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## Female Sexual Socialization in Relation to Sexual Decision Making Processes

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**Abstract:** Researchers have studied sources of socialization and satisfaction levels regarding first sexual intercourse experiences. Carpenter (2002) developed three cognitive frameworks of virginity loss: *gift, stigma, and process*. However, researchers have yet to correlate these areas. **Purpose:** This quantitative study examined if socialization about sex and sexuality influenced undergraduate females' cognitive frameworks and subsequent decisions about and interpretations of first sexual intercourse. **Methods:** One hundred fifty eight female participants, recruited from a mid-sized Midwestern university, completed a 20-item online survey. Multiple linear regression and Chi Square Test of Independence were conducted to determine where females were socialized regarding sex and sexuality, if socialization helped create females' virginity cognitive frameworks, if females' cognitive framework and decision making scores impacted the age at which they engaged in first sexual intercourse, and if there was a difference in overall satisfaction of first sexual intercourse. **Results:** The data provided evidence that school was the primary source of socialization and participants with a gift cognitive framework were significantly older at the time of first sexual intercourse than those with a stigma or process framework. Regardless of cognitive framework, participants all reported very low emotional, mental, and physical satisfaction levels regarding their first sexual intercourse experience. **Conclusions:** The data supports the importance of female socialization about sexuality related topics, and suggests the need for improved parental communication about sexual topics.

**Keywords:** *first sexual intercourse, attitudes, regression analysis, cognitive frameworks, socialization*

Individuals' environments and the way they are socialized by those around them impact their view of sex and sexualities (Afifi, Joseph, & Aldeis, 2008; Collins, Alagiri, & Summers, 2002; Franklin & Dotger, 2011; Kohler, Manhart, & Lafferty, 2008; L'Engle, Brown, & Kenneavy, 2006; Regnerus, 2005). That knowledge, in turn, influences a cognitive framework of virginity (Carpenter, 2002). These cognitive frameworks produce behaviors and guide decisions related to first sexual intercourse, as well as influence mental, emotional, and physical, satisfaction levels (Carpenter, 2002).

The purpose of the current study was to examine how undergraduate females reported being socialized in regards to sex and sexuality while growing up, if that socialization shaped a cognitive framework of their virginity, and if their frameworks determined their decisions about and levels of satisfaction with their first sexual intercourse experience. Carpenter (2001) also "suggested that her work needed to be extended to establish prevalence estimates" (As cited in

Humphreys, 2012, p. 674) for her three virginity frameworks: gift, stigma, and process; and how they relate to first sexual intercourse. Lastly, this study contributes to the overall discussion of the importance of adolescents being socialized about sex and sexuality so that they may have healthy attitudes towards their sexualities in the future and make healthy choices regarding first sexual intercourse.

### Socialization

People are socialized about sexuality related topics from various sources that likely impact their cognitive framework of virginity, such as parents and peers (Afifi et al., 2008; Regnerus, 2005), religion (Regnerus, 2005), the public school education system (Collins et al., 2002; Franklin & Dotger, 2011; Kohler et al., 2008) and the media (L'Engle et al., 2006).

### Parental Influence

Regnerus (2005) highlighted one of the most important forms of socialization about sexuality is through parent communication, suggesting that this could play a big role in contributing to

adolescents developing cognitive frameworks. However, parents tend to be very apprehensive when discussing sex with their children because of a fear that they may be exposing their children to the subject too early or too late, or they, themselves, are not fully knowledgeable about sex and do not want to misinform their children (Sexuality Information and Education Council of the United States [SEICUS], 2004). This leads parents to be nervous when approaching discussions about sexuality with their adolescent, which, in turn, tends to make adolescents feel awkward about discussing such topics (Regnerus, 2005). On the other hand, parents who make themselves more physically approachable and relaxed when discussing sex and sexuality make themselves and their child less anxious and also make future discussions a more positive experience (Afifi et al., 2008). More discussions between an adolescent and his/her parent/s typically results in less sexual activity, which leads to lower rates of sexually transmitted diseases and teenage pregnancy/teenage parenthood (Clawson & Reese-Weber, 2003).

