Beyond the birds and the bees: Parent-child sex communication and adolescent psychosocial functioning

by

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Abstract

American adolescents are experiencing poor psychosocial outcomes, such as disproportionately high rates of depression and anxiety and reported lack of social support and loneliness. Adolescent psychosocial functioning predicts future outcomes, highlighting the importance of interventions to support psychosocial development. Sexual health is often focused on as a separate measure of well-being but is intricately connected to psychosocial functioning. Research has documented the positive impacts of parent-child sex communication (PCSC) on adolescent sexual health outcomes, but less is known about its impact on psychosocial functioning more broadly. The present study seeks to enhance the field's understanding of PCSC's impact on adolescents' holistic well-being by clarifying the role of PCSC in adolescent psychosocial functioning. Guided by social cognitive theory (SCT), a path analysis was conducted using data collected from 7th to 10th grade students at a local school district to determine if PCSC is associated with adolescent psychosocial functioning and how adolescents' beliefs, values, and self-efficacy mediate the relationship between PCSC and psychosocial functioning. It was hypothesized that adolescents' perception of, and their own comfort with, PCSC would be positively associated with measures of self-efficacy, sexual values and beliefs clarity, and psychosocial functioning. A measure of self-efficacy and sexual values and beliefs clarity were hypothesized to at least partially mediate the relationship between PCSC and adolescent psychosocial functioning. Adolescents' comfort with PCSC was negatively associated with anxiety, and their perception of the effectiveness of PCSC was positively associated with other measures of psychosocial functioning. A measure of self-efficacy partially mediated the relationship between PCSC and psychosocial outcomes. Future directions for education and intervention efforts are discussed.

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Chapter 1 - Understanding the Role of Parent-Child Sex Communication on Adolescent Psychosocial Functioning

Psychosocial functioning includes one's psychological well-being, ability to carry out daily tasks, and tasks required in specific social roles (e.g., school, work), as well as one's ability to maintain interpersonal relationships (Eiroa-Orosa, 2020; Zhang et al., 2022). Unfortunately, the World Health Organization estimates that, globally, 20.9% of adolescents aged 13-17 experience loneliness, which is the highest prevalence across age groups (WHO, 2025). It is not surprising then that depression is a major concern for American adolescents' psychosocial functioning (Lam et al., 2011), with one in five 14–15-year-olds and one in four 16–17-year-olds having experienced a major depressive episode in 2021 (NIMH, 2023). Additionally, in the last few years, the prevalence of anxiety in adolescents has increased 61% (Sappenfield et al., 2024), signifying a growing concern for adolescent psychosocial outcomes. With data still being collected about the long-term mental health implications of the COVID-19 pandemic, these numbers may underestimate the prevalence of mental health challenges amongst American adolescents.

Notably, adolescent sexual health may represent a promising mechanism for improving adolescent psychosocial functioning. Adolescents' sexual health may be understood as "a state of physical, emotional, mental, and social well-being in relation to sexuality" (WHO, 2022, February 11). Specifically, research demonstrates that better sexual health during adolescence is connected to lower self-reported depression, higher self-esteem, better social integration, and lower thrill-seeking behaviors (Hensel et al., 2016), as well as lower anxiety (Carcedo et al., 2020; Vasconcelos et al., 2024). Fortunately, research has documented a plethora of positive impacts that parent-child sexual communication (PCSC) has on the sexual health and functioning

of adolescents (Flores & Barroso, 2017; DeSouza et al., 2021; Weiser et al., 2022; Payne et al., 2023). PCSC is defined as the bi-directional communication between parents and their children about sex and relationships (Flores & Barroso, 2017). Social cognitive theory (SCT; Bandura, 1986) explains that this may be due to the critical role of important adults in adolescents' lives in shaping the meanings adolescents construct around sexuality through PCSC, which influences their values and self-efficacy and, thus, their behaviors and psychosocial well-being (Astle & Anders, 2023). Accordingly, this study seeks to answer the following research questions: 1) How is PCSC associated with adolescent psychosocial functioning? and 2) How do adolescents' beliefs, values, and self-efficacy mediate the relationship between PCSC and psychosocial functioning?

Literature Review

The developmental period of adolescence has great potential for both vulnerability and opportunity (Sisk & Gee, 2022) due to the rapid physical, cognitive, social, emotional, and sexual development that occurs (HHS, 2018). These experiences during adolescence have an impact on future functioning and outcomes in adulthood. Specifically, poor mental well-being during adolescence is associated with more adverse outcomes in adulthood, like mental illness and substance-use related hospital visits (Oerlemans et al., 2020; Tolstrup et al., 2025). Conversely, positive mental well-being during adolescence is associated with lower risk of mental illness, self-harm and suicide attempts, and alcohol and substance-use related hospital visits in adulthood (Tolstrup et al., 2025). Similarly, adverse experiences during adolescence have been shown to be associated with poorer general physical and mental health outcomes in adulthood, while positive experiences during adolescence are associated with better general physical and mental health outcomes in adulthood (Kemp et al., 2024). It could be said, then, that

adolescents' psychosocial functioning is closely related to their future functioning, underscoring the importance of understanding factors that support adolescent psychosocial development.

Adolescent Psychological Well-being

American adolescents today are experiencing poor psychosocial outcomes. The National Survey of Children's Health (Sappenfield et al., 2024) reported that anxiety was the most commonly diagnosed mental health condition for adolescents ages 12-17 at 16.1%, followed by depression at 8.4%. Additionally, data from the National Health Interview Survey-Teen estimates 19.7% of adolescents ages 12-17 report experiencing symptoms of anxiety in the last two weeks (NCHS, n.d.). Further, across age groups, 18–25-year-olds are disproportionately impacted by depression, experiencing an 18.6% prevalence rate of depressive episodes in 2021, compared to 9.3% for adults ages 25-49 and 4.5% for adults over the age of 50 (NIMH, 2023).

Even before the COVID-19 pandemic, adolescents in the United States were experiencing poor mental health outcomes. In 2019, the CDC reported that 37% of American high school students experienced persistent feelings of sadness or hopelessness and 19% seriously considered attempting suicide (CDC, 2024, August 6). In 2021, these numbers jumped to 42% and 22%, respectively (CDC, 2024, August 6). From 2021-2023, the prevalence of adolescent anxiety had increased by 61% and the prevalence of depression had increased by 45%, demonstrating the co-occurring and growing concern of adolescent mental health in the United States (Sappenfield et al., 2024). For example, Xiang and colleagues (2024) found that among 5- to 22-year-olds with an anxiety diagnosis, 36.5% also had a depression diagnosis. When looking at anxiety without depression, young people ages 18-22 had the highest prevalence, followed by adolescents ages 12-17 (Xiang et al., 2024). It was revealed that adolescent females were more likely to have diagnosed depression and anxiety, compared to

their male peers (Sappenfield et al., 2024). This research demonstrates that adolescents are disproportionately impacted by poor mental health outcomes.

