Social Learning Theory in Youth Sexual Behaviour Study in Central Java

Antono Suryoputro*, Nicholas J Ford, Zahroh Shaluhiyah*.**
* Faculty of Public Health, Diponegoro University, Semarang, Indonesia
** Department of Geography, University of Exeter, U.K.

ABSTRACT

Background: *Many public health researchers in Indonesia have advocated a greater role for the use of theory in strengthening the practice of research. However, public health researches and sexual & reproductive health researches in Indonesia have continued to focus primarily on evaluating outcomes with less attention to the mechanisms by which these outcomes are produced. In this situation they argue that research is reduced to a set of predetermined steps that are mechanically applied to various interventions without concern for the theoretical implications of intervention content, setting, participants or implementing organizations. Such simple evaluations may provide a gross assessment of whether or not an intervention works under one set of conditions but fail to identify the reasons why (Brazil K., Ozer E., et all, 2005). As such, the conclusions are often less than satisfying to consumers of research results and not easily transferable to different settings.*
Method: *The study applied a cross-sectional design, involving a total 2000 sample derived from youth population aged 18-24 years old, 1000 samples were each randomly selected from factory employers and university students in urban Central Java. The study employed quantitative (survey) method using structured questionnaire as instrument and qualitative method (in-depth interviews and FGDs).*
Result : *Although the findings of this cross-sectional study do not demonstrate that change in those factors/variables will reduce risk sexual behavior, they do suggest that future development and evaluation of sexual and reproductive health programs in youth population should test the feasibility and the effect of changing those personal/cognitive and environment factors. Demonstrating causality would have required the experimental manipulation of self-efficacy beliefs and a test of their effects on sexual behavior in a prospective rather than cross-sectional design. It is important to provide an open environment and counseling resources to the youth population in Central Java for strengthening youth self-efficacy which will increasing youth's ability to avoid and/or reduce risky sexual behaviour. There is clearly a need for the reviewing of various laws, regulations, and policies at the central and regional level in order to develop more conducive environment for improving knowledge, attitude and practice of adolescent's sexual lifestyle*

Keywords: *Health services, Social Learning, Reproductive and sexual health, Sexual behaviour, Javanese youth.*

INTRODUCTION

Many youth studies had been conducted in Indonesia by various institutions. Most of the studies come to the same conclusion that the youth's values of life are in the process of change. Although a current study conducted in Central Java indicates a low prevalence (5% female and 18% male) of youth premarital sexual experience (Suryoputro, Ford, Shaluhiyah, 2006) in comparison to other countries such as Thailand (Ford and Kittisuksathit, 1996), the Phillipines, Taiwan & Hongkong (Xenos, Ahmad, Hui-sheng Lin, 2001). However, young people in Indonesia nowadays seem to be more tolerant with premarital-sex life style (UNFPA Indonesia, 1999; Hatmadji, et.al., 1993; Ramli & Maidin, 1993; Ford, et al, 1997; F.C.I, 2000). Several other studies support the conclusion that the increase in sexual activity among youth has not been accompanied by increased knowledge about sexuality, such as anatomy and the reproductive process, AIDS, STDs and contraceptive devices (Dwiprahasto, 1992; Kusuma Buana Foundation & NFPCB, 1994; Satoto, 1995; Sapruddin, 1999; Sumiarni, et al., 1999; Suryoputro, Ford and Shaluhiyah, 2006).

While there are many studies on youth sexual & reproductive health in Indonesia, only few studies have actually been conducted in Central Java. These may be criticized as generating a rather limited understanding of the dynamic of Javanese youth sexual behaviour, its influencing factors and their need for services.

Many public health researchers in Indonesia have advocated a greater role for the use of theory in strengthening the practice of research. However, public health researches and sexual & reproductive health researches in Indonesia have continued to focus primarily on evaluating outcomes with less attention to the mechanisms by which these outcomes are produced. For examples, although most of the public health and sexual & reproductive health studies in Indonesia have applied theories such as health belief model, reasoned action and social learning, they are not explicitly mentioned. In this situation they argue that research is reduced to a set of predetermined steps that are mechanically applied to various interventions without concern for the theoretical implications of intervention content, setting, participants or implementing organizations. The so called "less-theoretical" approach tends to result in a simple input-output type of study. Such simple evaluations may provide a gross assessment of whether or not an intervention works under one set of conditions but fail to identify the reasons why (Brazil K., Ozer E., et all, 2005). As such, the conclusions are often less than satisfying to consumers of research results and not easily transferable to different settings.