Parental influence has a lasting effect on the adolescent's viewpoint about virginity and virginity loss. The degree of an adolescent's sexual behavior can be predicted from how and when the adolescent was socialized on the matter from his or her parents (Afifi et al., 2008; Clawson & Reese-Weber, 2003). Interestingly, it has been reported that children would rather have their parents as a source of information as opposed to being educated on the subject from outside sources, such as friends or peers (Hutchinson & Cooney, 1998, Whitaker & Miller, 2000, in Regnerus, 2005). Again suggesting parents play a crucial role in shaping their adolescent's cognitive framework.

Discussions about sex and sexuality between parents and children and the timing at which they happen are not the only things that shape an adolescent's cognitive framework. The context in which the conversations happen is the overall guiding force that designates the direction and substance of those conversations. One of these contexts is religion (Regnerus, 2005). Parents who

reported being more actively involved in their religious community reported having conversations with their adolescents about sex, but focused more on issues of morality, such as the amorality of premarital sex, and encouraged abstinence until marriage (DiIorio, Pluhar, & Belcher, 2003; Regnerus, 2005). Interestingly enough, adolescents who reported higher levels of religiosity tended to report delaying first sexual intercourse (Hardy & Raffaelli, 2003). However, there may also be negative implications in regards to how adolescents conceptualize their virginity framework. For example, adolescents may feel pressure to tell their parents what they think their parents want to hear, such as agreeing to stay a virgin until marriage, but then doing what they want without telling their parents, in order to not disappoint them (Regnerus, 2005).

### Public School System

Another way adolescents are socialized about sex is through the public school system. The two main approaches that can shape cognitive frameworks are abstinence-only education and abstinence-plus education.

Typically, knowledge about sex and sexuality in most of public school systems in the United States comes from something called abstinence-only based education, used to teach children to abstain from sex (Collins et al., 2002). Some shortcomings of this type of education include: it does not acknowledge the potential for teenagers to become sexually active, the program does not teach about contraception use, and does not teach about abortion (Collins et al., 2002). Despite these limitations, abstinence-only education programs have been the only type of sexual education programs funded by the federal government (Collins et al., 2002). Because abstinence-only education does not teach about birth control and other forms of contraception, adolescents are not being taught in school how to protect themselves (Collins et al., 2002). Withholding knowledge about sexuality from adolescents has many negative implications, not only on how they are socialized about the subject, but also on the results of when adolescents attempt to take control over

their sexual health (Collins et al., 2002), which, in turn, further impacts development of cognitive frameworks.

The second type of sexual education is abstinence-plus education, which is being promoted by the majority of parents and has been reported to be effective in teaching adolescents about their sexualities and sexual health (Collins et al., 2002). This type of education promotes abstinence, yet provides a more comprehensive knowledge about sex and sexuality (Collins et al., 2002). Abstinence-plus education is important to shaping adolescents' viewpoints about their sexualities, as well as instructing how to take control of their sexual health. This type of education has been reported to delay initiation of sexual activity, decrease the number of sexual partners and sexually transmitted diseases, increase use of contraception, and lower the risk of teen pregnancy (Collins et al., 2002; Kohler et al., 2008).

### Media

Aside from parents, religion, and public school education influencing the development of cognitive frameworks regarding sex and sexuality, the media has a "consistent and significant association with early adolescents' sexual intentions and behavior" (L'Engle et al., 2006, p. 191). This may be particularly true depending on their socialization experience from different places, such as parents and public education systems. Adolescents who have had unsatisfactory experiences with parents and in schools are particularly likely to turn to media as their primary source of socialization (L'Engle et al., 2006).

There can be negative consequences if media is the primary form of socialization for adolescents regarding sex and sexuality. This is because adolescents are "more likely to adopt behaviors depicted by characters... that are not punished but rewarded for their behaviors" (L'Engle et al., 2006, p. 191). Further, the sexual content within media tends to depict sex as being something that is risk-free and done recreationally, while rarely recognizing what

negative implications there are, such as unplanned pregnancies and sexually transmitted diseases (L'Engle et al., 2006). Additionally, it has been reported that media tends to have adverse effects on the sexual values that parents and school-based sexual health programs try to instill in an adolescent's viewpoint about sexuality. Thus, media should be considered just as important a source of socialization to adolescents about sex and sexuality (L'Engle et al., 2006).

### Virginity Loss Cognitive Frameworks

Based on participant interviews, Carpenter (2002) identified three cognitive frameworks that people can have in regard to virginity loss, which she referred to as gift, stigma, and process. Humphreys (2012) developed the following descriptions of gift, stigma, and process cognitive frameworks based on Carpenter's (2002) original data (Table 1), which was used for my research.

