EFFECTS OF PARENTING STYLE AND MESSAGE TYPE ABOUT SEX ON RISKY
SEXUAL BEHAVIORS OF ADOLESCENTS

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Abstract

Parent-adolescent communication about sex is an important issue given that adolescents are susceptible to risky sexual behaviors (CDC, 2011). This study examined how parenting styles and the nature of parents’ conversations about sex with their adolescents impact their adolescents’ sexual activity. The results showed relationships between parenting style, type of communication about sex, psychological reactance, and risky sexual behaviors of adolescents. Specifically, authoritarian mothers use controlling communication, which was associated with higher psychological reactance. Higher psychological reactance was associated with risky sexual behaviors. Fathers’ authoritative parenting style was associated with supportive communication and lower psychological reactance. Lower psychological reactance was correlated with less risky sexual behaviors of adolescents. This study extends the parenting style literature by demonstrating that the nature of parent-adolescent communication about sex has an impact on adolescents’ psychological reactance, which can indirectly affect the risky sexual behaviors of adolescents.
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Introduction

Parent communication with their adolescent about sex is an important issue due to the fact that the adolescent population in the United States is especially susceptible to risky sexual behaviors (Centers for Disease Control and Prevention [CDC], 2011). Pressures to be sexually active can come from a variety of sources such as media (television, magazines, social networks, etc.) as well as peers (Bleakley, Hennessy, Fishbein, & Jordan, 2009). These pressures can result in unintended pregnancies and/or the contraction of STDs. According to the Center for Disease Control and Prevention (2011) 47.4% of U.S. high school students surveyed reported ever having sexual intercourse and 15.3% reported having sex with four or more people during their life, while more than 400,000 teen girls, ages 15-19 years, gave birth in 2009 (Center for Disease Control, 2011). Although these statistics are declining (Teen Sex, 2013), there is still a concern for adolescents to make good choices when it comes to their sexual health. A large contributing factor of adolescent sexual health has to do with the communication (or lack thereof) between adolescents and their parents. Only 1 in 10 teens discussed their plans about sex ahead of time, 1/4 discussed sex with their parents after the fact, and 1/5 of parents found out about their teens’ sexual activity some other way. The remaining 40% of teens who are sexually active report that their parents still don’t know (Kaiser Family Foundation, 2003).

Although teen birth rates have decreased (CDC, 2013), adolescents are initiating sexual activities at younger ages (Meschke, Batholomae, & Zentall, 2002). And as adolescents get older, the likelihood of sexual activity increases. Over twice
as many 18-21 year old adolescents are sexually experienced compared to 14 and 15 year old adolescents. Furthermore, adolescent contraceptive use has increased (Meschke, Batholomae, & Zentall, 2002), however, many acknowledge they know little or nothing about condoms and birth control pills (Albert, 2012). The majority of adolescents believe it is important for them to avoid getting pregnant/getting someone pregnant at this time in their lives. However, the pressure to engage in sexual activities still exists. Maturing adolescent girls whose increased romantic and sexual interests drive them to seek sexual information from a variety of media, including music, movies, television, and magazines. The media typically provides teens with sexual scenarios which teach them how to act in romantic contexts (Pinkleton, Austin, Chen, & Cohen, 2012). Adolescents also report that peers pressure them to engage in sexual activities. Twenty-eight percent of teen girls and 17% of teen boys ages 12-19 reported having someone pressure them to do sexual things that took them further than they wanted to go (Albert, 2012).

The decision to initiate sexual activity is a complex process for youth as they enter puberty (Aspy, Vesely, Oman, Rodin, Marshall, & McLeroy, 2007; Fortenberry, 2013). According to a survey done by The National Campaign to Prevent Teen and Unplanned Pregnancy (2012), teens are more likely to postpone sex, have fewer sexual partners, and use contraception more consistently if they are close to their parents and feel supported by them. However, parenting is a complex activity that involves many specific behaviors that work independently and interdependently to influence child outcomes. Many researchers suggest that specific parenting practices are not as important in predicting child welfare than is the broad pattern of
parenting (Darling, 1999). Baumrind (1966) constructed parenting styles to capture normal variations in parents’ attempts to control and socialize their children. Maccoby and Martin (1983) furthered Baumrind’s (1991) parenting styles, which has been found to predict child well being in the domain of problem behavior (Darling, 1999).

In light of the high levels of pressure to have sex from media and peers (Albert, 2012; Pinkleton, Austin, Chen, & Cohen, 2012) and the problem of unintended pregnancies among adolescents, an important question to ask is how parenting styles and the nature of parents’ conversations about sex with their adolescents impacts their adolescents’ sexual activity. There is a substantial amount of past research on parent-adolescent communication that has examined the onset of adolescent sexual risk-taking (Clawson & Reese-Weber, 2003; Karofsky, Zeng, & Kosorok, 2001), parent sex communication (Aspy, Vesely, Oman, Rodine, Marshall, & Mc Leroy, 2007; Brock & Jennings, 1993; Dutra, Miller, & Forehand, 1999; Fox & Inazu, 1980; Guilamo-Ramos, Jaccard, Dittus, Bouris, 2006; Huebner & Howell, 2003; Hutchinson, 2002; Hutchinson & Cooney, 1998; Hutchinson, Jemmott, Jemmott, Braverman, & Fong, 2003), adolescent pregnancies (Luster & Small, 1994), contraceptive use (Jaccard, Dittus, & Gordon, 1996; Jaccard, Dodge, & Dittus, 2002; Miller, Levin, Whitaker, & Xu, 1998; Whitaker, Miller, May, & Levin, 1999), sexually transmitted diseases (Hutchinson, 1999), sources of sexual information (Bleakley, Hennessy, Fishbein, & Jordan 2009; Dilorio, Kelley, & Hockenberry-Eaton, 1999; Feldman & Rosenthal, 2000; Heisler, 2005; Spanier, 1977), sexual knowledge, and how sex education programs affect adolescent sexual behaviors (Blake, Simkin,

In contrast, research is lacking in the area regarding how parenting style and message types impact their adolescents’ risky sexual behaviors. This study intends to address this gap and provide a link between parenting style and types of communication about sex with adolescents. Past research has not specifically focused on the type of messages parents use when addressing sex communication with their adolescents, nor has past research focused on how communication about sex can induce psychological reactance. Psychological reactance may be a link to help explain how communication about sex can lead to risky sexual behaviors of adolescents. The type of communication parents use may have a large impact on the risky sexual behaviors of adolescents. The following sections of this paper will discuss parent-adolescent communication, past research regarding parent-adolescent communication about sex, parenting styles, message types, and psychological reactance.

**Parent-Adolescent Communication**

Communication between parents and their adolescents has shown to significantly affect the moral development of adolescents by facilitating higher moral reasoning (Stanley, 1978). Bienvenu (1969) suggested that adolescents value parents for their opinions, compliments and praise, and admiration of confidence in their adolescents’ abilities, while criticism, sarcasm and lack of trust, are often cited as hurdles to healthy communication. Warren and Warren (in press) make the important distinction between sex education and sex communication.
intending to pass on information about sexuality, sexual intercourse, reproduction, and birth control to receivers, characterize sex education. Sex communication, on the other hand, “involves people exchanging verbal and nonverbal messages in a mutual effort to co-create meaning about sexual beliefs, attitudes, values and/or behavior” (Warren & Warren, in press, p. 5). Many use the two terms interchangeably, however, it is helpful to understand the differences for the purpose of this study.

The present research focuses on sex communication. For the purposes of this research, sex communication is not limited to the serious “sex talk” that most people think of when it comes to the conversation about the “birds and the bees”. This study will also examine passing conversations between parent and adolescent regarding sex. Furthermore, it is evident that there are discrepant findings within the research regarding the impact of parent-adolescent communication on adolescents.

Although parent-adolescent communication is influential to adolescents’ sexual behavior, many parents fail to have meaningful conversations or even engage in conversations regarding sex. Furthermore, parents and adolescents often do not have the same understanding about the conversations that occurred regarding sex. In an early study, Newcomer and Udry (1985) examined how accurately adolescents perceive their parents’ attitudes regarding sex, whether or not parents and teenagers agree about the types of communication that have taken place, and if parent-child communication about sex predicts the child’s own sexual behavior. The results indicated that adolescents were often ignorant about their parents’ attitudes
toward sex-related issues. Also, parents and adolescents often disagreed about the kind of sex-related conversations they had. The data revealed little effect of parental attitudes of parent-child communication on either the adolescents’ initiation of sex or his or her use of contraceptives. However, Moore, Peterson, and Furstenberg’s (1986) research indicated otherwise. Moore et al. predicted that the effects of parent-adolescent discussion and parent supervision on teens’ sexual activity is dependent on the parents’ own attitudes. The results indicated that among 15 and 16 year olds, parental discussion is associated with less frequent sexual activity initiation only for daughters of parents with traditional family values. That is, parents who value the idea that marriages are better when the husband works and the wife cares for the home is an example of those parents with traditional family values.