Dealing with the so called "less-theoretical" approach of the mostly health studies in Indonesia, this paper will demonstrate a study currently conducted in Central Java which explicitly applied a social learning theory to underlying the framework, its analysis and discussion of the findings. Social learning theory was applied as the conceptual framework of this study in order to be able:

- To understand the pattern of risk of youth sexual behaviour in central java
- To derive practical policy and programme implications, to contribute and enhance youth sexual & reproductive health service development in Central Java

Furthermore, this paper has sought to explore and discuss how social learning theory can be used in analyzing the findings with focusing more in behaviour factors of the study. Some recommendations would be formulated on the use of social learning theory in sexual behaviour's studies.

Learning theories attempt to explain how people think and what factors determine their behaviour. Social Learning Theory is a category of learning theories which is grounded in the belief that human behaviour is determined by a three-way relationship between cognitive factors,

environmental influences, and behaviour (Bandura, 1986). The major concepts of social learning theory rest on a series of assumptions about humans and human behavior. Mostly, theorists and researchers assume that people are social beings in that they pay at-tention to the environment around them. An important addition to this assumption is that people react to the environment or respond to stim-uli in the environment. This vital assumption means that sexual be-haviors can be taught (Matthew Hogben & Donn Byrne, 1998)

Sexuality theorists and re-searchers have made full and contin-uous use of social learning theory. Some researchers on sexual behaviour has focused on cognitive aspect of the decision-making process (e.g., Basen-Enquist,1992; Mahoney et al., 1995). The investigators have studied the predictive importance of self-efficacy (e.g., Basen-Enquist and Parcel, 1992; Murphy et al., 1998) drawing from Bandura's (1997; 1989) conceptualization. For example, using Social-cognitive theory as a framework (Bandura,1989) high perceived self-efficacy beliefs have been found to be positively associated with both intentions to use condoms and self-reported condom use (Wulfert and Wan, 1993).

Those are some examples of how social learning theory has been used in various reproductive health and sexual behaviour studies. By referring to previous studies in how to use the social learning theory for underlying the framework, the most recent study on reproductive health and sexual behaviour has been conducted in Central Java.

METHODS

The study applied a cross-sectional design, involving total 2000 samples derived from the two different socio-economic background of youth population aged 18-24 years old in urban Central Java. 1000 samples were each randomly selected from low-income working youth population through factory workers in six factories, and middle class youth population university students in eight universities. Data collection for each of the two sample groups, was undertaken in the three cities of Semarang, Solo and Purwokerto which representing the major urban areas with the highest numbers of youth migrant population in Central Java. The study employed quantitative (survey) method using structured questionnaire as instrument and qualitative method (in-depth interviews and FGDs).

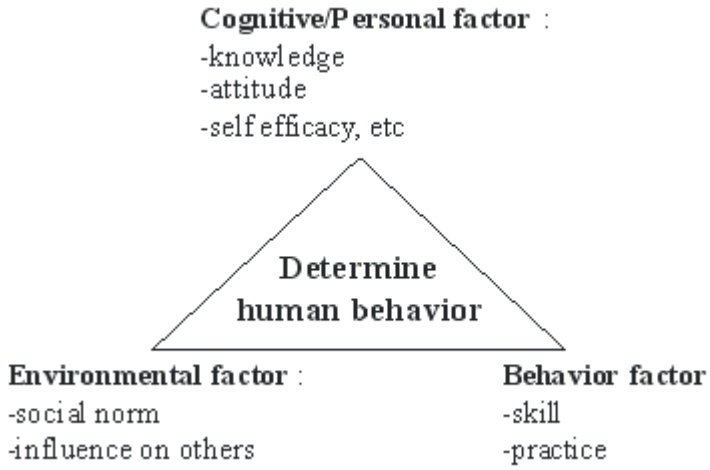
The set of variables of this study were categorized based on the Bandura's (1977, 1986) conceptual framework of social learning theory. For this reason, the variables were categorized into the following factors:

Personal factor included variables such as knowledge and awareness of HIV, STIs and aspects of reproductive health, attitude to relevant services, sexual and gender attitude, perceived vulnerability to reproductive health risk, general lifestyle, self esteem, locus of control, social activity, self efficacy and demographic variables (such as: age, religiosity, marital status).