*Table 1. Cognitive Frameworks of Virginity (Humphreys, 2012, p. 667).*

<b>Gift</b>	I saw my virginity as something special, cherished and guarded. I believed it to be a gift that I would give to someone I loved and someone who would love me back, someone who would appreciate receiving a gift of virginity. I was proud of my virginity.
<b>Stigma</b>	I saw my virginity as a label, which I was ready to get rid of, something negative and unwanted. I was embarrassed by my virginity status and did not want anyone to know about it, sometimes I felt like hiding it and lying about it.
<b>Process</b>	I thought of my virginity as a stepping stone or rite of passage that everyone must go through; the starting of a process of sexuality, which was natural and would continue to evolve. I saw virginity as something that would disappear as I grew up and into an adult.

Cognitive frameworks can have implications on how people experience emotional, physical, and psychological satisfaction with first sexual

intercourse (Carpenter, 2002). In general, women tend to be socialized more to view virginity as a *gift*, which leads them to be more selective when choosing their first sexual intercourse partner. Gift frameworks tend to result in most women delaying first sexual intercourse, as well as valuing emotional and mental satisfaction more than physical satisfaction (Carpenter, 2002). Conversely, men tend to view virginity as a *stigma*, correlating with deciding to lose their virginity at a younger age, resulting in most men valuing physical satisfaction more than mental or emotional satisfaction (Carpenter, 2002). Carpenter (2002) suggested that if people adopted a *process* cognitive framework, then neither gender would be disempowered with how and when they experience their first sexual intercourse.

Thus far, researchers have yet to directly correlate source of socialization, Carpenter's (2002) cognitive frameworks of virginity, and consequent experiences with sex, specifically loss of virginity. However, given the outcomes linking socialization and consequent behaviors about sexuality and Carpenter's (2002) suggestions that cognitive frameworks are linked to decisions about first sexual intercourse, I hypothesized that socialization would influence how cognitive frameworks are shaped and that cognitive frameworks shape the decisions about and experiences with first sexual intercourse (Figure 1).

My research questions were: 1) How were females socialized regarding sex and sexuality?, 2) Did socialization help create females' virginity cognitive frameworks?, 3) Did females' cognitive framework and decision-making scores impact the age at which they engaged in first sexual intercourse?, and 4) Was there a difference in overall satisfaction with first sexual intercourse based on their cognitive framework?

Figure 1 illustrates that socialization shapes cognitive frameworks, which in turn, impacts the decisions about and experiences with first sexual intercourse.

## METHODS

### Participants

Undergraduate female students between 18 and 25 years old ( $M = 20.45$ ,  $SD = 1.56$ ) were recruited from the Communication, Women's Studies, and Psychology departments at a mid-sized Colorado university. A total of 279 females agreed to participate, of which 158 completed an invitation-only online survey, representing a 57% response rate, which is excellent when compared to typical results from web-based survey responses (Cook, 2000). This study was not inclusive of males' experiences because just the females' experiences were of interest to me at the time.

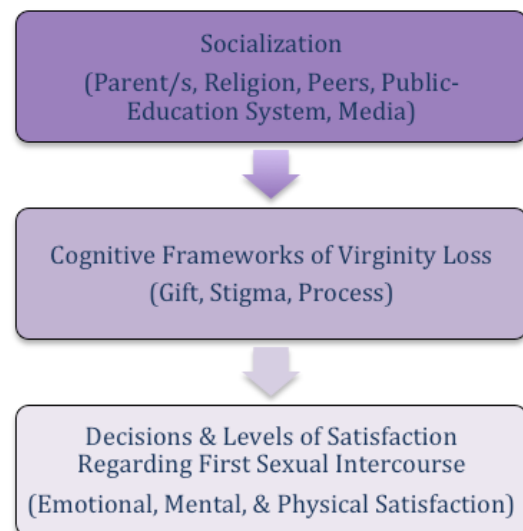


Figure 1. The Relationship of Socialization, Cognitive Framework, and First Sexual Intercourse.

