 percent or if a boy prostitute had been engaged 4 percent. The activities of the males were quite similar to those of the females, but 10 percent felt that unmarried sexual intercourse was all right with mutual agreement and 14 percent if it agrees with a prostitute. In general, Muslim adolescent had less sexual activities than non-Muslims and strongly more conservative beliefs than non-Muslims (I. Utomo, 2002).



CHAPTER III

RESEARCH METHODOLOGY

This study has some purposes to find out the prevalence and factor associated with sexual activities: a cross-sectional study among high school students in Kendal Regency, Indonesia. The principal methodology of this study will be explained into 12 areas:

1) Study design
2) Study area
3) Study population
4) Sampling technique
5) Inclusion criteria
6) exclusion criteria
7) Sample and sample size
8) Measurement tool
9) Validity and reliability
10) Data Collection
11) Data analysis
12) Ethical Consideration

3.1 Study Design

This study was school survey with cross sectional descriptive design. Data collection was taken place from August to October 2017.

3.2 Study Area

This study was taken in Kendal Regency of Central Java of Indonesia. Kendal Regency has 20 districts and 285 villages. The data collection was obtained 14 states schools all over in Kendal Regency.

3.3 Study Population

The population target of this study is high school students in Kendal Regency. Based on the Local Department of Education, the total students study at Kendal roughly 34,355 students. The students are still studying in 80 high schools such as 14 of state schools, 15 religious schools, 3 private schools, and 48 of vocational schools.

3.4 Sampling Technique

The sampling technique of this study was multistage cluster random sampling. The sampling technique was explained as follow:

1. All schools were classified as urban and rural area
2. The researcher randomly took 5 school in 14 state schools
3. Based on each category, the researcher randomly picked up 5 schools in order to get the minimum sampling size
4. Based on each selected class, the researcher randomly picked up 3 classes into account
5. All of students from the selected class were joined to be respondents in this study

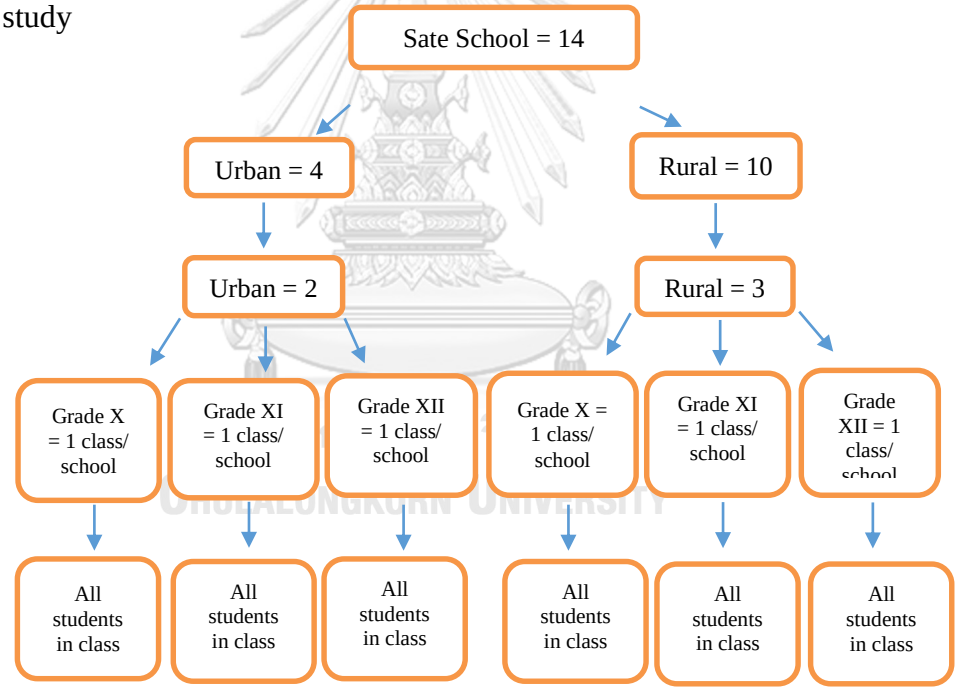


Figure 5 : Sampling Frame

Usually the total students of each class was around 25-36 people. In this study, the minimum estimation of students for this study was 15 classes x 25 students = 375 students and the maximum was 15 classes x 36 students = 540 students. Urban schools usually have a good facility and some extracurricular programs about sex education in school, then urban schools have many students than rural schools. In this case, the urban schools picked up 2 schools lower than rural schools (3 schools).

3.5 Inclusion Criteria

1. Male and Female respondents were invited to join participation in this study
2. The type of school just had state schools
3. The respondents take from grade 10^{th}, 11^{th}, and 12^{th}

3.6 Exclusion Criteria

1. The type of schools except state schools
2. The respondents enroll in acceleration class

3.7 Sample and Sample Size

This part of sample size used Lemeshow Formula to estimate the proportion of sample (Lemeshow, Hosmer, Klar, Lwanga, & Organization, 1990). The detail of formula will be explained as below:

$$\boldsymbol{n = \frac{Z^2\ _{1-\alpha/2} P(1-P)}{d^2}}$$

n = Minimum number of sample size

Z = Score 95% CI = 1.96

d = Acceptable error = 0.05 (Lemeshow et al., 1990)

P = Proportion of pre-marital sex = 0.5 (Lemeshow et al., 1990)

$$\boldsymbol{n = \frac{(1.96)^2 \text{ x } 0.25}{(0.05)^2}}$$

= 384.2 = 384

The data collection was use self-completed questionnaire and proportion of pre-marital (0.5) sex with Lemeshow, because the researcher did not know exactly proportion pre-marital sex in Kendal Regency, Indonesia. To prevent incomplete answer, the researcher will grow up the respondents of sample size until 10%. So, total sample size may be roughly 384 + 38.4 = 422 students.

3.8 Measurement Tools

The structure of questionnaire was modified to get data collection. This was developed the illustrative Questionnaire for Interview-Surveys with Young People WHO (Cleland, Ingham, & Stone, 2001), Pubertal Development Scale (Carskadon & Acebo, 1993), and HIV Knowledge Questionnaire (Carey, Morrison-Beedy, &

Johnson, 1997), sexual activities scale (Sümer, 2015). The core of questionnaire will be consisted by 4 parts as below:

A. Predisposing Factors

1. Socio-demographic

The first segment of questionnaire identified the personal background of students such as age, sex, grade, living arrangement, communication with parents, and pocket money. The detail information was explained of each part as follow:

1) Age was filled with providing the multiple choice

2) Sex was classified within male and female

3) Grade was separated by 10^{th}, 11^{th}, and 12^{th}

4) Communication with parents refered to the frequency of discussing about sexual activities, contraceptive, and relationship with father or mother

5) Living arrangement refered to participant staying together with any family member, friend, or relative

6) Pocket money related to the participant's own money in school attendance per day

2. Knowledge of Reproductive Health

The participants was asked 8 items of the questionnaire of this study that the knowledge will be classified within 3 criteria of Benjamin Bloom's Criteria citation by (Bloom, 1968):

Low level of Knowledge < 4 scores or < 60%

Moderate level of Knowledge 4-6 scores or 60% - 80%

High level of Knowledge > 6 scores or >80%

3. Knowledge of HIV

The participants was asked 9 items of the questionnaire of this study that the knowledge will be classified within 3 criteria Benjamin Bloom's Criteria (Bloom, 1968) as below :

Low level of Knowledge < 5 scores or < 60%

Moderate level of Knowledge 5-7 scores or 60% - 80%

High level of Knowledge >7 scores or >80%

4. Attitude to Reproductive Health

The attitude of the participant regarding reproductive health was calculated with 7 questions whether the participants was agree or disagree with the several statement to use Likert's scale as below (Nickell, 1998) :

1. Agree
2. Neutral
3. Disagree

The standart score of attitude was taken SD (standard deviation) ± mean. All participant's answer was accounted by standard deviation and mean. The level of attitude was ranged it as below (Nickell, 1998) :

Negative Attitude point ≤ mean - SD

Neutral Attitude mean-SD <point<mean + SD

Positive Attitude point ≥ mean + SD

B. Reinforcing Factors

1. Peer Influence

The participants were asked some questions about peer pressure and encourage to avoid sexual activities or substance use.

2. Social and Cultural Influence

It is the Indonesian context that adolescent relationship was taken relation before marriage (1 = courtship, 2 = engaged, 3 = unregisterred marriage, 4 = no relationship) and the relationship of marriage was classified within 2 items (1 = unregisterred marriage, 2 = legal marriage).

3. Spiritual Attendance

The spirituality just was classified into religious attendance in religious services. The religious attendance also was assessed within the average time ever day, once per week, or once per month in hours spent to religious activities where the respondents will attend by individually or communally such as, (1 = everyday, 2 = at least once a week, 3 = at least

once a month, 4 = at least one a year, 5 = less than one a year, 6 = never) and (1 = very religious, 2 = moderately religious, 3 = not religious)

C. Enabling Factors

1. Sexual Development

The participants was asked about pubertal development especially secondary sexual development. There were 5 questions was asked about this.

2. Internet Use

The internet use was explained such as having internet, having internet for. For example: having internet use for 1 = Chat, 2 = email, 3 = Finding information, 4 = Playing games, 5 = Social media, 6 = Accessed pornography, 7 = Others (Specify)

3. Substance and Pornography Use

The participants were asked about having substance use and pornography consumption. There are 15 questions that had to answer for participants.

D. Sexual Activities

The active sexual activities was asked to participant about the frequency of sexual activities throughout their life time with activity scale (Sümer, 2015) as below:

1. Never
2. Rarely
3. Occasionally
4. Frequently

The active sexual activities were asked within 2 items active and not active. If the participants answer “Never” all of the questions into classified in “Not Active”. But, if the participants will answer the other “Never”, it will be classified into “Active”.

3.9 Data Validity and Reliability

The content validity was assessed by three expert of adolescent survey fromtwo experts of Chulalongkorn University, Thailand and one expet of Diponegoro University, Indonesia such as Assoc. Prof. Ratana Somrongthong (Speciality with Adolescent and Reproductive Health), Montakarn Chuemchit, Ph.D (Speciality with Gender and Sexuality), and Dr. dr. Bagoes Widjanarko, MPH (Speciality Reproductive Health).

The pre-test (pilot test) was conducted 3 schools and was used for pre-test in order to maintain the reliability. The pre-test was done in some schools the other target school surveys in this study. Then the Cronbach's Alpha test of scale reliability was used to test the reliability. Cronbach's Alpha test was 0.722 for knowledge and 0.750 for attitude. After data collection, the Cronbach's Alpha test was 0.839 for knowledge and 0.733 for attitude.

4.0 Data Collection

The data was collected by self-completed questionnaire. It was taken place in August-October 2017. The procedure of data collection as below:

1. Some formal letters of College of Public Health Science was sent to Local Department of Education and all school principles to get permission the data collection
2. The researcher visited the school to get the data
3. The researcher was explained the questionnaire
4. The researcher also disseminated the questionnaire
5. The students filled the form and then will send back to the researcher
6. The researcher kept and briefly checked to ensure the questionnaire complete filling before the researcher left the class room
7. The researcher ensured all students nothing to get pressing from teacher with to permit the teacher leaving from the class

4.1 Data Analysis

The questionnaires were edited and calculated using SPSS (Statistical Package for Social Sciences) version 22. This study used bivariate analysis to examine factor associated independent variables and dependent variable by Pearson's Chi-square test with p-value< 0.05. For the other analysis, it used multivariate analysis with logistic regression to re-examine the variables to get the clear factors association between independent and dependent variables.

Variables	Measurement Scale	Statistic Inference
Predisposing Factors		
Socio-demographic		
Age	Nominal Scale	Number, Percentage, SD,
Gender	Nominal Scale	Mean
Grade	Nominal Scale	Number, Percentage
Accommodation	Ratio Scale	Number, Percentage
Living arrangement	Nominal Scale	Number, Percentage
Pocket money	Nominal Scale	Number, Percentage
Communication with	Nominal Scale	Number, Percentage
Parent	Nominal Scale	Number, Percentage
Knowledge of HIV	Nominal Scale	Number, Percentage
Knowledge of		
Reproductive Health	Nominal Scale	Number, Percentage
Attitude to Reproductive		
Health	Ordinal Scale	Number, Percentage
Reinforcing Factors		
Peer Influence	Ordinal Scale	Frequency, Percentage
Spirituality attendance		
Religiousity	Ordinal Scale	Frequency, Percentage
Religious attendance	Nominal Scale	Frequency, Percentage
Religious importance	Ratio Scale	Number, Percentage

Enabling Factors		
Sexual Development	Ordinal Scale	Number, Percentage
Internet Use		
Ever Internet use	Ratio Scale	Frequency, Percentage
Internet use for	Ordinal Scale	Number, Percentage
Substance		
&Pornography Use	Ratio Scale	Frequency, Percentage
Reason of first smoked	Ordinal Scale	Number, Percentage

4.2 Ethical Consideration

Ethical consideration obtained from the Ethical Committee of Semarang State University, Indonesia. Official permission was obtained from the authority of the schools used for this research. The aim of this study was explained to the respondents and consent was obtained. Respondents was informed that participation was voluntary and confidentiality was emphasized. This research reached ethical consideration from Ethical Committee of Health Research of Faculty of Sport Science of Semarang State University, Indonesia Number: 186/KEPK/EC/2017.