Adolescent Social Well-being

Along with mental health distress, adolescents in the US are also experiencing social distress. Data from the National Health Interview Survey and the National Health Interview Survey – Teen suggest that adolescents are not receiving the social and emotional support they need (Zablotsky et al., 2024). While 76.9% of parents report their teen always receives the social and emotional support they need, only 27.5% of teens say the same (Zablotsky et al., 2024). Similarly, the 2023 Youth Risk Behavior Survey reported that only 55% of high school students agreed or strongly agreed that they feel connected to others at school (CDC, 2024, August 6). Higher school connectedness is associated with lower prevalence of substance use, violence, poor mental health outcomes, and suicide amongst adolescents (Jones at al., 2024; Verlenden et al., 2024). In a study conducted with youth at risk for suicide, higher school connectedness was associated with fewer suicide attempts in a 6-month period (Arango et al., 2023). Across all age groups, social connectedness is considered a protective factor against depression and anxiety symptoms and diagnoses (Wickramaratne et al., 2022), and amongst adolescents specifically, social connectedness impacts developmental outcomes (Blum et al., 2022) and can help improve mental well-being over time (Oberle et al., 2023).

Additionally, adolescents' confidence and self-image impact their ability to form relationships and make decisions (Wagner et al., 2023; Wicaksono & Oktaviana, 2025). Accordingly, low confidence in adolescence is associated with higher anxiety and decreased social participation (Wicaksono & Oktaviana, 2025). Furthermore, adolescents form positive future expectations in part through family and peer relationships, and these expectations inform

their future relationships with significant others and contribute positively to identity development and adult social adjustment (Verdugo & Sánchez-Sandoval, 2020). So, confidence and positive future expectations are important considerations for adolescent social well-being and thus, psychosocial functioning.

Adolescent Sexual Health

One's sexual health is closely connected to their psychosocial functioning. The World Health Organization (WHO) defines sexual health as "a state of physical, emotional, mental, and social well-being in relation to sexuality" (WHO, 2022, February 11). Higher sexual satisfaction, sexual autonomy, and better relationship quality, as well as holding positive attitudes about sexual behavior and experiencing social connectedness and open communication with significant others about sex are indicators of "better" sexual health for adolescents (Hensel et al., 2017). A recent systematic review seeking to understand the connection between adults' sexual and overall health and well-being found significant positive associations between sexual health and outcomes related to physical health, mental health, and overall quality of life. Similarly, research has shown that better sexual health during adolescence is not only connected to better physical health (Vasilenko et al., 2014) but also higher self-esteem and better social integration (Hensel et al., 2016), highlighting the importance of considering sexual health when trying to understand adolescent psychosocial functioning. Doing so requires a sex-positive framework.

Researchers and major health organizations alike have long conceptualized adolescent sexuality as synonymous with risk; however, a growing body of sex-positive research challenges this conceptualization. For example, a sex-positive approach highlights how research on adolescent sexual health often focuses on penile-vaginal intercourse as a measure of sexual behavior, despite sexual experiences during adolescence being diverse and not necessarily

including penile-vaginal intercourse (Harden, 2014). Further, sexual behavior itself is not the only determinant of sexual health – a sex-positive framework also highlights the importance of romantic and sexual relationships for adolescents. Adolescent romantic and sexual relationships provide opportunities to develop relational skills like effective communication and conflict management (Hensel & Fortenberry, 2013) and support relationship development and outcomes later in life, such as relationship characteristics and future expectations about relationships (Vasilenko et al., 2016).

Adolescent sexuality does not develop in a vacuum – it is shaped by social contexts and interactions with parents, peers, and romantic partners (van de Bongardt et al., 2015). Adolescents' sexual health may be influenced by their sexual self-concept, relational skills, and attitudes towards sexual pleasure (Kotiuga et al., 2022). Given its complexity, supporting adolescents' sexuality development and psychosocial outcomes requires a holistic approach that goes beyond risk reduction and seeks to support adolescents' developmental capacities and psychosocial functioning.

Parent-Child Sex Communication (PCSC)

Parent-child sex communication (PCSC) facilitates the transmission of knowledge about sex and relationships, as well as the transmission of values, attitudes, and beliefs related to sex and relationships (Flores & Barroso, 2017). Research has identified a plethora of positive impacts that PCSC has on adolescent sexual health outcomes (Flores & Barroso, 2017; Hurst et al., 2022; Widman et al., 2016), including limited research on psychosocial sexual outcomes (e.g., psychological sexual well-being; Astle & Anders, 2022); however, broader psychosocial functioning outcomes have been largely unstudied despite the strong connection between sexual health and psychosocial functioning. Accordingly, there is a lack of research clarifying the

connection between PCSC and adolescent psychosocial functioning, positioning PCSC as a mechanism by which to improve adolescent sexual health outcomes.

Although research suggests that adolescents' perception of sex communication with their parents is important for their sexual attitudes and behaviors (Holman & Kellas, 2015; Rogers, 2017; Holman & Kellas, 2018), both adolescents and parents often find communicating about sex to be uncomfortable (Bibby et al., 2023). Accordingly, adolescents' perception of the effectiveness of parent communication about sex may even be more important than the actual messages being communicated, as adolescents' perception of their parents' communication competence, comfort, and sincerity is predictive of their sexual attitudes (Holman & Kellas, 2015). While adolescents report memorable conversations with their parents about delaying sex or conversations that included warnings and threats, they express a preference for communication characterized by collaboration, honesty, openness, and specific information about sex-related topics (Holman & Kellas, 2018). Accordingly, adolescents perceive comprehensive conversations about sex (e.g., those that include information about physical, emotional, and relational aspects of sex) to be more effective than conversations communicating warnings or delaying sex (Holman & Kellas, 2018). So, adolescents' perceived effectiveness of PCSC is an important factor to consider in the impact of this communication on their psychosocial outcomes.

Adolescents' comfort with PCSC is another key consideration in the relationship between PCSC and adolescent psychosocial functioning. One mixed-methods study comparing adolescents' sex communication with parents and extended family members (Grossman et al., 2018) examined adolescents' reasons for talking or not talking about sex with family. Extended family members, rather than parents, were more likely to be described as easy to talk to, which

encouraged adolescents to engage them in conversations about sex (Grossman et al., 2018). However, having a close relationship with the family member, feeling understood, and perceiving the family member as trustworthy and honest were also reported as reasons adolescents engaged in conversations about sex with both parents and extended family members (Grossman et al., 2018). Further, adolescents reported that awkward conversations and fear of judgment and negative reactions deterred them from talking with parents about sex (Grossman et al., 2018). Taken together, these findings highlight the importance of adolescents' comfort in the process of parent-child sex communication and its outcomes.

While research has documented some of the characteristics of PCSC that adolescents perceive as effective and support their comfort, less is known about how these perceptions of effectiveness and feelings of comfort then support psychosocial functioning. Parent-child communication interventions focused on promoting or improving PCSC often focus on behavioral measures of sexual health (e.g., Gutu et al., 2025), assuming a risk-reduction stance to adolescent sexual health and overlooking the broader psychosocial impacts PCSC could have for adolescents.

Gender Differences in PCSC

Research has documented gendered patterns in PCSC. A process review from 2017 (Flores & Barroso, 2017) analyzed studies published between 2003 and 2015 and found that PCSC typically happens between mothers and daughters, highlighting the de facto role that mothers play as sex educators (Flores & Barroso, 2017). PCSC was reported to be mostly centered around consequences and cautions, curbing conversations about sex positivity and pleasure, and tended to lack specificity (Flores & Barroso, 2017). Informational topics, like STI prevention, were more likely to be discussed than more specific or personal topics related to sex

(Flores & Barroso, 2017). Further, a mixed-methods survey data from 350 US college students found that messages received by young adults from their parents about sexual morality and relationships differed by gender (Payne et al., 2023). Specifically, women received more messages than men about marriage, respect for others, and monogamy, reinforcing gendered sexual scripts, such as women being gatekeepers and men being allowed sexual permissiveness (Payne et al., 2023). In general, young adults received messages from their parents that reinforced the value of having sex within the confines of marriage. These messages may instill values that influence young adults' beliefs and behaviors related to sex and have implications for psychosocial functioning (Payne et al., 2023).