### Procedures and Instrumentation

An invitation-only, anonymous survey consisting of 20 self-report items was generated in and distributed using Qualtrics, Version 360 of the Qualtrics Research Suite (© 2013, Provo, UT, USA). The survey took participants approximately 10 to 15 minutes to complete. Upon completion, participants had the opportunity to submit their email address to enter a drawing for a five-dollar gift card.

The survey was modified using items from previously constructed surveys, items, and

theories based on the reviewed literature. Part one was a forced-choice response format, asking participant to choose one of three descriptions they identified with the closest. Each description fit one of the three cognitive frameworks: gift, stigma, or process. The three frameworks used were created from Carpenter’s (2002) research and the descriptions I used are the condensed versions by Humphreys (2012). Part two included a matrix with 13 topics and guided the participant to select whether they were or were not socialized about each topic and identify their source(s) of socialization. For example, a participant might report being socialized from peers and school about birth control. The topics about contraception and reproduction, such as menstruation and abstinence, were from Franklin (2011). The various possible sources of knowledge, such as parent/s, media, religion, peers, and school, were original categories. Part three included demographics, questions about relationships, and status of virginity, which were derived from Humphreys (2012). Part four included a 6- point Likert-type response scale ranging from 5= very satisfied to 1= very dissatisfied in regard to participants’ emotional, mental, and physical satisfaction levels about their

first sexual intercourse experience, defined as *first penile-vaginal penetration* (Carpenter, 2002; Higgins, 2010; Humphreys, 2012). Part five asked them to identify the description they identify with the most about their current cognitive framework of virginity.

**Power Analysis**

According to post hoc power analysis using Gpower 3.1 software (Faul, Erdfelder, Lang & Buchner, 2007) and a Chi Square Test of Independence, power = .985 ( $\alpha = .05, n = 158$ ).

**Data Analysis**

Data analysis included: importing data into SPSS software, (PASW, 21.0, 2012), using descriptive statistics, a Chi Square Test of Independence, a multiple linear regression, and a one-way ANOVA.

**RESULTS**

**Research Question 1: How were females socialized regarding sex and sexuality?**

Descriptive statistics were collected regarding sexuality socialization. Table 1 shows that females were primarily socialized about sex and sexuality topics from school.

*Table 1. How Females were Socialized About Sexuality by Topic and Source.*

<b>Topic</b>	<b>Parent (%)</b>	<b>Media (%)</b>	<b>Religion (%)</b>	<b>Peers (%)</b>	<b>School (%)</b>	<b>Did Not Learn (%)</b>
Menstruation	13.3	2.5	0.0	12.7	70.3*	1.3
Reproduction	6.3	3.2	0.6	8.9	81.0*	0.0
Puberty	13.9	2.5	1.9	5.7	71.5*	4.0
Abstinence	7.0	1.9	16.5	7.0	62.0*	5.7
Dating	7.0	2.5	1.3	60.8*	22.2	6.3
Birth-Control	13.0	1.9	0.6	15.8	66.5*	1.9
Intercourse	4.4	6.3	0.6	24.1	63.3*	1.3
Resisting Sexual Pressure	14.6	3.8	9.5	10.1	47.5*	14.6**
Homosexuality	7.6	19.0	3.8	41.1*	25.3	3.2
Condoms	7.0	3.2	0.6	13.9	72.2*	3.2
Erection	3.8	10.1	0.6	20.3	41.1*	24.1**
Masturbation	4.4	13.3	0.6	32.3*	27.8	21.5**
Abortion/ Alternatives	7.6	12.0	4.4	16.5	50.0*	9.5

\*Represents primary source of sexual socialization per topic.

\*\*Highlights high percentages of females who never learned about the topic from any source.

## Research Question 2: Did socialization help create females' virginity cognitive frameworks?

A Chi Square Test of Independence was conducted in order to examine the association between a particular type of socialization and cognitive framework of virginity. Table 2 illustrates how many females out of the 158 who completed the survey identified as having a *gift*, *stigma*, or *process* cognitive framework about virginity loss prior to first sexual intercourse.

Table 2. Frequency Distribution of Cognitive Framework.

Cognitive Framework	<i>n</i>
Gift	76
Stigma	11
Process	71

Table 3 illustrates each source of socialization and the percentage of its attribution to a particular cognitive framework. The topics of discussion were evaluated through SPSS, which displayed the frequency and percentage from each source. Results did not indicate any statistical association between type of socialization and cognitive framework of virginity ( $\alpha = .05$ ,  $\chi^2(10) = 4.98$ ,  $p = .297$ ). This also supports the results found within Table 1 where school was found to be the primary source of socialization, regardless of which cognitive framework participants held about virginity.

