

11-5-2015

# The Association between Sexual Harassment and Suicidality Among College Women

Renee Brown Hangartner

University of South Florida, rrbrown5@usf.edu

Follow this and additional works at: <http://scholarcommons.usf.edu/etd>

 Part of the [Psychology Commons](#)

---

## Scholar Commons Citation

Hangartner, Renee Brown, "The Association between Sexual Harassment and Suicidality Among College Women" (2015). *Graduate Theses and Dissertations*.

<http://scholarcommons.usf.edu/etd/5961>

This Thesis is brought to you for free and open access by the Graduate School at Scholar Commons. It has been accepted for inclusion in Graduate Theses and Dissertations by an authorized administrator of Scholar Commons. For more information, please contact [scholarcommons@usf.edu](mailto:scholarcommons@usf.edu).

The Association between Sexual Harassment and Suicidality Among College Women

by

Renee R. Brown Hangartner

A thesis submitted in partial fulfillment  
of the requirements for the degree of  
Master of Arts  
Department of Psychology  
College of Arts & Sciences  
University of South Florida

Major Professor: Marc Karver, Ph.D.  
Kevin Thompson, Ph.D.  
Jennifer Bosson, Ph.D.

Date of Approval:  
July 8, 2015

Keywords: suicidal ideation, suicide attempt, isolation, thwarted belongingness, self-harm

Copyright © 2015, Renee R. Brown Hangartner

## Table of Contents

List of Tables .....	iii
List of Figures .....	iv
Abstract .....	v
Introduction.....	1
Sexual Harassment.....	1
Gender and Sexual Harassment .....	3
Prevalence of Gender and Sexual Harassment .....	4
Negative Consequences of Sexual Harassment .....	10
Suicidality .....	11
Theories of Suicidal Behavior .....	13
Isolation .....	17
Avoidant Response Style .....	19
Hypotheses .....	20
Method .....	23
Participants .....	23
Measures .....	23
Demographics .....	23
Sexual Harassment .....	24
Response Style .....	25
Isolation .....	25
Thwarted Belongingness .....	26
Suicidality .....	27
Procedure .....	28
Data Analysis .....	29
Results.....	32
Descriptive Statistics .....	32
Sexual Experiences Questionnaire .....	32
Cognitive-Behavioral Avoidance Scale .....	33
Ostracism Experiences Scale .....	34
Interpersonal Questionnaire-Thwarted Belongingness Sub-scale .....	35
Deliberate Self-Harm Inventory .....	35
Self-Harm Behavior Questionnaire .....	36
Hypothesis Testing .....	37
Hypothesis 1: Sexual harassment and suicidality correlations .....	37

Hypothesis 2: Sexual harassment and thwarted belongingness correlation .....	38
Hypothesis 3: Sexual harassment and isolation correlation .....	38
Hypothesis 4: Avoidant response style moderation .....	38
Hypothesis 5: Isolation mediation .....	39
Hypothesis 6: Thwarted belongingness mediation .....	39
Supplemental Analyses .....	41
Discussion .....	44
Limitations .....	53
Summary and Future Directions .....	57
Tables and Figures .....	61
References .....	72

### List of Tables

Table 1. Sample Demographics: Age, Race/Ethnicity, Sexual Orientation, and Living Arrangements	61
Table 2. Descriptive Statistics on Independent and Dependent Variables	62
Table 3. Percentages of suicide-related behaviors on The Self-Harm Behavior Questionnaire (SHBQ)	63
Table 4. Intercorrelations of Variables of Interest	64
Table 5. Hierarchical Regression Analysis predicting Isolation with Avoidant Response Style and Objective Sexual Harassment and their interaction	65

### List of Figures

Figure 1. Theoretical model	66
Figure 2. Isolation mediation model	67
Figure 3. Thwarted belongingness mediation model with suicidal ideation	68
Figure 4. Thwarted belongingness mediation model with suicide	69
Figure 5. Thwarted belongingness mediation model with NSSI	70
Figure 6: The correlation of items from both the Thwarted Belongingness (TB) and Ostracism Experience Scales (OES) with the total scores for the Thwarted belongingness Scale	71

## Abstract

The prevalence of sexual harassment among college women has been reported to range from 33% to 97% (Klein, Apple, & Khan, 2011; Yoon, Funk, & Kropf, 2010) across the lifespan. In any one year of college, the prevalence of sexual harassment reported by women ranges from 33% to 57% (Crown & Roberts, 2007; Huerta, Cortina, Pang, Torges, & Magley, 2006). The severity and frequency of sexual harassment has been found to be related to reports of psychological distress (Nielsen & Einarsen, 2012), feelings of shame (Yoon et al., 2010), anxiety and depression symptoms (Murdoch, Pryor, Polusny, & Gackstetter, 2007), and social isolation (Pershing, 2003). These consequences of sexual harassment are concerning given the association between depression, isolation, and suicidality (Boardman, Grimbaldston, Handley, Jones, & Willmott, 1999; DeWall, Gilman, Sharif, Carboni, & Rice, 2012). While there are numerous studies documenting the negative consequences experienced by women who are sexually harassed, little is known about the relationship of sexual harassment to the more severe negative outcomes of suicidal ideation and self-harm behaviors and what variables might facilitate this hypothesized relationship. Thus, the purpose of this study is to explore whether the experience of sexual harassment is related to increased suicidality and if this hypothesized relationship is mediated or moderated by other factors such as an individual's response style and/or degree of connection to or isolation from others.

