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ORIGINAL PAPER

Predictors of Sex Anxiety: Emphasis on Religion in Childhood, Religious Values, and Family Communication

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Abstract

Little is known or understood about which factors relate to sex anxiety. Specifically, there is a gap in the literature on the relationship of sex anxiety to an individual's religious emphasis and values pertaining to monotheistic religions. The purpose of this study was to explore a potential relationship between emphasis on religious values during childhood, current religious values, and caregiver-child conversations regarding sex and anxiety surrounding sex acts and practices. It was hypothesized that increased emphasis placed on religious practices during childhood, lower family sex communication, and high religious values would correlate to high levels of sex anxiety. The findings indicate limited family communications about sex and religious emphasis during childhood as statistically significant contributors to the variance in sex anxiety. Current religious beliefs did not contribute to the variance in sex anxiety. The relationships between sex anxiety, family communication, and emphasis on religion during childhood reinforce the impact of community socialization and the importance of early education. Implications for researchers, advocates, religious or community leaders, and care providers are discussed.

Keywords Religious values · Sex anxiety · Sex communication · Childhood

Introduction

There is limited literature on how negative connotation of sex within many religious communities, specifically monotheistic religions, influences individuals (Bruess and Schroeder 2014; Garcia and Kruger 2010). One potential consequence of the negative emphasis placed on sex within religious communities is sex anxiety (Garcia and Kruger 2010). Sex anxiety, sometimes referred to as erotophobia, is defined as

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fear or anxiety with regards to sex, specific sex acts, or sexual practices (Fallis et al. 2011). Snell et al. (1993) identified three factors which are associated with sexual anxiety: tension, discomfort, and anxiety related towards sex life. Each of these factors are influenced by the individual's environment (Snell et al. 1993) and such factors can contribute to both physiological and psychological concerns (Belsky et al. 2010). Both the definition of sex anxiety and how it may manifest for individuals (e.g., physical, avoidance, or performance) can vary greatly (Barlow 1986). Within the literature, the construct of sex anxiety is often understood in physiological terms and applications (Hertlein et al. 2009; Robinson 2013). These operational definitions focus on resulting physiological symptoms or sexual dysfunctions such as vaginismus and erectile dysfunction but often fail to address the origin of the anxiety (Hertlein et al. 2009). Sex anxiety, for the purpose of this study, is defined as general anxiety with the topic, discussion, presentation, and expression of sex and sexuality (Fallis et al. 2011). Because most studies focus on sex performance anxiety, and not sex anxiety more generally, there is little information about its prevalence.

Review of the Literature

Sexual Health Education and Information

Interventions or therapeutic techniques to address or treat sexual dysfunctions are usually reactive rather than preventative (Hertlein et al. 2009). For example, in the case of individuals experiencing vaginismus or erectile dysfunction on their wedding night, the focus of treatment is often on current symptomology and addressing the symptom rather than the cause (Hertlein et al. 2009). Research suggests that individuals develop anxiety related to sex, specifically vaginismus, due to past trauma, negative sexual attitudes, and a lack of sex education (Hertlein et al. 2009). In religious households or communities, sex often takes on moral implications and is rarely, if ever, discussed. Research findings suggest that individuals raised in these environments demonstrate increased levels of anxiety when first engaging in sexual intercourse (Sands 2000).

Early sexual activity with limited knowledge is a concern as it is correlated to increased risk of unintended pregnancies and sexually transmitted infections (Rosenthal et al. 1999). Rosenthal et al. (1999) indicated the desire to transition into adulthood before peers is a powerful incentive for youth to engage in sexual activity earlier. With approximately 90% of youth having access to the internet (Ybarra and Mitchell 2005), researchers find many adolescents are regularly viewing pornographic video clips or films (Weber et al. 2012; Wright et al. 2013) and that they are increasingly utilizing pornography as a means to learn about sex and sexual health (Flood 2009). The content in most pornography includes inaccurate and unrealistic information about sex, sexuality, and healthy communication between partners. In other words, "pornography is a poor, and indeed dangerous, sex educator" (Flood 2009, p. 384).