These gender differences in PCSC also extend to sexual and relationship violence (Weiser et al., 2022). Using mixed-methods survey data from 438 US college students, Weiser et al. (2022) found that while men and women received similar, accurate definitions of consent, men and women received different messages about their role in sexual and relationship violence. Men received messages that sexual assault is wrong and placed them in the role of obtaining consent, while women received messages about help-seeking behaviors and how to give consent, further perpetuating gendered sexual scripts that have implications for sexual and relationship violence (Weiser et al., 2022), which may impact psychosocial outcomes.

PCSC and Religion

There is some research to suggest that religiosity plays a role in PCSC. Parent religiosity may decrease the prevalence of conversations with their children about contraception and sex in general (Nelson et al., 2024; Regnerus, 2005). When PCSC occurs, the content of the messages delivered may be informed by religion, so that messages are faith-based, communicating specific religious views about sexual behaviors, such as waiting to have sex until marriage (Cox et al.,

2010). Young adults who report never attending religious services receive fewer morality-based messages about sex than young adults who report any other level of attendance, and those who affirm that religion has an impact on their personal beliefs report receiving more morality-based messages about sex (Payne et al., 2023). A qualitative study of youth in African American churches highlighted that while their engagement in sexual behaviors was similar to the general population, they held beliefs about morality and sinfulness related to sex (Moore et al., 2014). Some research suggests that one's sexual behavior impacts their mental health through how they perceive their sexual behavior (Vasilenko, 2022). So, while religious adolescents and those with religious parents may have fewer experiences with PCSC, shame-based messaging and the transmission of sexual values and beliefs related to morality may have long-term consequences for adolescent psychosocial outcomes.

Social Cognitive Theory (SCT)

The impact of PCSC on adolescent psychosocial functioning can be explained using social cognitive theory (SCT; Bandura, 1986). SCT asserts that individuals develop knowledge and construct meaning through observations of others (Schunk & DiBenedetto, 2023). Parents serve as important models that adolescents observe regarding sexual health, as they not only provide verbal instruction but also demonstrate thinking and behavioral styles related to these topics (Bandura, 1999). These verbal and nonverbal cues provided by parents help adolescents construct meaning around sex and sexuality, impacting their sexual behavior and feelings towards sexuality (Joffe & Franca-Koh, 2001).

Adolescent Sexual Values and Attitudes

Parents communicate values about sex and relationships during PCSC through direct communication and observational learning (Astle et al., 2022; Weiser et al., 2021). During

PCSC, parents may communicate beliefs and values about gender norms and expectations, the morality of adolescent sexual behavior, or safe-sex practices (Flores & Barroso, 2017). For example, a parent may communicate directly to their adolescent that safe-sex practices are important to their health and well-being, influencing the adolescent's beliefs about safe-sex practices and potentially informing future behavior. Or an adolescent may observe their parent purchasing condoms at the store, which communicates the same value of practicing safe sex, through observation rather than direct verbal communication. Parents also transmit values about sex to their adolescents through tone and explicit messaging or by modeling behaviors that reflect a held belief or value.

Parents' communication of sexual values, including those related to abstinence or sex positivity (Rogers, 2017), can promote or hinder adolescents' overall well-being (Collins et al., 2024; Grosz et al., 2021) by influencing their behavior, albeit with conflicting findings. One longitudinal study of over 5,000 adolescents found that parent religiosity and disapproval of adolescent sexual behavior predicted fewer lifetime sexual partners (Cheshire et al., 2019). Another study similarly found parents' restrictive values about sex to be positively associated with delayed intercourse (Parkes et al., 2011). Similarly, through PCSC, parents may convey their attitudes about sex, which can influence adolescents' own views towards sexual behaviors (Rogers, 2017) and their well-being. For example, one longitudinal study found that adolescents' conservative attitudes about sex were a predictor of fewer sexual partners (Knopp et al., 2023). Another study found that adolescents' positive attitudes towards sexual health were positively correlated with their practice of sexual health-related behaviors (Putri & bin Sansuwito, 2025). Adolescents' attitudes towards sexual behavior have been shown to impact their mental health more than the behaviors themselves (Vasilenko et al., 2014). Adolescents' perceptions and the

meaning they make of their sexual experiences influence general mental health outcomes, such as how adolescents who hold conservative values experience shame and guilt when engaging in sexual behavior, which can lead to poor mental health outcomes (Vasilenko et al., 2014). So, sexual attitudes and attitudes may play a powerful role in psychosocial outcomes for adolescents.

Adolescent Sexual Self-Efficacy

In addition to values, SCT identifies self-efficacy as important for future behavior. Self-efficacy is an individual's confidence in performing a behavior (Dilorio et al., 2006). When individuals have higher self-efficacy, they may be more motivated to engage in a particular behavior (Bandura, 1999). Within an SCT framework, parents may help shape adolescents' self-efficacy regarding sex communication through PCSC by modeling comfort in communicating about sex and demonstrating openness. Indeed, research findings supports this assertion. Through PCSC, parents can model confidence or support adolescents in developing confidence related to sexual safety and decision-making (Dilorio et al., 2006). Specifically, the degree to which families engage in open communication about sex without the expectation of conformity to parental values and beliefs is positively associated with adolescents' sexual and general self-efficacy (Hemati et al., 2020; Hurst et al., 2022). The frequency of PCSC has also been found to be positively associated with higher self-efficacy in engaging in health-supportive behaviors (Javidi et al., 2025).

Higher self-efficacy, in turn, is associated with fewer symptoms of anxiety and depression (Assarzadeh et al., 2018; Jenkins et al., 2002), a greater orientation toward accomplishing goals (Onyeka et al., 2022), and greater engagement in health-promoting behaviors (Tabrizi et al., 2024; Binay & Yiğit, 2016), which are important for adolescent psychosocial functioning. Further, research has demonstrated the connection between self-

efficacy and future expectancies. Specifically, general self-efficacy is positively associated with an individual's continuous planning for the future, consideration of future consequences, and life satisfaction (Azizli et al., 2015), as well as their positive expectations about their future (Caprara et al., 2006). As such, self-efficacy is closely related to key psychosocial outcomes for adolescents, but the role of self-efficacy in the relationship between PCSC and psychosocial outcomes is less clear.

Self-efficacy may also influence adolescents' abilities and comfort in applying new information (Schramm et al., 2019), which is particularly relevant to sex communication, as comfort talking about sex may be an indicator of self-efficacy. Adolescents are often wary of communicating with their romantic partners about sex due to discomfort or fear (Bibby et al., 2023). But, communicating with romantic partners about sex has positive impacts on sexual and relationship satisfaction (Bibby et al., 2023) and sexual decision-making (Widman et al., 2014). And, since adolescent romantic relationships are foundational for romantic relationships in adulthood (Meier & Allen, 2009), communicating with romantic partners about sex in adolescence may set the stage for patterns of communication in future relationships. Fortunately, research suggests that adolescents' self-efficacy in talking with their parents about sex is positively correlated with their self-efficacy in talking with peers about sex (Halpern-Felsher et al., 2004). Guided by these findings and SCT, this study will use adolescents' reported comfort talking with peers and partners about sex as an indicator of sexual communication self-efficacy.