Often times, parents think or want to believe their adolescents are not engaging in any sexual behaviors. Unfortunately, parents aren’t always accurate in their assumptions. Jaccard, Dittus, and Gordon (1998) examined parent-adolescent communication about sex and birth control. The authors assessed the impact of the parent-adolescent communication on adolescent sexual risk behavior through interviews done with mothers and daughters in their homes. The results suggested that mothers were more likely to underestimate their teen’s sexual activity if they reported not engaging their teen in conversations regarding sex. Also, mothers who were more strongly disapproving of their teen engaging in sexual intercourse were more likely to judge their teens as not having sexual intercourse when in fact they had. In a more recent study, Longmore, Eng, Giordano, and Manning (2009)
examined the relationship between parents’ interaction and communication with their teen and how it was associated with delaying teens’ sexual initiation. They found that bonds of attachment and monitoring adolescents’ behavior were important and that parental caring was associated with a lower likelihood of teens’ sexual initiation over a 12-month interval.

It is important to note that parent-adolescent communication can be viewed from one of two ways—the parent perspective or the adolescent perspective. The current study is focused on the impact of adolescents’ perceptions of their parents’ views on sex and the types of messages adolescents received regarding their sexual behaviors. Past research regarding this aspect of parent-adolescent communication has looked at the messages parents send to their adolescent, but researchers have not focused on how the perceptions of a parent’s message impacts the adolescent’s sexual behaviors. For example, Brock and Jennings (1993) investigated the nature of mothers’ messages from the perspective of daughters, but did not examine the impacts of the mothers’ messages. Brock and Jennings’ research focused on daughters in their 30s reflecting upon the communication they had with their mothers about sex while growing up. Six themes emerged through the daughters’ open-ended answers: 1) Women spoke with a sense of regret, sadness, and disappointment. The women’s answers often included the words nothing, not, no, none, or never. 2) The women had memories of the strong presence of negative, nonverbal messages about sexuality. 3) The women recollected about the warnings and rules their mothers expressed when it came to sexuality. 4) Most women wished for a positive approach without the negative, nonverbal messages from their
mothers. 5) The women wished to have discussions regarding sexuality and feelings—both physical and emotional. 6) The women wished for discussions about sexuality and choices (sexual expression/behavior, in childbearing/pregnancy, and in relationships). The six themes discussed by the authors were followed up with quotes from the participants. Brock and Jennings found that most adult daughters believed their mothers provided an insufficient sexual education. Many of the women regretted the discussions they had with their mothers because the women feel they would have done things differently, such as not getting married so young in order for sex to be acceptable.

Rozema (1986) looked at the nature of the conversation between parent and adolescent to see whether the communication was supportive or defensive, however, Rozema did not examine how the nature of communication influenced the adolescents’ sexual behavior. The participants completed a questionnaire with items regarding categories of behaviors characteristic of supportive and defensive climates (Gibb, 1961), desire for more sex information, shared sexual values in the home, and the amount of sex education received from different sources. The results indicated that the undergraduate students surveyed rated their parents as generally non-supportive and defensive when discussing sex and mothers tended to provide more sexual health information than fathers.

According to The National Campaign to Prevent Teen and Unplanned Pregnancy, teens continue to say that parents most impact their decisions about sex—more than peers, popular culture, teachers and educators, and others. Albert (2012) reported, “Nearly nine in 10 teens (87%) say that it would be much easier
for teens to delay sexual activity and avoid teen pregnancy if they were able to have more open, honest conversations about these topics with their parents” (p. 7).

Warren and Warren (in press) suggest the three overall principles that appear valid: Families should talk about sexual issues (1) early, (2) openly, and (3) interactively. Too many parents do not talk enough in general and when they do, many fall into the trap of a one-way communication, which builds resentment in children. Two-way communication creates trust that can be used for sensitive issues, such as sex. Respondents who perceived their family to have good sex communication reported the following attitudinal and behavioral orientations: Sex should be pursued as a means of genuine caring, not promiscuous pleasure, and sex doesn’t become the most important goal of dating. Lastly, Warren and Warren (in press) suggest creating a supportive environment. The authors suggested that children’s attitudes about sex are equally important to parents’ attitudes. In other words, sex communication necessitates a co-creation of meaning. Although a parent may have more to share, the sharing of their knowledge should not be done in a defensive way (Warren & Warren, in press).

Past research has shown that adolescents receive different communication from mothers and fathers regarding sex. Rosenthal and Feldman (1999) found that mother-daughter communication about sex was the most frequent. Furthermore, their research indicated that parents, especially mothers, tend to mold their communication to be gender-appropriate, with girls receiving more information than boys regarding things like menstruation, abortion, pregnancy, and dealing with sexual pressures. Girls also receive less information on topics regarding
masturbations and wet dreams. Dutra, Miller, and Forehand (1999) found that female adolescents receive more information about sexual topics from their mothers rather than their fathers. On the other hand, male adolescents reported receiving equal communication about sexual topics with both mothers and fathers.

The existing research has suggested that parent-adolescent communication regarding sex is important. However, further investigation is needed as to what factors can enhance or diminish the quality of parent-adolescent communication. Parenting styles may provide an explanation for the different parent-adolescent communication environments.

**Parenting Styles**

Maccoby and Martin (1983) suggest that the idea of parenting style is fundamental to understanding the dynamics that occur in parent-child relationships. Parenting style encapsulates two essential elements of parenting: parental responsiveness (“supportiveness”) and parental demandingness (“behavioral control”), which can be viewed as two dimensions that create multiple parenting styles (Maccoby & Martin, 1983). Parental responsiveness is the dimension in which parents intentionally promote individuality, self-regulation, and self-assertion by being attuned, supportive, and accepting to children’s special needs and demands (Baumrind, 1991). Parental demandingness refers to the assertions parents make on children to become integrated into the family whole, by their maturity demands, supervision, disciplinary efforts, and willingness to confront the child who disobeys (Baumrind, 1991). Parenting style is categorized by whether parents are high or low on the two dimensions. The four parenting styles
are indulgent, authoritative, uninvolved, and authoritarian; each parenting style will be discussed in detail below.

Indulgent parents, also known as “permissive,” are high on the dimension of responsiveness, but low on demandingness. These parents use little punishment, while avoiding the assertion of authority or the hassle of control or restrictions. Indulgent parents have an accepting attitude towards their child’s impulses, are lenient, and do not require mature behavior (Baumrind, 1966; Maccoby & Martin, 1986).

Authoritative parents are high on both dimensions of demandingness and responsiveness. These parents monitor and communicate clear standards for their children’s behavior, while being assertive, but not intrusive and restrictive. Authoritative parents use disciplinary methods that are supportive rather than corrective. They tend to be nurturing and rely primarily on positive reinforcement rather than punishment in an effort to control their children, but in a manner that displays awareness of the children’s thoughts, feelings, and development abilities (Baumrind, 1966).

Uninvolved parents are low in both responsiveness (support) and demandingness (control). Uninvolved parents can be thought of as neglectful and permissive. Children with uninvolved parents receive little or no attention and have no clearly defined rules for behavior. These parents deprive their children of acceptance and affirmation, which can leave their child confused, anxious, and unable to internalize standards for self-control (Maccoby & Martin, 1983). Anderson and Sabatelli (2007) suggest that the detrimental effects of uninvolved parenting
are evident as early as the preschool years and continue throughout adolescence and into early adulthood.

Authoritarian parents are highly demanding, and directive, but not responsive. These parents expect their orders to be obeyed without explanation and provide well-ordered and structured environments with clearly stated rules. They tend to favor the use of corrective and forceful disciplinary approaches. An authoritarian parent’s intent is generally to curb the child’s self-will whenever the child acts or thinks in a manner that conflict with what the parent thinks is appropriate (Baumrind, 1966; Maccoby & Martin, 1983).

Mothers and fathers do not always have the same parenting styles. When parenting styles are the same, this combination is referred to as a pure parenting style (i.e., indulgent mother and indulgent father). Using the four (Baumrind, 1966; Maccoby & Martin, 1983) typologies, 16 parenting style combinations are possible (Simons & Conger, 2007). Research by Simon and Conger (2007) examined the frequency with which various family parenting styles occur and investigated the extent to which difference in family parenting styles influence adolescent adjustment. Their research indicated that the most common family parenting style involved two indulgent parents, two authoritative parents, or two uninvolved parents. The authors predicted the combination of two authoritarian parents would be sparse due to the notion that it would be difficult to have two authoritarian parents who would each want to be in control of making family decisions.

Lastly, Barber (1996) suggests a third dimension along with responsiveness and demandingness regarding parenting style, psychological control. Psychological
control refers to control efforts that impose into the psychological and emotional development of the child through use of parenting practices such as guilt induction, withdrawal of love, or shaming. Both authoritative and authoritarian parents are equally high on the dimension of parental demandingness; however, authoritarian parents are also high on the dimension of psychological control. Authoritarian parents expect their children to accept their judgments, values, and goals without questioning, whereas authoritative parents show awareness of their children’s thoughts and feelings (Baumrind, 1966). Research has suggested that high levels of psychological control are associated with negative outcomes for children (Barber, 1996). Most noteworthy are internalizing problems, such as anxiety, depression, and confusion and external problems, such as acting out or drug use. Thus, it is important to understand how psychological control can increase depending on the type of message that parents use. A large part of the quality and effect of a message depends on the message type used by parent. Therefore, it is necessary to examine the different message types.