According to the information–motivation–behavioral skills (IMBS) model, the information or lack of information received about sexual and reproductive health

directly influences all other aspects (motivation, skills, and behavior) of sex and reproduction (Fisher andFisher 1998). The IMBS model indicates factors that influence sexual and reproductive health behaviors. In this way, sexual health information and messaging received during childhood can affect motivation, skills (e.g., contraceptive negotiation), and behavior.

Potential Determinants of Sex Anxiety

Religious Values

Religion is an influential component in many people's social networks where learning and growth occur (Worthman 2010). Religious groups and churches are often stereotyped as having a stigma and negativity toward sex (Eshun and Gurung 2009) and religious teachings about sex and sexual health often emphasize values over facts (Luker 2006). Research exploring predictors of sexuality-related outcomes suggests that religiosity (Luquis et al. 2012), religiosity domains (e.g., spirituality, fundamentalism; Ahrold et al. 2011), and religiosity behaviors such as frequency of attendance (Visser et al. 2007) are associated with variation in attitudes toward sex.

Although there is variation between and within religious groups, general religious socialization can have negative outcomes with regard to sex and sex health. Such outcomes might include riskier sexual practices and misinformation leading to unintended teenage pregnancy and injury (Luker 2006; Moran 2000). One study found that religiosity correlated to number of sexual partners but not with frequency of sexual behavior or contraception use (Gold et al. 2010). Similarly, although many religious groups promote "abstinence only" education with regards to sexuality (Moran 2000), some research indicates that these abstinence only religious communities often have higher rates of teen pregnancy and lower positive sexual health practices (e.g., safe sex, consent; Strayhorn and Strayhorn 2009).

Research also suggests some promising aspects of religion with regard to sex and sexual health practices. For example, religious communities are large support networks for the individuals they serve and, therefore, an integration of positive, healthy views regarding sex and sexual health could promote improved attitudes and improved outcomes (Sands 2000). Some religious communities are also able to provide education for families and community members, which could incorporate curriculum related to sexual health (Puffer et al. 2016). Additionally, research indicates that religion can serve as a mediator and provide coping mechanisms for stress and anxiety related to sex (Eshun and Gurung 2009).

Religious Emphasis During Childhood

From a young age, children model and mimic adults and peers in an effort to communicate and learn about the world around them and the family is the primary source of knowledge and information for children (Mahn 1999). In some ways, the family serves as a conduit for and reflection of religious values. For example, religious emphasis might manifest as congruence between family values and religious

values (Sands 2000) or the promotion of religious teachings (e.g., abstinence) when children are first introduced to knowledge about sex (Moran 2000). Additionally, Religious emphasis during childhood can develop as the integration of other factors related to the family. Research has shown that religious attendance (Visser et al. 2007) and socialization to what a community considers "appropriate" gender roles (Csinos 2010), two things that are typically determined for children by existing family norms, are related to attitudes and anxiety about sex.

Research has demonstrated how the incorporation of sexual health and sexual education during a child's developmental upbringing is essential to the development of positive sexual health information, skills, and behaviors (Bruess and Schroeder 2014; Luker 2006; Fisher and Fisher 1998). That is, the family unit facilitates or hinders access to important sexual health information during pivotal developmental years. Human development, from an ecological model (e.g., Bronfenbrenner 1999), emphasizes the individual's perspective of the environment, the surrounding environment, and the interaction between the individual and the environment (Mahn 1999). It is this interaction which can ultimately promote health or lead to health disparities (Reifsnider et al. 2005).

Family Sex Communication

One major aspect of the individual's environment that may play a role in learning about sex is communication within the family system. Family sex communication can be described as the willingness of families to have open lines of communication about sex and sex related topics (Galvin et al. 2015). This openness by parents or caregivers enables children to utilize the family unit as a primary source of sexual learning (Warren and Neer 1986). The communication exchange between parents and their children directly correlates to how likely that child is to share information regarding sex with their own children (Warren and Neer 1986). Furthermore, the openness in communication on sex can promote increased interactions and positive experiences with those interactions (Warren 1995). Refusal and failure to share sexual health and educational information can contribute to ignorance and sexual health disparities (Garcia et al. 2012). In other words, children with increased understanding of sexual health and associated topics might exhibit improved sexual health.