## Introduction

### Sexual Harassment

Sexual harassment has been defined in legal terms as “sex discrimination that violates Title VII of the Civil Rights Act of 1964” (EEOC, 2009) and includes gender harassment, unwanted sexual attention, direct requests for sexual favors, and sexual coercion such as *quid pro quo* requests for sexual favors. Gender harassment can be verbal or nonverbal and examples include comments of a sexual nature, degradation of a gender, and displays of materials of a sexual nature (Fitzgerald, Gelfand, & Drasgow, 1995). Unwanted sexual attention includes staring, discussion of sexual topics, repeated and unreciprocated sexual advances, and direct requests for sexual interaction (Cochran, Frazier, & Olson, 1997). Sexual coercion is the use of any type of aversive behavior that forces sexual contact on someone who is unwilling. Sexual coercion can be nonverbal, verbal, or physical. Quid pro quo can be thought of as a type of sexual coercion. It is when a person in a position of power uses this power with someone in a subordinate position to get sexual favors in exchange for the possibility of advancement toward some goal of the subordinate (Brase & Miller, 2001). An example would be when a person in a position of power, such as an immediate supervisor, pressures a subordinate employee to go out on a date in exchange for an opportunity to sit in on an important meeting at work. Regardless of whether the employee is interested in pursuing this relationship with the supervisor, they are put in a position where consent to the relationship is not strictly based on their interest in a relationship with the person but is heavily influenced by fear of negative repercussions for declining the relationship. Their job or the opportunity for advancement at their job is dependent

on their entering into an intimate relationship with their supervisor. It is important to note that unwanted sexual attention has been found to sometimes quickly lead to sexual coercion (Fitzgerald et al., 1995).

When considering sexual coercion as a subconstruct of sexual harassment, one encounters some debate in the literature on whether or not sexual assault should be considered a type of sexual harassment. Some researchers include sexual harassment at the less severe end of the spectrum of sexual violence with rape being separate from sexual harassment and placed at the severe end of the spectrum (Basile, Chen, Black, & Saltzman, 2007; Basile, Espelage, Rivers, McMahon, & Simon, 2009). However, limiting the definition of sexual harassment to a mild form of sexual violence has the potential to undermine the seriousness of sexual harassment and neglects adequate understanding of the construct in that sexual harassment isn't just limited to unwanted sexual comments but often includes overlap between comments and sexual coercion of both a verbal and physical nature (Timmerman & Bajema, 1999).

Sexual harassment is actually comprised of a broad range of sexually violating experiences (Crown et al., 2007). It has been proposed to include sexual assault at the extreme end of the continuum of sexual harassment because of the natural progression of one to the other (Till, 1980). Discussing sexual harassment in the context of its relationship to the risk for sexual assault adds credence to the argument that sexual harassment is a serious issue (Fitzgerald et al., 1995). A significant overlap of victimization exists between sexual assault and sexual harassment. In one study, 17% of undergraduates who reported being sexually harassed also reported being sexually assaulted during their 5 years at university (Cortina, Swan, Fitzgerald, & Waldo, 1998). In addition, 40% of women who reported being sexually assaulted in college also reported being sexually harassed (Barak, Fisher, & Houston, 1992). The women participating in

these studies experienced multiple victimizations. The occurrence of sexual assault is considerably greater in environments where sexual harassment is tolerated thus connecting these phenomenon inextricably (Murdoch, Pryor, Polusny, Wall, Ripley, & Gackstetter, 2010).

### **Gender and Sexual Harassment**

Several studies have shown that women are more likely to be sexually harassed than men (Gruber & Fineran, 2008; USMSPB, 1995; Novik, Howard, & Boekeloo, 2011). In a study looking solely at a sample of men, approximately 6% of men on college campuses report ever having been sexually harassed (Kearney & Rochlen, 2012). This number is far lower than that of women on college campuses, 50% (Yoon, et al., 2010). Novik, et al. (2011) found a difference in prevalence between genders in an undergraduate sample, where 9% of men reporting being sexually harassed as compared to 20% of women. This study used one item to assess sexual harassment and did not provide a definition which may account for these lower rates across genders. Murdoch, Pryor, Polusny, and Gackstetter (2007) also reported a gender discrepancy in rates of sexual harassment experiences, 78% of women and 25% of men. Female students as young as 14 have reported not only high rates of sexual harassment at school (73%); but that they have acclimated to it and accepted it as being normal (deLara, 2012). Women may be at a greater risk of being sexually harassed due to patterns that occur earlier in development.