Chapter 2 - Present Study

The literature suggests that PCSC impacts adolescent and young adult sexual behavior, sexual self-efficacy, values, and attitudes, all of which have implications for overall sexual, physical, psychological, and social health. Published studies about PCSC tend to focus primarily on measures related to sexual health. The present study seeks to fill this gap in the literature by enhancing the field's understanding of the impact of PCSC on adolescents' holistic well-being by clarifying the role of PCSC in adolescent psychosocial functioning. Findings from this research can help direct education and intervention efforts, such as sex education, mental health programming, and parent-child communication interventions. Specifically, I aim to test the following hypotheses based on extant research and theory:

H1: Adolescents' perception of the effectiveness of, and their own comfort with, PCSC will be positively associated with their comfort talking with peers and partners about sex and clarity of their sexual values and beliefs.

H2: Adolescents' perception of the effectiveness of, and their own comfort with, PCSC will be positively associated with their psychosocial functioning, as measured by anxiety, positive expectancies for family life, connection, and confidence.

H3: Adolescents' comfort talking about sex with peers and partners and clarity of their sexual values and beliefs will at least partially mediate the relationship between PCSC and adolescent psychosocial functioning.

Methods

Procedure and Participants

Seventh- through tenth-grade students (N = 274) enrolled in a relationship education program called #RelationshipGoals were recruited from a Kansas school district. Students'

parents/guardians provided written consent for participation in the program and for data collection, and researchers followed the Institutional Review Board guidelines at Kansas State University. Before students participated in the #RelationshipGoals program, students completed a pre-test survey, consisting of demographic information, knowledge questions, and measures related to communication about sex, psychosocial functioning, values and beliefs about sex, and psychological skills that affect sexual activity (i.e., self-efficacy).

Students' average age was 13.8 years old. Students primarily identified as white (n = 125), followed by Black or African American (n = 72) and Hispanic, Latino, or Spanish origin (n = 59). When asked about gender, 61.5% of students primarily identified as cisgender female, 36.5% primarily as cisgender male, and a combined 2.0% identified primarily as transgender, unsure, or something else. Most students (63.5%) identified as heterosexual, followed by bisexual (14.9%), and unsure (14.1%), while some students (5.6%) identified as something else, and another 2.0% identified as homosexual. Just about half (50.6%) of students reported qualifying for free or reduced lunch, which has been used as a proxy measure of socioeconomic status (SES) for adolescents (Nicholson et al, 2014). When asked how influential religious/spiritual beliefs were in their lives, most students reported religious/spiritual beliefs as mildly (26.9%) or moderately influential (31.3%).

Students reported various relationship structures between their biological parents, with most students reporting their parents being married to each other and living together (33.3%), 23.0% reporting them being divorced or separated, 15.9% reporting them never being married to each other and not living together, and 13.9% reporting them being remarried to someone else. Most students (41%) reported living in their mother's house and identified their mother as their primary caregiver (44.5%), while still a sizeable number of students (33.6%) reported living in a

home with both biological parents and identified both their mother and father as joint primary caregivers (25.2%).

Measures

Parent-Child Sex Communication

PCSC was assessed using two scales: an adapted version of the Conversational Effectiveness Scale (Canary & Spitzberg, 1987; Hollman & Kellas, 2018) and the Comfort Talking About Sexual Topics scale, adapted from the 54-Item Behavior Inventory (Fisher et al., 2013).

The Conversational Effectiveness Scale (Canary & Spitzberg, 1987; Hollman & Kellas, 2018) has 20 items, and for this study, we used a 5-item subscale that measures adolescents' perceptions of their parents' effectiveness in communicating with them about sex. Students were instructed to assess their level of agreement on these items about conversations important adults in their lives have had with them about sex on a scale from 1 (strongly disagree) to 7 (strongly agree): "Our conversation was very beneficial," "It was a useless conversation," "It was a helpful conversation," "My parent(s) was not helpful during the conversation," and "The conversation was not rewarding." Three of the five items were reverse-coded. Items were averaged so that higher scores indicate a stronger perception of parental conversational effectiveness ($\alpha = .77$).

The Comfort Talking About Sexual Topics scale is a 9-item scale adapted from the 54-Item Behavior Inventory (Fisher et al., 2013). This study used a 3-item subscale to measure adolescents' comfort in talking with parents about sexual topics. Adolescents indicated on a scale from 1 (uncomfortable) to 4 (comfortable) the degree of comfort they had: "Talking with your parents about sex," "Talking with your parents about birth control," and "Talking with your

parents about STDs." Items were averaged with higher scores indicating greater comfort in discussing sexual topics with parents (α = .89).

Adolescent Sexual Communication Self-Efficacy

This study used a 6-item subscale from the Comfort Talking About Sexual Topics scale adapted from the 54-Item Behavior Inventory (Fisher et al., 2013) to measure adolescents' comfort in talking with peers and romantic partners about sexual topics. Adolescents indicated on a scale from 1 (uncomfortable) to 4 (comfortable) the degree of comfort they had: "Talking with a [friend or date or boyfriend/girlfriend] about sex," "Talking with a [friend or date or boyfriend/girlfriend] about birth control," and "Talking with a [friend or date or boyfriend/girlfriend] about STDs." Each of the three statements was provided for friends and for potential romantic partners. Items were averaged, with higher scores indicating greater comfort in discussing sexual topics with peers and romantic partners (α = .89).

Adolescent Sexual Values and Beliefs Clarity

Adolescents' clarity of sexual values and beliefs was measured using the Clarity of Personal Sexual Values Scale (Kirby, 1984; Fisher et al., 2013), a 5-item subscale from the 70-item Attitude and Value Inventory (Kirby, 1984). Adolescents indicated their level of agreement on a scale from 1 (strongly disagree) to 5 (strongly agree) with each statement: "I'm confused about my personal sexual values and beliefs," "I'm confused about what I should and should not do sexually," "I have trouble knowing what my beliefs and values are about my personal sexual behavior," "I have my own set of rules to guide my sexual behavior," and "I know for sure what is right and wrong sexually for me." Three of the five items were reverse-coded. Items were averaged so that higher scores indicate greater clarity about sexual values and beliefs (α = .72).

Adolescent Psychosocial Functioning

Psychosocial functioning was measured using four scales: the Youth Anxiety Measure for DSM-5 (Muris et al., 2016), the Expectations of Family Life Course subscale from the Positive Expectations for the Future Scale (Jessor et al., 1995; McLoyd & Hernandez-Jozefowicz, 1996; Costa et al., 1999; Tevendale et al., 2009), and the Connection and Confidence subscales from the Positive Youth Development – Very Short Form (Geldhof et al., 2014; Chauveron et al., 2015).

The YAM-5 (Muris et al., 2016) is a 50-item scale used to assess symptoms of anxiety disorders in children and adolescents. This study used the six items measuring generalized anxiety disorder. Adolescents indicated on a scale from 0 (never) to 3 (always) how often they experience the following items: "I worry about a lot of things," "I think a lot about what can go wrong," "I find it hard to stop worrying," "I worry a lot about not doing well at school," "I worry a lot about all the bad things that happen in the world," and "I don't feel well because I worry so much." Items were averaged with higher scores indicating higher anxiety ($\alpha = .89$).