CHAPTER IV

RESULT

The study selected 5 schools in this survey. The data collection had been collected September 1th to October 10th 2017. A total of 460 respondents joined in this research, because this research followed the attendance of the students in class during data collection. This chapter describe socio-demographic characteristics, knowledge of HIV, attitude and knowledge of reproductive health, also reinforcing factors like peer influence, spiritual attendance, social and cultural influences, and enabling factors such as sexual development, internet use, substance and pornography consumption, then predictors of sexually active as well.

4.1 Prevalence of Sexually Active

Table 1 Prevalence of Sexually Active among High Schools Students

Sexual Activities	Male	Female	Total	Rural	Urban	Total
	n=145	n=315	n=460	n=279	n=181	n=460
	(%)	(%)	(%)	(%)	(%)	(%)
Not active	39.2	78.6	66.2	67.1	64.8	66.2
Active	60.8	21.4	33.8	32.9	35.2	33.8
Kissing						
Yes	28.0	20.1	22.6	23.1	21.8	22.6
Petting						
Yes	15.4	1.9	6.1	5.1	7.8	6.1
Touching						
Yes	12.5	1.9	5.3	5.0	5.6	5.3
Masturbation						
Yes	40.3	2.6	14.4	12.2	17.9	14.4
Intercourse						
Yes	12.6	3.5	6.4	6.1	6.7	6.4

- *Respondents could give more than one answers; Participants' answers were counted as active or not active sexual activities in the Indonesian context*
- *Overall of sexual activities is defined as engaging in any the 5 practices (kissing, petting, touching, masturbation, intercourse)*

The table of prevalence of sexual activities, the result showed male higher than female (60.8% and 21.4%) for sexually active among high school students. Then urban area also revealed higher than rural area for sexually active students. Some variables of sexual behaviors, the table reported percentage of kissing that male (28%) had higher than female (20.1%), but for area, rural area (23%) showed higher than urban area (21.8%). Then other variables showed urban area higher than rural area, such as petting (7.8%), touching (5.6%), masturbation (17.9%), and intercourse (6.7%) respectively. But, based on sex, female had lower than female in other variables, like petting (1.9%), touching (1.9%), masturbation (2.6), and intercourse (3.5%) respectively.

4.2 Socio-Demographic Characteristics

Table 2 Socio-Demographic Characteristic among High-School Students

Variables	Population Groups				Total
	Male		Female		
	Urban (n = 66)	Rural (n = 79)	Urban (n = 115)	Rural (n = 200)	n = 460 (%)
	(%)	(%)	(%)	(%)	
Age (Years)	*(Missing data: 2, Mean: 1.99, SD: 0.840, min: 1, max:5)*				
15 years old	36.4	34.2	31.3	31.5	32.6
16 years old	37.9	40.5	37.4	39.0	38.7
17 years old or older	25.8	25.3	31.3	29.5	28.7
Grade					
10th grade	44.0	45.6	35.7	33.0	37.4
11th grade	33.3	25.3	33.9	35.5	33.0
12th grade	22.7	29.1	30.4	31.5	29.6
Living Arrangement					
living in house with parents	95.5	89.9	94.8	92.0	92.8
living in relative's house	4.5	10.1	5.2	7.5	7.2
Pocket Money	*(Missing data: 2, Mean: 1.41, SD: 0.510, min: 0, max:2)*				
< 1 U$ (<IDR 13,500)	53.0	70.9	47.0	59.5	57.9
> 1 U$ (> IDR13,500)	47.0	25.3	53.0	40.0	42.1

The table 2 showed that age of urban male (36.4%) had higher than rural male (34.2%) for 15 years old and 25.8% higher 25.3% for 17 years old, but rural female had higher than urban female for 15 years old (31.5 vs 31.3%) and 16 (39.0 vs 37.4%) years old. For grade of students revealed 10th and 12th grade higher for rural male than urban male, different for 11th and 12th grade higher for rural female than urban female. For

living arrangement, the result reported almost students staying with their parents for urban male (95.5%), rural male (89.9%), urban female (94.8%), and rural female (92.0%). But for pocket money variable showed urban female (53.0%) highest and rural male lowest (25.3%) for >1U$ (>IDR 13,500) for in all areas. Furthermore, rural male (70.9%) had higher than other areas for < 1 U$ (< IDR 13,500). Based on the result, there were 2 variables had missing data for age variable and pocket money variable in socio-demographic characteristics.

4.3 Communication with Parents

Table 3 Communication with Parents among High-School Students

Independent Variables	Population Groups				Total
	Male		Female		
	Urban (n = 66)	Rural (n = 79)	Urban (n = 115)	Rural (n = 200)	n= 460 (%)
	(%)	(%)	(%)	(%)	
Talking about Sexual Activities	*(Missing data: 2)*				
Yes	6.1	6.3	8.7	8.0	7.6
No	93.9	92.4	90.4	92.0	92.4
Talking about Pregnancy & Birth Control	*(Missing data: 2)*				
Yes	13.6	7.6	14.8	21.5	16.4
No	86.4	89.9	85.2	78.0	83.6
Talking about HIV-AIDS	*(Missing data: 2)*				
Yes	22.7	16.5	34.8	27.0	26.6
No	77.3	82.3	65.2	73.0	73.4
Talking about Sexually Transmitted Infections	*(Missing data: 2)*				
Yes	10.6	12.7	21.7	20.0	17.9
No	89.4	86.1	77.4	79.5	82.1
Talking about Condom	*(Missing data: 2)*				
Yes	3.0	2.5	1.7	3.0	2.6
No	97.0	97.5	98.3	96.5	97.4

Talking about Relationship	*(Missing data: 2)*				
Yes	22.7	12.7	33.0	22.0	23.4
No	77.3	87.3	67.0	77.0	76.6

According to table 3, the table explained talking about sexual activities to be significant for urban female (8.7%) and rural male (6.3%). Otherwise, urban male (13.6%) and rural female (21.5%) had also significant for talking about pregnancy and birth control. But, in the case of talking about HIV-AIDS, urban male and female had significant with 22.7% and 34.8%. Furthermore, the case of talking about STI's, rural male (12.7%) and urban female (21.7%) had good values to be often communication with parents and talking about condom also had same values urban male and rural female (3.0%). Talking about relationship urban male (22.7%) and urban female (33.0%) had often to communicate with parents. This explanation just revealed "yes" answer in each variable about communication with parents, then this description also showed in each items by sex and area.

4.4 Knowledge of HIV

Table 4 Knowledge of HIV among High-School Students

Knowledge of HIV	**Population Groups**			
	Male		**Female**	
	Urban (n = 66)	**Rural (n = 79)**	**Urban (n = 115)**	**Rural (n = 200)**
	(%)	**(%)**	**(%)**	**(%)**
Kissing can infect HIV	*(Missing data: 2)*			
TRUE	23.5	38.0	44.3	35.0
FALSE	73.5	62.0	55.7	65.0
Having touching can infect STI's & HIV	*(Missing data: 2)*			
TRUE	10.3	10.1	13.0	13.0
FALSE	86.8	86.6	87.0	87.0
Having petting Infect STI's & HIV with two people	*(Missing data: 2)*			
TRUE	42.6	40.5	44.3	37.5
FALSE	54.4	58.2	54.8	62.0
Having masturbation infect STI's in someone	*(Missing data: 2)*			
TRUE	7.4	10.1	14.8	15.0
FALSE	89.7	89.9	85.2	84.0
Woman infect HIV if she has anal sex with a man	*(Missing data: 2)*			

TRUE	27.9	21.5	30.4	29.5
FALSE	69.1	78.5	69.6	70.5
Using Condom protect HIV	*(Missing data: 2)*			
TRUE	33.8	35.4	26.1	24.0
FALSE	63.2	64.6	73.9	76.0
HIV get a person with another person only one time	*(Missing data: 2)*			
TRUE	5.9	10.1	16.5	7.5
FALSE	91.2	88.6	82.6	91.0
Having sex increase HIV with more than one partner	*(Missing data: 2)*			
TRUE	55.9	63.3	67.0	68.5
FALSE	41.2	36.7	32.2	31.0
A woman get HIV if she has intercourse with man (+HIV)	*(Missing data: 2)*			
TRUE	61.8	70.9	62.6	68.0
FALSE	35.3	29.1	37.4	31.5

The table 4 showed that the table has 9 indicators of knowledge about HIV. There were 2 indicators revealed the most students to give “true” answer 50% more than other indicators, such as having sex increase HIV with more than one partner and a woman get HIV if she has intercourse with man (+HIV). The indicator showed 68.5% of rural female, 67.0% of urban female, 63.3% of rural male, and 55.9% of urban male for having sex with more than one partner to increase HIV. Then 68.0% of rural female, 70.9% rural male, 62.6% of urban female, 61.8% of urban male had a woman with man (+ HIV) to have intercourse to get HIV for her. Otherwise, some indicators also showed that the indicator of kissing can infect HIV to get 73.5% of urban male, 65.0% of rural female, 62.0% of rural male, and 55.7% of urban female for false answer about it. In term of masturbation, the majority gave answer “false” answer if the masturbation infected STI’s in someone. Based on the table, the knowledge of HIV of respondents for using condom indicated that the students almost gave the false answer about it. There was only few to give true answer for using condom to decrease HIV such as 24.0% rural female, 26.1% urban female, 33.8% urban male, and 35.4% rural male.

4.5 Knowledge of Reproductive Health

Table 5 Knowledge of Reproductive Health among High School Students

Independent Variables	Population Groups			
	Male		Female	
	Urban (n = 66)	Rural (n = 79)	Urban (n = 115)	Rural (n = 200)
	(%)	(%)	(%)	(%)
Petting become pregnancy in woman	*(Missing data: 2)*			
TRUE	26.5	31.6	24.3	27.0
FALSE	70.6	68.4	74.8	73.0
Breast touching increase infected STI's	*(Missing data: 2)*			
TRUE	4.4	8.9	1.7	3.5
FALSE	92.6	89.9	98.3	96.0
A woman get pregnant at first intercourse	*(Missing data: 2)*			
TRUE	25.0	31.6	22.6	17.0
FALSE	70.6	65.8	76.5	82.0
Masturbation is a serious health threat	*(Missing data: 2)*			
TRUE	19.1	21.5	11.3	11.5
FALSE	77.9	78.5	88.7	88.0
Condom can be used more than one	*(Missing data: 2)*			
TRUE	2.9	5.1	25.2	1.0
FALSE	94.1	94.9	74.8	99.0
Condoms are an effective to protect against STI's	*(Missing data: 2)*			
TRUE	27.9	38.0	19.1	17.0
FALSE	69.1	62.0	80.9	83.0
Condoms are an effective method to prevent pregnancy	*(Missing data: 2)*			
TRUE	50.0	65.8	46.1	46.0
FALSE	47.1	34.2	53.9	52.0
Condoms reduce risk of HIV Infection	*(Missing data: 2)*			
TRUE	44.1	43.0	25.2	22.5
FALSE	52.9	57.0	74.8	76.5

The table 5 showed that there were 8 indicators to ask the participant to know the knowledge of reproductive health from them. The data explained that the participants gave the few answers for the indicator of using condom that can reduce HIV infection. The data had 22.5% of rural female, 25.2% of urban female, 43.0% of rural male, and 44.1% of urban male for “true” answer for using condom to reduce HIV infection. The proportion of the first intercourse also was a few responses from

respondents. The answer just had 17.0% of rural female, 22.6% of urban female, 25.0% of urban male, and 31.6% of rural male for the indicator of the first intercourse can get pregnant for the girl. In term of an effective condom, the data also said that the answer minority of the students chose “true” answers for an effective condom against STI’s, like 17.0% of rural female, 19.1% of urban female, 27.9% of urban male, and 38.0% of rural male.

4.6 Attitude of Reproductive Health

Table 6 Attitude to Reproductive Health among High School Students

Independent Variables	Population Groups			
	Male		Female	
	Urban (n = 66)	Rural (n = 79)	Urban (n = 115)	Rural (n = 200)
	(%)	(%)	(%)	(%)
Youth & married should know to use contraceptives	*(Missing data: 2)*			
POSITIVE	23.5	38.0	31.3	39.0
NEGATIVE	73.5	60.8	67.0	60.5
Educational booklets available in youth communities	*(Missing data: 3)*			
POSITIVE	58.8	64.6	62.6	63.5
NEGATIVE	38.2	35.4	37.4	35.5
The best way for STI's & AIDS is abstinence	*(Missing data: 3)*			
POSITIVE	45.6	50.6	40.9	52.0
NEGATIVE	51.5	48.1	58.3	47.0
Contraceptive (Condom) should be available in youth	*(Missing data: 3)*			
POSITIVE	7.4	11.4	1.7	3.5
NEGATIVE	89.7	87.3	98.3	96.0
Education methods leads to high-risk sexual behaviors	*(Missing data: 3)*			
POSITIVE	27.9	34.2	20.0	22.5
NEGATIVE	69.1	64.6	80.0	75.0
Youth do not need reproductive health information	*(Missing data: 3)*			
POSITIVE	44.1	11.4	3.5	2.0
NEGATIVE	52.9	88.6	96.5	97.5

The method STI's & AIDS is withold information	*(Missing data: 4)*			
POSITIVE	20.6	22.8	12.2	5.0
NEGATIVE	76.5	77.2	87.8	94.5

The table 6 tended that the table has 7 indicators of attitude of reproductive health from the students. The result of attitude showed 23.5% of urban male, 31.3% of urban female, 38.0% of rural male, and 39.0% of rural female respectively about "true" answer of youth and married to know contraceptive use. In term of condom, it was lowest responses of attitude reproductive health about "true" answer of condom available in youth. The data explained that the result had 1.7% of urban female, 3.5% of rural female, 7.4% of urban male, and 11.4% of rural male, but the indicator of booklets revealed highest responses of the students that the answers had "true" responses, such as 64.6% of rural male, 63.5% of rural female, 62.6% of urban female, and 58.8% of urban male respectively. According to the table 6, the data indicated a different result of answer for abstinence in any population groups. There was 52.0% of rural female, 50.6% of rural male, 45.6% of urban male, and 40.9% of urban female to give "true" responses for the abstinence to protect STI's and AIDS.