Research examining family sex communication suggests that families rarely, if ever, discuss sex (Warren 1995; Warren and Neer 1986) and, even when parents think they fulfilled their parental responsibilities of relaying information, there is often a lack of openness regarding discussion of sexuality beyond pregnancy and sexually transmitted infections (Heisler 2005). Children from families who did practice open communication are more willing and open to discuss concerns and health practices with sexual partners (Warren 1995) and more likely to engage in healthy sexual practices (Coakley et al. 2017). Additionally, discussions about sex within families ultimately led to increased positive dialogue and questions between children and parents (Warren and Warren 2014). The literature indicates that open communication ultimately promotes knowledge and health, as children from families who openly discussed sex in the home did are less likely to engage in riskier behaviors

(Coakley et al. 2017; Warren and Warren 2014). Increased communications about sex within families demonstrates information access in the IMBS model which leads to sexual health skills and sexual health behaviors (Fisher and Fisher 1998).

One major deterrent for parents to communicate with their children could be their own limited knowledge base of sex information to share (Moran 2000). In addition to inadequate information, parents might emphasize preventing sexually transmitted infections (STI) or avoiding pregnancy, rather than teaching overall sexual health (Bruess and Schroeder 2014). Parents often believe that children are too young to discuss sex and should therefore be shielded from what they consider adult conversations (Moran 2000). On the contrary, Robinson (2013) found that conversations among families with young children have many benefits for both the adults and the children. Children can easily become frustrated when they are interested in information they are unable or not allowed to access (Flood 2009). Improved communication can alleviate frustration experienced by children due to their lack of access to information, increase sexual knowledge, and open conversations for future topics within the child's social networks (Robinson 2013).

Purpose of the Study

This exploratory study aimed to determine whether factors such as religious values, religious emphasis during childhood, and family communication were related to sex anxiety. Because sex anxiety research typically focuses on physical aspects such as performance anxiety, our intention was to explore relationships between these factors and our broader definition of sex anxiety. The primary research question was whether religious values, religious emphasis during childhood, and family communications about sex predicted variance in levels of sex anxiety. Additionally, we wanted to examine whether family communication about sex predicted variance in levels of sex anxiety to a greater extent than religious values and religious emphasis during childhood did. Based on existing literature, we hypothesized that religious values, religious emphasis during childhood, and family communications about sex would predict variance in levels of sex anxiety. Specifically, we hypothesized that higher levels of religious emphasis during childhood, higher levels of religious values, and lower levels of family communication would predict higher levels of sex anxiety. We also hypothesized that family communication would be the strongest predictor of variance in sex anxiety.

Methodology

Participants in this study included undergraduate and graduate college students at a large Midwestern university enrolled in a course that permitted research participation for course credit. Course topics were broad in range (including such diverse topics as pedagogy or history of flight) and were not related to the study. Due to the explorative nature of the study, a convenience selection method was utilized to produce a homogeneous sample and diminish volunteer bias (Wiederman 1999). A

homogeneous sample was desired because the goal of the proposed research was to understand and describe a particular population in depth. All study procedures were reviewed and approved by the Institutional Review Board at the university.

Participants

Eligibility requirements for this study were that participants were at least 18 years of age and were enrolled in a course at that offered research participation for course credit. The online research system, SONA, was utilized to collect data. The initial sample size was 301 participants and the final sample size was 282 after 19 participant responses were deleted for not completing the survey or incorrectly responding to validity questions throughout the measure.