The Expectations of Family Life Course subscale from the Positive Expectations for the Future Scale (Jessor et al., 1995; McLoyd & Hernandez-Jozefowicz, 1996; Costa et al., 1999; Tevendale et al., 2009) includes 3 items related to adolescents' expectancies for their future family lives, two of which focus on romantic relationships and were used for this study. Adolescents indicated on a scale from 1 (very low) to 5 (very high) the chances that they would: "have a satisfying long-term relationship with a romantic partner (think about your entire adulthood)" and "get married." Items were averaged, with higher scores indicating more positive expectancies for future family life ($\alpha = .71$).

The 11-item Connection subscale from the Positive Youth Development – Very Short Form (Geldhof et al., 2014; Chauveron et al., 2015) measures adolescents' feelings of connection

with their family, neighborhood, school, and peers. Adolescents indicated their level of agreement on a scale from 1 (strongly disagree) to 5 (strongly agree) with each statement, including: "I have lots of good conversations with my parents," "adults in my town or city make me feel important," "I get a lot of encouragement at my school," and "my friends care about me." Items were averaged so that higher scores indicate greater feelings of connectedness (α = .87).

The 12-item Confidence subscale from the Positive Youth Development – Very Short Form (Geldhof et al., 2014; Chauveron et al., 2015) assesses adolescents' feelings of confidence related to self-worth, appearance, and identity. For items related to self-worth and appearance, students were presented with two statements and given the following instructions: "We'd like you to decide whether the description on the left side or the description on the right side best describes you. Then we would like you to decide whether that is only sort of true for you or really true for you and mark your answer." Sample items include, "I am happy with myself most of the time / I am not happy with myself most of the time," "I don't like the way the I am leading my life / I like the way I am leading my life," and "I really like how I look / I wish I looked different." Response options ranged from 1 (statement on right is very true for me), 2 (statement on right is somewhat true for me), 3 (statement on left is somewhat true for me), and 4 (statement on the left is very true for me). Two of the six items were reverse-coded. For the six identity-related items, adolescents indicated their level of agreement on a scale from 1 (strongly disagree) to 5 (strongly agree). Items included: "on the whole, I like myself," "at times, I think that I am no good at all," and "I feel I do not have much to be proud of." Two of the six identity-related items were reverse-coded. All 12 items were averaged so that higher scores indicate greater self-confidence (α = .90).

Controls

Religiosity was measured by asking participants how influential religious/spiritual beliefs are in their lives, on a scale from 1 (not at all influential) to 5 (extremely influential). Gender was coded so that female = 0 and male = 0. Because there were few adolescents who identified as additional genders, they were marked as missing on this variable.

Analysis Plan

First, data were assessed for normality and missingness to determine the appropriate estimators. Bivariate associations were used to determine which variables to add gender and religiosity to as controls in the path analysis. The path analysis was then conducted to test the hypothesized associations in Mplus Version 8.9 (Muthén & Muthén, 2010). A path analysis allows for the investigation of direct and indirect effects of multiple independent and dependent variables at the same time to identify mediators in the relationship between PCSC and psychosocial functioning (see Figure 1). Indirect effects were evaluated using bias-corrected bootstrapped confidence intervals based on 5,000 bootstrap draws. While not displayed in Figure 1, direct associations between adolescents' perception of the effectiveness of, and their own comfort with, PCSC were also directly associated with psychosocial functioning to determine full or partial mediation. Consistent with recommendations from Hu and Bentler (1999) and Kline (2023), a well-fitting model was indicated by CFI and TLI values ≥ .95, RMSEA values ≤ .06, and SRMR values ≤ .08.

Figure 1

Hypothesized Mediation Model (Fully Mediated)

Chapter 3 - Results

Preliminary analysis revealed that gender was associated with adolescent anxiety and confidence while adolescent religiosity was associated with sexual values and beliefs clarity, positive future expectations, connection, and confidence (see Tables 1 & 2 for bivariate associations). These associations were added to original hypothesized model. Seventeen youth didn't report on PCSC effectiveness and comfort and were excluded from the sample, resulting in data from 257 youth being used to estimate the hypothesized model. The hypothesized model was a good fit to the data: $\chi 2$ (6) = 5.42, p = 0.49, CFI = 1.0, TLI = 1.0, RMSEA = 0.00, SRMR = 0.02. Nonsignificant paths were then removed from the analysis for parsimony, which resulted in a model that was a good fit for the data: $\chi 2$ (19) = 14.99, p = 0.72, CFI = 1.0, TLI = 1.0, RMSEA = 0.0, SRMR = 0.03. Due to low statistical power, all paths with p-values below 0.1 were reported (see the note for Figure 2).

Table 1

Correlation Table of Variables Used in Path Model

Variables	1	2	3	4	5	6	7	8	9
1. PCSC Effectiveness	—								
2. PCSC Comfort	.208**	—							
3. Comfort Talking with Peers	-.119	.441**	—						
4. Sexual Values & Beliefs Clarity	.122	.069	.131*	—					
5. Anxiety	-.047	-.072	.076	-.075	—				
6. Positive Future Expectations	.139*	.008	.122	.177	.065	—			
7. Connection	.417**	.043	-.079	.063	-.121	.309**	—		
8. Confidence	.282**	.050	.000	.147*	-.430**	.272**	.537**	—	
9. Religiosity	.128	.010	.003	.228**	.111	.261**	.206**	.185**	—

Note: $^{*}p < 0.05$, $^{**}p < 0.01$

Table 2

Means, Standard Deviations, and One-Way Analyses of Variance in PCSC and Psychosocial Functioning

Measure	Male		Female		*F*	η^2
	M	*SD*	*M*	*SD*		
PCSC Effectiveness	4.91	1.10	4.95	1.23	0.50	.00
PCSC Comfort	2.11	1.04	2.00	1.00	0.36	.00
Comfort Talking with Peers	2.34	0.96	2.29	0.92	0.29	.00
Sexual Values & Beliefs Clarity	3.72	0.82	3.71	0.78	0.14	.00
Anxiety	1.51	0.77	1.82	0.73	5.77*	.05
Positive Future Expectations	4.10	0.97	4.13	0.83	3.02*	.02
Connection	4.03	0.73	3.97	0.76	0.18	.00
Confidence	3.33	0.77	3.23	0.85	3.70*	.03
Religiosity	2.33	1.11	2.68	1.19	4.36*	.03

Note: $^*p < 0.05$

Direct Effects

H1: The Association of PCSC with Beliefs, Values, and Sexual Communication

Contrary to my first hypothesis, perceived PCSC effectiveness was negatively associated with comfort talking to peers and partners about sex ($\beta = -0.23$, $p < 0.001$). So, when adolescents perceived PCSC to be more effective, they reported less comfort talking with peers and potential partners about sex. Alternatively, in line with expectations, adolescents' comfort with PCSC was positively associated with their comfort talking with peers and partners about sex ($\beta = 0.48$, $p < 0.001$), so greater comfort talking with parents about sex was associated with greater comfort talking with peers and partners about sex. Contrary to my first hypothesis, neither perceived effectiveness of nor adolescent comfort with PCSC was associated with values and beliefs clarity, controlling for religiosity, although values clarity was also positively associated with adolescents' comfort talking to their peers and partners about sex ($\beta = 0.12$, $p = 0.05$).