4.7 Social and Cultural Influence

Table 7 Social and Cultural Influence among High School Students

Social and Cultural Influence	**Population Groups**			
	Male		**Girls**	
	Urban (n = 66)	**Rural (n = 79)**	**Urban (n = 115)**	**Rural (n = 200)**
	(%)	**(%)**	**(%)**	**(%)**
The kind of relationship before marriage	*(Missing data: 3)*			
Courtship	42.6	53.2	34.8	38.5
no relationship	54.4	46.8	62.6	60.5
The kind of marriage in the future	*(Missing data: 5)*			
unregistered marriage	3	1.3	2.6	3.5
legal marriage	92.4	98.7	97.4	96.5
Your society see unwanted pregnancy	*(Missing data: 5)*			
very agree	4.4	2.5	2.6	1.5
not agree	91.2	97.5	95.7	98.5
Your society know about sexual activities	*(Missing data: 5)*			

very agree	7.4	3.8	0.9	1
not agree	88.2	96.2	99.1	99
Your society think about virginity	*(Missing data: 9)*			
very agree	11.8	3.8	2.6	1
not agree	82.4	96.2	97.4	96.5
Your society think about sex before marriage	*(Missing data: 8)*			
very agree	5.9	2.5	2.6	1.5
not agree	89.7	97.5	97.4	96

The table 7 showed that the result of social and cultural influence revealed the students of rural male (53.2%), urban male (42.6%), rural female (38.5%), urban female (34.8%) having courtship with their partners and the majority of each group had highest responses of relationship in the future for legal marriage like rural male (98.7%), urban female (97.4%), rural female (96.5%), and urban male (92.4%). The indicator of virginity indicated where the urban male gave higher (11.8%) than other groups to choose "very agree" of the lost virginity before marriage, also the urban male gave "very agree" answer (5.9%) to be the highest response of any groups about male adolescents to practice sex before marriage.

4.8 Spiritual Attendance

Table 8 Spiritual Attendance among High-School Students

Independent Variables	**Population Groups**			
	Male		**Female**	
	Urban (n = 66)	**Rural (n = 79)**	**Urban (n = 115)**	**Rural (n = 200)**
	(%)	**(%)**	**(%)**	**(%)**
Religious Spiritual	*(Missing data: 7)*			
very religious	91.2	98.7	96.5	98.0
not religious	1.5	1.3	2.6	1.5
You usually attend religious services	*(Missing data: 14)*			
every day	44.1	34.2	23.5	19.5
at least once a week	32.4	35.4	33.9	38.5
at least once a month	14..7	26.6	35.7	37.5
Never	5.9	2.5	3.5	1.0
Religion is important	*(Missing data: 2)*			
very important	92.6	92.4	94.8	93.5
important	4.4	7.6	5.2	6.5

God in your activities	*(Missing data: 2)*			
yes	89.4	91.1	91.3	96.0
no	9.1	8.9	6.1	2.5
Feeling to God if you do sexual activities	*(Missing data: 9)*			
Sad	57.4	70.9	57.4	64.5
I don't know	39.7	27.8	40.9	33.5

The table 8 showed that the students gave “moderately religious”, such as rural female (84.0%), rural male (79.7%), urban female (75.7%), and urban male (66.2%) respectively for religious spiritual. The frequency of having religious services explained where the respondents usually attended religious services 44.15 of urban male, 34.2% of rural male, 23.5% of urban female, and 19.5% of rural female for every day to attend spiritual services. For feeling to God, the rural male showed 70.9% to get sad feeling to be higher than other communities and rural female also revealed 64.4% to be the second score for sad feeling. In addition, the indicator of religion had above 90% to be important in all groups. But, the item of God to attend in activities, it explained the urban male to get higher proportion 9.1% than other populations to give “no answer”. Overall of scale in spiritual attendance, the participants gave a good answer in any questions.

4.9 Sexual Development

Table 9 Sexual Development among High-School Students

Sexual Development	**Population Groups**			
	Male		**Female**	
	Urban (n = 66)	**Rural (n = 79)**	**Urban (n = 115)**	**Rural (n = 200)**
	(%)	**(%)**	**(%)**	**(%)**
Your desire engage sexual activities with partner	*(Missing data: 11)*			
not at all	55.9	64.6	76.5	71.0
once a month	8.8	8.9	3.5	4.0
I don't know	30.9	25.3	17.4	23.0
Your desire fulfill sexual activities with partner	*(Missing data: 9)*			
not at all	67.6	63.3	84.3	75.0
once a month	4.4	6.3	3.5	2.0
I don't know	25.0	29.1	11.3	20.5
Your desire engage sexual activities by yourself	*(Missing data: 8)*			

not at all	45.6	51.9	88.7	82.0
once a month	13.2	16.5	0.9	1.0
I don't know	36.8	30.4	10.4	15.0
Your desire fulfil your desire to behave sexually by yourself	*(Missing data: 6)*			
not at all	41.2	51.9	87.8	81.5
once a month	22.1	16.5	0	1.0
I don't know	32.4	31.6	12.2	16.0
Growth in high	*(Missing data: 4)*			
has barely started	19.1	12.7	20.0	17.5
Is definitely underway	73.5	83.5	69.7	77.9
I don't know	2.9	3.8	10.4	4.5
Growht body hair	*(Missing data: 7)*			
has barely started to grow	30.9	15.2	27.8	30.5
Is definitely underway	58.8	73.4	46.1	49.0
I don't know	7.4	10.1	27.8	18.5
Any skin changes	*(Missing data: 11)*			
skin has barely started changing	42.6	34.2	37.4	41.5
skin changes are definitely underway	38.2	50.6	45.2	42.0
I don't know	14.7	12.7	16.5	14.0

The table 9 revealed some indicators that the indicator of engaged sexual activities showed the rural male (8.9%) higher than any populations for answer of once a month with partner. Because the indicator had higher score in rural area than urban area not only urban male (8.8%) but also rural female (3.5%). The other indicators also showed rural male (6.3%) higher scale than other groups in fulfill desire through sexual activities with partner and the rural male had 16.5% for engaged sexual activities by yourself in answer of once a month. The score became the highest in the indicator because the other groups just had 0.9% of urban female, 1.0% of rural female, and 13.2% of urban male. Otherwise, the indicator of fulfill desire through sexual activities by yourself indicated urban male to get higher score 22.1% than other communities.

Table 10 Sexual Development of Male among High-School Students

Independent Variables	Population Groups	
	Male	
	Urban (n = 66)	Rural (n = 79)
	(%)	(%)
Deeping of your voice	*(Missing data: 4)*	
voice has barely started started changing	27.9	19.0
voice changes are definitely underway	55.9	72.2
I don't know	13.2	7.6
Growth hair on your face	*(Missing data: 2)*	
facial hair has barely started growing	47.1	43.0
facial hair growth has definitely started	38.2	51.9
I don't know	11.8	5.1
Feeling handsome immediately	*(Missing data: 2)*	
Yes	84.8	74.7
No	15.2	24.1
Thinking handsome by sense	*(Missing data: 3)*	
Yes	71.2	58.2
No	28.8	39.2
Feeling handsome	*(Missing data: 3)*	
Yes	71.2	55.7
No	25.8	43.0

The table 10 had showed that the sexual development of male revealed the majority of any groups to give answer “yes” for feeling handsome immediately, but the urban male had higher score than rural male (84.8% vs 74.7%). Then the indicator of thinking handsome by sense, the rural male had higher score than urban male for answer of “no’ (39.2% vs 28.8%). Overall scale of male, the urban male had higher scale than rural male in the 5 indicators based on the table 10. In addition, the 2 indicator of definitely level had higher score for rural male than urban male in the indicator of deep voice and growth hair.

Table 11 Sexual Development of Female among High-School Students

Independent Variables	Population groups	
	Female	
	Urban (n = 115)	Urban (n = 200)
	(%)	(%)
Growth breast	*(Missing data: 6)*	
have barely started growing	10.4	12.5
breast growth is definitely underway	60.0	72.0
I don't know	27.8	14.5
Menstruate	*(Missing data: 2)*	
Yes	98.3	97.0
No	1.7	2.5
Feeling sexy immediately	*(Missing data: 2)*	
Yes	41.7	37.0
No	56.5	62.5
Thinking sexy by sense	*(Missing data: 2)*	
Yes	19.1	25.0
No	79.1	74.5
Feeling sexy	*(Missing data: 2)*	
Yes	23.5	22.5
No	73.9	77.0

The table 11 showed that the results of the 5 indicators for female to reveal urban female higher score than rural female about feeling sexy immediately, but a different for thinking sexy by sense, rural female had higher proportion than urban girls (25.0% vs 19.1%) for "yes" answer. The indicator of feeling sexy also indicated that urban female had higher percentage than rural female for "yes" answer. For the indicator of menstruate, rural female achieved 2.5% higher than urban female (1.7%) for "no" answer. In term of growth breast, rural female also had higher proportion 72.0% than urban female (60.0%) for definitely answer.

4.10 Internet Use

Table 12 Internet Use among High-School Students

Independent Variables	Population Groups			
	Male		Female	
	Urban (n = 66)	Rural (n = 79)	Urban (n = 115)	Rural (n = 200)
	(%)	(%)	(%)	(%)
Used Internet	*(Missing data: 5)*			
Yes	100.0	96.2	97.4	100.0
No	0	1.3	0.9	0

Accessed puberty by internet	*(Missing data: 4)*			
Yes	59.1	54.4	62.6	72.5
No	40.9	43.0	37.4	27.0
Accessed reproductive system by internet	*(Missing data: 5)*			
Yes	63.6	54.4	59.1	58.5
No	36.4	43.0	37.4	40.5
Sought to know about sexual activities	*(Missing data: 7)*			
Yes	36.4	31.6	16.5	17.5
No	63.6	64.6	83.5	81.5

The table 12 revealed that the internet use had 100% use for urban male and rural female. In term of accessed puberty by internet, the table explained the rural female higher than urban female to answer "yes" (72.5% vs 62.6%), but a different for male, urban male (59.1%) had more percentage than rural male (54.4%). The indicator of accessed reproductive system by internet indicated urban male and female more proportion than rural male and female for giving "yes" answer. In addition, the indicator to know sexual activities by internet, rural female and the urban male higher than urban female and rural male for percentage to give "yes" answer.

4.11 Substance Use and Pornography Consumption

Table 13 . Substance and Pornography Consumption among High School Students

Independent Variables	**Population Groups**			
	Male		**Female**	
	Urban (n = 66)	**Rural (n = 79)**	**Urban (n = 115)**	**Rural (n = 200)**
	(%)	**(%)**	**(%)**	**(%)**
Used Substance	*(Missing data: 3)*			
Yes	59.1	73.4	7.0	5.0
No	39.4	25.3	93.0	94.0
Having smoking	*(Missing data: 3)*			
Yes	59.1	70.9	5.2	2.0
No	40.9	27.8	94.8	96.5
Having alcohol	*(Missing data: 3)*			

Yes	30.3	20.3	2.6	5.0
No	69.7	78.5	97.4	94.0
Accessed pornographic video/magazine	*(Missing data: 4)*			
Yes	57.6	50.6	18.3	18.0
No	42.4	48.1	81.7	81.0

The table 13 had revealed that rural male had more percentage substance use than urban male (73.4% vs 59.1%), but urban female showed more proportion substance use than rural female. In term of having smoking, more than 50% urban and rural male had smoking and rural female had 5.0% higher than urban female for having alcohol. Furthermore, urban male and female had higher than rural male and female for accessed pornographic video or magazine.