The average age of the students in the study was 21.72 (SD = 5.032). Participants were 93.3% undergraduate students and 6.7% graduate students. Participants were asked to identify their caregiver's level of education. Participants identified as 70.2% White/Caucasian, 8.5% Black/African American, and 8.2% Native American. Asian and Other were each less than 3.5% of the sample. Additionally, 93.3% identified as Non-Hispanic and 6.7% as Hispanic. Most of the participants identified as female, 62.8%. The remaining 37.2% of participants identified as male with none identifying as gender-fluid or no gender. Of the sample, 95.36% indicated that they identified as heterosexual.

The most common religious affiliations reported were: Baptist, 23.4%; Non-denominational, 19.1%; Roman Catholic, 9.6%; Methodist, 9.6%; None, 7.4%; and Spiritual Non-religious, 5.3%. The most common family's religious affiliations reported were: Baptist, 28.4%; Non-denominational, 15.8%; Roman Catholic, 12.5%; Methodist, 11.7%; Church of Christ, 6.7%; and Muslim, 6.1%. Only 2.5% of participants indicated their families did not identify with any religious affiliation.

Procedure/Data Collection

Eligibility criteria were included in recruitment materials as well as in the informed consent. Individuals who met eligibility criteria were directed to the general information and informative process for the online Qualtrics questionnaire. Participants acknowledging informed consent were invited to participate in the study which collected responses to demographic variables and key measures of interest.

Measures

As the constructs being measured were considered sensitive, the measures were counter-balanced (randomly presented to the participant). Counterbalancing the measures was employed to eliminate any effect that questions about sexual behaviors might have on questions about religion or religiousness and vice versa.

Sociodemographics

Sociodemographic information collected included age, race, ethnicity, gender, sexual orientation, political affiliation, primary language, educational background of participant and their caregivers, religious affiliation, religious affiliation of family, and relationship status. Age was measured on a discrete scale, while all other items were categorical or ordinal.

Sexual Anxiety

Sexual anxiety was assessed using the Sexual Anxiety Scale (SAS) developed by Fallis et al. (2011). The SAS was developed to focus on sex related anxiety, erotophobia. The SAS is a 56-item scale that measures multiple constructs of sex anxiety. It includes statements such as "talking with my friends about my sex life" and "telling my partner what pleases me and does not please me sexually." Responses for items are measured on a continuum ranging from 0 *extremely pleasurable* to100 *extremely discomforting*. The SAS has a Cronbach's alpha of .96 and strong test retest reliability ($r = .87$, $p < .01$; Fallis et al. 2011). There are three subscales: Solitary and Impersonal Sexual Expression, Exposure to Information, and Sexual Communication. Higher scores on the subscales, as well as the total score, indicate greater sex anxiety (Fallis et al. 2011). For the purpose of the current study, the overall SAS score was used as the measure of sex anxiety. In this study, Cronbach's alpha was .962.

Family Sex Communication

Family communication was measured using the Family Sex Communication Quotient (FSCQ) which has a Cronbach's alpha of .92 and strong internal consistency ($r = .80$, $p < .01$; Warren and Neer 1986). The FSCQ is an 18-item measure which contains three subscales (comfort, information, and value) each of which are comprised of six questions, as well as an overall FSCQ. The Family Sex Communication Quotient (FSCQ) is a tool which was developed to assist in the measurement of general family orientation when discussing sex between child and parent (Warren and Neer 1986). The full FSCQ ranges from low (18–39), to moderate (40–69), to high (70–90) (Warren and Neer 1986). Lower scores indicate lower family communication about sex and higher scores indicate more family communication. In this study, Cronbach's alpha was .552.

Religious Values

Religious values were assessed using the Religious Commitment Inventory-10 (RCI-10; Worthington et al. 2003). Scores from the RCI are utilized to identify the importance of religion to individuals (Wade and Worthington 2007). The RCI consists of 10 items scored on a Likert type scale to best describe the level of truth a participant places on particular statements. Worthington et al. (2003) reported Cronbach's alpha as .93 and test–retest consistency as .87. The total score was used for the purpose of

this study. Higher scores indicate higher levels of religious values. Religious values in the current study were placed on a continuum rather than categorized and labeled. Cronbach's alpha was .961 for the current study.