Environmental factor included variables such as access and contact with sources of support and information, social culture, value and norm as a social support/model to specific behaviour.

Behaviour factor included variables such as sexual lifestyle (orientation, experience, numbers of partners), health events (Sexual Transmitted Infection/STI's, pregnancy, abortion) and condom and contraceptive use.

According to Albert Bandura (1988), "Social learning theory approaches the explanation of human behavior in terms of a continuous reciprocal interaction between cognitive, behavioral, and environmental determinants" . This three-way reciprocal relationship is presented in the graphic below (Fig.1)



In this transactional view of self and society personal factor, behaviour factor and environmental factor all operate as interacting determinants that influence one another bidirectionally. Reciprocity does not mean that the three set of interacting variables are of equal strength. Their relative influence will vary for different activities and under different circumstance (Bandura, 1986).

RESULT

The result indicates a low prevalence of respondents' premarital sexual experience in comparison to other countries such as Thailand (Ford and Kittisuksathit, 1996), the Phillipines, Taiwan & Hongkong (Xenos, Ahmad, Hui-sheng Lin 2001). Only less than 20 % of males and 5%-6% of female who have engaged in premarital sexual intercourse. The majority of respondents reported never having engaged in premarital sexual intercourse (81%-94% students and 70%-80% factory workers) with only (1% students and 11%-14% factory workers) being married.

Of the small minority who reported ever having engaged in premarital sexual intercourse, for the overwhelmingly majority of females (over 90%) this had taken place in a serious or engaged relationship, as was the case for 70% of the male students and 80% of the male factory workers. The higher proportion of intercourse in engaged relationships among factory workers than students probably primarily reflects their slightly older ages.

However, it is notable that there is a substantially higher proportion of male than female students (31% and 9%) reporting last sexual intercourse occurring within casual dating. Only a very small proportion (6%) of males reported engaging in intercourse with a sex worker. Given that this involves admitting in stigmatized behaviour which has bad consequences for social image, it could perhaps be plausibly speculated that there could be some under-reporting for this variable (Suryoputro, Ford, Shaluhiyah, 2006).

Furthermore, duration of relationship before first sexual intercourse reinforces the overall picture of a low pattern of risk, with over half of respondents reported >1 year relationship before sexual intercourse. Highest proportion of respondents' age of first sexual intercourse were mostly >18 years old (over 75%). Given that range of high school age Indonesian student is 16 – 18 years old, indicating that the first sexual intercourse were mostly took place after finishing high school. Young people in this study, mostly (over half) migrate away from their parents for continuing education or working. The finding reinforces the view that premarital sexual inter-

course occurrences are likely related to less supervision of parents, as well as simple maturation.

However, contraception use within the last sexual intercourse shows a picture of greater risk. Only less than 30% of male and female respondents reported condom use, with the remainder used nothing (over 25% of student and over 30% of factory worker) or non effective contraceptive methods such as withdrawal (over 30% of males and 50% of females) and calendar method (5% to 10 % of samples). There is no significant difference in pattern of contraceptive use between student and factory worker respondents. The high proportion of respondents who reported non-contraceptive use shows that there are some factors such as lack of information, lack of services, and culturally-related barriers which may have caused obstacles for youth population to access such services.

DISCUSSION

Sexual behavior:

In this study sexual behavior variables referred to actual sexual relationship experience of respondent such as age first intercourse, number of partners, frequency of meeting, type of relationship, emotional commitment and contraception use at last sexual intercourse.

The result indicated a low level of respondent's sexual experience and low risk of sexual behavior. However, finding of this study consistent with findings of similar studies which were previously conducted in different area in Indonesia (Hatmadji, et.al., 1993; BPS/SDKI, 1997; UNFPA, 1999). Such low level of risk and prevalence of youth sexual behavior in Central Java Indonesia clearly indicated that there are some specific factors influences its pattern. In this study respondents also reported low level of condom use which indicates a picture of greater risk. They tended to deny their susceptibility to the risk, regarding STDs or HIV/AIDS as being irrelevant to them. They believed that their simple youth life could prevent them from contracting STDs or HIV/AIDS unless they intended to have sex with prostitutes. Such believe can observed from the following quotation :

> "What I knew only that we have to be loyal and faitfully with our partner. We will not be contracted by sexual diseases including HIV/AIDS if we only perform sexual intercourse with steady partner".
> (indepth interview, student, male 20 yrs old)

"Trusting the sexual partner" was also the most important factor of intimacy in Indonesian Javanese youth population. It was clear that putting faith in and trusting one's partner regarded as reliable methods of protection from disease. They did not perceived their potential risks because they trusted their partners.