4.12 Prevalence of Sexual Activities

Table 14 Prevalence of Sexual Activities among High School Students

Independent Variables	**Population Groups**				**Total**
	Male		**Female**		
	Urban (n = 66)	**Rural (n = 79)**	**Urban (n = 115)**	**Rural (n = 200)**	**n=460 (%)**
	(%)	**(%)**	**(%)**	**(%)**	
Having Kissing	*(Missing data: 6)*				
Never	69.7	74	83.2	78	77.4
Rarely	30.3	26	16.8	22	22.6
Having Petting	*(Missing data: 6)*				
Never	81.8	87	98.2	98	93.9
rarely	18.2	13	1.8	2	6.1
Having Touching	*(Missing data: 5)*				
never	87.9	87	98.2	98	94.7
rarely	12.1	13	1.8	2	5.3
Having Masturbation	*(Missing data: 5)*				
never	53	64.9	99.1	96.5	85.5
rarely	47	35.1	0.9	3.5	14.5
Having Intercourse	*(Missing data: 6)*				
never	86.4	88.3	97.3	96	93.6
rarely	13.6	11.7	2.7	4	6.4

The table 14 showed there was 5 sexual activities to know how many practices in the respondents. Having kissing had more than 15% in all groups to answer “rarely”

and having petting of urban male became the highest score (18.2%) in all populations. In term of having touching, rural male had 13% higher than the other groups. In addition, having masturbation and intercourse, urban male also had the highest score (47% & 13.6%) in overall communities, but rural female also had like urban male to get higher than urban female for overall scale of sexual activities to answer “rarely” in any practices.

Table 15 . Proportion of Internet Use among High School Students

Male		
Internet Use		
Name	**Frequency**	**Percentage (%)**
Chat	85	57.4
E-mail	50	33.8
Finding information	89	60.1
Playing games	87	58.8
Social media	101	68.2
Accessed pornography	15	10.1

The proportion of internet use, the result male internet use reported almost students having social media (68.2%), finding information (60.1%), playing games (58.8%), chat (57.4%), e-mail (33.8%), and accessed pornography (10.1%) respectively.

Female		
Internet Use		
Name	**Frequency**	**Percentage (%)**
Chat	225	71.9
E-mail	126	40.3
Finding information	253	80.8
Playing games	151	48.2
Social media	269	85.9
Accessed pornography	6	1.9
Others	7	2.2

The proportion of female internet use revealed that female students had social media (85.9%), finding information (80.8%), chat (71.9%), playing games (48.2%), e-mail (40.3%), accessed pornography (1.9%), and others (2.2%) respectively.

Table 16 Proportion of Peer Pressure among High School Students

Male		
Peer Pressures		
Pressures	**Frequency**	**Percentage (%)**
Cigarette	52	35.1
Drugs	12	8.1
Alcohol use	14	9.5
To skip school	32	21.6
Pornography	13	8.8
Intercourse	7	4.7
Kissing	4	2.7
Petting	3	2.0
Masturbation	5	3.4
Touching	5	3.4
Other pressure	1	0.67
No pressure	42	28.4

The proportion of peer pressure, male students had cigarette (35.1%), to skip school (21.6%), alcohol use (9.5%), pornography consumption (8.8%), drug (8.1%), intercourse (4.7%), masturbation and touching (3.4%), kissing (2.7%), and petting (2.0%) respectively. But for “no pressure” showed 28.4% in male students.

Female		
Peer Pressures		
Pressures	**Frequency**	**Percentage (%)**
Cigarette	8	2.6
Drugs	12	3.8
Alcohol use	11	3.5
To skip school	47	15.0
Pornography	21	6.7
Intercourse	6	1.9
Kissing	13	4.2
Petting	1	0.3
Masturbation	1	0.3
Touching	3	1.0
No pressure	240	76.7

The proportion of peer pressure in female students showed to skip school (15.0%), pornography (6.7%), kissing (4.2%), drug (3.8%), alcohol use (3.5%), cigarette (2.6%), touching (1.0%), petting and masturbation (0.3%). But for “no pressure” reported around 76.7% in female students.

Table 17 Proportion of followed Peer Pressure among High School Students

Male		
Follow up on Peer Pressures		
Activities	**Frequency**	**Percentage (%)**
Kissing	5	3.4
Petting	1	0..67
Touching	5	3.4
Masturbation	7	4.7
Intercourse	2	1.4
Alcohol use	12	8.1
Pornography	17	11.5
Drugs use	4	2.7
Cigarette use	57	38.5
To skip school	23	15.5

Based on table 17, the result showed the proportion of followed peer pressure in male students that revealed cigarette use (38.5%), to skip school (15.5%), pornography (11.5%), alcohol use (8.1%), masturbation (4.7%), kissing and touching (3.4%), drug use (2.7%), intercourse (1.4%).

Female		
Follow up on Peer Pressures		
Activities	**Frequency**	**Percentage (%)**
Kissing	7	2.2
Petting	1	.3
Touching	5	3.4
Masturbation	1	.3
Intercourse	2	1.4
Alcohol use	7	2.2
Pornography	12	3.8
Drugs use	3	1.0
Cigarette use	7	2.2
To skip school	36	11.5
Others	2	.6
No activitites	8	2.6

For female students, the result reported to skip school (11.5%), pornography (3.8%), touching (3.4%), kissing, cigarette use, and alcohol use (2.2%), intercourse (1.4%), drug sue (1.0), petting and masturbation (0.3%), other activities (0.6%) respectively. But for “no activities”, the finding indicated 2.6% in female students.

Table 18 Kind of Sexual Activities based on Pornography

Female		
Kind of Sexual Activities based on Pornography		
Sexual Activities	**Frequency**	**Percentage (%)**
Kissing	25	8.0
Petting	2	0.6
Touching	2	0.6
Intercourse	1	0.3
Masturbation	6	1.9

Based on table 18 of female students, the result showed that female students to follow sexual activities according to pornography, such as kissing (8.0%), masturbation (1.9%), petting and touching (0.6%), and intercourse (0.3%) respectively.

Male		
Kind of Sexual Activities based on Pornography		
Sexual Activities	**Frequency**	**Percentage (%)**
Kissing	26	17.6
Petting	13	8.8
Touching	9	6.1
Intercourse	6	4.1
Masturbation	38	25.7

According to table of male students, the finding indicated male students to follow some sexual behaviors because of pornography, like masturbation (25.7%), kissing (17.6%), petting (8.8%), touching (6.1%), and intercourse (4.1%) respectively.

Table 19 Reason Started Smoking among High School Students

Female		
Reason Started Smoking		
Reason	**Frequency**	**Percentage (%)**
All my friend smoke	4	1.3
To show my adulthood	2	.6
People around me smoke	1	.3
Other reasons	2	.6

According to table 19 of female students, the finding revealed some reasons to start smoking, such as all my friends smoke (1.3%), to show my adulthood (0.6%), people around me smoke (0.3%), and other reasons (0.6%) respectively.

Male		
Reason Started Smoking		
Reason	**Frequency**	**Percentage (%)**
All my friend smoke	51	34.5
To show my adulthood	6	4.1
Too tense	39	26.4
People around me smoke	17	11.5
Smoking is stylish	2	1.4
To show my manhood	1	0.67
Other reasons	14	9.5

Based on table 19 of male students, the result indicated several reasons of students to start smoking, like all my friends smoke (34.5%), too tense (26.4%), people around me smoke (11.5%), to show my adulthood (4.1%), smoking is stylish (1.4%), to show my manhood (0.67%), and other reasons (9.5%) respectively.

Table 20 . Alcohol Consumption among High School Students

Male		
Alcohol Consumption		
Alcohol use	**Frequency**	**Percentage (%)**
Alone	14	9.5
partner	3	2.0
Friends	35	23.6
Others	2	1.4

Based on table 20 of male students, the result showed proportion alcohol consumption among high school students, such as friends (23.6%), alone (9.5%), partner (2.0%), and others (1.4%) respectively).

Female		
Alcohol Consumption		
Alcohol use	**Frequency**	**Percentage (%)**
Alone	1	0.3
partner	3	1.0
Friends	8	2.6

According to table 20 of female students, the finding also revealed several alcohol consumptions among high school students, like friends (2.6%), partner (1.0%), and alone (0.3%).

Table 21 Proportion of Having Sexual Activities based on Pornography among High School Students

Male		
Having Sexual activities based on pornography		
Answer	**Frequency**	**Percentage (%)**
No	15	10.1
yes	61	41.2

Female		
Having Sexual activities based on pornography		
Answer	**Frequency**	**Percentage (%)**
No	25	8.0
yes	37	11.8

Based on table 21, the finding revealed male students (61%) higher than female student (37%) for having sexual behaviors because of pornography for “yes” answer in this indicator.

Table 22 Proportion of Type of Substance Use among High School Students

Male		
Type of Substance Use		
Type	**Frequency**	**Percentage (%)**
Cigarette	95	64.2
Alcohol	36	24.3
Marijuana	2	1.4
Other drugs	1	0.67

According to the table 22 of male students, the result indicated that male students had cigarette (64.2%), alcohol (24.3%), marijuana (1.4%), and other drugs (0.67%).

Female		
Type of Substance Use		
Type	**Frequency**	**Percentage (%)**
Cigarette	10	3.2
Alcohol	8	2.6
Other drugs	1	.3

Based on table 22 of female students, the finding showed that female students had cigarette (3.2%), alcohol (2.6%), and other drugs (0.3%).

Table 23 Reason for Sexual Intercourse among High School Students

Reason for Sexual Intercourse		
Variables	Frequency	Percent
Sexual drive	6	29.2
Curiosity	4	16.7
Expressing love	8	33.3
Alcohol use	1	4.2
Afraid of break up	1	4.2
Others	3	12.5

According to table 23, the table reported that the students had some reason to have sexual intercourse, such as expressing love (33.3%), sexual drive (29.2%), curiosity (16.7%), alcohol use and afraid break up (4.2%), and other reasons (12.5%). This indicator followed up from previous indicator about having intercourse.

Table 24 Proportion of Sexual Partner among High School Students

Sexual Partner		
Varibales	Frequency	Percent
Friends	3	14.0
Boy/girls friends	16	64.0
Sex worker	3	12.0
Other	2	8.0

Based on the table 24, the finding revealed that the student had sexual intercourse with some criteria partner, like boy/girls friend (64.0%), friends (14.0%), sex worker (12.0%), and other partners (8.0%). The result showed that boy/girls friends was to be highest percentage in sexual partner indicator. This indicator followed up from previous indicator about having intercourse.

Table 25 . Accounted Sexual Partner among High School Students

Accounted Sexual Partner		
Variables	Frequency	Percent
One partner	20	80
2-3 partners	1	4
4-5 partners	1	4
more than 5 partners	3	12

According to table 25, the table indicated almost students to have one partner (80%) to have had intercourse, but 2-3 partners and 4-5 partners also had same percentage (4%). Furthermore, the students had more than 5 partners to show 12%. This indicator followed up from previous indicator about having intercourse.

Table 26 Prevalence Condom use and Unintended Pregnancy among High School Students

Condom Use		
Variables	Frequency	Percent
yes	5	23.1
no	20	76.9

Unintendeed pregnancy		
Varibale	Frequency	Percent
yes	1	4.5
no	21	95.5

The table 26 was a continued indicator from previous indicator of having intercourse in prevalence of sexual activities. This indicator was sensitive question, but the students gave answer for condom use (23.1%) in “yes” answer and for unintended pregnancy, the students were only one to get unplanned pregnancy because of having intercourse.

Table 27 Association between Independent Variables and Sexual Activities among High School Male Students

Sexual Activities	Male						
	Total	Not Active	Active	*p-value*	OR	95% CI	
						Lower	Upper
Age							
>15 years old	69	23	46	0.17	0.62	0.32	1.23
<15 years old	74	33	41				
Grade							
12th grade	37	8	29	0.01**	0.33	0.14	0.80
10th & 11th grade	106	48	58				
Accommodation							
Living with parents	137	54	83	0.77	0.77	0.14	4.34
Others	6	2	4				
Pocket Money							
<1 U$ (IDR 15,500,-)	91	31	60	0.11	0.56	0.28	1.13
>1 U$ (IDR 15,500,-)	50	24	26				
Communication with parents							
Never	88	36	52	0.59	1.21	0.61	2.43
Often	55	20	35				
Knowledge of HIV							
Low	111	48	63	0.06	2.29	0.94	5.53
High	32	8	24				
Knowledge of RH							
Low	77	35	42	0.10	1.79	0.90	3.54
High	66	21	45				
Attitude of RH							
Positive	68	25	43	0.58	0.83	0.42	1.62
Negative	75	31	44				
Pressure Mindset							
No	125	50	75	0.41	1.67	0.50	5.61
Yes	14	4	10				
Relationship before marriage							
No Relationship	74	37	37	0.006**	2.63	1.31	5.29
Courtship	69	19	50				
Attendance at religious services							
Never	6	4	2	0.15	3.33	0.59	18.85
Every day	136	51	85				
Important of religion							
Important	9	2	7	0.28	0.42	0.09	2.12

Very Important	134	54	80				
Accessed puberty by internet							
No	60	30	30	0.018**	2.28	1.14	4.55
Yes	82	25	57				
Accessed reproductive system							
No	58	28	30	0.05*	1.97	0.99	3.93
Yes	84	27	57				
Accessed sexual activities							
No	92	49	43	0.000***	8.17	3.17	21.06
Yes	49	6	43				
Substance Use							
No	45	29	16	0.000***	4.70	2.21	10.00
Yes	97	27	70				
Smoking							
No	48	30	18	0.000***	4.42	2.11	9.25
Yes	95	26	69				
Alcohol							
No	107	48	59	0.016*	2.85	1.19	6.82
Yes	36	8	28				
Pornography							
No	65	46	19	0.000***	16.46	7.02	38.61
Yes	78	10	68				

- The values are presented as odds ratio (95% Confidence Interval)
- *$p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The table 27 showed association between independent variables and sexual activities (active or not active). The table revealed the grade variable became significant with p= 0.01 [OR: 0.33, 95% CI: 0.14-0.80]. Furthermore, the relationship before marriage variable also revealed that the variable had significant with p=0.006 [OR: 2.63, 95% CI: 1.31-5.29]. Then, the variable of accessed puberty by internet also became significant p=0.018 [OR: 2.28, 95% CI: 1.14-4.55] and the variable of accessed reproductive system showed significantly p=0.05 [OR: 1.97, 95% CI: 0.99-3.93].