## Research Question 3: Did females' cognitive framework and decision-making scores impact the age at which they engaged in first sexual intercourse?

The concept of *decision-making* was found by adding the length of time a participant knew their partner prior to first sexual intercourse and the length of time they stayed together afterward. The larger the sum was, the better decision-making the

participant had. A one-way ANOVA was conducted to compare mean differences between age, stigma, and cognitive framework. Additionally, a multiple linear regression analysis was used to assess explanatory variables related to age and first sexual intercourse. The independent variables were cognitive framework and decision-making, while the dependent variable was age.

Results suggested that participants who had a gift cognitive framework were significantly older at first sexual intercourse (mean age = 17.28) than those who had a stigma (mean age = 16.57) or process (mean age = 16.23) cognitive framework ( $\alpha = .05$ ,  $F(2,116) = 3.46$ ,  $p = .035$ ). Cognitive framework accounted for 5.6% of the variance in age at first sexual intercourse ( $R^2 = .056$ ,  $F_{\text{change}}(1,117) = 6.93$ ,  $p = .010$ ,  $CI = -.913, -.129$ ). These results indicate that cognitive framework and decision-making were able to explain part of the variance in age at first sexual intercourse.

## Research Question 4: Was there a difference in overall satisfaction with first sexual intercourse based on their cognitive framework?

A one-way ANOVA was ran using the categorical variable: gift, stigma, and process, and using the continuous variable: satisfaction levels, to assess if there were any differences in overall satisfaction of first sexual intercourse based on cognitive framework.

Results suggested that there was no statistically significant difference in the overall satisfaction level of first sexual intercourse based on their cognitive framework ( $\alpha = .05$ ,  $F(2,116) = .513$ ,  $p = .600$ ). Interestingly, the majority of participants expressed being somewhat dissatisfied to very dissatisfied with their first sexual intercourse experience regardless of their cognitive framework. However, those with stigma frameworks were particularly more dissatisfied with their experience than the other two frameworks (Table 4).

Table 3. Percentage of Cognitive Framework Based on Sexual Socialization.

<b>Cognitive Framework</b>	<b>Parent (%)</b>	<b>Media (%)</b>	<b>Religion (%)</b>	<b>Peers (%)</b>	<b>School (%)</b>	<b>Did Not Learn (%)</b>
Gift	20.0*	9.0	2.0	15.0	30.0*	24.0*
Stigma	18.0	23.5	0.0	11.7	29.4*	17.6*
Process	23.0*	8.0	0.0	14.5	28.0*	26.0*

\*Largest percentages of socialization at each level of cognitive framework.

Table 4. Percent of dissatisfaction of first sexual intercourse level of satisfaction based on cognitive framework.

<b>Satisfaction</b>	<b>Gift (%)</b>	<b>Stigma (%)</b>	<b>Process (%)</b>
Physical/immediate	42.20	66.70*	49.20
Mental/looking back	48.90	88.90*	43.10
Emotional/immediate	31.10	44.40*	30.80
Emotional/Looking back	46.70	55.60*	35.40

\*Participants considering virginity to be a stigma had higher levels of dissatisfaction on all satisfaction scales.

## DISCUSSION

Regardless of what cognitive framework participants identified with, the majority of females reported being primarily socialized from school, such as their sexual education and/or health programs. However, peers were an important source, specifically regarding topics of dating, relationships, & behaviors, homosexuality, and masturbation. It is important to note the high percentage of participants who reported never having learned about erections, masturbation, or the ways of resisting pressure to have sex, which would be considered more in-depth subjects of socialization that are typically not discussed in parent-child or public education discourses.

According to Regnerus (2005), one of the most important sources of socialization regarding sexuality topics is a parent, and the frequency and depth of parental communication is possibly predictive of adolescent’s sexual behavior. In this study, although females with gift cognitive frameworks reported more parental socialization than females with stigma or process cognitive frameworks, the general population of participants reported parental socialization to be very low. This suggests a need for either more in depth or

higher frequency parent-child discussions regarding sexuality, and discussions not solely based on promoting abstinence or reproductive facts. This may result in adolescents delaying first sexual intercourse even longer than participants for this study who reported a mean age of first sexual intercourse to be 16 to 17 years old.