Other previous studies concluded that the main reason that respondents do not practice safe sex appears to be that they do not perceive themselves as potentially at risk of contracting diseases (William A, Cheryl A, 1999). This is related to the construct of perceived susceptibility, that is, one's subjective perception of the risk of contracting a condition. The construct of perceived susceptibility has been argued over time and various results have been reported regarding preventive health behaviour (Weis, D.L, 1998). Catania et al (1989) suggested that people who do not perceive themselves to be susceptible to disease are not likely to change their risk-taking behaviour. In addition, such perceived susceptibility may not play an important role in specific risk decision involving sexual risk-taking behaviour if peer norms do not favour safe sex behaviour.

In this study, the strategies that most of respondents employed for reducing the risks of pregnancy, were coitus interuptus (withdraw), calendar method and condom. Although they managed the risk of pregnancy, the reason that

led to the selection of contraception use for avoiding pregnancy are different from those that influence choice of contraception use for STDs or HIV/AIDS prevention. Pregnancy prevention may be a good indicator of choosing condom use and, therefore, also to prevent STDs or HIV/AIDS. However, this is not sufficient to prevent STDs or HIV/AIDS.

Knowledge:

The study shows certain deficits of safe sex and reproductive health knowledge for the youth. Although they were aware of sexual risk-taking and its consequences, but somehow did not incorporate this awareness into their actual sex practice. For example, knowledge about the consequences of sexual risk taking was reported: that is, pregnancy, STD or HIV/AIDS. However such knowledge was reported in a fairly impersonal fashion. An example of misconception about knowledge on reproductive health can be observed in the following quotations:

> "when I made love with my boyfriend, his semen and sperm entered into my vagina (he ejaculated inside my vagina.) we were so fear of being pregnant. My boyfriend suggested me to squat and jump on the ground several times so that the sperm will ran out from the vagina. "
> (in-depth interview with student, female 20 yrs old)

Some previous studies in Indonesia support the finding of this study that the increase in sexual activity among youth was not accompanied by increased knowledge about sexuality, such as anatomy and the reproductive process, AIDS, STDs and contraceptive devices. Results of a needs assessment on healthy reproduction among 3,600 youths, conducted in 12 cities in 1993, also shows that their understanding of sexuality was very limited. (Kusuma Buana Foundation & NFPCB, 1994).

Although in this study shows that lower knowledge was a protective factor (O.R:0.33), it does not mean that this study suggests maintaining the low level of knowledge on reproductive health, STIs and HIV/AIDS among the youth population in Central Java Indonesia. Other than to explain that such knowledge might not act as a direct influencing factor to youth sexual behaviour. There might be some other factors through which knowledge influencing youth sexual behaviour. As Bandura (1990) suggests that behaviour is not directly a result of knowledge or skills, but a process of appraisal by which people integrate knowledge, outcome expectancies, emotional states, social influences, and past experiences to form a judgment of their ability to master a difficult situation. Therefore, this study suggests that by improving knowledge on youth sexual and reproductive health, STIs and HIV/AIDS only, may be necessary but may not be sufficient to achieve behavioural changes. According to the AIDS Risk Reduction Model (Catania, Kageles & Coates, 1990), knowledge is important at the first stage of behavioural change among drug-using populations. Catania (1989) also argues that knowledge is a necessary but not sufficient cause of behavioural change.

Self Efficacy:

Self efficacy, a component of Social Learning/Cognitive Theory, refers to a person's belief that he or she can perform the behaviour in question. According to Bandura (1986) self efficacy is situation specific. His study indicated that people with high self efficacy in a specific task are more likely to perform the task. The opposite is people with low self efficacy are less likely to perform the particular behaviour. This study shows that respondents who have low level of self efficacy were almost fifteen times more likely to have engaged in premarital sexual intercourse (O.R. 14.7) than those who have moderate-high

level of self efficacy to decision on reproductive health.

Therefore, this study supports the Bandura's self efficacy theory in the opposite way. It suggests that the self-efficacy variable which could be used as a predictor of sexual behaviour among the youth population is the low self efficacy instead of high self efficacy.

