

Background

- Among college campuses many college students are engaging in sexual risk behaviors (SRB)^{1,2}.
- SRB can lead to negative social, psychological, and physical health outcomes^{3,4,5}.
- College students misperceive sexual risk behavior as more normative (i.e., being more acceptable) than it really is reported⁶⁻¹².
- Two concepts have been used to explain SRB:
 - Pluralistic Ignorance (PI)¹³.
 - The idea of pluralistic ignorance accounts for public conformity to social norms, regardless of the lack of common private support¹⁴.
 - Health Belief Model (HBM)¹⁵.
 - The HBM systematically explains and predicts preventive health behavior by looking at perceived susceptibility, to a disease or illness, perceived severity to a disease or illness, and self-efficacy of taking preventive measures.

Study

- PI and HBM are used to explain college students SRB, yet these two theories provide conflicting explanations.
 - According to PI, perception of peer norms drive their own engagement in SRB, regardless of their own beliefs.
 - According to the HBM, an individual's engagement in SRB depends only on personal health beliefs.
- Aims of study:
 - How personal beliefs and perceived norms interact to influence sexual risk behavior among college students.
 - Under high levels of perceived peer acceptability, personal beliefs do not influence SRB.
 - Under high levels of susceptibility, severity, or self-efficacy to an outcome, the influence of perceived peer acceptability may not influence SRB.

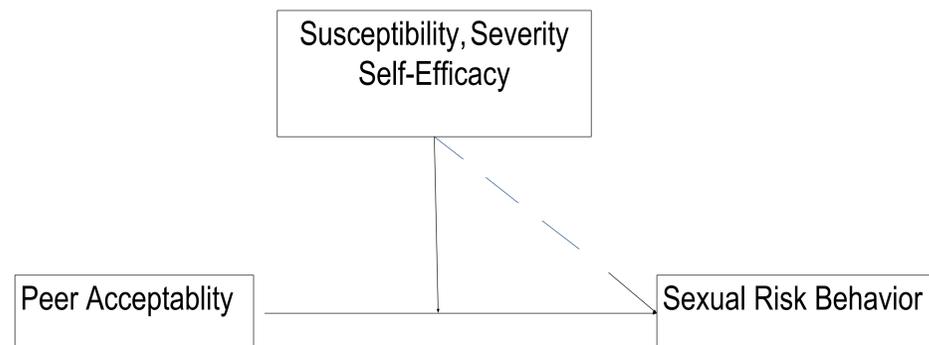
Hypotheses

- Consistent with PI, the perception of peer acceptability of sexual risk-taking will predict more self risk-taking, regardless of one's acceptability of sexual risk behavior.
- Under high levels of perceived susceptibility, the relationship between peer acceptability and self risk behavior will weaken, while the relationship between one's acceptability and protective behaviors will strengthen.
- Under high levels of perceived severity, the relationship between peer acceptability and self risk behavior will weaken, while the relationship between one's acceptability and protective behaviors will strengthen.
- Under high levels of self-efficacy, the relationship between peer acceptability and self risk behavior will weaken, while the relationship between one's acceptability and protective behaviors will strengthen.