**Message Type**

Three general message types are examined along with parenting style. The first message type is support messages. According to Fitzpatrick and Badzinski (1994), support messages are those behaviors that make a child feel comfortable in the presence of a parent. These messages include praising, approving, encouraging, physical displays of affection, giving help, and cooperating with a child. Thus, it can be proposed that Fitzpatrick and Badzinski,’s explanation of support messages correspond with Baumrind (1966) and Maccoby and Martin’s (1983) typology of
authoritative parents. The nurturing and positive reinforcement authoritative parents provide could be enhanced through the use of support messages. Indulgent parents may also use support messages due to their high levels of responsiveness.

The next message type is avoidant messages. According to past research on conflict management styles, avoiding conflict is associated with low concern for self and low concern for others. Avoiding conflict involves a shift in the topic of speech or focus of activity (Laursen & Collins, 1994) and withdrawing from or sidestepping situations (Rahim and Bonoma, 1979; Rahim & Magner, 1995). Furthermore, Fitzpatrick, and Badzinski (1994) suggest that intimate questions tend to produce withdrawal characteristic of compensation rather than reciprocity. From the past literature, we can make the connection that avoidant messages are those behaviors designed to steer clear of the topic. Due to the fact that sex may be a difficult subject to communicate about, conversing about sex may result in a conflicting interaction, resulting in avoidance. Avoidant messages may include topic change or ignoring. Thus, uninvolved parents will most likely use these messages because they are low on both dimensions of demandingness and responsiveness. Indulgent parents may also use avoidant messages because they are permissive and might want to avoid any potential conflictual interaction about sex.

The last message type is control messages. These messages are those behaviors designed to gain compliance with the wishes of the parent; these include coercion, induction, and love withdrawal. Coercive messages concentrate on external reasons the child should comply with the parent; these messages involve physical punishment, the direct application of force, the deprivation of material
objects or privileges, or the threat of these (Fitzpatrick & Badzinski, 1994). Therefore, it may be assumed that authoritarian parents correspond with Fitzpatrick and Badzinski (1994) explanation of control messages. If an authoritarian parent uses control messages and threatens an adolescent’s freedom, there may be detrimental effects. Psychological reactance can be used as a framework to explain the effects of control messages.

**Psychological Reactance Theory**

There are four elements fundamental to psychological reactance theory. The following section of this literature review will discuss each of the four fundamental elements to the theory of psychological reactance: Freedom, threat to freedom, reactance, and restoration of freedom.

**Freedom.** According to Brehm (1966), it is assumed that for a given person at a given time, there is a set of behaviors that an individual could engage in either at the moment or at some time in the future; these behaviors are called “free behaviors.” For the purpose of this study, these free behaviors are those of sexual activity. Only acts that are realistically possible can be considered free behaviors; knowledge and ability are considered the prerequisites for a behavioral freedom (Brehm & Brehm, 1981). Wicklund (1974) makes it clear that this theory in no way suggests that everyone is born with an expectation of freedom. Therefore, individuals must perceive a concrete sense of freedom and have knowledge of it in order for reactance to occur (Rains & Turner, 2007). In other words, the notion of freedom cannot be abstract. The amount of reactance is a direct function of: (1) the importance of the free behaviors that are eliminated or threatened, (2) the
proportion of free behaviors eliminated or threatened, and (3) where there is only a threat or elimination of free behaviors, the magnitude of that threat (the greater the threat, the greater the amount of reactance) (Brehm, 1966). The significance of the motive that exercising the freedom uniquely satisfies, determines the importance of a freedom, but a motive does not need to be of great significance to reveal importance to a behavioral freedom (Brehm & Brehm, 1981).

**Threat to Freedom.** Threat to a freedom can derive from a more powerful social cause through threats of punishment, loss of reward, or from someone of lower status through an irreversible act that removes materials necessary for freedom (Rains & Turner, 2007). Completely taking away or threatening a freedom of some importance arouses reactance. The greater the threat, the greater the degree of reactance induced. If more than one option is available, the degree of reactance aroused is a direct function of the proportion of those options that is threatened or eliminated (Brehm & Brehm, 1981).

**Reactance.** Psychological reactance is regarded as a motivational state directed toward the re-establishment of the free behaviors, which have been eliminated or threatened with elimination (Brehm, 1966). When an individual is aware of reactance, he or she will feel an increased amount of self-direction in regard to his or her own behavior. In other words, the individual will feel as if he or she is free to do what he or she wants; the individual is the sole director of his or her own behavior (Brehm, 1966). According to Rains and Turner (2007), reactance causes message rejection in the form of: (a) increased liking for the activity of choice that was threatened, (b) deviating the source, (c) denial of the threat, (d) enacting a
different freedom to gain a feeling of choice & control, and (e) the boomerang effect in one’s position on an issue. Reactance as a personality trait, also known as trait reactance, is gaining more interest these days (Quick & Stephenson, 2008). Trait reactance suggests that reactance is an individual difference variable (Miller et al., 2006). State reactance, on the other hand, is an aversive motivation state that subsequently leads individuals to want to restore a threatened or eliminated freedom and is greater among individuals who are autonomous and value their independence, feel their behaviors are being attacked or challenged, and believe they are competent and knowledgeable enough to make their own decisions on an issue (Quick & Stephenson, 2008). If the degree of reactance is rather great, the individual may also be aware of hostile and aggressive feelings. In other words, reactance can be an “uncivilized” motivational state (Brehm, 1966).

Restoration of Freedom. Rains and Turner (2007) suggested that once a freedom is threatened, some attempt to restore the threatened or lost freedom is made. The boomerang effect is when individuals engage in the behavior associated with a threatened freedom to restore that freedom. Reactance can prompt freedom-restoring responses that lead individuals to reject a message and therefore cause persuasive messages to be ineffective (Rains & Turner, 2007). According to Brehm (1966), the greater the degree of reactance, the more an individual would want to re-establish the freedom that has been eliminated or threatened. Individuals will only attempt to re-establish that freedom if it is realistically possible. There are two major kinds of consequences of reactance: subject effects and behavioral effects. Subjective effects occur when an individual thinks him or herself free not to engage
in behavior A and is then forced to do so. The individual’s reactance and consequent tendency to avoid engaging in behavior A lead him or her to evaluate behavior A less favorably. Perceptual or judgmental effects consistent with the motivational change of reactance may be expected to occur. Behavioral effects occur because reactance motivates an individual to restore freedom; whenever it is aroused by a threat rather than elimination, it tends to result in behaviors that help restore freedom. An individual may try to restore his or her freedom directly either by exercising it or by attacking the agent responsible for the threat. If the threatening agent is another person and there is some likelihood of making that individual withdraw the threat, an attack is appropriate. Exercising the freedom threatened means engaging in the option threatened with loss (Brehm & Brehm, 1981).

The four elements previously discussed make up the theory of psychological reactance. Overall, the theory holds that a threat to or loss of a freedom motivates the individual to restore that freedom. Therefore, the direct demonstration of reactance is behavior pointed toward restoring the freedom in question (Brehm & Brehm, 1981).

Today, adolescents gain knowledge about sex through television, magazines, and other media. These sources allow adolescents to perceive themselves of being capable of having sexual intercourse. In other words, adolescents perceive the freedom to engage in sexual intercourse through their perceived knowledge and ability. Dependent on the communication an adolescent has with his/her parent, an adolescent may perceive his/her freedom to be threatened. More specifically, unilateral communication may occur if the parent communicates to their adolescent
that sexual intercourse is forbidden and reactance may be aroused. According to Psychological Reactance Theory, when the adolescent is aware of his/her reactance he/she will reject the parent’s message. The adolescent may have the urge to deviate from his/her parent and restore his/her freedom of engaging in sexual intercourse or risky sexual behaviors. Due to the parent removing the adolescent’s perceived freedom, the boomerang effect may take place and the adolescent may engage in risky sexual behaviors to restore his/her freedom.

The purpose of this study is to look at the adolescents’ perception of the nature of parents’ messages and parenting styles of both mother and father figures and assess whether the perceived messages affect their adolescent’s sexual behaviors.

**Hypotheses**

As discussed previously, when an individual feels as though his/her freedom is being threatened or removed they will feel the urge to restore that freedom. In other words, psychological reactance will be induced. Therefore, if an adolescent feels as though his/her freedom to engage in sexual activities is being threatened, he/she will experience psychological reactance and be more likely to engage in risky sexual behaviors. Thus, hypothesis one states:

H1: Psychological reactance will be positively associated with risky sexual behaviors of adolescents.

Authoritative parenting style is characterized by nurturing and positive reinforcement. Authoritative parents provide various forms of support such as praising, approving, encouraging, physical displays of affection, giving help, and
cooperating with a child. It is reasonable to expect that this supportiveness would carry into the realm of communication about sex. Due to the supportive message type sent by authoritative parents, psychological reactance may not be induced on the adolescent. Furthermore, the supportive communication would not cause the adolescent to feel that his/her freedom is being threatened and therefore lead to the lowest level of risky sexual behaviors. Thus, hypothesis two states:

H2: Authoritative parents will be
   a. highest on communication about sex as supportive
   b. lowest on adolescents’ Psychological Reactance
   c. lowest on adolescents’ Risky Sexual Behaviors

relative to indulgent, authoritarian, and uninvolved parents.