The table 27 explained some variables to be significant for accessed sexual activities p<0.001 [OR: 8.17, 95% CI: 3.17-21.06]. In term of substance use, the data reported that the data had significant p<0.001 [OR: 4.70, 95% CI: 2.21-10.00]. For the variable of smoking gave significantly p<0.001 [OR: 4.42, 95% CI: 2.11-9.25]. The alcohol use revealed significant p=0.016 [OR: 2.85, 95% CI: 1.19-6.82] and the

pornography variable also reported significant with p<0.001 [OR: 16.46, 95% CI: 7.02-38.61].

Table 28 Association between Independent Variables and Sexual Activities among High School Female Students

Sexual Activities	Female						
	Total	Not Active	Active	*p-value*	OR	95% CI	
						Lower	Upper
Age							
>15 years old	214	164	50	0.21	1.47	0.80	2.71
<15 years old	99	82	17				
Grade							
12th grade	99	70	29	0.02*	0.52	0.30	0.91
10th & 11th grade	214	176	38				
Accommodation							
Living with parents	300	235	65	0.27	3.04	0.39	24.00
Others	12	11	1				
Pocket Money							
<1 U$ (IDR 15,500,-)	172	142	30	0.06	1.70	0.99	2.93
>1 U$ (IDR 15,500,-)	140	103	37				
Communication with parents							
Never	161	135	26	0.02*	1.92	1.11	3.33
Often	152	111	41				
Knowledge of HIV							
Low	226	185	41	0.02*	1.92	1.09	3.40
High	87	61	26				
Knowledge of RH							
Low	230	194	36	0.000***	3.21	1.82	5.68
High	83	52	31				
Attitude of RH							
Positive	103	81	22	0.97	1.01	0.57	1.80
Negative	209	164	45				
Pressure Mindset							
No	289	233	56	0.000***	9.71	2.43	38.73
Yes	10	3	7				
Relationship before marriage							
No Relationship	121	113	8	0.000***	14.50	6.23	33.74
Courtship	77	38	39				
Attendance at religious services							
Never	6	4	2	0.48	0.54	0.10	3.02
Every day	296	233	63				
Important of religion							

Important	2	2	0	0.46	0.99	0.98	1.00
Very Important	311	244	67				
Accessed puberty by internet							
No	97	82	15	0.08	1.74	0.93	3.28
Yes	215	163	52				
Accessed reproductive system							
No	124	109	15	0.001***	2.88	1.54	5.41
Yes	183	131	52				
Accessed sexual activities							
No	257	215	42	0.000***	4.10	2.18	7.69
Yes	54	30	24				
Substance Use							
No	293	240	53	0.000***	15.85	5.02	50.07
Yes	18	4	14				
Smoking							
No	300	240	60	0.000***	9.33	2.34	37.17
Yes	10	3	7				
Alcohol							
No	298	242	56	0.000***	23.77	5.12	110.25
Yes	13	2	11				
Pornography							
No	254	221	33	0.000***	9.90	5.20	18.84
Yes	57	23	34				

- *The values are presented as odds ratio (95% Confidence Interval)*
- **p < 0.05, ** p < 0.01, *** p < 0.001*

The table 28 showed association between independent variables and sexual activities (active or not active). The table revealed the grade variable became significant with p= 0.02 [OR: 0.52, 95% CI: 0.30-0.91]. Furthermore, the communication with parent variable also revealed that the variable had significant with p=0.02 [OR: 1.92, 95% CI: 1.11-3.33]. Then, the variable of knowledge of HIV also became significant *p*=0.02 [OR: 1.92, 95% CI: 1.09-3.40] and the variable of knowledge of reproductive health showed significantly *p*<0.001 [OR: 3.21, 95% CI: 1.829-5.68].

The table 28 explained some variables to be significant for pressure mindset *p*<0.001 [OR: 9.71, 95% CI: 2.43-38.73]. In term of relationship before marriage variable, the data reported that the data had significant *p*<0.001 [OR: 14.50, 95% CI: 6.23-33.74]. For the variable of accessed reproductive health had significantly *p*<0.001 [OR: 2.88, 95% CI: 1.54-5.41]. The substance use revealed significant p<0.001 [OR:

15.85, 95% CI: 5.02-50.07] and the smoking variable also reported significant with p<0.001 [OR: 9.33, 95% CI: 2.34-37.17]. Then alcohol consumption indicated significant p<0.001 [OR: 23.77, 95% CI: 5.12-110.25] and pornography use also showed significant with p<0.001 [OR: 9.90, 95% CI: 5.20-18.84].

Table 29 . Multiple Logistic Regression of Sexual Activities among High-School Male Students

Variables	Male			
	p-value	OR	95% CI	
			Lower	Upper
Accessed Sexual Activities				
No	1			
Yes	0.011**	4.1	1.38	12.16
Substance Use				
No	1			
Yes	0.045*	2.67	1.02	6.97
Pornography Consumption				
No	1			
Yes	0.000***	7.86	3.10	19.98

- *The values are presented as odds ratio (95% Confidence Interval)*
- **p < 0.05, ** p < 0.01, *** p < 0.001*

Multiple logistic regression was used by using Forward Conditional Method to create statistical model where can predict the probability of sexually active that there were 2 categories active and not active in sexual activities. According to table 25, the finding showed that the result of multiple logistic regression indicated significant for male students in accessed sexual activities with p=0.011 [OR: 4.1, 95% CI: 1.38-12.16], substance use with p=0.045 [OR: 2.67, 95% CI: 1.02-6.97], and pornography consumption with p<0.001 [OR: 7.86, 95% CI: 3.10-19.98]. In this case, there were 3 indicators including enabling factors all of indicators to be factor associated with sexual activities among high school students, especially male students in Kendal Regency, Indonesia.

Table 30 Multiple Logistic Regression of Sexual Activities among High-School Female Students

Variables	Female			
	p-value	OR	95% CI	
			Lower	Upper
Knowledge of RH				
Low	0.000***	6.49	2.29	18.35
High	1			
Relationship before marriage				
No relationship	1			
Courtship	0.000***	14.46	4.63	45.07
Accessed reproductive system				
No	1			
Yes	0.033*	3.65	1.11	11.97
Having alcohol				
No	1			
Yes	0.05*	7.96	0.990	63.62
Having pornography				
No	1			
Yes	0.000***	7.50	2.50	22.50

- *The values are presented as odds ratio (95% Confidence Interval)*
- **p < 0.05, ** p < 0.01, *** p < 0.001*

According to table 30, the data revealed that the finding of multiple logistic regression of female students indicated significant in some variables such as, knowledge of reproductive health with p<0.001 [OR: 6.49, 95% CI: 2.29-18.35], relationship before marriage with p<0.001 [OR: 14.46, 95% CI: 4.63-45.07], accessed reproductive system with p=0.033 [OR: 3.65, 95% CI: 1.11-11.97], alcohol use with p=0.05 [OR: 7.96, 95% CI: 0.99-63.62], pornography consumption with p<0.001 [OR: 7.50, 95% CI: 2.50-22.50]. In this terms, there were 5 indicators including predisposing factor for knowledge of reproductive health, reinforcing factor for relationship before marriage, and enabling factor for accessed reproductive system, alcohol use, and pornography consumption. In summary, the result showed that each sex variable had 3 variables of male students and 5 variables of female students based on the result of logistic regression. Furthermore, the variables became to predict independent variables to each interaction for sexually active among high school students in Kendal Regency, Indonesia.

CHAPTER V

DISCUSSION

The objective study of the research is to describe the prevalence and factor associated with sexual activities among high school students in Kendal Regency, Indonesia. The study also examined the association between demographic characteristics, knowledge of HIV, attitude and knowledge of reproductive health, also reinforcing factors enabling factors, then predictors of sexually active as well. The research design used cross-sectional descriptive, and the total of students was around 460 participants into calculation in data analysis. The measurement tools used the vastly adopted Illustrative Questionnaire for Interview - Surveys with Young People, sexual activities scale, and adopted in according to the Indonesian context.

The data collection was from September to October 2017. The chi-square test and logistic regression were used to analysis in this study. This research reached ethical clearance from Ethical Committee of Health Research of Faculty of Sport Science of Semarang State University, Indonesia Number: 186/KEPK/EC/2017.

5.1 Prevalence of Sexually Active among High School Students

This study had reported that the prevalence of sexually active showed 60.8% of male students and 21.4% of female students based on sex, but 32.9% of rural area, and 35.2% of urban area according to group areas to active in sexual practices. According to the result, the urban group was higher than rural groups and male higher than female for active or not active in this prevalence of sexual behaviors. The previous study of Indonesia revealed that male group was higher than female group for sexually active 56.6% and 43.7% (Susanto et al., 2016). Furthermore, the other studies indicated where the grade of students was significant for sexually active with $p<0.006$ [OR: 1.17, 95% CI: 1.05-1.30] and the urban area was significant with $p<0.008$ [OR: 1.23, 95% CI: 1.06-1.42] (Chinsembu, Kas, & Shimwooshili-Shaimemanya, 2011).

The any sexually active had been done by the participants such as kissing 28.0%, and touching 12.5% for male students and kissing 20.1% and touching 1.9%, for female students, but based on area groups, rural area had kissing 23.1% and touching 5.0%, then urban area also had kissing 21.8% and touching 5.6%. The other literatures explained that male students usually had higher percentage than the female students for

sexually active, like the variable of kissing 16.2% of male groups and 10.7% of female group (Susanto et al., 2016). Then the other studies of Indonesian context revealed significant for several sexually active, such as lips kissing and touching male higher than female with $p<0.01$ (I. D. Utomo, 2003).The other sexual practices was masturbation where it had higher proportion on male than female 40.3% and 2.6% based on sex. In addition, the variable of masturbation also had been found with $p<0.05$ to give "yes" answer for sexually active (Awaluddin et al., 2015).

The knowledge of HIV and reproductive health also influenced the sexual practices in adolescents. The prevalence of knowledge HIV was the level of low with $p=0.04$ of sexually active, also the knowledge of reproductive health was the level of low with $p=0.008$ of sexually active in adolescents for the previous research (Susanto et al., 2016). But in this study, it revealed the low level of knowledge of HIV with $p<0.05$ and the low level of knowledge of reproductive health with $p<0.001$ of female students to have had sexual activities.

The other of independent variables, the relationship before marriage had become a big aspect to active sexual practices. The finding of this study, urban male had 42.6% to have courtship and rural male also had 53.2% to get courtship. This result was appropriate the old study where the courtship had 30.0% to have 63.3% of sexually active in sexual activities (Susanto et al., 2016).

The prevalence of substance use also influenced to active sexual in adolescent, because this study found 73.4% of rural male and 59.1% of urban male to give "yes" answer. This result also was appropriate with 17% of male students and 18% of female students to have had sex around 40.6% in the students (Mott, Fondell, Hu, Kowaleski-Jones, & Menaghan, 1996). The prevalence of independent variables had influenced to active sexual practices in any activities, such as kissing, petting, touching, masturbation, and intercourse in adolescents.

5.2 Association between Independent Variable and Sexually Active among Students

1. Demographic Characteristics

The study had reported that the grade was significantly associated with sexually active, especially male students ($p=0.01$) and female students

(p=0.02). Prevalence of grade had significant like previous study with p<0.006 (Chinsembu et al., 2011)

The sex showed that some independent variables had significantly the association between sexual activities and the groups. The data mentioned the female had many factors to associate with sexually active, especially male students 3 indicators of enabling factor. The finding also related with precise study where female students showed a significantly with p<0.000 (Chinsembu et al., 2011).

2. Communication with Parents

The independent variables of communication with parents showed the data explained just female students to be significant with p= 0.02 and this finding is consistence with previous study in Indonesian context where the communication associated sexually active with p-value 0.02 of the male students and 0.03 of the female students because of almost never or not often to communicate with parents (Susanto et al., 2016).

3. Knowledge of HIV and Reproductive Health

The result of this study revealed that the data became to be significant just for female students with p=0.02 for knowledge of HIV. This finding related the precise study where showed the knowledge of HIV to be significant for boy students with p=0.04. The result also reported to be easy for sexually active. In term of the knowledge of reproductive health, the data showed female students to be significant with p<0.001. The precise study also indicated significantly result for the knowledge of reproductive health in male (p-value 0.008) students, but not in female students (Susanto et al., 2016).

4. Relationship before marriage

The finding of relationship before marriage indicated that the result just became to be significant in female students with p<0.001 and male students with p=0.006. The finding was precise the old study that relationship before marriage was significant in sexually active of male students (p<0.001) (Susanto et al., 2016).