Sexually harassing behavior patterns can begin long before adulthood. Most research on younger children and sexual harassment has been qualitative in nature; yet remarkable similarities can be seen in what is reported as sexual harassment across the lifespan. Research on children aged six to twelve suggests that girls who report inappropriate touching and teasing by boys are told by teachers that at this age, it's a sign of affection (Gadin, 2012). Still

more research has explored the occurrence of sexual harassment of students in grades seven through twelve, reporting greater frequency of victimization with age and by gender with females reporting higher rates of victimization than males (Foshee, 1996). Female adolescents are even more likely to be victimized than same-aged males with rates of sexual harassment diverging significantly with age by gender (Gruber & Fineran, 2008). The fact that this pattern of behavior can be seen in a range of developmental stages speaks to how strongly sexual harassment experiences are tied to gender.

### **Prevalence of Sexual Harassment**

Most research on sexual harassment has been conducted in the workplace, as such; reports on general population rates of sexual harassment tend to focus on harassment in the workplace. Previous research has also focused on sexual harassment between individuals for which there exists a formal power differential. It is difficult to generalize research on sexual harassment rates done in the workplace to non-workplace settings and to peer-to-peer interactions. A study that looked at prevalence rates of sexual harassment among working adults found that 20% of respondents reported gender or sexual harassment for each of four years that data was collected (King, Stohr, Kelley, Vazquez, Smith-Daniels, & Uhlenkott, 2009). In another study, approximately 36% of women reported being sexually harassed in the workplace in a survey from 2004 looking at the effects of authority on sexual harassment experiences (McLaughlin, Uggen, & Blackstone, 2012). However, a review on prevalence rates cited rates as low as 17% (Timmerman & Bajema, 1999). Low rates may partially be a function of some studies using one item to measure the construct. Studies that reported high rates of sexual harassment (81%) (Ilies, Hauserman, Schwochau, & Stibal, 2003) provided comprehensive

definitions to participants to elicit more objective responses. An example of an objective behavior would be when a co-worker frequently comments on a woman's physical attire, even if complimentary. Some women may find this to be flattering while others may find this to be bothersome. Simply asking if a behavior has occurred without qualifying it with the woman's perception of the behavior can artificially inflate prevalence rates. In other words, while a behavior may be deemed as harassing per a sexual harassment policy, the recipient of that behavior may not feel harassed. Feeling sexually harassed is a subjective experience and a purely objective definition may not capture the true prevalence and may in fact be inflating reported prevalence rates. When participants used their subjective perceptions of what constitutes sexual harassment to answer questions about their experiences, prevalence rates were half than those of participants who were provided objective definitions. Indeed, the type of definition provided to participants can affect how they respond to questions about sexual harassment experiences in addition to how the construct is measured. When legal definitions of sexual harassment are provided to respondents, prevalence rates tend to be lower, while behavioral definitions reveal higher rates of sexual harassment (Australian Human Rights Commission (AHRC), 2009). Thus, it appears that methodology can have an effect in sexual harassment reports (Timmerman & Bajema, 1999).

There are a large number of factors that can impact the prevalence rates that have been found in different studies. One limitation in our understanding of the prevalence of sexual harassment lies in the variability of time periods used for prevalence estimates. Shorter time periods versus lifetime prevalence rates differ dramatically (Linn, 1999). The retrospective nature of most questionnaires is also a limitation that can be affected by changes in personal appraisals of previous sexual harassment experiences. To get around this limitation, Elkins,

Phillips, and Ward (2008) used scenario-based research to get an estimation of cognitive appraisals of sexually harassing situations. Using vignettes is not without its limitations as situations presented as hypothetical may evoke different appraisals than actual experiences, especially in the context of emotion related situations (Robinson & Clore, 2001). Finally, measuring the prevalence of sexual harassment is in itself a dual process. First, did a sexually harassing behavior occur and second, did the recipient feel harassed. When the phrase “sexual harassment” is excluded from a measure, respondents tend to report greater prevalence in both behavioral indicators and perceptions (Collinson & Collinson, 1996). This discrepancy may have to do with respondents’ need to minimize the labeling of an experience that has made them uncomfortable. However, Munson, Miner, and Hulin (2001) found little association between self-identification as a victim and reported negative consequences. It is still unclear what effect, if any, labeling a behavior as “sexual harassment” may have on prevalence rates. Some researchers have taken a multi-pronged approach in measuring the construct, first by asking about very specific behaviors and then asking if respondents felt they had ever been sexually harassed (Uggen & Blackstone, 2004). In this study, 33% of adult women reported experiencing at least one behavior from a list of sexually harassing behaviors, however, only 14% of the sample considered that behavior to be sexual harassment. There is a third dimension to consider as well. When estimating the prevalence of sexual harassment, another approach is to establish if the experience lead to negative consequences. Most laws and policies concerning sexual harassment include the specific negative consequence of a hostile environment in their definitions (Joslin, 1999). Negative consequences can also include feelings of isolation, stunted work performance, increased absenteeism, and seeking employment elsewhere as a result of a hostile work environment (DeLorenzo, 1998). While someone may not label a behavior as