Parents that use supportive communication about sex tend to communicate about sex openly, are perceived as respectful, and are actively listening to their adolescents’ perspective on sex. Adolescents who perceive their parents’ messages to be supportive and open to the idea of healthy sexual behaviors may not feel that their freedom is being threatened or eliminated. Moreover, due to the open nature of sex communication, the adolescent may engage in less risky sexual behaviors. This leads us to hypothesis three:

H3: Supportive messages will be inversely associated with:
   a. Psychological Reactance, and
   b. Risky Sexual Behaviors of adolescents.

Authoritarian parenting style is characterized as those parents who are high on the demandingness dimension and low on responsiveness. Authoritarian parents
expect their orders to be obeyed without explanation and provide well-ordered and structured environments with clearly stated rules. Therefore, adolescents who perceive their parents as authoritarian will perceive their parents’ messages regarding sex to be controlling. As mentioned previously, controlling messages are those messages designed to gain compliance with the wishes of the parent. These messages include coercion, which concentrate on external reasons why the child should comply with the parent (Fitzpatrick, & Badzinski, 1994). As stated previously, if the adolescent feels that his/her freedom to have sex is eliminated or threatened psychological reactance may be induced. Psychological reactance is considered a motivational state directed toward the reestablishment of the free behaviors (Brehm, 1966). According to psychological reactance theory, when an adolescent’s freedom to decide whether he or she can engage in sex is eliminated, the adolescent may experience reactance and engage in sexual activity in order to restore his or her freedom. This leads us to hypothesis four:

H4: Authoritarian parents will be highest on

a. communication about sex as controlling,

b. adolescents’ Psychological Reactance, and

c. adolescents’ Risky Sexual Behaviors

relative to authoritative, uninvolved, and indulgent parents.

Parents who use controlling communication about sex give off the perception that sex is prohibited and that there would be negative consequences if the adolescent engaged in sexual behaviors. Furthermore, parents who use controlling communication are not willing to listen to the adolescents’ perspectives on sex and
they are very disapproving. Due to the controlling nature of communication, adolescents may feel that their freedoms are being threatened and therefore may experience high levels of psychological reactance and may be more inclined to engage in risky sexual behaviors. Thus, hypothesis five states:

H5: Controlling messages will be associated with:

a. higher Psychological Reactance, and

b. higher Risky Sexual Behaviors of adolescents.

Uninvolved parents are low in both responsiveness and demandingness. These parents can be perceived as neglectful and give their children no attention or clearly defined rules. Moreover, these parents deprive their child of acceptance. Due to the notion that uninvolved parents are fairly absent, it is probable that they use avoidant communication regarding sex. This leads us to hypothesis six:

H6: Uninvolved parents will be highest on communication about sex as avoidant relative to authoritarian, authoritative, and indulgent parents.

Parents who use avoidant communication are most likely to withdraw from or sidestep conversations. These parents may steer clear of the topic regarding sex or change the subject. If communication about sex arises it may result in a conflicting interaction and result in avoidance. It is unclear whether or not avoidant communication about sex will induce psychological reactance or lead to risky sexual behaviors. Therefore, this element proposes the following research question.

RQ: Is avoidant communication about sex associated with a) Psychological Reactance or b) Risky Sexual Behaviors of adolescents?
Method

Participants

Participants included 118 undergraduate students enrolled in a Communicology course at a university in Hawaii. Students were recruited through the Communicology SONA Research system and received credit for research participation by taking part in the study. An undergraduate sample was recruited, specifically freshman, because the participants were younger and more likely to be in a period of extended adolescence. Of the 118 participants, 95.7 percent of the sample was 18-24 years old. Recent research has used undergraduate college samples to examine adolescent behaviors, suggesting that between the ages of 18 and 24 is an age group considered late adolescence (Allen, 2010; Mitchell, M. D., 2003). Mitchell (2003) also suggested that some undergraduate students may still live at home with their parents, and for those who do not, they are likely to have a good recollection of the relationship they had with their parents.

Of the 118 participants 73 (61.9%) were female and 45 (38.1%) were male. The majority of these students reported their ethnicity as mixed (24.6) followed by Caucasian (21.2%), Japanese (16.1%), Filipino (15.3%), Chinese (12.7%), Korean (3.4%), Hawaiian or part Hawaiian (3.4%), Okinawan (2.5%), and African American (.8%).

Seventy-seven percent of the participants reported their family structure with married parents (either biological or step parents), while 20.3% of the participants reported a single parent family structure. Fewer than two percent
(1.7%) reported having a parental guardian as their family structure, while one participant reported grandparents as their family structure.

**Procedures**

Upon approval from the Institutional Review Board for the Protection of Human Subjects, participants signed up for the survey on the Communicology SONA Research system to participate in the study, which connected the participants to a survey on surveymonkey.com. Data collection involved the participant completing a set of questionnaires focusing on message type, parenting styles, psychological reactance, and risky sexual behaviors. Before partaking in the set of questionnaires, the participants agreed to a consent form at the beginning of the survey (see Appendix A).

**Measures**

This study focused on the participants’ perceptions of their parents’ parenting style and message types. Scales were tailored to receive parent responses; therefore, the Index of Parenting Styles (Harrell, 2004) was adapted to gain insight on the perception of the adolescents.

**Demographics.** The demographics questionnaire consisted of 17 items about age, gender, academic classification, ethnicity, family structure, and religion (See Appendix B).

**Parenting Style.** The participants’ perceptions of their parents’ parenting style were measured using the Index of Parenting Styles (Harrell, 2004) (See Appendix C). The IPS is a 37-item measure of parenting behaviors, which was adapted by the researchers to be completed by participants rather than parents.
Harrell (2004) described the 37-items as addressing the responsiveness and demandingness dimensions. Harrell indicated the IPS received a Cronbach alpha reliability coefficient of .87, which indicated that the whole scale was reliable. Reliabilities were run for each dimension for mother and father. For mothers, the Cronbach alpha reliability was .80 for demandingness and the .80 for the responsiveness dimension. For fathers, the demandingness dimension received a Cronbach alpha of .87, while the responsiveness dimension received a Cronbach alpha of .85. The IPS items will be rated on a 7-point Likert Scale requiring a response of strongly disagree to strongly agree. The researchers also adapted the IPS to examine the participant’s perceptions of their mother and father figures’ parenting styles separately (See Appendix C). Parenting style was categorized based on the dimensions of responsiveness and demandingness in accordance with the parenting style profiles suggested in literature (Harrell, 2004; Maccoby & Martin, 1983). Perceptions of parents were categorized as Authoritative (high in responsiveness and demandingness), Indulgent (high in responsiveness, low in demandingness), Authoritarian (low in responsiveness, high in demandingness), and Uninvolved (low in responsiveness and demandingness) based on median splits.

**Message Type.** The participants’ perceptions of their parents’ message types about sex were measured using the Message Type Scale created by the researchers (See Appendix D). The MTS is comprised of 15-items rated on a 7-point Likert Scale requiring a response of strongly disagree, moderately disagree, slightly disagree, neutral, slightly agree, moderately agree, and strongly agree for each item. Each message type (supportive, controlling, and avoidant) was computed for mother and
father as three separate variables. For mothers, the supportive message type had a Cronbach alpha of .95; the controlling message type had a Cronbach alpha of .86, and a Cronbach alpha of .93 for avoidant message type. For fathers, supportive communication had a Cronbach alpha of .96; controlling communication had a Cronbach alpha of .87, and Cronbach alpha of .92 for avoidant communication.

**Psychological Reactance.** Psychological reactance was measured using Hong’s Psychological Reactance Scale (Hong & Page, 1989; Jonason & Knowles, 2006) (See Appendix E). HPRC is comprised of 18-items rated on a 7-point Likert Scale with response options including strongly disagree, moderately disagree, slightly disagree, neutral, slightly agree, moderately agree, and strongly agree for each item. HPRS has been shown to have an average Cronbach alpha of .74 in past research. A scale reliability was run for HPRS and received a Cronbach alpha reliability coefficient of .85.

**Risky Sexual Behavior.** Risky sexual behavior of the participants was measured using the Scale of Sexual Risk-Taking (Metzler, Noell, & Biglan, 1992) (See Appendix F). The SSRT consists of 13-items, with 8 high-risk items receiving twice the weight as 5 moderate-risk items. All items were standardized with z-scores and then the z-scores of the 8 high-risk items were doubled. The SSRT has been shown to have acceptable internal reliability with Cronbach’s alpha coefficients of .90, .88, and .75 across three studies. The researchers added two items assessing sexual behaviors of homosexual participants, which resulted in 15 items. A scale reliability was run for the 15-item Scale of Sexual Risk Taking and achieved an unacceptably low Cronbach alpha reliability of .40. A forced single factor solution was run for the
fifteen items relating to risky sexual behaviors of adolescents. Five items with good face validity (i.e., number of different partners, number of partners you didn't know very well, number of partners you knew was having sex with others, how often alcohol has been involved in sex, and how often drugs has been involved in sex) had loadings above .50 (refer to Table 1) and the factor accounted for 22.2% of the variance. These five items were averaged together to create a risky sex scale. A reliability analysis was run for the five-item scale and received a Cronbach alpha of .79.