5. Substance Use

This study showed that male and female students had significant for substance with $p<0.001$ in all groups. The finding also indicated appropriate the previous research for substance use ($p<0.000$) (Tadesse & Yakob, 2015). Furthermore, the having smoking also revealed significant in all groups with $p<0.001$ not only male but also female students. The result also related the previous research to be significant among male and female students $p<0.009$ (Chinsembu et al., 2011). Then having alcohol was significant with $p<0.001$ in female students and $p=0.01$ in male students. This result was appropriate with other studies to be significant for it ($p<0.001$) (Lopez, Mukaire, & Mataya, 2015).

6. Pornography Consumption

The indicator of pornography consumption had significant in all groups not only male but also female students with $p<0.001$. This result showed the students to have pornography usually to continue for sexual activities. The finding related with some studies to associate pornography and sexually active among high school students (Awaluddin et al., 2015; Lopez et al., 2015; Susanto et al., 2016; Tadesse & Yakob, 2015). The data revealed the proportion male (57.3%) higher than female (18.3%) in the urban area to have pornography and the precise study related the percentage boys (18.5%) higher than girls (3.9%) (Lopez et al., 2015).

5.3 Conclusion

The total of respondents was around 460 students to join in this study and the result reported that the data revealed male student higher than female students in sexually active, such as 60.8% of male students and 21.4% of female students, then urban area higher than rural area, like 35.2% of urban area and 32.9% of rural area. Furthermore, the detail of sexually active showed kissing had 28.0% of male students, 23.1% of rural area, 20.1% of female students, and 21.8% of urban area respectively. In term of touching, the data revealed male students higher than female students in proportions like 12.5% of male students and 1.9 of female students, also urban area higher than rural area 5.6% vs 5.0%. Otherwise, the indicator of intercourse reported 12.6% of male students higher

than female students, but 6.7% of urban area higher than rural area like 6.7% vs 6.1%. In addition, the variable of masturbation indicated male students higher than female students by proportion (40.3% vs 2.6%) and petting variable explained urban area higher than rural area (7.8% vs 5.1%).

Bivariate analysis reported the grade variable significant p<0.01 [OR: 0.33, 95% CI: 0.14-0.80] in male students and female students became significant with p=0.02 [OR: 0.52, 95% CI: 0.30-0.91]. Moreover, the communication with parent variable also just was significant p=0.02 [OR: 1.92, 95% CI: 1.11-3.33], knowledge of HIV p=0.02 [OR: 1.92, 96% CI: 1.09-3.40], knowledge of reproductive health p<0.001 [OR: 3.21, 95% CI: 1.82-5.68], and pressure mindset p<0.001 [OR: 9.71, 95% CI: 2.43-38.73] in female students. Furthermore, the relationship before marriage also was significant in male and female students, p=0.006 [OR: 2.63, 95% CI: 1.31-5.29] and p<0.001 [OR: 14.50, 95% CI: 6.23-33.74].

The variable of accessed puberty was significant for male students with p=0.018 [OR: 2.28, 95% CI: 1.14-4.55] and accessed reproductive system revealed significant male and female students, including p=0.05 [OR: 1.97, 95% CI: 0.99-3.93] of male students, p=<0.001 [OR: 4.10, 95% CI: 2.18-7.69] of female students. The variable of substance use had all groups to give significant male and female with p<0.001 [OR: 4.70, 95% CI: 2.21-9.25] of male students, p<0.001 [OR: 15.85, 95% CI: 5.02-50.07] of female students. . Smoking was significant male and female, like p<0.001 [OR: 4.42, 95% CI: 2.11-9.25] of male students, p<0.001 [OR: 9.33, 95% CI: 2.34-37.17]. Alcohol use was significant not only male students but also female students, like p=0.016 [OR: 2.85, 95% CI: 1.19-6.82] of male students, p<0.001 [OR: 23.77, 95% CI: 5.12-110.25]. Pornography use was significant not only male students but also female students, like p<0.001 [OR: 16.46, 95% CI: 7.02-38.61] of male students, p<0.001 [OR: 9.90, 95% CI: 5.20-18.84].

Multivariate analysis of logistic regression indicated that the data showed pornography consumption with p<0.001 [OR: 7.86, 95% CI: 3.10-

19.98] of male students, p<0.001 [OR: 7.50, 95% CI: 2.50-22.50] of female students, including enabling factors. Substance use was significant with p=0.045 [OR: 2.67, 95% CI: 1.02-6.97] and accessed sexual activities was significant with p=0.011 [OR: 4.1, 95% CI: 1.38-12.16] only male students, including enabling factors. But knowledge of reproductive health was significant with p<0.001 [OR: 6.49, 95% CI: 2.29-18.35], including predisposing factors, relationship before marriage was significant with p<0.001 [OR: 14.46, 95% CI: 4.63-45.07], including reinforcing factors, and accessed reproductive system was significant too with p=0.033 [OR: 3.65, 95% CI: 1.11-11.97], including enabling factors only female students.

5.4 Limitation

There were some limitations that should be attention in this study including:

1. The findings of this study were used self-reports of youth sexual activities and the answers may have not given the truth responses, as this topic is rather a sensitive information in Indonesian adolescents.
2. The result cannot reflect the situation in the rural area that the gap between urban and rural group of Indonesia is very large in the big aspects.
3. The number of sample compare to the total regional and national group is very small. This condition may hinder for generalizability in population.
4. The researcher collects the data with the limited time from school.
5. The permission of data collection still need more time from national until regency, sometime double recommendation to get formal letter for data collection.
6. Inform consent just need from school to collect data about this study

5.5. Recommendation

1. Recommendation for School

The school should build up extracurricular, especially to focus on sexual education, such as reproductive health, substance use, and HIV. The school also create a student unit for peer education to spread information about that.

2. Recommendation for Government

The study reported that the students had significant association with sexual activities. The male students had higher than female students for proportion of sexual activities. Based on this study, the Government can create curriculum to increase knowledge of HIV & reproductive health, and attitude of reproductive health to be positive attitude. The government also have to create Memorandum of Understanding with Non-Government Organization (NGO) to join educational program, especially NGO of the expert of sexual education and communities

3. Recommendation for Further Research

The existing evidence of sexually active did not provide sufficient information about sexual activities among high school students. Therefore, the study is urgently needed that sexual activities become epidemic activities among Indonesian adolescent, especially Kendal Regency.

5.6 Expected Benefit & Application

This study emphasizes prevalence and factors associated with sexually active adolescent among high school student in Kendal, Indonesia that it will provide base line information of factor associated to active sexual behaviors on adolescents and some related factors to health authorities for further sexual education.

5.7 Timeline and Budget

Task	Month									Budget (THB)
	Apl	May	Jun	Jul	Aug	Sep	Oct	Nov	Des	
Literature review										0
Develop proposal										0
Deveop tools										0
Proposal exam										150
Ethical committee										3000
Review & review tools										0
Administer survey										3000
Data Collection										9000
Data entry & analysis										0
Report writing										500
Thesis exam										0
Result publication										5000
Total	20,650									

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APPENDIX 1
QUESTIONNAIRE

Instruction

- Please, do not write your name on this questionnaire. Moreover, nobody will be able to identity who has completed this particular form
- Please, read each question carefully before answering it
- Choose the answer that the best describes what you believe and feel to be correct
- Choose only one answer for each question except multiple answer as reveal at the end of question
- If you have to change your answer, don't worry; just erase it completely, without leaving marks
- This is not a test; therefore there are no "right" or "wrong" answer

Socio-demographic Characteristic		
A1	How old are you? 1. 15 years old or younger 2. 16 years old 3. 17 years old 4. 18 years old 5. 19 years old or older	☐
A2	What is your sex? 1. Male 2. Female	☐
A3	What grade are you now? 1. 10^{th} grade 2. 11^{th} grade 3. 12^{th} grade	☐
A4	What is type of your accommodation? 1. Living in house with parents 2. Living in relative's house 3. Rental house/dormitory 4. Others (Specify:_____)	☐
A5	With whom do you currently live? (You can choose more than one) 1. Father 2. Mother 3. Brother/Sister 4. Others (Specify:_____)	☐ ☐ ☐ ☐

A6	How much your pocket money per day at school attendance? 1. < 1 U$ (< IDR 13,500) 2. > 1 U $ (> IDR 13,500)	☐
	Communication with Parents	
A7	Have you ever talked to your parents about sexual activities (for example kissing, petting, masturbation, touching each other's genital/breast)? 1. Yes 2. No	☐
A8	Have you ever talked to your parents about pregnancy or birth control? 1. Yes 2. No	☐
A9	Have you ever talked to your parents about HIV-AIDS? 1. Yes 2. No	☐
A10	Have you ever talked to your parents about Sexually Transmitted Infections? 1. Yes 2. No	☐
A11	Have you ever talked to your parents about Condom? 1. Yes 2. No	☐
A12	Have you ever talked to your parents about relationship with your boyfriend or girlfriend? 1. Yes 2. No	☐

	Knowledge of HIV	**True**	**False**	**Don't Know**	
A13	Kissing can increase infected HIV				☐
A14	Having genital touching can get STIs or HIV				☐
A15	Having petting will increase infected HIV or STIs with two people				☐
A16	Having masturbation can increase infected STIs in someone				☐
A17	A woman can get HIV if she has anal sex with a man				☐
A18	Using a latex condom can lower a person's chance of getting HIV				☐

A19	A person can get HIV even if she or he has sex with another person only one time				☐
A20	Having sex with more than one partner can increase a person's chance of being infected with HIV				☐
A21	A woman can get HIV if she has vaginal sex with man a who has HIV				☐
Knowledge of Reproductive Health		**True**	**False**	**Don't Know**	
A22	Petting become the way of pregnancy in woman				☐
A23	Breast touching will increase somene to get STIs				☐
A24	A woman can get pregnant at first intercourse				☐
A25	Masturbation is a serious health threat				☐
A26	Condoms can be used more than one				☐
A27	Condoms are an effective way of protecting against STIs				☐
A28	Condoms an effective method to prevent pregnancy				☐
A29	Condoms reduce risk of HIV infections				☐
Attitude of Reproductive Health		**True**	**False**	**Don't Know**	
A30	Youth, single or married, should know how to use contraceptives				☐
A31	Educational booklets about pregnancy and STIs/AIDS prevention methods should be available in youth communities				☐
A32	The best method for prevention of unplanned pregnancy and STIs/AIDS is abstinence until marriage				☐
A33	Contraceptive including condoms should be available easily to youth				☐
A34	Education about pregnancy and STIs/HIV-AIDS prevention methods leads to high-risk sexual behaviors				☐

A35	Youth do not need to reproductive health information because they have no unmarried intercourse				☐
A36	The best method for prevention of unwanted pregnancies and STIs/AIDS is to withhold information from youth				☐
	Peer Influence				
B1	Is there pressure from your friends for you to do the following? (you can choose more than one) 1. Pressure to try cigarette 2. Pressure to try drugs 3. Pressure to drink alcohol 4. Pressure to skip school 5. Pressure watching pornography 6. Pressure to have intercourse 7. Pressure to have kissing 8. Pressure to have petting 9. Pressure to have masturbation 10. Pressure to have touching 11. The other pressures (Specify_____) 12. No pressures→ B3				☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
B2	Have you ever had some activities based on peer pressure? (you can choose more than one) 1. Kissing 2. Petting 3. Touching 4. Masturbation 5. Intercourse 6. Alcohol Use 7. Watched Pornography 8. Drug Use 9. Cigarette Use 10. To Skip School 11. The other activities (Specify_____) 12. Nothing activities				☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
B3	Have your friends ever pressured your mindset to do sexual activities (indirectly pressure) to equal activities like your friends? 1. Yes 2. No				☐
B4	Have your friends ever encouraged you to avoid (you can choose more than one)?				☐

	1. Smoking 2. Alcohol use 3. Watching pornography 4. Trying drugs 5. Nothing encouraging	☐ ☐ ☐
Social and Cultural Influence		
B5	What kind of relationship before marriage of your relationship? 1. Courtship 2. Engaged 3. Unregistered married 4. No relationship	☐
B6	What kind of marriage in the future for your relationship? 1. Unregistered marriage 2. Legal marriage	☐
B7	How do your society see unplanned pregnancy among adolescents? 1. Very agree 2. Moderately agree 3. Not agree 4. I don't know	☐
B8	How do your society know about sexual activities (for example , kissing, petting, masturbation, intercourse, and touching each other's genitals or breast) before marraige? 1. Very agree 2. Moderately agree 3. Not agree 4. I don't know	☐
B9	How do your society think female adolescents do not have to maintain their virginity? 1. Very agree 2. Moderately agree 3. Not agree 4. I don't know	☐
B10	How do your society think that male adolescents are allowed to practice sex before marriage? 1. Very agree 2. Moderately agree 3. Not agree 4. I don't know	☐
Spiritual Attendance		
B11	How religious do you think you are? 1. Very religious	☐