H2: The Association of PCSC with Psychosocial Functioning

In line with expectations, adolescents' perception of the effectiveness of PCSC was positively associated with positive expectations for the future ($\beta = 0.14$, $p = 0.036$), connection ($\beta = 0.40$, $p < 0.001$), and confidence ($\beta = 0.24$, $p < 0.001$). Adolescents' perception of the effectiveness of PCSC was not associated with anxiety. Alternatively, in line with expectations, adolescents' comfort with PCSC was approaching a negative association with anxiety ($\beta = -0.13$, $p = .066$), indicating that greater comfort with PCSC may be associated with lower anxiety for adolescents. These direct effects partially support H2, such that adolescents' perceptions of the effectiveness of, and their own comfort with, PCSC were positively associated with a handful of measures related to psychosocial functioning.

H3: The Mediating Role of Values and Beliefs and Sexual Communication on the Relationship Between PCSC and Adolescent Psychosocial Functioning

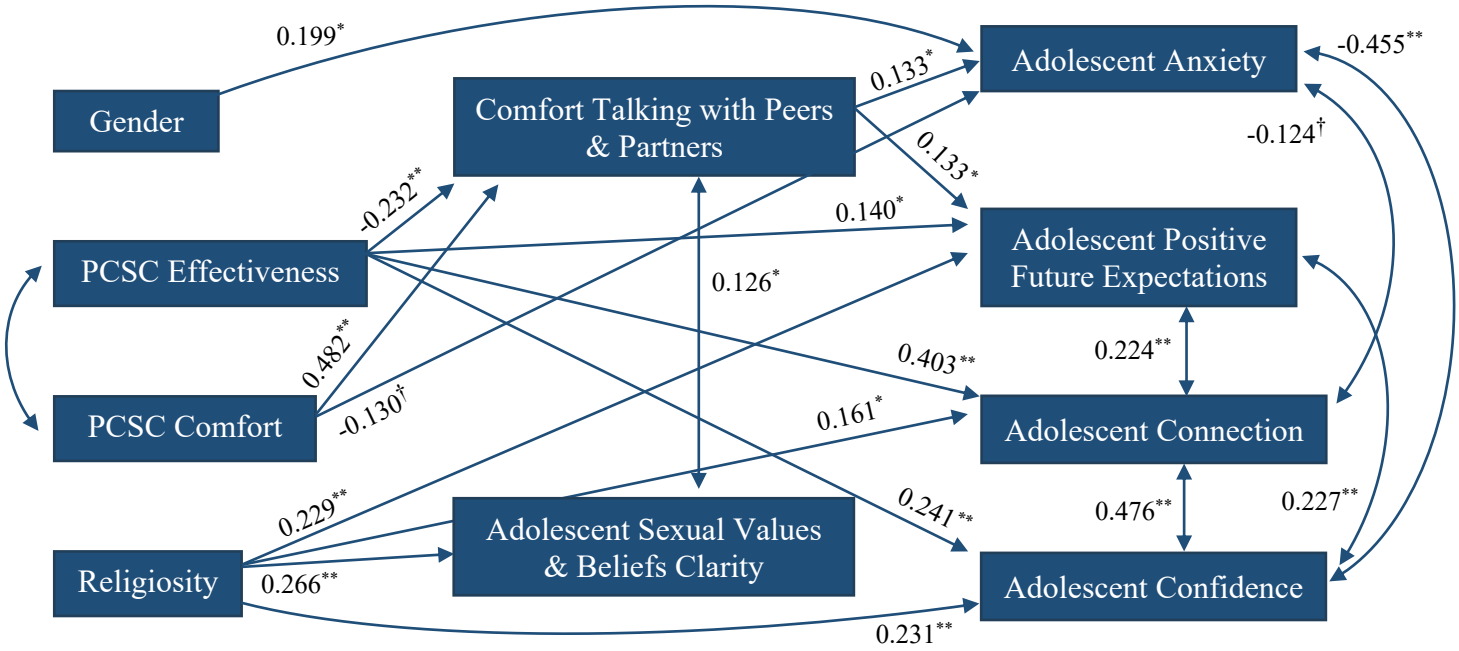
Once the final model was decided, indirect effects were tested, and several of them approached significance. First, PCSC effectiveness was negatively associated with anxiety through adolescents' comfort talking with peers and partners about sex ($\beta = -0.03$, $p = 0.092$, 95% CI [-0.076, -0.003]). PCSC effectiveness was also negatively associated with adolescents' positive expectations for the future through adolescents' comfort talking with peers and partners about sex ($\beta = -0.03$, $p = 0.062$, 95% CI [-0.073, -0.005]). Adolescents' comfort with PCSC was positively associated with anxiety through comfort talking with peers and partners about sex ($\beta = 0.06$, $p = 0.065$, 95% CI [0.002, 0.140]). Adolescents' comfort with PCSC was also positively associated with positive future expectations through comfort talking with peers and partners about sex ($\beta = 0.06$, $p = 0.035$, 95% CI [0.007, 0.124]). These indirect effects partially support H3, as adolescents' comfort talking with peers and partners about sex at least partially mediated

relationships between predictor and outcome variables in the model. Contrary to expectations, adolescents' sexual values and beliefs clarity did not mediate the relationship between PCSC and adolescent psychosocial functioning.

The final model explains 24.5% of the variance in adolescents' comfort talking with peers and partners about sex ($R^2 = 0.245$, $p < 0.001$), 20.5% of the variance in adolescents' feelings of connection ($R^2 = 0.205$, $p < 0.001$), 11.7% of the variance in adolescents' feelings of confidence ($R^2 = 0.117$, $p = 0.004$), 9.5% of the variance in positive expectations for the future ($R^2 = 0.095$, $p = 0.015$), 7.1% of the variance in values and beliefs clarity ($R^2 = 0.071$, $p < 0.038$), and 6.2% of the variance in anxiety ($R^2 = 0.062$, $p = 0.071$). This includes the effects of the control variables: religiosity was positively associated with positive expectations for the future ($\beta = 0.23$, $p < 0.001$), connection ($\beta = 0.16$, $p = 0.009$), confidence ($\beta = 0.21$, $p < 0.001$), and adolescents' sexual values and beliefs clarity ($\beta = 0.27$, $p < 0.001$), and females reported greater anxiety than males ($\beta = 0.20$, $p = 0.006$).

Figure 2

Final Path Model of PCSC and Psychosocial Functioning



Note: Significant standardized paths are indicated in the figure. † = $p < 0.1$, * = $p < 0.05$, ** = $p < 0.005$

Chapter 4 - Discussion

Through a social cognitive lens, this study sought to better understand the impact of PCSC on adolescents' holistic well-being by clarifying the mediating role of adolescent sexual values and belief clarity and comfort talking with peers and partners about sex on adolescent psychosocial functioning. All three hypotheses were at least partially supported, suggesting that PCSC has positive impacts on adolescent psychosocial functioning and that adolescents' comfort talking with peers and potential partners about sex partially mediates this relationship.