Table 1. Factor Loadings of Scale of Sexual Risk Taking Items.

<table>
<thead>
<tr>
<th>Risky Sex Item</th>
<th>Factor 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-.068</td>
</tr>
<tr>
<td>2</td>
<td>-.171</td>
</tr>
<tr>
<td>3</td>
<td>.046</td>
</tr>
<tr>
<td>4</td>
<td>-.192</td>
</tr>
<tr>
<td>5</td>
<td>.604</td>
</tr>
<tr>
<td>6</td>
<td>.871</td>
</tr>
<tr>
<td>7</td>
<td>-.813</td>
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<td>8</td>
<td>.751</td>
</tr>
<tr>
<td>9</td>
<td>.534</td>
</tr>
<tr>
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<td>11</td>
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<tr>
<td>14</td>
<td>-.217</td>
</tr>
<tr>
<td>15</td>
<td>-.106</td>
</tr>
</tbody>
</table>

Results

Hypothesis one predicted that adolescents’ psychological reactance would be positively associated with risky sexual behaviors. A Pearson Product Moment
Correlation was computed to assess this relationship. The results showed a significant positive correlation between psychological reactance and risky sexual behaviors $r(118) = .22, p < .05$. Therefore, hypothesis one was supported.

Hypothesis 2a predicted that authoritative parents would be highest on communication about sex as supportive relative to indulgent, authoritarian, and uninvolved. A one-way analysis of variance with an a priori contrast was conducted to evaluate the relationship between mother and father parenting styles and mother and father communication as supportive. The weights for the a priori contrast were (-1, -1, -1, 3) comparing authoritative parents with indulgent, authoritarian, and uninvolved. The ANOVA was significant for both mothers $F(3,112) = 16.88, p < .001$ and fathers $F(3,102) = 10.73, p < .001$. Although the means for both indulgent mothers ($M = 5.42$) and fathers ($M = 4.62$) were higher than authoritative mothers ($M = 4.77$) and fathers ($M = 4.49$), follow-up contrast tests indicated that indulgent parenting styles and authoritative parenting styles were not significantly different from each other for both mothers $F(3,112) = 16.89, p < .05$ and fathers $F(3,102) = 10.73, p < .05$.

Hypothesis 2b predicted that authoritative parents would be lowest on adolescents’ psychological reactance relative to indulgent, authoritarian, and uninvolved. A one-way ANOVA was conducted to evaluate the relationship between mothers’ and fathers’ authoritative parenting style and psychological reactance. The results were partially supported. The ANOVA was significant for fathers $F(3,102) = 2.77, p < .05$, however, although the results were in the predicted direction it failed
to reach significance for mothers $F(3,112) = 2.02, p > .05$. Refer to Table 2 for the means and standard deviations for parenting styles and communication type.
Table 2. Means and standard deviations for mother and father message type and parenting style

<table>
<thead>
<tr>
<th>Message Type</th>
<th>Support</th>
<th>Control</th>
<th>Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mother</td>
<td>Father</td>
<td>Mother</td>
</tr>
<tr>
<td>Parenting style</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authoritative</td>
<td>4.77*</td>
<td>1.73</td>
<td>4.49*</td>
</tr>
<tr>
<td>Authoritarian</td>
<td></td>
<td></td>
<td>3.56*</td>
</tr>
<tr>
<td>Indulgent</td>
<td>5.42</td>
<td>1.57</td>
<td>4.62</td>
</tr>
<tr>
<td>Uninvolved</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < 0.05 level.
It was hypothesized adolescents’ risky sexual behavior would be lowest for those who report their parents were authoritative relative to indulgent, authoritarian, and uninvolved (H2c). A one-way analysis of variance was conducted to evaluate this relationship between parenting style and adolescent's risky sexual behaviors. The results indicated no significant relationship for both mothers $F(3,112) = 0.29, p > .05$ and fathers $F(3,102) = 0.80, p > .05$.

In general, the results for hypothesis two suggest that mothers and fathers with authoritative parenting styles send more supportive messages to their adolescents. Furthermore, fathers with an authoritative parenting style induce the least amount of psychological reactance in their adolescent.

<table>
<thead>
<tr>
<th>Parenting style</th>
<th>Mother</th>
<th>Father</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authoritarian</td>
<td>4.27</td>
<td>4.33*</td>
</tr>
<tr>
<td>Authoritative</td>
<td>4.12</td>
<td>4.06*</td>
</tr>
<tr>
<td>Indulgent</td>
<td>3.78</td>
<td>3.70</td>
</tr>
<tr>
<td>Uninvolved</td>
<td>3.98</td>
<td>4.14</td>
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</table>

Table 3. Means and standard deviations for parenting style and psychological reactance

<table>
<thead>
<tr>
<th>Parenting style</th>
<th>Mother</th>
<th>Father</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authoritarian</td>
<td>-.06</td>
<td>-.13</td>
</tr>
<tr>
<td>Authoritative</td>
<td>-.09</td>
<td>.14</td>
</tr>
<tr>
<td>Indulgent</td>
<td>.18</td>
<td>.26</td>
</tr>
<tr>
<td>Uninvolved</td>
<td>.07</td>
<td>-.22</td>
</tr>
</tbody>
</table>

$p < 0.05$ level.
It was predicted that supportive messages from parents would be inversely associated with adolescents' psychological reactance (H3a) and adolescents' risky sexual behaviors (H3b). Pearson Product Moment Correlations were computed for mother and father supportive communication and adolescents’ psychological reactance and risky sexual behaviors. The results indicated a significant inverse relationship between fathers’ supportive communication and adolescents’ psychological reactance $r(106) = -0.22$, $p < .05$, however, the relationship between mothers’ supportive communication and adolescents’ psychological reactance was in the predicted direction, but failed to receive significance $r(116) = -0.15$, $p > .05$. There was also no significant relationship between supportive communication and risky sexual behaviors for mothers $r(116) = -0.00$, $p > .05$ or fathers $r(106) = 0.05$, $p > .05$. 
<table>
<thead>
<tr>
<th></th>
<th>Psychological Reactance</th>
<th>Risky Sex</th>
<th>Mother Support</th>
<th>Mother Control</th>
<th>Mother Avoid</th>
<th>Father Support</th>
<th>Father Control</th>
<th>Father Avoid</th>
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<tr>
<td>Psychological Reactance</td>
<td>—</td>
<td></td>
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<td>—</td>
<td>—</td>
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<tr>
<td>Risky Sex</td>
<td>.221*</td>
<td></td>
<td>—</td>
<td>—</td>
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<tr>
<td>Mother Support</td>
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<td>.072</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
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<tr>
<td>Mother Control</td>
<td>.190*</td>
<td>—.085</td>
<td>—.411</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Mother Avoid</td>
<td>.110</td>
<td>—.022</td>
<td>—.768</td>
<td>.358</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
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<tr>
<td>Father Support</td>
<td>—.220*</td>
<td>.027</td>
<td>.225</td>
<td>—.137</td>
<td>—.189</td>
<td>—</td>
<td>—</td>
<td>—</td>
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<tr>
<td>Father Control</td>
<td>—.019</td>
<td>.007</td>
<td>—.032</td>
<td>.447</td>
<td>.092</td>
<td>—.230</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Father Avoid</td>
<td>.166</td>
<td>—.025</td>
<td>—.071</td>
<td>.114</td>
<td>.162</td>
<td>—.833</td>
<td>.297</td>
<td>—</td>
</tr>
</tbody>
</table>

*p < 0.05 level.*
Hypothesis 4a posited that authoritarian parents would be highest on communication about sex as controlling relative to authoritative, uninvolved, and indulgent. A one-way ANOVA with an a priori contrast was conducted to calculate the relationship between mothers’ and fathers’ authoritative parenting style and mother and father communication as controlling. The weights for the a priori contrast were (-1, -1, -1, 3) comparing authoritarian parents with indulgent, authoritative, and uninvolved. The results were significant for both mothers $F(3,112) = 15.18, M = 4.41, p < .001$ and fathers $F(3,102) = 4.99, p = .003, (M = 3.91)$.

It was predicted that authoritarian parenting style would be highest on adolescents’ psychological reactance (H4b) and adolescents’ risky sexual behaviors (H4c). A one-way analysis of variance was conducted to test H4b and H4c. Hypothesis 4b was partially supported. The ANOVA indicated that there was a significant relationship between fathers with authoritarian parenting styles and adolescents’ psychological reactance $F(3,102) = 2.77, p < .05 (M = 4.33)$. However, while in the predicted direction, there was no significant relationship for mothers with an authoritarian parenting style and adolescents’ psychological reactance $F(3,112) = 2.02, p > .05$. The results for the relationship between authoritarian parenting style and adolescents’ risky sexual behaviors was not significant, for mothers, $F(3,112) = 0.29, p > .05$ and fathers $F(3,102) = 0.80, p > .05$ therefore, H4c was not supported. Overall, the results of hypothesis four suggest that mothers and fathers with authoritarian parenting styles send more controlling messages to their
adolescents, while authoritarian fathers induce more psychological reactance in their adolescents.