However, other factors, such as outcome expectation and social norms, might also play a significant role in sexual behavior and need to be further explained. Since there have no studies been done based on social learning theory approach in Central Java Indonesia, this study could not contest the result. Nonetheless, the results of this study indicate that the self efficacy can be used cautiously as a strong predictor for sexual behaviour and for the development of appropriate interventions. Intervention strategy should be addressed to self efficacy of youth population in order to increasing their ability to make their own decision on their sexual behaviour.

Furthermore, when risk of sexual behavior is analyzed from a social cognitive/learning perspective, knowledge and skills to exercise self protective behaviors are necessary but not sufficient (Bandura,1990). People may know how the virus is transmitted and have the skills to negotiate condom use, they may also know the process of getting pregnancy, but they still engage in unprotected sexual intercourse. According to Bandura, this happens because behavior is not directly a result of knowledge or skills. Rather, a process of cognitive appraisal by which people integrate knowledge, outcome expectancies, emotional states, social influences, and past experiences to form a judgment of their ability to master a difficult situation. This judgment of self-efficacy mediates behavior and determines whether people initiate an action, how much effort they expend, and how long they persist in the face of difficulty. Hence, people will practice safer sex only to the degree that they believe they can protect themselves when needed. Level of youths' self-efficacy therefore, becomes the most important factor to determine whether and how they perform sexual behaviour.

The findings suggest some general policy's guidelines for the design of sexual & reproductive health educational programs/services to promote healthy sexual behavior among youth sexually active. Such programs should target and enhance "self-efficacy" factor of youth population in Central Java Indonesia.

In Indonesia Javanese culture, sex is still largely unspoken issue in society. Although respondents reported that it was better to abstain from sex until they get married, such beliefs did not carry over to actual practice. Naturally occurring sex was reported in the study. This study indicates that among respondents who have engaged in premarital sex, more than 75% males & females have moderate-low level of peer social support/model and low of parent's opinion/ support to premarital sex. Respondents also reported level of peer social support to condom use for both males & females (79%) are moderate-strong. Furthermore, although the social support to premarital sex was moderate-low, respondents reported premarital sexual intercourse (12% males, 4% females). In contrast, although peer/social support to condom use was moderate-strong, respondents reported low level of condom use (31% males, 7% females). In addition, logistic regression test in this study shows that although social support variable has significant influence to sexual behaviour variables, its role was as a protective factor instead of risk factor. Respondents who reported low level of peer/social support to premarital sex (O.R. 0.8) were not likely to have engaged in premarital sex. (Suryoputro, Ford, Shaluhiyah, 2006). This result implied that peers' opinions/social support might not directly influence youth sexual behaviour, but as one of the important factor on their norms regarding sexual behaviour.

This study supports Banduras'(1990) theory, respondents reported that peer/friends

mostly acted as an important source of information, support, reassurance and advice for them. Friends usually had similar sexual values and practices that they reinforced for each other. They made their experiences available to each other in order to recount their sexual experiences. They were willing to listen to each other but seemed not to find it morally appropriate to pressure each other to talk about sex or even to engage in safer sex. Some of them might question a friend's unsafe sexual behaviour but were generally no judgmental with each other. Although sexual issues mostly discussed with friends, the discussion still remains at somewhat superficial level, the decision to have premarital sexual intercourse and use condom rarely takes place when friends are present.

Therefore, this study concludes that social support factor is a necessary but not sufficient cause of behavioural change. Addressing intervention to social factor is necessary but may not be sufficient to change youth sexual behaviour

Social activity:

Social activity referred to type of activity and how often respondents spend their leisure time such as going to party, discotheque/pub/night club, drinking alcohol, using drug/narcotic and stay overnight out from home. Result showed that among those who have engaged in premarital sexual intercourse mostly have high levels of social activity (93% males, 54% females). The result suggested that social activity of respondent is one of the pathways to premarital sexual intercourse among youth population in Central Java Indonesia. Other studies investigated relationship between alcohol & drug/narcotic consumption, pornographic media with sexual behaviour among adolescence indicated similar result (William A, Cheryl A, 1999; Sapruddin, Gita Marina, 1999; Maisto A., Carey P., Carey B., et al. 2004). Those studies showed that alcohol and drug/narcotic influence the human cognitive/skill factor which therefore, resulting a lower capability to control his/her behaviour. Failure to practice a safe sex became a reasonable output of such behaviour.