The Impact of PCSC on Adolescent Sexual Beliefs, Values, & Self-Efficacy

Research suggests that the trajectory of sex communication for adolescents begins with parents, and then the torch is passed to peers and potential partners as peer groups and romantic relationships become of greater importance across development (Bibby et al., 2023). Students in this sample, on average, were between the 7th and 8th grade. Bibby and colleagues' (2023) developmental trajectories of sexual communication suggest that 7th graders are talking more to parents and friends about sex than to their romantic partners, while 12th graders are talking more to romantic partners and friends than to parents. Accordingly, adolescents in this sample are at a place in their development where talking with peers and partners about sex may be generally uncomfortable and uncommon. It is interesting then that adolescents' comfort talking to their parents about sex was positively associated with their comfort talking with peers and potential partners about sex while their perceptions of how effective their parents are at communicating about sex was negatively associated.

Through the lens of SCT, it may be that in feeling comfortable talking with their parents about sex, adolescents gain comfort in applying new information about sex and relationships with their peers and potential romantic partners (Schramm et al., 2019). This is consistent with

prior research on self-efficacy in PCSC that reports adolescents' self-efficacy in talking with their parents about sex is positively correlated with their self-efficacy in talking with peers about sex (Halpern-Felsher et al., 2004). This may suggest that gaining comfort in talking with their parents about sex bolsters adolescents' self-efficacy in their sex communication skills, evidenced by their greater comfort in talking with peers and potential partners.

What adolescents perceive as "effective" could provide some context for the negative association between perceived effectiveness of PCSC and comfort talking with peers about sex. The items in the Conversational Effectiveness subscale used for this study measure adolescents' perception of conversations with parents about sex being beneficial, useful, and rewarding and whether they thought their parents were helpful. Research suggests that conversations about sex between parents and children are often general and focused on warnings about the risks and consequences of sex (Flores & Barroso, 2017; Grossman et al., 2018). These conversations tend to emphasize safety practices with little to no exploration of pleasure and sex-positivity (Grossman et al., 2018; Evans et al., 2020). This information may be perceived as beneficial or useful for adolescents and scored as effective, but perhaps the tone and feeling of comfort during the conversation plays a larger role in their later comfort talking with peers and partners about sex. For example, research suggests that PCSC characterized by openness and directness on the parents' behalf, rather than an authoritarian tone that limits discussion contributes to adolescents' comfort with PCSC and their future engagement in such conversations (Flores & Barroso, 2017; Grossman et al., 2018), and that parents' discomfort with PCSC decreases its effectiveness (Scull et al., 2022). Through a SCT lens, it makes sense that parents' demonstrated comfort with PCSC would influence adolescents' own comfort during conversations about sex and impact their perception of the effectiveness of the conversation. It seems that effective communication alone

may not be enough to support adolescent self-efficacy in communicating about sex with peers; rather, communication that is comfortable and conveys openness may have more positive impacts on self-efficacy, which is in line with theory, research, and the findings of this study.

Contrary to expectations, PSCS was not associated with adolescents' sexual values and beliefs clarity. Although beliefs, values, and attitudes about sex are transmitted to adolescents through PCSC (Astle et al., 2022; Weiser et al., 2021; Rogers, 2017), perhaps these measures of PCSC spoke more to the development of and comfort with communication skills and bolstering of self-efficacy, rather than the development and clarification of values. Alternatively, the young age of the sample may also play a role in this lack of association. While sexual values and beliefs exploration begins in early adolescence (Tolman & McClelland, 2011), emerging adults are still actively developing and negotiating their sexual values and beliefs (Morgan & Zurbriggen, 2012), so this process is far from over. Further, research suggests that the social transition into adulthood is taking place later in development (Skirbekk et al., 2025), potentially delaying sexual values and beliefs clarity. This sample was comprised mostly of younger adolescents, so it could be possible that they have yet to clarify their sexual values and beliefs, which would be consistent with developmental trajectories.

Further, religiosity may be exerting a stronger influence on adolescents' values than PCSC at this age, evidenced by the positive association between religiosity and sexual values and beliefs clarity in this study. Religious parents are likely to have fewer conversations about sex with their children, and when this communication does occur, its content is faith-based and communicates values about sex informed by religion (Nelson et al., 2024; Cox et al., 2010; Regnerus, 2005). Perhaps, the adolescents in this sample, many of whom reported religious values were mildly (26.9%) or moderately (31.3%) influential in their lives, are receiving

messages about sex from church that are reinforced at home by their parents, and this has a stronger impact on their values clarity than PCSC, which may not be happening much.

The Association of PCSC with Psychosocial Functioning

Adolescents' perception of the effectiveness of and their comfort with PCSC had distinctly different direct effects on their psychosocial functioning. Specifically, perceived PCSC effectiveness has a direct positive association with three of the four measures of psychosocial functioning (positive expectations for the future, connection, and confidence), while their comfort talking to their parents about sex was only related to their anxiety. Additionally, girls in this model reported greater anxiety than boys, which is in line with current prevalence rates of anxiety in adolescents (Sappenfield et al., 2024).

We do not know the content of the communication between parents and adolescents that adolescents perceive as effective. This could offer some explanation for the connection between perceived effectiveness and psychosocial outcomes. Despite this gap in information, from an SCT lens, it is possible that parents are communicating or modeling in a way that effectively impacts adolescents' positive expectations for the future and feelings of connection and confidence. Adolescents develop their beliefs about the future in part through their interactions with significant others, such as their parents (Verdugo & Sánchez-Sandoval, 2020), so perhaps parents are supporting the development of adolescents' future expectations through PCSC. In this study, adolescent future expectations, connection, and confidence were all positively correlated with one another, and all directly impacted by adolescents' perceived effectiveness of PCSC. The Positive Youth Development framework (PYD; Lerner, 2005) asserts that positive expectations for the future are influenced by adolescents' feelings of confidence and connection, which is in line with the research findings.

Adolescents' comfort talking to their parents about sex was directly negatively associated with anxiety. This finding was in line with expectations, but we are unable to determine directionality. So, it is possible that greater comfort talking to parents about sex helps lower adolescents' symptoms of anxiety, but it is also plausible that adolescents with lower baseline anxiety symptoms experience greater comfort in talking with their parents about sex. The items used to measure adolescents' comfort talking with parents about sex are specific to their comfort talking about sex, birth control, and STDs. Parents are more likely to communicate about the risk of STDs with their children than they are to directly ask about sex or discuss birth control (Flores & Barroso, 2017), and it may be that these topics are particularly uncomfortable for them, which may be particularly relevant to anxiety symptoms. SCT suggests that parents model their level of comfort with these topics, which would support previous research findings that open parent-child communication is negatively associated with adolescent anxious symptoms (Loffe et al., 2020; Zapf et al., 2023), but the associations are small, similar to those in this study. More research is needed to explore the directionality of these effects. Additionally, since the scale used to measure adolescents' comfort talking with their parents about sex only had three potentially anxiety-laden topics, it is possible that there are other topics related to sex and relationships (e.g., pleasure, gender expectations, consent) that comfort talking with parents about would be associated with other psychosocial outcomes, like positive future expectations, connection, and confidence.