Pearson Product-Moment correlations were computed for Hypothesis 5a and 5b. H5a predicted that controlling messages would be associated with higher psychological reactance among adolescents. The hypothesis was partially supported. Controlling messages by mothers was associated with higher psychological reactance in their adolescents $r(116) = .19, p < .05$, however, there was no significance for fathers’ controlling communication and adolescents’ psychological reactance $r(106) = -.02, p > .05$. H5b which predicted that controlling messages will be associated with higher risky sexual behaviors among adolescents, was not significant for mothers $r(116) = -.01, p > .05$ or fathers $r(106) = .04, p > .05$.

Hypothesis six predicted that uninvolved parents would be highest on communication about sex as avoidant relative to authoritarian, authoritative, and indulgent parents. A one-way ANOVA with an a priori contrast was conducted to evaluate the relationship between mothers and fathers with uninvolved parenting styles and mothers’ and fathers’ avoidant messages. The weights for the a priori contrast were (-1, -1, -1, 3) comparing uninvolved parents with indulgent, authoritarian, and authoritative. The ANOVA was significant for both mothers $F(3,69) = 14.16, p < .001, (M = 4.67)$ and fathers $F(3,59) = 5.78, p < .01 (M = 5.04)$. Therefore, H6 was fully supported.

Lastly, the research question asked if avoidant communication about sex is associated with (a) psychological reactance or (b) risky sexual behaviors of adolescents. A Pearson Product-Moment correlation was computed to address this
research question. The results revealed that mothers with avoidant communication are not associated with adolescents’ psychological reactance $r(116) = .11, p > .05$ or risky sexual behaviors $r(116) = .08, p > .05$. Fathers’ avoidant communication was also not significantly associated with psychological reactance $r(106) = .17, p > .05$ (two-tailed) in their adolescents or risky sexual behaviors $r(106) = -.05, p > .05$ (two-tailed).

**Discussion**

The focus of this study was to explore the relationship between parenting styles and parents’ message type on the risky sexual behaviors of adolescents. Past literature on the type of communication about sex has not been previously studied with risky sexual behaviors of adolescents or psychological reactance. The results yielded important findings. First, parenting styles were highly associated with parents’ message types. Mothers and fathers with authoritative parenting styles had the highest use of supportive messages. Controlling messages were highest among authoritarian mothers and fathers. Those parents with the highest use of avoidant messages had an uninvolved parenting style. These findings are a significant extension to the parenting styles literature. Maccoby and Martin (1983) suggested that the idea of parenting style is fundamental to understanding the dynamics that occur in parent-child relationships. This study furthers the literature by explaining the type of communication used among the different parenting styles and how that can impact adolescents.

Second, parents’ type of communication about sex was correlated with psychological reactance. More specifically, mothers with controlling messages about
sex induced the highest psychological reactance in their adolescents. On the other hand, fathers with supportive messages about sex induced the least psychological reactance in their adolescents. The results show that controlling communication about sex has a significantly different influence on the adolescent depending on the gender of the parent communicating with the adolescent. Controlling communication about sex by mothers may have a larger impact on the psychological reactance of the adolescent. Alternatively, controlling communication about sex from fathers and the messages father send about sex may be clearly understood by adolescents. Moreover, psychological reactance may influence adolescents’ behaviors more when mothers, rather than fathers, communicate about sex with their adolescents.

Furthermore, it was confirmed that parents’ avoidant communication about sex was not related to adolescents’ psychological reactance or risky sexual behaviors for both mothers and fathers. This finding is not too surprising, however it is a possibility that these adolescents have less knowledge about sexuality and sexual behaviors. Avoidant communication from an uninvolved parent could lead adolescents to go out and seek information about sex from other sources. Although the results did not indicate that avoidant communication leads to risky sexual behaviors, it is possible that with a proper measure of sexual risk taking adolescents who do not receive information about sex from their parents may not be knowledgeable on safe sex practices. Therefore, these adolescents with uninvolved parents using avoidant communication may likely participate in risky sexual behaviors.
In regards to risky sexual behaviors of adolescents, there were no relationships between parenting style or parents’ type of communication about sex. This could be due to the use of the problematic sexual risk taking scale (Metzler, Noell, & Biglan, 1992). Alternatively, there may also be no correlation between parenting style or communication type and risky sexual behaviors. However, the results showed a positive significant relationship between psychological reactance and risky sexual behaviors implying that the higher an adolescent’s psychological reactance, the higher the adolescents’ sexual risk taking behaviors. This result offers further explanation as to why risky sexual behaviors occur. Psychological reactance may mediate the connection between parent-adolescent communication and its subsequent impact on risky sexual behaviors of adolescents.

Although parenting style and parents’ message type were not directly related to risky sexual behaviors of adolescents, the results suggested a pattern among all variables. The overall results suggested that mothers with an authoritarian parenting style use controlling communication about sex. The use of controlling communication about sex leads to higher levels of psychological reactance among adolescents. The higher the psychological reactance induced, the higher the risky sexual behaviors of these adolescents. For fathers, those with authoritative parenting styles use supportive communication about sex. The use of supportive messages about sex is associated with lower psychological reactance. As the results suggested, lower levels of psychological reactance leads to less risky sexual behaviors of adolescents. This pattern extends the literature on parenting styles by
looking at how differences in mothers and fathers’ parenting styles can indirectly impact adolescents’ risky sexual behaviors.

Past research by Jaccard, Dittus, and Gordon (1998) has shown that adolescents’ perceptions of maternal disapproval of premarital sex are associated with lowered levels of sexual activity on the part of the adolescent. However, the results of this study suggested otherwise. The opposing findings could be due the fact that Jaccard et al. did not take into consideration the type of communication about sex between parents and adolescents. The current study extends the literature by incorporating a communication factor that explains the nature of the conversation parents have with their adolescents. Furthermore, the results of this study suggested that mothers controlling communication about sex could result in detrimental consequences for the adolescent.

It is important to note that prior to this study, no scale about the different types of parents’ communication about sex existed. The literature on type of communication about sex has been extended through the use of supportive, controlling, and avoidant communication rather than just focusing on parenting style. This study has shown that parents’ type of communication about sex also impacts psychological reactance and, in turn, risky sexual behaviors of adolescents.

The findings presented in this study provide substantial evidence that parenting style and parents’ approach to communication about sex has an impact on inducing psychological reactance among their adolescents and, indirectly, the adolescents’ risky sexual behaviors. The pattern between parenting style, communication type, psychological reactance, and risky sexual behaviors provide
important implications on parenting style and parents’ communication about sex with their adolescents.

There are a few implications that can be drawn from this study. The first is that when authoritative fathers, who are both high on responsiveness and demandingness, communicate openly, supportively, and actively listen to their adolescent when discussing sex are more effective in inducing the least psychological reactance. In other words, authoritative fathers who use supportive communication about sex are more likely to get their message across effectively to their adolescent even when they are communicating that they do not think their adolescent should engage in sexual activities. Moreover, adolescents do not perceive this supportive communication from authoritative fathers as threatening to adolescents’ freedom to engage in sexual behaviors. From adolescents’ perspective, it could imply that when dad says “no”, it means no.

On the other hand, the findings from this study confirm that mothers who are highly demanding have an authoritarian parenting style and use controlling communication about sex. This implies that mothers who use controlling communication about sex send the message that sex is prohibited, there will be negative consequences if the adolescent were to engage in sexual behaviors, and they don’t want to hear the adolescents’ perspective. This type of communication from authoritarian mothers may induce psychological reactance in adolescents. In other words, adolescents might perceive that their freedom to have sex is being threatened or taken away. This in turn may motivate adolescents to engage in risky sexual behaviors in order to gain their freedom back.
Past research suggested that mothers were more likely to communicate about sex with their adolescent daughters, while fathers were more likely to communicate about sex with their adolescent sons (Dilorio, Kelley, Hockenberry-Eaton, 1999). Although this study did not analyze data regarding communication between mothers and daughters and fathers and sons, it is important to note that past research has shown that daughters engage in more communication about sex with their mothers. As the results of this study indicated, if mothers have an authoritarian parenting style, the communication about sex with their adolescents will be more controlling and induce psychological reactance. This could indirectly lead adolescent females to engage in risky sexual behaviors.

**Limitations.** This study has several limitations. First, the sample used was a convenience sample of those in late adolescence. Although past researchers have considered late adolescence ages 18-24 (Allen, 2010; Mitchell, M. D., 2003), this study may not be generalizable to those in the prime adolescent stages. Furthermore, due to the fact that all of the participants are college students, not all of the participants are currently living at home with their parental figures. Most participants either live on their own, in the dorms, or shuttle back and forth between home and the dorms. Therefore, parental influence may not be as strong for these participants.

