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Big-Five Personality, Risky Sexual Behavior, and Pornography Consumption: Engagement in Risky Sexual Behavior Poses Health Risks for Individuals and Society

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Big-Five Personality, Risky Sexual Behavior, and Pornography Consumption

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Abstract

Engagement in risky sexual behaviors poses health risks for the individuals who engage in them, as well as society. Prior research has found relationships between the Big-Five Personality Traits and risky sexual behaviors. With this research in mind, this study investigated the relationships between the Big-Five Personality Traits, risky sexual behaviors, and pornography consumption. An online survey was complete by undergrad students aging 18 to 23, who were recruited from a small liberal arts university. Results showed a modest positive correlation between extraversion and risky sexual behaviors ($r[291] = .23, p < .01$), but no correlation between extraversion and pornography consumption. Risky sexual behaviors and pornography consumption also revealed a modest correlation in the positive direction ($r[313] = .29, p < .01$). Researchers concluded that those who score high on the extraversion scale are more likely to engage in risky sexual behaviors. As these relationships were correlational in nature, the researchers were unable to identify their causes. However, understanding these relationships may support more preventative programing in sexual education.
Studies examining the relationship between personality and risky sexual behaviors date back to research done by Esyneck in 1976. In more recent history, researchers have begun to find that it is much more relevant to examine the relationship between the Big-Five Personality Traits and risky sexual behaviors (Miller, Lyman, Zimmerman, Logan, Leukefeld, & Clayton, 2004). According to these authors, personality refers to broad dispositions and is stable over time and place, making it an important and plausible link to risky sexual behaviors.

Risky sexual behaviors are a problem that can cause unexpected outcomes for both the individuals who engage in them and for society. Risky sexual behaviors include sexual intercourse with multiple partners, unprotected intercourse, engaging in sexual behaviors after the use of alcohol, and non-discriminating sex partner recruiting (Zeitsch, Verweij, Bailey, Wright, & Martin, 2012). One outcome associated with these behaviors may be unwanted pregnancy. This could lead to an unplanned birth or abortion and make academic success or employment difficult for the mother (Miller et al., 2004). Another large risk factor associated with sexual intercourse is contracting a sexually transmitted disease (STD). According to the Center for Disease Control (CDC), there are more than 1 million people infected with human immunodeficiency virus (HIV) in the United States and many more will continue to contract the disease every year (Wright & Randall, 2012).

In addition to sexual activity being identified as a risk factor for HIV and STDs, pornography consumption also has been linked as a risk factor for these same diseases (Wright & Randall, 2012). Pornography consumption also has been associated with body dissatisfaction and negative body appreciation in men (Tylka, 2015).

Research has been conducted that focuses on examining the correlations between the Big-Five Personality Traits and risky sexual behaviors (Trobst, Herbst, Masters, & Costa, 2002). The Big-Five Personality model consists of five different personality traits that could correlate with risky sexual behavior and pornography consumption: extraversion (E), neuroticism (N), openness to experience (O), agreeableness (A), and conscientiousness (C). Extraversion measures one's level of sociability and
agency; neuroticism relates to emotional stability and adjustment; openness to experience relates to one's intellectual curiosity, ability to consider different alternatives and try new activities; agreeableness measures ones interpersonal style; contentiousness relates to one's ability to control his or her impulses (Miller et al., 2004).

Zeitsch et. al. (2012) have done research on the relationship between personality and risky sexual behaviors. Results show that, more than other personality traits, extraversion positively correlates with engagement in risky sexual behaviors. Extraversion has also shown a strong correlation with engagement in sexual activity (Moyano & Sierra, 2013). The study by Miller et. al. (2004) also supports the theory that extraversion is correlated with degree of engagement in risky sexual behaviors, making this an important association to continue studying. In the same study, agreeableness and openness to experience had some relation to the amount of risky sexual behaviors participants engaged in; however these correlations were not as strong as that for extraversion.