The Mediating Role of Values and Beliefs and Sexual Communication on the Relationship Between PCSC and Adolescent Psychosocial Functioning

The present study found no mediating effect of sexual values and beliefs clarity, but found that adolescents' comfort talking with peers played a weak role in partially mediating the associations between PCSC comfort and effectiveness with anxiety and positive future

expectations. This finding is supported by SCT, which suggests self-efficacy is supported by PCSC and connected to adolescent psychosocial outcomes (Javidi et al., 2025; Hemati et al., 2020; Dilorio et al., 2006). Previous research also supports the importance of self-efficacy in psychosocial outcomes, such as fewer symptoms of anxiety (Assarzadeh et al., 2018; Jenkins et al., 2002) and positive future expectations (Caprara et al., 2006). This study supports existing literature on the role of self-efficacy in adolescent psychosocial functioning and adds to the literature on PCSC and psychosocial functioning by identifying self-efficacy as a potential mechanism by which PCSC affects adolescent psychosocial outcomes. However, more research with a larger sample is needed.

It is interesting that the indirect effect of adolescents' comfort with PCSC was positively associated with anxiety, while the indirect effect of their perceived effectiveness of PCSC was negatively associated with anxiety through comfort talking with peers. In this study, comfort talking to peers and partners about sex was positively associated with anxiety, although research finds that positive peer relationships are protective against anxiety (Chiu et al., 2021; Fauzia & Fatimah, 2026). It could be that when adolescents are talking with their peers about sex specifically, they are co-ruminating (excessive discussion of problems and dwelling on negative affect), which increases their anxiety (Rose et al., 2007; van der Mey-Baijens et al., 2025), despite their comfort level engaging in conversation. Adolescents often co-ruminate about developmentally salient topics, such as romantic interests, and interpersonal or family problems (Rose et al., 2022), and often overestimate their peers' sexual behaviors (Maheux et al., 2020), which could inspire social comparisons that make them feel abnormal or behind in their own sexual development. Social comparison, such as negative self-evaluation, is associated with symptoms of anxiety (McCarthy & Morina, 2020). Further, since I could not test directionality,

perhaps adolescents who are more anxious are more likely to try and reduce their anxiety about sex by talking to their friends and partners. Further research could benefit from a closer look at characteristics of adolescents' conversations with peers and partners about sex (e.g., topics, approaches) to better understand how talking with peers about sex positively or negatively impacts psychosocial outcomes.

Additionally, PCSC effectiveness is negatively associated with comfort talking to peers about sex while comfort talking to parents is positively associated. It could be that adolescents who are more anxious have parents who employ conversational skills that increase comfort when talking about sex, while less anxious adolescents have parents who focus on conversational effectiveness. More research would be needed to investigate anxiety as a potential moderator of these associations.

The reverse relationship was observed for positive future expectations. Adolescents' comfort with PCSC was positively associated with positive future expectations through comfort talking with peers, while perceived effectiveness was negatively associated with future expectations through comfort talking with peers. This again may suggest the role of peer influence on psychosocial outcomes since adolescents' perception of the effectiveness of PCSC is directly positively associated with positive expectations for the future, but negatively associated through comfort talking with peers. Alternatively, adolescents' comfort with PCSC is not directly associated with positive future expectations, but is positively associated through comfort talking with peers. The results of this study support the mediating effect of adolescents' comfort talking with peers and potential partners about sex on the relationship between PCSC and psychosocial functioning, but more research is needed with longitudinal data to understand the directionality of effects.

Limitations and Future Directions

The secondary data analysis study design lends itself to limitations that can be addressed in future research. The present study sought to answer research questions that were not the focus of the original data collection, so the researchers were limited in the measures they could use for analysis. Future studies should prioritize primary data collection so that the measures can more thoroughly address the research questions. Perhaps, researchers could utilize a measure for adolescents' comfort with PCSC that covers more diverse sex and relationship topics (e.g., Astle & Anders, 2023) or select a more general self-efficacy measure. Gathering a larger sample size should also be a focus of future research to address the limitation of statistical power.

The use of adolescents' comfort talking with peers and partners about sex as a specific measure of self-efficacy, while informed by research and theory, may still be a limitation of the research design and point to future research exploring adolescents' self-efficacy with other sexual health behaviors.

Bibby and colleague's (2023) research on developmental trajectories of sexual communication suggest that adolescents around the age of this sample (M = 13.8) would be talking more to parents and peers about sex than romantic partners. The scale used by this study to measure comfort talking with peers and partners was combined, so there is no distinction between comfort with each group. This could be a consideration for future researchers who wish to better understand the role of multiple sources of sex communication (e.g., parents, peers, partners) on adolescent psychosocial outcomes. Developmental trajectories of sexual communication also suggest that the role of communication with different sources shifts as developmental needs shift (Bibby et al., 2023), so age may moderate the association between sex communication and psychosocial functioning. Similarly, the trajectory of sexual values

development would suggest that older adolescents or emerging adults may have more clarity about their sexual values and beliefs (Morgan & Zurbriggen, 2012; Skirbekk et al., 2025). So, perhaps an older sample would see a different relationship between PCSC and sexual values and beliefs clarity. Future studies with larger samples may investigate age-related effects in the relationship between PCSC and psychosocial functioning.

Future research should continue to clarify the impact of PCSC on adolescent psychosocial functioning, given the statistical limitations of the present study. Specifically, the relationship between dimensions of PCSC (e.g., perceived effectiveness, comfort, quality, quantity) and adolescent mental health outcomes (e.g., anxiety, depression) could use further investigation, considering continued declines in adolescent mental health outcomes. Establishing PCSC as a key, and potentially early, intervention to support mental health and broader psychosocial outcomes for adolescents strengthens the body of research informing parent-adolescent interventions and sex education programming.

Implications for Intervention and Prevention

In highlighting the positive impact of PCSC on adolescent psychosocial functioning, this study has implications for relationship and sex educators, as well as other professionals who work with adolescents and their families (e.g., couple and family therapists). Supporting communication between parents and adolescents about topics related to sex and relationships may be one way to support adolescents' psychosocial outcomes, which are important for their future functioning. Educators and clinicians should assume a sex-positive stance when assessing the well-being of the adolescents they work with and consider how PCSC may be supportive of broader psychosocial outcomes (e.g., mental health, positive future expectations), rather than serving solely as an intervention to reduce sexual risk.

Further, given the role that adolescents' comfort talking with peers about sex played in this study, there is reason to suggest the implementation of relationship education programming in classrooms with trained professionals or in group therapy settings, where adolescents can practice their communication skills with guidance. Since adolescents begin to shift their sex communication patterns from primarily with parents to primarily with peers and partners as their psychosocial development progresses (Bibby et al., 2023), relationship professionals can support this developmental shift to promote more supportive relationships and positive psychosocial outcomes.

Conclusion

Adolescent psychosocial functioning is predictive of long-term outcomes (Oerlemans et al., 2020; kemp et al., 2024; Tolstrup et al., 2025), which underscores the importance of interventions that support psychosocial outcomes. Research has documented the plethora of positive impacts PCSC has on adolescent sexual health (Flores & Barroso, 2017; DeSouza et al., 2021; Weiser et al., 2022; Payne et al., 2023), which is one dimension of broader psychosocial functioning. This study sought to take a holistic approach to adolescent psychosocial functioning and found that PCSC is positively associated with broader measures of psychosocial functioning for adolescents and self-efficacy communicating about sex with peers and romantic partners may be a key mechanism of this effect. This supports an important shift away from the conceptualization of PCSC as primarily influential in sexual risk reduction and towards a view that upholds open communication about sex and relationships between parents and children as essential for holistic well-being and future functioning. This perspective supports family-based, school-based, and community-level sex communication interventions and education in a time when sex and relationship education is scrutinized.

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