In addition, the Scale of Sexual Risk Taking (Metzler, Noell, & Biglan, 1992) turned out to be problematic. The items of the scale had to be standardized because the items were of different measurements (e.g. “number of different partners” and “have you ever had sexual intercourse”). Through factor analysis only 5 of the 15
items were found to be usable. Thus, we cannot be sure whether non-significant relationships between parenting style and risky sexual behaviors or between communication about sex and risky sexual behaviors are due to the scale. It may be that the relationship between parenting style and risky sexual behavior is mediated by psychological reactance or some other factor. Or, there may be no direct relationship between parenting style and communication and risky sexual behaviors. These results can still provide guidelines for parenting and further the literature on sex communication between parents and adolescents.

In regards to psychological reactance, the notion of freedom may be an American ideology that does not exist in other countries like it does in the United States or does not manifest in the same way. Though the sample was ethnically diverse, the generalizability of these findings to other cultures requires further investigation.

**Future research.** Future research should use a sample of those in prime adolescence and examine whether there is a larger impact of parental influence at this age. In addition to the adolescents’ responses, researchers should also collect responses from the parents of the adolescents. Past research has reported that what adolescents think their parents believe and communicate about sex does not correspond with what the parents report (Newcomer & Udry, 1985). Examining parent and adolescent responses may extend the literature in this area and it may determine further whether or not parents and adolescents perceptions are aligned.

Using participants that are in prime adolescent stages and also a larger sample would allow the results of this research to be more generalizable across the
adolescent community. Moreover, conducting this research among a higher-risk population may give insight to ways parents can combat risky sexual behaviors of their adolescents. The current sample consisted of young adults in college. As such, they may be less likely to behave in a deviant manner.

A more effective measurement of risky sexual behaviors also needs to be created. The different measurement of each item was problematic. Rather than having yes/no, open number responses, and multiple-choice questions, a questionnaire should be created using scale items only.

This study did not take into consideration the impact of combination communication styles of parents. It may be beneficial for researchers to look into the influence of parents with a pure style of communication about sex (same message type for mother and father) and parents with a combination style of communication about sex (different message types amongst mother and father). Future research could examine which parent has a greater influence on those adolescents with parents who use different messages regarding sex or which combination of message types about sex works the best to prevent risky sexual behaviors of adolescents.

Researchers should consider examining the extent to which freedom exists in other cultures, especially if freedom is an American ideology. The extent to the ways reactance is experienced among different cultures should also be examined. Moreover, future research should consider whether or not other cultures engage in sex communication or if it is a taboo topic.
Future research should also take into consideration how parenting styles and message types impact other factors of adolescents’ lives. Research should examine how areas such as drug use and smoking are impacted by message type and parenting styles. Furthermore, researchers should investigate psychological reactance as a mediating variable between communication and problematic adolescent behaviors.

**Conclusion**

This study confirmed the notion that parenting style and communication about sex can induce psychological reactance in adolescents. Moreover, parenting styles and communication about sex can indirectly affect the risky sexual behaviors of adolescents. Researchers should implement communication type as a variable in future research. The nature of parent-adolescent communication about sex has an impact on adolescents’ psychological reactance and extends the parenting style literature.
Footnotes

1 The researchers were not able to determine how the original authors of the SSRT doubled the 8 high-risk items. The method of using a doubled z-score was implemented by the researcher.
References


Appendix A
Consent Form

University of Hawai‘i
Consent to Participate in Research

Effects of Parent Communication on Adolescent Sexual Behavior

My name is Jessica Kaneshiro. I am a graduate student at the University of Hawai‘i (UH). As part of my degree program, I am conducting a research project. The purpose of my project is to assess how students feel about their parents’ communication on the students’ adolescent sexual behaviors. I am asking you to participate in this project because you are at least 18 years old and you are enrolled as a student at UH Manoa.

Project Description – Activities and Time Commitment: If you participate, you will be one of a total of about 200 students who I will survey individually. There are demographic questions, questions about your sexual activity and risk taking, questions about how you react to constraints, and questions about your relationship with your parents. One example of the type of question I will ask is, “In the past 12 months, how many times have you had intercourse with someone you didn’t know very well?” The survey questions are mainly multiple choice. However, there will be a few questions where you may add an open-ended response. Completing the survey will take approximately 30 minutes.

Benefits and Risks: The investigator believes there is minimal risk to you by participating in this study. You are not required to answer any question that makes you feel uncomfortable. If you would like to discontinue your participation during the study, you may withdraw at any time without affecting your relationship with any entity or agency related to this project.

If you feel uncomfortable at anytime or feel the need to speak to someone the Counseling and Student Development Center offers free and confidential counseling services. They can be reached at (808) 956-7927 and are located at 2440 Campus Road, QLCSS 312, University of Hawaii, Honolulu, Hawaii 96822.

Beyond research participation credit or extra credit, your involvement in this research may be of little direct benefit to you. However, the results of this study will help to identify factors related to adolescent sexual behaviors.

Credit: If you choose to participate in this study, you will receive course credit or extra credit. At the end of the first survey you will be directed to an additional survey that will ask for your name. Your name will not be linked to your survey responses and will be kept in a separate file, only to be used to provide course credit or extra credit. You will be granted course credit or extra credit through SONA, the Communicology research base.
Confidentiality and Privacy: All information you provide in the questionnaire will remain anonymous. No personal identifying information will be detailed in the results of this research. By law, however, agencies such as the University of Hawai‘i Committee on Human Studies have the authority to review research data. Please do not include any personal information in your survey responses.

Voluntary Participation: You can freely choose to take part or to not take part in this survey. There will be no penalty or loss of benefits for either decision. If you do agree to participate, you can stop at any time.

Questions: If you have any questions about this study, please call or email me at [956-3319 & jnk@hawaii.edu]. You may also contact my advisor, Dr. Krystyna Aune, at [956-7486 & krystyna@hawaii.edu]. If you have questions about your rights as a research participant, you may contact the UH Human Studies Program at 808.956.5007 or uhirb@hawaii.edu.

Please print this consent form for your records. Going to the first page of the survey indicates your consent to participate in this study.

Sincerely,

Jessica Kaneshiro, Principal Investigator
Graduate Teaching Assistant
University of Hawaii at Manoa
Department of Communicology
George Hall 318; 2560 Campus Rd.
Honolulu, HI 96822
(808) 956-3319
jnk@hawaii.edu
Appendix B
Demographics

Age: ____________

Gender:
Male    Female    Other

Current Class Standing:
1st year  2nd year  3rd year  4th year  5th year or more

Race/Ethnicity
Which of the following BEST describes your ethnic or racial background? (Circle only one response)
(1) Caucasian    (5) Japanese    (9) Tongan
(2) Filipino     (6) Okinawan    (10) African American
(3) Korean       (7) Hawaiian or part Hawaiian (11) Mixed
(4) Chinese      (8) Samoan      (12) Other
(specify)___________

What best describes your Sexual Orientation?
Heterosexual    Homosexual    Bisexual    Self-defined:
_______________

How would you define your family structure during your adolescence?
Married Parents Single Parent Parental? guardian Grandparent(s)
Other: Please specify:

Do you currently live at home with your parents/parent figures?
Yes    No    Other (Please explain):
____________________________________________

Who do you consider your primary parent/parent figure?
Mother    Father    Other (Please specify): _____________

Do you have siblings/half/step?
Yes    No
Please specify how many brothers, sisters, half-siblings, etc.: _________________

Birth Order:
1st born   2nd born   3rd born   4th born   5th born   Other

Do you have any children of your own? Yes   No

Please specify how many sons and/or daughters you have (include step children): ____________

Religious Commitment (Carpenter, Laney, Mezulis, 2011)

Please indicate your religious affiliation (if any):
____________________________________________

How frequently do you participate in religious activities?
Never   1   2   3   4   5   More than once per week

How often do you take part in private religious activities (i.e. prayer, meditation)?
Never   1   2   3   4   5   More than once per week

How religious do you consider yourself to be?
Not at all religious   1   2   3   4   5   Very Religious

How important is religion to you?
Not at all important   1   2   3   4   5   Very Important
Appendix C

Index of Parenting style—Mother Figure

Indicate your agreement using anchors of 1: Strongly disagree, 2: Moderately agree, 3: Slightly disagree, 4: Neutral, 5: Slightly agree, 6: Moderately agree, and 7: Strongly agree