The Big-Five Personality Traits have also been linked to sexual desire. It was found that, of the five traits, neuroticism and extroversion showed relationships with these desires. However, the relationship with neuroticism and sexual desire was negative (Miri, AliBesharat, Asadi, & Shahyad, 2011). Based on previous research, we hypothesized that risky sexual behaviors would correlate moderately and positively with extraversion, openness, and neuroticism. Individuals who exhibit high levels of these three personality traits would be more likely to engage in sexual behaviors that are considered risky. Additionally, there have been few findings that have associated conscientiousness and agreeableness with risky sexual behaviors (Trobst et al., 2002). Therefore, we hypothesized that we would observe a moderate negative correlation between these variables and risky sexual behaviors.

Pornography is often a taboo topic due to the sensitivity of its content. It is believed that the effects of pornography on an individual’s behavior is stronger when the use is self-initiated (Williams, Cooper, Howell, Yuille, & Paulhus, 2009). There are many different types of pornography available. This allows for viewers to choose pornography that is aligned with their sexual preferences. Studies have
shown that when individuals watch pornography that suits their preferences, they are encouraged to engage in that type of behavior when involved in real sexual experiences (Williams et al., 2009).

Wright and Randall (2012) looked at Internet pornography consumption and its relationship with different types of risky sexual behaviors. They found that different types of risky sexual behaviors, having sex with multiple partners for example, was positively correlated with Internet pornography consumption. Another study also found a positive correlation between sexual experimentation and pornography consumption (Ouytsel, Ponnet, & Walrave, 2014). Given these results, we expected to find a moderate positive correlation between pornography consumption and risky sexual behaviors.

There have been few findings on the relationship between pornography consumption and the Big-Five Personality Traits. However, understanding this relationship could prove interesting. Due to the reported relationship between risky sexual behaviors and pornography consumption, researchers expected to find associations similar to those between personality traits and risky sexual behaviors. Thus, researchers hypothesized that extraversion, neuroticism, and openness to experience would yield a moderate positive correlation with pornography consumption, while conscientiousness and agreeableness would yield a moderate negative correlation with pornography consumption.

**Method**

**Participants**

A total of 337 undergraduate students attending a small liberal arts university took an anonymous survey. The researchers sent an email from Qualtrics containing a hyperlink to the survey to 365 students enrolled in psychology courses (Qualtrics, 2015). The hyperlink included in the email was produced by Qualtrics and could only be used once by each individual who received the email. The students were asked to open the link and complete the survey. Of the 365 students who received the email, Qualtrics counted 298 as nominally completing the survey. The original email was followed up twice by reminder emails. Upon opening the survey, participants read the informed consent. Those who agreed to the consent form entered the survey. Those who did not consent were directed to a separate page to exit them.
from the survey. All participants who fully completed the survey were able to choose the class in which
they would like to receive extra credit.

In addition to recruiting participants via email, the investigators posted a hyperlink to Facebook
three times in total, from which participants could access the survey. From this hyperlink 67 people
opened the survey, with 61 who nominally completed it. Any responses from those who reported being
younger than 17, older than 23, non-Susquehanna University students, or that they had taken the survey
before were not used. This means of the 61 nominally complete surveys, only 44 surveys were used in
data analysis. Upon opening the survey these participants also were presented with an informed consent.
Those who agreed were administered the survey, while those who did not consent were exited from the
survey. These participants were not offered extra credit or any other form of compensation.

All participants who completed the survey read a debriefing statement. All participants, whose
data was used, were between the ages of 18 and 23. There were 70 participants who identified as male,
263 participants who identified as female, and four participants who chose not to gender identify.

Materials

We administered a survey that contained four questionnaires and a few items about demographic
information, for a total of 49 questions. The demographic information asked participants to identify their
age, gender identity, and whether or not they were a student currently enrolled at Susquehanna University.

The first block of questions in the survey was the 20-question Mini IPIP Personality Measure,
which was developed by Donnellan, Oswald, Baird, and Lucas (2006). This section of the survey
contained four blocks of five questions each that evaluated the Big-Five Personality Traits. Due to our
interest in the relationship with extraversion and other variables, we added an additional six questions
from the 50-Item IPIP (Goldberg, Johnson, Eber, Hogan, Ashton, Cloninger, & Gough, 2006). The
additional six questions allowed for a more reliable measure of extraversion.