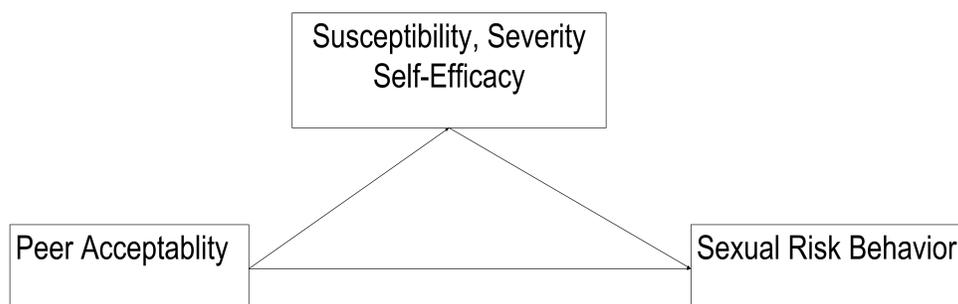
Method

- 159 undergraduates at the University of Dayton completed an online survey through SurveyMonkey.
- Multiple regression analyses were used to analyze data collected
- Control variables included GPA, gender, year in school, and sexual orientation
- Measures:
 - Sexual Norms Scale (Lambert, Kahn, & Apple, 2003)- modified to include self, close peer, and average student perceptions
 - Sexual Risk Survey (Turchik & Garske, 2008)- modified to include self, close peer, and average student perceptions
 - Condom Use Scale (Grimley, Prochaska, Prochaska, Velicer, Galavotti, Cabral, & Lanksy, 1996)
 - Perceived Susceptibility and Severity (Levinson, Jaccard, & Beamer, 1995)
 - Balance Inventory of Desirable Responding (Paulhus, 1988)

Moderation Model



Mediation Model



Results

- See Table 1 for relevant means and standard deviations of the variables.
- Significant correlations were found between peer norms and participant SRB ($r=.68, p<.01$) and desirable responding and participant SRB ($r=-.29, p<.01$). No significant correlation was found between health belief variables and SRB.

Table 1
Means and Standard Deviations of Variables.

Variable	M	SD	n
Perceived Susceptibility and Severity	10.57	2.05	159
Perceived Self Efficacy of Condom Use	13.50	2.59	159
Attitudes Toward Sexual Risk Behavior	19.81	9.17	159
Perceived Peer Norms	24.10	10.15	159
Sexual Risk Behavior	17.73	13.99	159
Social Desirability	6.29	5.35	159

- Moderation and mediation were tested using the bootstrapping method. Desirable responding, age, gender, year in school, and GPA were included as covariates, and participants' self-report of sexual risk behavior was the criterion variable.
- In the moderation model:
 - Main effects:
 - Health beliefs were not associated with SRB (PSS: $b= -.07, p=.27$; CUS; $b= -.09, p=0.19$)
 - Peer norms were significantly associated with participant SRB ($b=0.6, p<.0001$)
 - Interaction:
 - Health beliefs did not moderate the association between peer norms and SRB (PSS: $b= -.00, p= .79$; CUS; $b= -.01, p= .20$).
- In the mediation model:
 - Main effects:
 - Health beliefs were not associated with SRB (PSS: $b= -.07, p= .28$; CUS; $b= -.09, p= .20$)
 - Peer norms were significantly associated with participant SRB ($b= .06, p<.0001$)
 - Interaction:
 - Health beliefs did not mediate the association between peer norms and SRB (PSS: $b= -.00, 95\% CI [-.0036, .0006]$; CUS; $b= -.00, 95\% CI [-.0039, .0011]$).

Discussion

- Why didn't health beliefs affect SRB?
 - Although past research suggested that the HBM model is associated with SRB, this study did not. It is possible that the measures did not detect a significant effect due to the limited number of items for the measures of health belief variables.
- Why did peer norms consistently predicted SRB?
 - Previous research also found that peer norms predict SRB. These results indicate the importance of peer influence over one's own behavior.
 - It is possible that SRB leads individuals to over-estimate their peer's engagement in or acceptance of SRB.

Limitations and Future Directions

- Limitation:
 - There is no standard measure of health beliefs
 - Data was collected at a small, religious university
- Future Directions:
 - Develop a reliable and valid standard measure of health beliefs for SRB.
 - Investigate if there is a difference in general health beliefs versus sexual health beliefs
 - Implement research-based educational and prevention resources regarding the misconception of peer behavior that drives one's behavior.

References

¹Luster & Small (1994), ²Turchik & Garske (2009), ³Bowers, Segrin, & Joyce (2016), ⁴Center for Disease Control (2011), ⁵Weinstock, Berman, & Cates (2011), ⁶Sherwin & Corbett (1985), ⁷Selvan, Ross, Kapadia, Mathai, & Hira (2001), ⁸Lewis, Litt, Cronce, Blayney, & Gilmore (2014), ⁹Bay-Cheng & Eliseo-Arras (2008), ¹⁰Hynie, Lydon, Cote, & Wiener (1998), ¹¹Martens, Page, Mowry, Damann, Taylor, & Cimini (2010), ¹²ACHA (2009) ¹³Allport, Katz, & Schanck (1938) ¹⁴Miller and McFarland (1991), ¹⁵Hochbaum, Rosenstock, & Kegels (1952))