I anticipated that females with gift cognitive frameworks would report being socialized the most from parents, religion, and/or the public school system, since those are the sources that typically stress abstinence and the negative implications of sexual intercourse, as well as discouraging the positive aspects of sex (Afifi et al., 2008; Collins et al., 2002; Franklin & Dotger, 2011; Kohler et al., 2008; Regnerus, 2005). I anticipated that those with stigma cognitive frameworks would report being socialized the most from the media and peers since those sources have the tendency to emphasize only the positive aspects of sexual intercourse and promote sexual promiscuity (L’Engle et al., 2006).

Although other researchers suggest that particular sources of socialization about sexuality determine adolescents’ decisions about and satisfactions levels with their first sexual intercourse experience, the results of this study



did not indicate any statistically significant association between a particular source of socialization and a cognitive framework. Meaning, my hypothesized model was not supported by Carpenter's (2002) cognitive frameworks. There are so many different sources of socialization that one source is not more significant than another in influencing the development of cognitive frameworks. This study suggests that the various sources of socialization work interdependently towards creating an individual's cognitive framework.

Carpenter (2002) reported that females identifying with gift cognitive frameworks would also report delaying first sexual intercourse. In this study, participants with a gift cognitive framework were significantly older at first sexual intercourse (about 17 years old), than those with a stigma or process framework (about 16 years old). Females with gift frameworks reported more parental socialization than stigma or process, but not at a level of statistical significance.

Carpenter (2002) suggested that her participants who reported having gift cognitive frameworks also reported higher emotional and mental satisfaction regarding their first sexual intercourse experience, but this framework tended to disempower women. Vice versa, participants with stigma cognitive frameworks reported lower mental and emotional satisfaction, yet tended to disempower men. Carpenter (2002) suggested that, regardless of gender, adolescents would be more satisfied, overall, with their sexualities and sexual experiences if they adopted a process cognitive framework towards virginity loss, as it disempowers neither gender. Carpenter (2002) also suggested that females who had a process cognitive framework also reported a more enjoyable first sexual intercourse experience. The data from this study suggest that, regardless of what cognitive framework participants identified with, their overall physical, mental, and emotional satisfaction with their first experience of sexual intercourse was significantly low. This suggests that there is no difference in overall satisfaction based on cognitive framework. I think it is important to note, aside from Carpenter (2002)

targeting a different population of females, she also interviewed significantly fewer females than the amount of females who participated in the survey for this study.

### Limitations

The participants recruited were only females, indicating a possibility for why the results regarding stigma cognitive frameworks were significantly lower than gift or process.

For some participants, the description of *first sexual intercourse* used in this study might have marginalized those who define virginity loss differently.

### Threats to internal validity

Instrumentation presented two threats to internal validity: (a) it did not include questions assessing sexuality or whether participants experienced a forced first sexual intercourse encounter, and (b) the survey was self-report; thus, participants may not have accurately remembered or reported their experiences.

Additionally, related to self-report, participant bias may have impacted internal validity in two ways: (a) religion source is ambiguous because it could be interpreted as either religious figures or religious philosophy, and (b) participants may have selected responses to make themselves look better.

### Threats to external validity

Considering the statistical strength of this study, it would be safe to generalize these results to a similar population of college females between the ages of 18 to 25. However, researchers should exercise caution when generalizing these results to different populations. For example, results may vary at an institution with significantly different religious affiliations, indicating a possible direction of future research.

### Future Research

This study's statistics suggest that females were primarily socialized from school. Given that the majority of U.S. public education programs report an abstinence- only curriculum (Regnerus,

2005), the extent of the participants' knowledge about each sexual topic remains unknown and would be an interesting direction for future research.

Based on the current study, I would recommend future researchers to focus specifically on different sexualities and how others define "first sexual intercourse" and describe their experiences, survey the same population and test their knowledge on specific topics regarding sexuality, and gauge which cognitive framework description they identify with the most, apply the same instrument to a male only population, and compare results in relation to Carpenter's (2002) findings.

Lastly, it would be nice to know that if adolescents are learning about their sexualities primarily from school, researchers should focus on when in school this socialization is happening and what is being taught compared to what is retained.

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