The next section of the survey examined participants’ past sexual behaviors and experiences as a
way to assess their engagement in risky sexual behaviors. Participants responded to the eight questions of
The Sexual Experience and Risk Factors in Sexual Behavior Measure. This measure has been used to
assess risky sexual behaviors (D’Abreu & Krahé, 2014). These questions asked participants whether or not they have ever been in a steady relationship, and whether or not they have ever engaged in sexual intercourse. The participants also self-reported their age at first sexual intercourse, and the total number of coital partners they had outside of a steady relationship. The last four questions were in the form of a Likert Scale, ranking from Never (1) to Every Time (5). In order to assess engagement in risky sexual behaviors, the survey asked participants if they had ever engaged in intercourse after drinking alcohol or if their partner had done so. The next question asked if participants had ever said “no” to sexual intercourse when they really wanted it. The final question asked the reverse question, whether or not participants have ever said “yes” to intercourse when they did not want to engage in sexual intercourse.

The final section of the survey contained two questionnaires that assessed frequency and forms of pornography consumption. Participants responded to the Pornography Acceptance and Use Measure that has been used by Nelson, Padilla-Walker, and Carroll (2010), which consists of two questions. This questionnaire assessed participant’s beliefs about pornography consumption and frequency of previous use. Finally, participants completed the eight questions in the Pornography Use Measure (D’Abreu & Krahé, 2014). This measured the mediums participants used to consume pornography and how frequently they consumed it.

Procedure

The investigators used the online survey host, Qualtrics, in order to set up and run the survey (Qualtrics, 2015). Qualtrics allowed all of the questionnaires to be put into one full survey, including the informed consent and debriefing statement. The online software also allowed for skip logic to be used in order to bypass questions that may not be relevant to all participants based on his or her previous answers. Once the survey was fully developed, the researchers had Qualtrics make the survey live online and send emails to students enrolled in psychology courses. Qualtrics automatically recorded all responses to the survey.

The investigators created a second survey in Qualtrics, which included the same questions, in order to put the survey on Facebook. The researchers posted the hyperlink on their respective Facebook
timelines. This invited Susquehanna University students, who had not previously participated for extra credit in a psychology course, to complete the survey. In order to ensure that there were no participants taking the survey more than once, this survey included one additional question. This question prompted participants to think about whether or not the information seemed familiar. If participants responded that it did, they were directed out of the survey without recording any data. Qualtrics produced a single hyperlink for the second survey and recorded all responses for data collection. Anonymity was ensured because Qualtrics recorded no personally identifying data.

Results

Descriptive statistics were analyzed to better understand the population. In terms of being sexually active, 66 percent of participants reported they were and 34 percent reported that they were not. A median number of coital partners was calculated for those who were sexually active and the median age at which they first engaged in sexual intercourse in order to account for outliers. The median number of coital partners for females was one, while the median for males was two. The median age at which participants first engaged in sexual intercourse was 17 for both men and women. Based on a scale of one through five (one being never, five being every time) the mean answer for whether participants had drunk alcohol in situations where they had sexual intercourse was 1.83. Based on a scale from zero through five, (zero being none, five being every day or almost every day) the mean answer for how many days participants viewed pornographic materials in the past 12 months was 2.32. All measures of personality traits and pornography consumption were shown to be reliable (see Table 1).

Correlations between the Big-Five Personality Traits and being sexually active were also explored and a significant relationship with extraversion was found ($r[302] = .16, p < .005$). A modest positive correlation between extraversion and risky sexual behaviors was found (see Table 1). A correlational analysis yielded a significantly modest correlation between risky sexual behaviors and pornography consumption (see Table 1). The results generated a significant modest positive correlation with openness and pornography consumption (see Table 2). Further analysis revealed a significant modest positive correlation between pornography consumption and conscientiousness as well (see Table
2. Researchers explored the amount of pornography consumed by males and females respectively. Results show that the rate of pornography consumption by males ($M = 21.9$) was higher than the rate of pornography consumption by females ($M = 15.5; t = -5.805, p < .001$).