	2. Moderately religious 3. Not religious	
B12	How often do you usually attend religious services? 1. Every day 2. At least once a week 3. At least once a month 4. At least once a year 5. Less than once a year 6. Never	☐
B13	How important is religion in your life? 1. Very important 2. Important 3. Not important	☐
B14	Do you ever attend God in your activities? 1. Yes 2. No	☐
B15	How is your feeling to God if you do sexual activities (for example kissing, petting, masturbation, touching each other's genital/breast)? 1. Nothing 2. Sad 3. Happy 4. I don't know	☐
Sexual Development		
C1	How often your desire engage sexual activities with your partner? 1. Not at all 2. Once a month 3. Once every two weeks 4. Once or more a week 5. I don't know	☐
C2	How often you fulfill your sexual desire through sexual activities with your partner? 1. Not at all 2. Once a month 3. Once every two weeks 4. Once or more a week 5. I don't know	☐
C3	How often your desire engage sexual activities by yourself? 1. Not at all 2. Once a month 3. Once every two weeks 4. Once or more a week	☐

	5. I don’t know	
C4	How often you fulfill your desire to behave sexually by yourself? 1. Not at all 2. Once a month 3. Once every two weeks 4. Once or more a week 5. I don’t know	☐
C5	Would you say that your growth in height : 1. Has not yet begun to spurt 2. Has barely started 3. Is definitely underway 4. Seems completed 5. I don’t know	☐
C6	And how about the growth of your body hair? (“Body hair” maens hair any place other than your head, such as under your arms) 1. Has not yet begun to grow 2. Has barely started to grow 3. Is definitely underway 4. Seems completed 5. I don’t know	☐
C7	Have you noticed any skin changes, especially pimples? 1. Skin has not yet started changing 2. Skin has barely started changing 3. Skin changes are definitely underway 4. Skin changes seem complete 5. I don’t know	☐
	Form For Boys:	
C8	Have you noticed a deeping of your voice? 1. Voice has not yet started changing 2. Voice has barely started changing 3. Voice changes are definitely underway 4. Voice changes seem complete 5. I don’t know	☐
C9	Have you begun to grow hair on your face? 1. Facial hair has not yet started growing 2. Facial hair has barely started growing 3. Facial hair growth has definitely started 4. Facial hair growth seem complete 5. I don’t know	☐

C10	Have you felt immediately when others consider you handsome? 1. Yes 2. No	☐
C11	Have you felt to sense whether others think you are handsome? 1. Yes 2. No	☐
C12	Have you felt when others think you are handsome? 1. Yes 2. No	☐
	Form For Girls:	
C13	Have you noticed that your breasts have begun to grow? 1. Have not yet started growing 2. Have barely started growing 3. Breast growth is definitely underway 4. Breast growth seem complete 5. I don't know	☐
C14	Have you begun to menstruate (Started to have your period)? 1. Yes 2. No	☐
C15	Have you felt immediately when others consider you sexy? 1. Yes 2. No	☐
C16	Have you felt to sense whether others think you are sexy? 1. Yes 2. No	☐
C17	Have you felt when others think you are sexy? 1. Yes 2. No	☐
	Internet Use	
C18	Have you ever used the internet? 1. Yes 2. No	☐
C19	Have you ever accessed about puberty by internet? 1. Yes 2. No	☐
C20	Have you ever sought information about reproductive system? 1. Yes 2. No	☐

C21	Have you ever sought to know about sexual activities (for example kissing, touching each other's genitals, intercourse, masturbation, and petting)? 1. Yes 2. No	☐
C22	What do you mostly use the internet for? (You can choose more than one) 1. Chat 2. E-mail 3. Finding information 4. Playing games 5. Social Media 6. Accessed Pornography 7. Others (Specify:_____)	☐ ☐ ☐ ☐ ☐ ☐ ☐
	SubstanceUse	
C23	Do you ever use substance? 1. Yes 2. No → continue to C25	☐
C24	What do type of your substance use? 1. Cigarette 2. Alcohol 3. Marijuana 4. Other drugs (Specify :_____)	☐
C25	Have you ever had smoking? 1. Yes 2. No → continue to C27	☐
C26	What was the main reason for you to start smoking? 1. All my friend smoke 2. To show my adulthood 3. Too tense 4. People around me smoke 5. Smoking is stylish 6. To show my manhood 7. Other reason (Specify:_____)	☐
C27	Have you ever drunk alcohol? 1. Yes 2. No → continue to C29	☐
C28	How do you use alcohol consumption? 1. Alone 2. Partner	☐

	3. Friends 4. Others (Specify :_____)	
	Pornography Consumption	
C29	Have you ever watched/accessed pornographic video/movie/magazine? 1. Yes 2. No → continue to D1	☐
C30	Have you ever had sexual activities because of watched/accessed pornography? 1. Yes 2. No	☐
C31	What kind of your sexual activites because of watched/accessed pornography (you can choose more than one) ? 1. Kissing 2. Petting 3. Touching 4. Intercourse 5. Masturbation 6. Nothing activities	☐ ☐ ☐ ☐ ☐

	Sexual Activity	
D1	How often have you had sexual contact of kissing? 1. Never 2. Rarely 3. Occasionally 4. Frequently	☐
D2	How often have you had sexual contact of petting? 1. Never 2. Rarely 3. Occasionally 4. Frequently	☐
D3	How often have you had sexual contact of touching? 1. Never 2. Rarely 3. Occasionally 4. Frequently	☐
D4	How often have you had masturbation? 1. Never 2. Rarely 3. Occasionally 4. Frequently	☐

D5	How often have you had sexualintercourse? 1. Never 2. Rarely 3. Occasionally } continue to D6 - D10 4. Frequently	☐
D6	Hav you used condom to protect yourself and partner? 1. Yes 2. No	☐
D7	Who is your partner usually to have sexual intercourse? 1. Friend 2. Boy/Girlfriend 3. Relatives 4. Sex worker 5. Others (Specify:_____)	☐
D8	How many your partner to have sexual intercourse in the past? 1. One partner 2. 2-3 partners 3. 4-5 partners 4. More than 5 partners	☐
D9	What was the main reason for you to have sexual intercourse? 1. Sexual drive 2. Curiosity 3. Expressing love 4. Alcohol use (Substance use) 5. Peer pressure 6. Affraid of break up 7. Others (Specify:_____)	☐
D10	Have you had unintendeed pregnancy after having intercourse? 1. Yes 2. No	☐

Note :

Never : Not at all time
Rarely : Once a month
Occasionally : Once every two weeks
Frequently : Once or more a week

Thank you for participating

APPENDIX 2
KUESIONER

Instruksi

- Mohon untuk tidak menuliskan nama pada kuesioner ini
- Mohon baca setiap pertanyaan secara cermat sebelum menjawabnya
- Pilihlah jawaban yang anda **yakini paling benar**
- Jika anda ingin mengubah jawaban, jangan khawatir, cukup ganti jawaban sebelumnya
- Ini bukan sebuah tes, sehingga **tidak ada jawaban yang benar atau salah**

	Karakteristik Sosio-demografi	
A1	Berapa umur Anda sekarang? 1. 15 tahun atau kurang dari 15 tahun 2. 16 tahun 3. 17 tahun 4. 18 tahun 5. 19 tahun atau lebih dari 19 tahun	☐
A2	Apa jenis kelamin Anda? 1. Laki-laki 2. Perempuan	☐
A3	Kelas berapa Anda sekarang? 1. Kelas 10 2. Kelas 11 3. Kelas 12	☐
A4	Apa tipe tempat tinggal Anda? 1. Tinggal bersama kedua orang tua di rumah 2. Tinggal bersama saudara 3. Kos atau Asrama 4. Lainnya_____)	☐
A5	Dengan siapakah seringnya Anda tinggal di rumah? (Anda dapat memilih lebih dari satu) 1. Bapak 2. Ibu 3. Saudara	☐ ☐ ☐

	4. Lainnya_____)	☐
A6	Berapa uang sakumu setiap hari di sekolah? 1. Kurang dari Rp 13,500,- 2. Lebih Rp 13,500,-	☐
Komunikasi dengan Orang Tua		
A7	Apakah Anda pernah bertanya kepada orang tuamu tentang aktivitas seksual seperti ciuman dan hubungan seks, masturbasi (onani), memegang alat kelamin atau payudara pasangan? 1. Ya 2. Tidak	☐
A8	Apakah Anda pernah bertanya kepada orang tuamu tentang kehamilan atau cara mencegah kehamilan? 1. Ya 2. Tidak	☐
A9	Apakah Anda pernah bertanya kepada orang tuamu tentang HIV-AIDS? 1. Ya 2. Tidak	☐
A10	Apakah Anda pernah bertanya kepada orang tuamu tentang penyakit menular seksual? 1. Ya 2. Tidak	☐
A11	Apakah Anda pernah bertanya kepada orang tuamu tentang kondom? 1. Ya 2. Tidak	☐
A12	Apakah Anda pernah berdiskusi kepada orang tuamu tentang hubungan pacaranmu? 1. Ya 2. Tidak	☐

Pengetahuan tentang HIV		**Benar**	**Salah**	**Tidak Tahu**	
A13	Ciuman dapat meningkatkan penularan HIV				☐
A14	Memegang (meremas) alat kelamin dapat meningkatkan penularan penyakit menular seksual atau HIV				☐
A15	Melakukan gesekan antar alat kelamin akan meningkatkan penularan HIV atau penyakit menular seksual pada 2 orang				☐

A16	Melakukan masturbasi (onani) dapat meningkatkan penularan HIV atau penyaki menular sesual				☐
A17	Seorang wanita dapat terinfeksi HIV jika dia melakukan hubungan seks melalui dubur dengan seorang laki-laki				☐
A18	Menggunakan kondom dapat mencegah seseorang terkena HIV				☐
A19	Seseorang dapat terinfeksi HIV jika dia melakukan hubungan seks hanya 1 kali saja				☐
A20	Melakukan hubungan seks lebih dari 1 orang dapat meningkatkan seseorang terinfeksi HIV				☐
A21	Seorang wanita dapat terinfeksi HIV jika berhubungan seks melalui vagina dengan seorang laki-laki yang positif HIV				☐
Pengetahuan Tentang Kesehatan Reproduksi		**Benar**	**Salah**	**Tidak Tahu**	
A22	Saling menggesekkan alat kelamin akan menyebabkan kehamilan bagi wanita				☐
A23	Meremas payudara akan meningkatkan seseorang tertular penyakit menular seksual				☐
A24	Seorang wanita dapat hamil pada hubungan seksual yang pertama				☐
A25	Masturbasi (Onani) merupakan ancaman kesehatan yang serius				☐
A26	Kondom dapat digunakan lebih dari sekali				☐
A27	Kondom efektif untuk melindungi diri dari penyakit menular seksual				☐
A28	Kondom merupakan cara efektif untuk mencegah kehamilan				☐
A29	Kondom dapat mengurangi risiko tertular HIV				☐

Perilaku Dari Kesehatan Reproduksi		Benar	Salah	Tidak Tahu	
A30	Remaja, Jomblo (Bujang) atau sudah menikah, harus tahu bagaimana cara menggunakan kontrasepsi (KB)				☐
A31	Buku tentang cara pencegahan kehamilan dan penyakit menular seksual atau AIDS harus tersedia untuk komunitas remaja				☐
A32	Cara terbaik untuk pencegahan kehamilan yang tidak diinginkan dan penyakit menular seksual atau AIDS adalah dengan setia hingga menikah				☐
A33	KB atau kontreseptif termasuk kondom harus tersedia dengan mudah untuk remaja				☐
A34	Pendidikan tentang pencegahan kehamilan dan penyakit menular seksual atau AIDS ditujukan pada perilaku seksual yang berisiko tinggi				☐
A35	Remaja tidak membutuhkan informasi tentang kesehatan reproduksi karena mereka tidak melakukan hubungan seks				☐
A36	Cara terbaik untuk mencegah kehamilan tidak diinginkan, penyakit menular seksual, dan AIDS adalah dengan tidak memberi inforamsi kepada remaja				☐
Pengaruh Teman					
B1	Apakah ada tekanan dari teman kepadamu untuk melakukan sebuah perilaku berisiko? (Anda bisa memilih lebih dari satu) 13. Tekanan untuk merokok 14. Tekanan untuk menggunakan narkoba atau obat-obatan terlarang (ngelem) 15. Tekanan untuk minum-minuman alkohol (mabuk) 16. Tekanan untuk membolos sekolah 17. Tekanan untuk menonton film porno 18. Tekanan untuk melakukan hubungan seks 19. Tekanan untuk berciuman 20. Tekanan untuk bercumbu (menggesekan alat kelamin kepada seseorang 21. Tekanan untuk masturbasi (onani)				☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