Religious Emphasis

To determine religious emphasis in childhood, the Religious Emphasis Scale (RES) was utilized as it measures parental emphasis on family religion during child rearing (Altemeyer 1988). The RES had a Cronbach's alpha of .92 and .58 for convergent validity in the initial development study (Altemeyer 1988). Participants indicate the level to which their parents emphasized religion during childrearing. A total score is acquired by adding all of the 10 items together. Higher numbers indicate higher emphasis on religious practices during childrearing. For the current study Cronbach's alpha was .938.

Data Analysis

SPSS (22.0) was used to perform all statistical analyses. Frequencies and percentages were calculated for categories of race, ethnicity, gender, sexual orientation, relationship status, educational background of participants and their caregivers, and religious affiliation of participants and their family. A regression analysis using ordinary least squares was initially used to test the hypotheses. The linear regression was run to determine the predictive relationship of the independent variables (Family Sex Communication, Religious Emphasis during Childhood, Religious Values) on the dependent variable (Sex Anxiety). The assumptions of a linear regression—linearity and homoscedasticity—were assessed. Linearity and homoscedasticity were assessed by examination of scatter plots. The values of R^2 indicate the amount of variance in the criterion variable explained by each predictor. The F-test was conducted to determine whether the correlations were statistically significant at an alpha level of .05 and regression coefficients show the direction of the relationships.

During analysis, a violation of the assumption of multicollinearity was identified. Although the constructs differed and did not measure similar constructs (i.e. family communications about sex and religious emphasis), the violation of multicollinearity influenced the overall variance, further confounding the predicted relationship on the dependent variable. As such, a regression enter method was utilized to weigh each of the independent variables independently (Ott and Longnecker 2001). Beta scores for each variable are reported to demonstrate the relationship between variables.

Table 1 ANOVA results of religious values, religious emphasis in childhood, and family sex communication as predictors of sex anxiety

Model	Sum of squares	*df*	Mean square	*F*	*p*
Regression	2,501,784.41	3	8,347,261.471	10.277	.000
Residual	225,796,114.5	278	812,216.239		
Total	250,837,898.9	281			

Table 2 Regression results using sex anxiety as the criterion

Predictor	*B*	*SE B*	*B* 95% CI (LL, UL)	*β*	*t*	*p*
(Constant)	4129.992	327.416	(3485.464, 4774.521)		12.614	.000
Religious emphasis in childhood	299.737	57.861	(185.835, 413.639)	2.038	5.180	.000
Family sex communication	− 149.457	28.303	(− 205.173, − 93.741)	− 2.077	− 5.281	.000
Religious values	4.764	4.507	(− 4.109, 13.636)	.061	1.057	.291

LL and *UL* indicate the lower and upper limits of a confidence interval, respectively

Results

The beginning sample size was 301 participants. The data were cleaned to remove participants who did not complete the survey or who inaccurately responded to validity questions. 19 participants' responses were removed. This resulted in the final sample size of 282.

The first research question was, do higher levels of religious emphasis during childhood, higher levels of religious values, and lower levels of family communication predict higher levels of sex anxiety? Two of the three independent variables, family conversations about sex and religious emphasis during childhood, were highly correlated. Current religious values were not found to be a significant predictor variable of sex anxiety. The second research question was, are low levels of family communications about sex the strongest predictor of sex anxiety? Family conversations about sex were found to be the strongest predictor variable to sex anxiety with religious emphasis during childhood being the second strongest.

Entry regression analysis was used to test if family communication about sex, religious values, or religious emphasis during childhood significantly predicted participants' level of sex anxiety. The results of the regression indicated two predictors. Family communications about sex and religious emphasis during childhood independently significantly predicted levels of sex anxiety ($R^2 = .316$, $F(3278) = 10.277$, $p < .01$). It was found that family communications about sex significantly and negatively predicted levels of sex anxiety ($\beta = -2.077$, $t = -5.281$, $p < .001$). Higher levels of communication predicted lower levels of sex anxiety and vice versa. Higher levels of religious emphasis during childhood predicted higher levels of sex anxiety ($\beta = 2.038$, $t = 5.180$, $p < .001$). Current religious values were not a significant predictor of sex anxiety ($\beta = .061$, $p = .291$). See Tables 1 and 2.