**Discussion**

Personality traits have often been shown to have correlational relationships with human behaviors. This relationship is important to behaviors such as risky sexual behaviors and pornography consumption. However, there is only a small body of literature on how risky sexual behaviors and pornography consumption relate to the Big-Five Personality Traits in undergraduate students. This study was conducted to assess these variables. Of the Big-Five Personality Traits, extraversion has most commonly shown a strong correlational relationship with various risky sexual behaviors such as an active sexual life, a high number of coital partners, high sensation seeking, and sexual novelty (Moyano & Sierra, 2013). Similarly, this study found a significant positive correlation between extraversion and risky sexual behaviors.

This study revealed a significant correlation between extraversion and the number of coital partners outside of a steady relationship. We also discovered that the relationship between extraversion and engaging in sexual intercourse was significant. Neither of these results was surprising, given that sexual activity is a social behavior and those who are high in extraversion tend to be self-confident and outgoing in social scenarios (Miller et al., 2004). Moreover, risk-taking has long been incorporated in measures of extraversion.

While it was hypothesized that openness and neuroticism would yield a moderate positive correlation with risky sexual behaviors, results yielded insignificant correlations for both domains. Although the results did not support our hypothesis, it was interesting that openness had a modest positive correlation to the number of coital partners. While it appears that those engaging in sexual activity are not partaking in multiple risky sexual behaviors, some participants who scored high on openness are still likely to engage in sexual intercourse with multiple partners. It is possible that this relationship was found
because those who score high on openness are more likely to be open to sexual experimentation (Miller et al., 2004).

Agreeableness and conscientiousness were expected to correlate moderately in the negative direction with risky sexual behaviors. The results were non-significant for these relationships. This was surprising because it has been found in previous studies that those who score low in agreeableness may have more opportunity for sexual promiscuity, since they are less likely to be in long-term relationships (Miller, et al., 2004). Conscientiousness, which includes thinking before acting, was expected to yield a moderate negative correlation with risky sexual behaviors. Based on past research, those who score high in conscientiousness would be less likely to drink or use drugs before taking part in sexual acts, which would qualify as a risky sexual behavior (Miller, et al., 2004). Agreeableness did correlate modestly in the positive direction with the age at which participants first engaged in sexual intercourse. This could be analyzed in further studies as the emotional or mental states of participants at that time of first intercourse may have made them more agreeable.

Stereotypically it is expected that more males than females consume pornography. The results of this study have shown that even though men do watch more pornography, women do not watch significantly less. Pornography consumption has also been studied in relation to personality traits and engagement in risky sexual behaviors. Other studies have shown that there is a strong positive correlation between pornography consumption and engagement in risky sexual behaviors (Wright & Randall, 2012). Based on this study, researchers hypothesized that there would be a modest correlation between these two variables in our study. The results supported this hypothesis. This was expected because Williams et al. (2009) infer that watching pornography encourages viewers to replicate the types of behaviors they view.

Although there has not been a great deal of research on the relationship between pornography consumption and Big-Five Personality Traits, researchers felt that this would be an interesting and important relationship to examine. It was predicted that pornography consumption would have a moderate positive correlation with extraversion, openness, and neuroticism. The results yielded a positive correlation only with openness. Unexpectedly, extraversion did not correlate with pornography
consumption. This was surprising because of the relationship between extraversion and risky sexual behaviors and, also, the relationship between pornography consumption and risky sexual behaviors. It was believed that agreeableness and conscientiousness would correlate negatively with pornography consumption. However, while there was a modest positive correlation with conscientiousness there was no significant correlation with agreeableness.

This study encountered some limitations. All participants were undergraduate students. Since the sample of participants was limited to college students, this could have led to potential bias. Although we attained some participants from Facebook, the majority of our participants were students enrolled in psychology courses. Typically, females dominate psychology courses at this university. The results could have been skewed by the lack of male participants in our study.

Another possible limitation of the study was its self-report design. Due to the personal nature of the questions, participants could have responded in ways they felt were socially desirable. Researchers have no way to measure if this phenomenon occurred, but did try to limit this possibility to the best of their ability. To do so, all participants were made aware that the survey was completely anonymous, with no results being linked to personally identifying information. The only other possible way to assess pornography consumption or engagement in risky sexual behaviors would be through observation. Other researchers have considered doing this form of research but suggest that anonymity would be compromised (Williams et al., 2009). Additionally, observations could require a longitudinal study, which was not a feasible task for researchers at this time.