	22. Tekanan untuk meraba organ vital orang lain 23. Tekanan dalam bentuk lainnya (_____) 24. Tidak ada tekanan →dilanjutkan ke nomor B4	
B2	Apakah Anda pernah melakukan perilaku berisiko karena tekanan temanmu? (Anda bisa memiih lebih dari satu) 13. Berciuman 14. Bercumbu (menggesekan alat kelamin kepada seseorang) 15. Meraba organ vital seseorang 16. Masturbasi (Onani) 17. Hubungan seks 18. Minum-minuman beralkohol (Mabuk) 19. Menonton film porno 20. Menggunakan narkoba atau obat-obatan terlarang (ngelem) 21. Merokok 22. Membolos sekolah 23. Tekanan dalam bentuk lainnya (_____) 24. Tidak aktivitas seksual apapun	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
B3	Apakah teman Anda pernah menekan atau mempengaruhi pola pikirmu untuk melakukan aktivitas seksual (secara tidak langsung) agar sama-sama melakukan aktivitas seksual seperti temanmu? 1. Ya 2. Tidak	☐
B4	Apakah temanmu mendorongmu untuk menjauhi perilaku berisiko? (Anda bisa memilih lebih dari satu) 1. Merokok 2. Mabuk (Minum-minuman beralkohol) 3. Menonton film porno 4. Menggunakan narkoba atau obat-obatan terlarang (ngelem) 5. Tidak pernah ada dorongan apapun	☐ ☐ ☐ ☐ ☐
Pengaruh Sosial dan Budaya		
B5	Apa macam-macam hubunganmu dengan pacarmu sebelum menikah? 1. Pacaran 2. Pertunangan 3. Nikah Siri 4. Tidak Punya Pacar (Jomblo)	☐
B6	Apa macam hubunganmu dengan pacarmu di masa depan? 1. Nikah Siri 2. Menikah resmi lewat KUA	☐

B7	Bagaimana masyarakatmu melihat kehamilan diluar nikah yang terjadi pada remaja sekolah? 1. Sangat setuju 2. Sedikit setuju 3. Tidak setuju 4. Tidak tahu	☐
B8	Bagaimana masyarakatmu mengetahui tentang aktivitas seksual seperti ciuman, masturbasi (onani), hubungan seksual, menggesekkan alat kelamin, dan meremas alat kelamin atau payudara ? 1. Sangat setuju 2. Sedikit setuju 3. Tidak setuju 4. Tidak tahu	☐
B9	Bagaimana masyarakatmu berpikir remaja putri tidak menjaga keperawanannya? 1. Sangat setuju 2. Sedikit setuju 3. Tidak setuju 4. Tidak tahu	☐
B10	Bagaimana masyarakatmu berpikir bahwa remaja laki-laki diizinkan untuk melakukan hubungan seksual sebelum nikah? 1. Sangat setuju 2. Sedikit setuju 3. Tidak setuju 4. Tidak tahu	☐
	Kegiatan Spiritual	
B11	Seberapa berimankah Anda? 1. Sangat beriman 2. Cukup beriman 3. Tidak beriman	☐
B12	Seberapa seringkah Anda datang ke pengajian di masjid atau kebaktian di gereja ? 1. Setiap hari 2. Sekali dalam seminggu 3. Sekali dalam sebulan 4. Sekali dalam setahun 5. Kurang dari sekai dalam setahun 6. Tidak pernah sama sekali	☐
B13	Seberapa pentingkah agama dalam kehidupan Anda? 1. Sangat penting 2. Penting	☐

	3. Tidak penting	
B14	Apakah Anda pernah menghadirkan Tuhan ketika Anda akan melakukan aktivitas/kegiatan/perilakumu? 1. Ya 2. Tidak	☐
B15	Bagaimana perasaanmu terhadap Tuhan jika Anda melakukan aktivitas seksual seperti berciuman, meremas alat kelamin/payudara, saling menggesekkan alat kelamin, dan berhubungan seksual? 1. Tidak punya perasaan apapun 2. Sedih/menyesal 3. Senang 4. Tidak tahu	☐
Perkembangan Seksual		
C1	Seberapa sering saat Anda bernafsu yang diteruskan melakukan aktivitas seksual dengan pasangan/pacarmu? 1. Tidak pernah sama sekali 2. Sekali dalam sebulan 3. Sekali dalam dua minggu 4. Sekali atau lebih dalam seminggu 5. Tidak tahu	☐
C2	Seberapa sering Anda memenuhi nafsumu melalui aktivitas seksual dengan pasangan/pacarmu? 1. Tidak pernah sama sekali 2. Sekali dalam sebulan 3. Sekali dalam dua minggu 4. Sekali atau lebih dalam seminggu 5. Tidak tahu	☐
C3	Seberapa seringkah saat Anda bernafsu yang diteruskan melakukan aktivitas seksual dengan melakukannya seorang diri? 1. Tidak pernah sama sekali 2. Sekali dalam sebulan 3. Sekali dalam dua minggu 4. Sekali atau lebih dalam seminggu 5. Tidak tahu	☐
C4	Seberapa seringkah Anda memenuhi nafsumu melakukan aktivitas seksual dengan seorang diri? 1. Tidak pernah sama sekali 2. Sekali dalam sebulan 3. Sekali dalam dua minggu 4. Sekali atau lebih dalam seminggu 5. Tidak tahu	☐

C5	Akankah Anda mengatakan bahwa Anda tumbuh tinggi : 1. Belum mulai untuk tumbuh 2. Hanya sedikit tumbuh 3. Sedang tumbuh 4. Terlihat berhenti tumbuh 5. Aku tidak tahu	☐
C6	Bagaiamana dengan pertumbuhan dari rambut di tubuhmu? (rambut ditubuh seperti rambut yang tumbuh di bagian tubuh dilain kepala dan lengan. 1. Belum mulai tumbuh 2. Hanya sedikit tumbuh 3. Sedang tumbuh 4. Terlihat berhenti tumbuh 5. Aku tidak tahu	☐
C7	Apakah Anda memperhatikan perubahan kulitmu, seperti jerawat? 1. Kulit belum mulai berubah 2. Kulit hanya sedikit berubah 3. Kulit sedang berubah 4. Kulit terlihat sudah berhenti berubah 5. Aku tidak tahu	☐
	Untuk laki-laki:	
C8	Apakah Anda memperhatikan perubahan dari suaramu? 1. Suara belum mulai berubah 2. Suara hanya sedikit yang berubah 3. Suara sedang berubah 4. Suara sudah berhenti berubah 5. Aku tidak tahu	☐
C9	Apakah Anda mengalami pertumbuhan jenggot atau kumis di wajahmu? 1. Kumis belum mulai tumbuh 2. Kumis hanya sedikit tumbuh 3. Kumis sedang tumbuh 4. Kumis terlihat sudah berhenti tumbuh 5. Aku tidak tahu	☐
C10	Pernahkah Anda merasakan ketika temanmu mengatakan bahwa Anda itu tampan/ganteng? 1. Ya 2. Tidak	☐
C11	Pernahkah Anda merasakan melalui indramu apa yang temanmu pikirkan bahwa dirimu itu ganteng/tampan?	☐

	1. Ya 2. Tidak	
C12	Pernahkah Anda merasa ketika teman-temanmu berpikir bahwa Anda tampan/ganteng? 1. Ya 2. Tidak	☐
	Untuk perempuan:	
C13	Apakah Anda memperhatikan bahwa payudaramu telah mulai berkembang? 1. Belum mulai tumbuh 2. Hanya sedikit tumbuh 3. Payudara sedang tumbuh 4. Perkembangan payudara sudah berhenti 5. Aku tidak tahu	☐
C14	Apakah Anda telah menstruasi? 1. Ya 2. Tidak	☐
C15	Pernahkah Anda merasakan ketika temanmu mengatakan bahwa Anda itu seksi? 1. Ya 2. Tidak	☐
C16	Pernahkah Anda merasakan melalui indramu apa yang temanmu pikirkan bahwa dirimu itu seksi? 1. Ya 2. Tidak	☐
C17	Pernahkah Anda merasa ketika teman-temanmu berpikir bahwa Anda itu seksi? 1. Ya 2. Tidak	☐
	Penggunaan Internet	
C18	Apakah Anda pernah menggunakan internet? 1. Ya 2. Tidak	☐
C19	Pernahkah Anda mengakses internet untuk mencari tahu tentang pubertas? 1. Ya 2. Tidak	☐
C20	Pernahkah Anda mencari informasi tentang sistem reproduksi melalui internet? 1. Ya 2. Tidak	☐

C21	Pernakkah Anda mencari untuk mengetahui tentang aktivitas seksual seperti berciuman, hubungan seksual, masturbasi (onani), meremas alat kelamin/payudara, dan menggesekkan alat kelamin? 1. Ya 2. Tidak	☐
C22	Buat apa saja Anda menggunakan internet? (Anda bisa memilih lebih dari satu) 1. Kirim Pesan 2. Pesan elektronik (e-mail) 3. Mencari berita atau informasi 4. Bermain permainan (Game online) 5. Media sosial 6. Menonton (Streaming) atau men-download film porno 7. Lainnya_____)	☐ ☐ ☐ ☐ ☐ ☐ ☐
Penggunaan Bahan Adiktif dan Pornografi		
C23	Apakah Anda pernah mengkonsumsi zat adiktif (kecanduan)? 1. Ya 2. Tidak →lanjutkan ke C25	☐
C24	Apa tipe zat adiktif yang Anda konsumsi? 1. Rokok 2. Minuman alkohol 3. Ganja 4. Lainnya_____)	☐ ☐
C25	Apakah Anda pernah merokok? 1. Ya 2. Tidak →lanjutkan ke C27	☐
C26	Apa alasan utama dari Anda saat pertama kali merokok? 1. Semua temanku merokok 2. Untuk menunjukkan kedewasaanku 3. Masa remaja 4. Aku dikelilingi orang-orang perokok 5. Merokok adalah gaya 6. Untuk menunjukkan kejantananku 7. Alasan lainnya_____)	☐

C27	Apakah Anda pernah minum-minuman beralkohol (mabuk)? 1. Ya 2. Tidak →lanjutkan ke C29	☐
C28	Bagaimana cara Anda mengkonsumsi alkohol? 1. Sendiri 2. Bersama pacar 3. Bersama teman 4. Lainnya_____)	☐
C29	Apakah Anda pernah menonton/mengakses film/video/majalah porno? 1. Ya 2. Tidak →lanjutkan ke nomor D1	☐
C30	Apakah Anda pernah melakukan aktivitas seksual efek dari menonton/ mengakses film/video/majalah porno ? 1. Ya 2. Tidak	☐
C31	Apa macam-macam dari perilaku seksualmu efek dari menonton/ mengakses film/video/majalah porno ? (Anda bisa memilih lebih dari satu) 1. Berciuman 2. Bercumbu (menggesekkan alat kelamin kepada seseorang) 3. Meraba alat vital orang lain (pacar) 4. Berhubungan seks 5. Masturbasi (Onani)	☐ ☐ ☐ ☐ ☐

Aktivitas Seksual		
D1	Seberapa seringkah Anda pernah melakukan ciuman? 1. Tidak pernah 2. Sangat Jarang 3. Adakalanya (kadang-kadang) 4. Sering	☐
D2	Seberapa seringkah Anda melakukan bercumbu (menggesekkan alat kemalin)? 1. Tidak pernah 2. Sangat Jarang 3. Adakalanya (kadang-kadang) 4. Sering	☐

D3	Seberapa seringkah Anda melakukan meraba alat vital orang lain (pacar)? 1. Tidak pernah 2. Sangat jarang 3. Adakalanya (kadang-kadang) 4. Sering	☐
D4	Seberapa seringkah Anda melakukan masturbasi (onani)? 1. Tidak pernah 2. Sangat jarang 3. Adakalanya (kadang-kadang) 4. Sering	☐
D5	Seberapa seringkah Anda melakukan hubungan seks? 1. Tidak pernah 2. Sangat jarang 3. Adakalanya (kadang-kadang) } dilanjutkanke nomor D6 sampai D10 4. Sering	☐
D6	Apakah Anda pernah menggunakan kondom untuk melindungi diri dan pasanganmu? 1. Ya 2. Tidak	☐
D7	Biasanya dengan siapakah Anda melakukan hubungan seks? 1. Teman 2. Pacar 3. Saudara 4. Pekerja seks 5. Lainnya_____)	☐
D8	Berapa banyak pasanganmu dalam berhubungan seks yang lalu? 1. 1 orang 2. 2 sampai 3 orang 3. 4 sampai 5 orang 4. Lebih dari 5 orang	☐
D9	Apa alasan utama Anda untuk melakukan hubungan seks? 1. Hasrat seksual 2. Keingintahuan 3. Cara mengungkapkan rasa cinta dan kasih sayang 4. Pengaruh konsumsi alkohol 5. Tekanan dari teman 6. Takut di putus pacar	☐

	7. Lainnya_____)	
D10	Apakah Anda pernah mengalami hamil di luar nikah setelah berhubungan seks? 1. Ya 2. Tidak	☐

Note :

Tidak Pernah :Tidak pernah melakukan

Sangat jarang : Sekali dalam sebulan

Adakalanya/kadang-kadang : Sekali setiap 2 minggu

Sering : Sekali atau lebih dalam seminggu

Terima kasih atas partisipasinya

VITA

PERSONAL DETAILS

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EDUCATION

2010-2014 : Faculty of Public Health of Diponegoro University, Indonesia : SKM

2016-2017 : College of Public Health Sciences of Chulalongkorn University, Thailand : MPH

LANGUAGE

Indonesia : Speaking, writing, and understanding-Excellent

English : Speaking, writing, and understanding-Good

EMPLOYMENT HISTORY

September 2014 —Desember 2016 : Officer and Counselor of PILAR (Youth Center) of IPPA (Indonesian Planned Parenthood Association) of Central Java, Indonesia