Discussion

The first hypothesis, that higher levels of religious emphasis during childhood, higher levels of religious values, and lower levels of family communication would predict higher levels of sex anxiety, was partially met. The independent variable of religious values was not found to be a significant predictor of sex anxiety. Family communications about sex negatively predicted levels of sex anxiety. When participants identified that they did not have conversations with their families about sex, they reported higher levels of sex anxiety. Additionally, participants with higher levels of sex anxiety indicated an increased emphasis on religion and religious practices during their childhood. The R^2 statistic of .316 is considered large (Cohen, 1988), and indicates that family communication and religious emphasis during childhood accounted for approximately 31.6% of the variance in sex anxiety.

Researchers who have focused on the intersection of religion and sex have discussed that abstinence or avoidance is the primary approach to sex education (Sands 2000 in religious households, although they have been identified as ineffective methods of education which often result in poor outcomes, such as unintended teenage pregnancy and Sexually Transmitted Illnesses (Strayhorn and Strayhorn 2009). Results from the present study are relatively congruent with existing literature pointing to the range of ways in which religion can influence sexual behaviors and sexual attitudes. For example, rather than suggesting that religion and religious engagement lead to poorer sex-related outcomes, it might be more accurate to say that religion may contribute to patterns and experiences (e.g., family communication) that, in turn, influence common outcomes.

The second hypothesis, that family communication would be the strongest predictor variable of sex anxiety, was supported. Of each of the independent variables, family communication was the strongest predictor of sex anxiety. This finding is consistent with previous research as communication has been shown to increase education and decrease anxiety related to the topics discussed (Robinson 2013; Rostosky et al. 2008; Warren and Neer 1986). Communication with others is how people learn (Bronfenbrenner 1999) and, according to the IMBS model, learning about sex directly and indirectly influences overall sexual behaviors (Fisher and Fisher 1998). The β statistics of -2.077 and 2.038 may be somewhat difficult to interpret, but some scholars consider this to be a moderate to strong effect size (Acock 2014; Harrell 2015; Peterson and Brown 2005).

These findings are helpful to professionals in the field of psychology as they provide information about possible factors which contribute to sex anxiety. By identifying contributing factors to sex anxiety, psychologists and other helping professionals can promote preventative interventions. With the present data, professionals working with a religious family might encourage communication within the home while maintaining the importance of being culturally sensitive and not imposing one's cultural biases onto clients. The factor of religious emphasis during childhood is more complicated to address in practice. While working with the religious families, professionals could provide education on the

relationship between communication and sex anxiety and work with families to provide additional interventions in an effort to combat sex anxiety, have detrimental impacts on a person's life.

Limited communication about sex and sex related information results in limited and inadequate sexual knowledge. Research (e.g., Garcia et al. 2012) indicates that poor information can be detrimental as people become increasingly at risk of unintended pregnancies and exposure to sexually transmitted infections, such as HIV. Identifying the relationship between limited family communication and increased sex anxiety demonstrates the importance of sex education and conversations about sex in the home.

Applying the IMBS model demonstrates that this cycle will continue through each generation unless new information is provided or an intervention is delivered to disrupt the cycle. A person who has low family communications about sex and high levels of sex anxiety is more likely to continue this pattern and not communicate about sex with their children (Fisher and Fisher, 1998). In addition, if a family's cultural practice is includes a high religious emphasis during child rearing, high sex anxiety is likely to continue, perpetuating a cycle of misinformation across generations.