Those studies therefore support our finding, suggesting that such activities become a risky behaviour for youth toward engaging in premarital sexual intercourse. Encouraging youth to be away from such behaviour would might preventing them from engaging in risky premarital sexual intercourse.

Attitude to relevant services:

Relevant services (sexual & reproductive health service) which have being provided in Indonesia do not explicitly address the youth population as the target. Reducing risk factors of youth sexual behaviour such as unwanted pregnancy, unsafe abortion and STDs & HIV/AIDS infection therefore remains in questioned. Given that abortion is considered to be illegal and contraception is only for adult & married people, gap between the social climate of youth's pre-marital activity and the provision of relevant services has emerged as a main problem.

This study shows that more than 50% both males & females respondents who have engaged in premarital sexual intercourse agree with the following statements: *Contraception should be made available to all young people*, and *Family planning programmes should enhance their services for unmarried young people in order to prevent and solve unwanted pregnancy, unsafe abortion, STDs through counselling as well as services*.

However, they will encounter significant obstacles to receiving sexual and reproductive health services and to obtaining effective contraception to protect them against unwanted pregnancy and sexually transmitted infections (STIs), including HIV/AIDS. Some studies indicate that the most important barrier to such care relates to providers' availabilities and attitudes (Moya C. 2002). In Central Java, some adults have difficulty accepting teens' sexual development as a

natural and positive part of growth and maturation. Young people are not encouraged to seek care and should not be seeking sexual health services as well.

Therefore, although this study also shows that respondents' attitude to abortion service indicates that more females than males (73% compare to 48%) disagree; their real practice might be different. It can be observed from the following quotations :

> "Once I had my menstruation delay, I felt so worry, then my boyfriend looked for the pill and traditional herbs to make abortion. Knowing the fact that I was not pregnant, I did not drink the pill. If I was definitely being pregnant....., there was no choice instead of being compelled to have an abortion. I am so frightened to have an abortion"
> (Indepth interview with student A, female, 20 years old)

Since there is no clear evidence of the level of pre-marital pregnancy and abortion in Central Java, its prevalence remains in questioned. The absence of such information caused by the absence of such services in the existing health services. Given that pre-marital childbirth is socially unacceptable in Central Java, the main options for young women facing a pre-marital pregnancy would be to get married or to seek a termination. Since abortion is strictly illegal in Indonesia, such young women would either seek to abort the pregnancy themselves (drugs or traditional herbs) or seek the assistance of some traditional healers (dukuns). This pattern hypothetically will result in numerous cases of related complications and cause of infant death. If such circumstance continues following social trends towards increasing pre-marital sexual experience, the related consequences problems associated with unprotected intercourse are likely to increase in future years in Central Java.

CONCLUSION

1. The overall picture of sexual and reproductive health-related risk of youth in Central Java shows a clear pattern. In terms of levels of premarital sexual experience only a minority appear to be putting themselves at risk of sexually transmitted infection and unwanted pregnancy. This is partly because of the positive norms and values of the culture in Central Java. In general there is a negative or at best ambivalent attitude to premarital sex within the culture. However within the minority who do engage in premarital intercourse, there is a major public health concern given the very low level of contraceptive (even condom) use. With reference to the comparison of the two samples group reference to their social backgrounds, shows that they come from very different socio-economic situations. However the detailed analysis of their sexual lifestyles and values show a very high level of similarity. Clearly sexuality for both groups is shaped by the culture of Central Java, along with the social changes which are so rapidly transforming this province.
2. Although the findings of this cross-sectional study do not demonstrate that change in those factors/variables will reduce risk sexual behavior, they do suggest that future development and evaluation of sexual & reproductive health programs in youth population should test the feasibility and the effect of changing those personal/cognitive and environment factors. Demonstrating causality would have required the experimental manipulation of self-efficacy beliefs and a test of their effects on sexual behavior in a prospective rather than cross-sectional design.
3. Issue related to the correlational nature of the study's design also requires more cautious understanding, given that social-cognitive theory is based on a model of reciprocal determinism. It holds that behavioral, cogni-

tive, and environmental factors, as well as other personal factors, interact as triadic determinants of each other (Bandura, 1977, 1986). In a real situation, experience with premarital sex and condom most likely affects an individual's self-efficacy beliefs and outcome expectancies, and these cognitions, in turn, will influence whether the individual practices premarital sex and uses condoms or not.

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