(D) = Demandingness (R) = Responsiveness

1. My mother figure expects me to follow family rules. (D)
2. My mother figure doesn't really like for me to tell her my troubles. (R-reverse coded)
3. My mother figure expects me to dress and act differently in places like church or a restaurant, than I do when I’m with my friends. (D)
4. My mother figure tells me that her ideas are correct and that I shouldn’t question them. (D)
5. Hard work is very important to my mother figure. (D)
6. My mother figure respects my privacy. (R)
7. My mother figure hardly praises me for doing well. (R-reverse coded)
8. My mother figure gives me a lot of freedom. (R)
9. My mother figure lets me get away with things. (R)
10. If I don't behave, my mother figure will punish me. (D)
11. My mother figure expects me to do what she says without telling me why. (D)
12. My mother figure makes most of the decisions about what I can do. (D)
13. It is important for my mother figure that I do my best. (D)
14. My mother figure encourages me to talk to her honestly. (R)
15. My mother figure doesn't ask me to change my behavior to meet the needs of other people in the family. (D-reverse coded)
16. My mother figure believes I have a right to my own point of view. (R)
17. If I don't act according to my mother’s standards, she will do things to make sure I do in the future. (D)
18. I can count on my mother figure to help me out if I have a problem. (R)
19. My mother figure would describe herself as a strict parent. (D)
20. My mother figure points out ways I could do better. (D)
21. My mother figure pushes me to do my best in whatever I do. (D)
22. It is clear to me when my mother figure thinks I have done well. (R)
23. My mother figure pushed me to think for myself. (D)
24. My mother figure is too strict about how I behave when I’m in stores. (D)
25. My mother figure makes it clear when I have done something she doesn’t like. (D)
26. I can tell when my mother figure thinks I could have done better. (D)
27. My mother figure spends time talking to me. (R)
28. When I do something wrong, my mother figure does not punish me. (D-reverse coded)
29. My mother figure and I do things that are fun together. (R)
30. My mother figure sets high standards for me to meet. (D)
31. My mother figure gives me chores to do around the house. (D)
32. When my family does things together, my mother figure expects me to come along. (D)
33. My mother figure tries hard to know what I do with my free time. (R)
34. My mother figure tries hard to know where I am in the afternoon after school. (R)
35. When I get a good grade in school my mother figure praises me. (R)
36. When my mother figure wants me to do something she explains why. (R)
37. I have a right to choose my own friends. (R)
Index of Parenting style—Father Figure
Indicate your agreement using anchors of 1: Strongly disagree, 2: Moderately agree, 3: Slightly disagree, 4: Neutral, 5: Slightly agree, 6: Moderately agree, and 7: Strongly agree

1. My father figure expects me to follow family rules.
2. My father figure doesn’t really like for me to tell him my troubles.
3. My father figure expects me to dress and act differently in places like church or a restaurant, than I do when I’m with my friends.
4. My father figure tells me that his ideas are correct and that I shouldn’t question them.
5. Hard work is very important to my father figure.
6. My father figure respects my privacy.
7. My father figure hardly praises me for doing well.
8. My father figure gives me a lot of freedom.
9. My father figure lets me get away with things.
10. If I don’t behave, my father figure will punish me.
11. My father figure expects me to do what he says without telling me why.
12. My father figure makes most of the decisions about what I can do.
13. It is important for my father figure that I do my best.
14. My father figure encourages me to talk to him honestly.
15. My father figure doesn’t ask me to change my behavior to meet the needs of other people in the family.
16. My father figure believes I have a right to my own point of view.
17. If I don’t act according to my father’s standards, he will do things to make sure I do in the future.
18. I can count on my father figure to help me out if I have a problem.
19. My father figure would describe himself as a strict parent.
20. My father figure points out ways I could do better.
21. My father figure pushes me to do my best in whatever I do.
22. It is clear to me when my father figure thinks I have done well.
23. My father figure pushed me to think for myself.
24. My father figure is too strict about how I behave when I’m in stores.
25. My father figure makes it clear when I have done something he doesn’t like.
26. I can tell when my father figure thinks I could have done better.
27. My father figure spends time talking to me.
28. When I do something wrong, my father figure does not punish me.
29. My father figure and I do things that are fun together.
30. My father figure sets high standards for me to meet.
31. My father figure gives me chores to do around the house.
32. When my family does things together, my father figure expects me to come along.
33. My father figure tries hard to know what I do with my free time.
34. My father figure tries hard to know where I am in the afternoon after school.
35. When I get a good grade in school my father figure praises me.
36. When my father figure wants me to do something he explains why.
37. I have a right to choose my own friends.
Appendix D
Message Type Scale
Mother Figure

Please rate the following items based on the communication with your mother figure.

Assess items using a 7-Point Likert Scale.
- 7 = Strongly agree
- 6 = Moderately agree
- 5 = Slightly agree
- 4 = Undecided
- 3 = Slightly disagree
- 2 = Moderately disagree
- 1 = Strongly Disagree

Support
1. My mother figure communicated about sex openly.
2. My mother figure was open about conversations about sex with me.
3. My mother figure was supportive in conversations about sex with me.
4. I felt respected by my mother figure whenever we had conversations about sex.
5. I felt my mother figure listened to me whenever we had conversations about sex.

Control
1. My mother figure communicated to me that sex was prohibited.
2. My mother figure made it clear that there would be negative consequences if I engaged in sex.
3. My mother figure was generally closed and restrictive about communication about sex.
4. My mother figure communicated to me that I would be punished if I engaged in sex.
5. My mother figure was very disapproving of the possibility of my having sex.

Avoidant
1. My mother figure never talked to me about sex.
2. My mother figure avoided any conversations about sex with me.
3. Even if I tried to initiate a conversation about sex, my mother figure wouldn’t engage in the conversation.
4. My mother figure always steered clear of any conversations about sex with me.
5. I felt my mother figure was not interested in communicating with me about sex.
Message Type Scale
Father Figure

Please rate the following items based on the communication with your father figure.

Assess items using a 7-Point Likert Scale.

7 = Strongly agree
6 = Moderately agree
5 = Slightly agree
4 = Undecided
3 = Slightly disagree
2 = Moderately disagree
1 = Strongly Disagree

Support
1. My father figure communicated about sex openly.
2. My father figure was open about conversations about sex with me.
3. My father figure was supportive in conversation about sex with me.
4. I felt respected by my father figure whenever we had conversations about sex.
5. I felt my father figure listened to me whenever we had conversations about sex.

Control
1. My father figure communicated to me that sex was prohibited.
2. My father figure made it clear that there would be negative consequences if I engaged in sex.
3. My father figure was generally closed and restrictive about communication about sex.
4. My father figure communicated to me that I would be punished if I engaged in sex.
5. My father figure was very disapproving of the possibility of my having sex.

Avoidant
1. My father figure never talked to me about sex.
2. My father figure avoided any conversations about sex with me.
3. Even if I tried to initiate a conversation about sex, my father figure wouldn't engage in the conversation.
4. My father figure always steered clear of any conversations about sex with me.
5. I felt my father figure was not interested in communicating with me about sex.

Please give an example in the space below of an instance when you or your primary caregiver either attempted to or had a conversation with you about sex. Please provide as much detail as possible regarding what was said or done. Please circle with whom this conversation occurred (Mother figure/father figure/both).
Appendix E
Psychological Reactance Scale

Indicate your agreement using anchors of 1: Strongly disagree, 2: Moderately agree, 3: Slightly disagree, 4: Neutral, 5: Slightly agree, 6: Moderately agree, and 7: Strongly agree

1. Regulations trigger a sense of resistance in me.
2. I find contradicting others stimulating.
3. When something is prohibited, I usually think, “That’s exactly what I am going to do.”
4. The thought of being dependent on others aggravates me.
5. I consider advice from others to be an intrusion.
6. I become frustrated when I am unable to make free and independent decisions.
7. It irritates me when someone points out things, which are obvious to me.
8. I become angry when my freedom of choice is restricted.
9. Advice and recommendations usually induce me to do just the opposite.
10. I am contented only when I am acting on my own free will.
11. I resist the attempts of others to influence me.
12. It makes me angry when another person is held up as a role model for me to follow.
13. When someone forces me to do something, I feel like doing the opposite.
14. It disappoints me to see others submitting to society’s standards and rules.
15. When someone forces me to do something I say to myself: Now that’s exactly what I don’t want to do.
16. It pleases me to see how others submit to social norms and constraints.
17. Strong praise makes me skeptical.
18. I react negatively when someone tries to tell me what I should or should not do.
Appendix F
Scale of Sexual Risk-Taking
Directions: Please answer the following questions.

1. Have you ever had sexual intercourse with someone of the opposite sex?
   Yes     No

2. Have you ever had sexual intercourse with someone of the same sex?
   Yes     No

3. If you responded yes to either 1 or 2, how old were you when you first had sexual intercourse?
   Age: ____________________

4. How many times in the last year have you had sexual intercourse with someone of the opposite sex?
   Number: __________

5. Altogether during the past year, how many different people of the opposite sex have you had as sexual partners?
   Number: __________

6. In the past 12 months, how many times have you had intercourse with someone you didn't know very well?
   Never     Once     Twice     At least 3 times

7. Have you had sex in the past year with a partner who you know was having sex with other people?
   Yes     No

8. How many times have you had sex in the past year with a partner who you knew was having sex with other people?
   Number of times: __________

9. Generally, in the past year, how often has alcohol been part of your sexual activities?
   Never     Occasionally     Half the time     Often     Always
10. Generally, in the past year, how often have marijuana or drugs other than alcohol been part of your sexual activities?

Never  Occasionally  Half the time  Often  Always

11. Have you had sex in the past year with someone who injects drugs?

Never  Once  Twice  At least 3 times

12. When you have heterosexual sex (sex with someone of the opposite sex), how often do you use some kind of birth control?

Never  Occasionally  Half the time  Often  Always

13. When you have sexual intercourse, how often do you or your partner(s) wear a condom?

Never  Occasionally  Half the time  Often  Always

14. Have you ever had a sexually transmitted disease such as gonorrhea (clap), syphilis, or chlamydia?

Yes  No

15. Have you ever had anal sex?

Yes  No