Psychologists, counselors, and other professionals play an important role in preventing this perpetual cycle. Education and training are effective tools to changing the pattern of behavior and passing sex anxiety across generations. Professionals can work toward decreasing sex anxiety in clients by providing education on sex and sexual related behaviors. One way to do this within the individual's ecological system is to utilize their protective factors and support networks. Religious entities and family can be a great means of support and education. The results of this study showed that lower levels of family communication about sex predicted higher levels of sex anxiety, yet, the opposite is also true. Advocates and educators can work with the family to help them improve and increase communication, thereby decreasing anxiety.

Ambivalent or dichotomous thinking is often present when discussing the importance of providing sex education. On one end of the spectrum, there is anxiety that sex education will result in oversexualization or inappropriate sexual behaviors (Rohleder 2010). This is often the case in highly religious families. On the opposite end of the spectrum, sex education is an important aspect of growth and development. Within the family system there are multiple constructs which influence parents' decisions to discuss sex related topics. Parents who think that sex education as important but may not have a frame of reference or feel as though their skills are limited, are less likely or unable to provide adequate education (Fisher and Fisher 1998). This may result in younger generations receiving too little sex education.

This study sought to address anxiety as a whole, both physical and emotional aspects, in an effort to measure general anxiety towards sex. In previous literature, the term sex anxiety has often been only to refer to physical symptoms or inability to perform sexually. Past research did not address sex anxiety in the general sense but rather physical complications such as vaginismus and erectile dysfunction (Hertlein et al. 2009).

Results from this study give researchers and clinicians a better understanding of contributing factors to sex anxiety. These findings could be applied to improve programming developed to prevent sex anxiety. Trainings and outreach efforts might include psychoeducation on sex education for parents and agencies working with children. Future research avenues might include effective program development for working with families and children to diminish sex anxiety. Additional research foci could include a more in-depth emphasis on social relationships throughout development which might influence sex anxiety. To diminish anxiety, sexual dysfunctions related to anxiety, misinformation, and lack of education, an emphasis must be placed on improving the systems which both directly and indirectly impact the person (Buruess and Schroeder 2014; Luker 2006; Sands 2000). A strong correlation between family communication and sex anxiety informs counseling psychologists about the importance of implementing effective communication methods with families they serve when discussing sexual health related topics.

Limitations

Limitations of this study included sensitivity of constructs being measured, convenience sampling, and grouping of religious entities. Sex anxiety, when compared to religious affiliation and values, can be considered sensitive and may have confounded the data as the subjects may not have been entirely honest (Sands 2000). Because the measures were self-report, this may also contribute to validity of the data. The use of a convenience sample of college students as participants decreases generalizability. Finally, by grouping religious entities together (e.g., Christian, Muslim, Protestant, etc.) there may be overgeneralizations about religious categories which can result in stereotypes (Sands 2000). Particularly, messages gathered during childhood, ideals of religious values, and family communication provide a more accurate depiction of religiosity than adoption of a religious belief. An additional limitation of this study is the low Cronbach's alpha of .552 for family sex communication. The Family Sex Communication Quotient was found to have strong internal consistency ($r = .80$, $p < .01$) and a Cronbach's alpha of .92 (Warren and Neer 1986). The lower alpha in the current study could be a result of pairing religious values with family sex communication or inconsistent responding by participants. In future studies researchers could utilize additional measures for communication within the family system. Finally, this study only examined relationships between variables, and not causality.

Implications

Future research might focus on the importance of communication within the family. Advocacy efforts for decreasing sex anxiety could include presentations to affected populations. Some religious entities have begun to provide education and trainings for their communities. These efforts would be an excellent medium for breaking the cycle of sex anxiety. Future research should also include a stronger emphasis on other constructs, such as friends or peers, within the individual's social networks

(Rosenthal et al. 1999). While gender is reported in this study, a more in-depth focus in future studies on gender differences could be further investigated as gender differences have been identified as potential contributing factors (Sprecher et al. 1995). In this study, we found that sex anxiety was related to family communication and emphasis on religion during childhood, highlighting the importance of improving families' comfort levels with discussing sex with their youth.

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Compliance with Ethical Standards

Conflict of interest All of the authors declare that they have no conflict of interest to report.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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