To keep the survey relatively short and engaging for participants, researchers opted to use the Mini-IPIP. Future investigations may choose to replicate the study by using larger Big-Five measures to more reliably measure personality and to potentially find stronger correlations between personality, risky sexual behaviors and pornography consumption. Larger measures would include: the 50-Item IPIP (Goldberg et. al., 2006), the NEO Personality Inventory 3 (McCrae & Costa, 2010), and The Big Five Inventory (John, Naumman, & Soto, 2008). More reliable measures might better identify subtle relationships between personality traits and the variables examined in this study.
Keeping in mind that most of our participants began engaging in sexual intercourse at the median age of 17, and are currently between the ages of 18 and 23, participants have had a short sexual history. It may be beneficial to replicate this study with a population between the ages of 25 to 35, who have had a longer sexual history. A study on a population with more sexual experiences may result in more significant correlational findings. Finally, our research was purely correlational in nature, and therefore no conclusions can be drawn as to the causes of the relationships found. Determining if one of these variables was the cause of the relationships would require an unethical experiment; therefore, understanding the cause is not possible. While an experiment cannot be done, it would be interesting to assess how the different personality factors interact to affect ones engagement in risky sexual behaviors and pornography consumption. Perhaps there is a combination of scores of the Big-Five Personality Traits that would be an indicator of such behaviors.

While we cannot conclude the cause of these relationships, understanding the nature of them is still important. Our research has revealed that people with particular personality traits, such as extraversion, are more susceptible to engaging in risky sexual behaviors. These behaviors may lead to outcomes such as the transmission of STDs and unwanted pregnancies, both of which can have a large impact on individuals and society (Wright & Randall, 2012). Understanding these relationships and the population most susceptible to the expressed outcomes would further contribute to the development of education surrounding this issue. Additionally, more effective preventative programming could be targeted towards at risk individuals identified in this population.
References


McCrae, R. R., & Costa, P. T. (2010). *NEO Personality Inventory – 3. PAR.*


Table 1

Sex and Personality

<table>
<thead>
<tr>
<th>Reliability Measure</th>
<th>Risky Sexual Behavior</th>
<th>Age at First Intercourse</th>
<th># of Coital Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>.86 (N = 304)</td>
<td>.23 (N = 291)**</td>
<td>.04 (N = 198)</td>
</tr>
<tr>
<td>A</td>
<td>.68 (N = 325)</td>
<td>.08 (N = 309)</td>
<td>.17 (N = 211)*</td>
</tr>
<tr>
<td>C</td>
<td>.74 (N = 325)</td>
<td>-.07 (N = 309)</td>
<td>-.02 (N = 211)</td>
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<tr>
<td>N</td>
<td>.65 (N = 324)</td>
<td>.02 (N = 308)</td>
<td>-.02 (N = 210)</td>
</tr>
<tr>
<td>I</td>
<td>.71 (N = 324)</td>
<td>-.01 (N = 308)</td>
<td>.04 (N = 210)</td>
</tr>
<tr>
<td>Porn Consumption</td>
<td>.88 (N = 327)</td>
<td>.29 (N = 313)**</td>
<td>.02 (N = 216)</td>
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</tbody>
</table>

Note. *p < .05     **p < .01
### Table 2

Personality and Pornography

<table>
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<tr>
<th>Personality</th>
<th>Pornography Consumption</th>
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</thead>
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<tr>
<td>E</td>
<td>.05 (N = 302)</td>
</tr>
<tr>
<td>A</td>
<td>-.03 (N = 321)</td>
</tr>
<tr>
<td>C</td>
<td>-.23 (N = 321)**</td>
</tr>
<tr>
<td>N</td>
<td>.05 (N = 320)</td>
</tr>
<tr>
<td>I</td>
<td>.26 (N = 320)**</td>
</tr>
</tbody>
</table>

*Note. *p < .05  **p < .01*