harassment or feel harassed, if there are negative consequences that result from experiencing the behavior, then an argument could be made that the sexual harassment did occur. While some researchers have included the occurrence of negative consequences as part of the definition of sexual harassment, this simplifies a very complicated process. The negative consequences that may or may not follow a sexually harassing experience can be impacted by other factors such as the vulnerability or resilience of the individual. Prevalence rates of sexual harassment are complex as definitions may deal with behaviors, perceptions of behaviors, perceptions of labels of behavior, and consequences of behaviors. Prevalence rates differ depending on which of these elements are included in the sexual harassment definition used. Still, a case can be made that behaviors may or may not be seen as sexual harassing given variations in context, setting, culture, and types of relationships between individuals.

On college campuses, rates have been found to be higher compared to workplace prevalence studies. A prevalence of sexual harassment was reported to be 51% in a national study of college women (Fisher, Cullen, & Turner, 2000). However, this study specified an objective time period (the last 7 months) and would not necessarily be comparable to lifetime prevalence rates often reported by other studies. In addition, the rate of 51% was based on one question about experiencing sexist remarks while on campus. This study used the behavioral indicator model of measuring prevalence; but did not cross tabulate those rates with perceived sexual harassment appraisals. It is unclear if their prevalence rates would be as high if they qualified their results with a question about whether the recipient considered the experience to be sexual harassment. This study also focused on verbal and visual indicators of harassment and did not even touch on the less overt types of sexual harassment than can occur which are less tangible, like creating a hostile environment. A hostile environment is one that is oppressive or

intimidating and is usually caused by the harasser. Contextual factors can also affect prevalence rates. Female medical school students reported a prevalence rate of 10% for student-to-student sexual harassment over a four year period (Frank, Carrera, Stratton, Bickel, & Nora, 2006.) It is important to note that the authors used a behavioral indicator approach that included the term sexual harassment. This is potentially problematic as it assumes that the respondents considered what they experienced to be sexual harassment, which is likely to result in lower rates of reported prevalence. Another attempt to get at prevalence rates of sexual harassment of college women used the Nonagentic Sexual Experiences Scale (NASES) (Crown & Roberts, 2007) which measures unwelcomed sexual experiences. The NASES is an adaptation of the Sexual Experiences Survey (SES) developed by Koss, Gidycz, and Wisniewski (1987) that assesses sexual assault experiences of college women. The NASES is a broader measure of negative sexual experiences that includes physical forms of sexual harassment as well as violent sexual assault, though it does not measure verbal sexual harassment. The one year prevalence rate of at least one nonagentic sexual experience was 33% and that rate jumped to 56% when asking seniors about their entire time in college. A strength of this measure is that it used behavioral indicators and did not include labels such as “sexual harassment” or “assault”, though wording of items included qualifiers such as “unwanted” and “against your will”. There was an assumption that the sexual experiences reported by respondents were in fact not welcome. A limitation of this study was that interactions between psychological consequences and severity and incidence of nonagentic sexual experiences could not be calculated due to an insufficient sample size.

A lifetime prevalence rate of 97% was reported by Yoon, et al. (2010) based on responses to a single item from a widely used measure of sexual harassment, the Sexual Experiences Questionnaire (SEQ) which is made up of 28 items. The reliability of a single item is usually

poor, especially when dealing with such a complex, multi-dimensional construct as sexual harassment and often overestimates prevalence rates (Fitzgerald, Magley, Drasgow, & Waldo, 1999). Another study reported that approximately half of women in college report experiencing sexual harassment at least once during their 4 years of schooling (Brubaker, 2009). This study specified the time period to include only time spent in college and may be more reflective of college prevalence rates of sexual harassment in that respect. It is noteworthy that data used for analysis in this study was obtained through secondary sources and little information is provided as to the type of questions used when asking about sexual harassment experiences. While nearly half of the women who responded to the survey indicated that they had experienced sexual harassment during their 4 years in college, it is not known if they themselves labeled the experience as sexual harassment or if they merely checked off a behavioral indicator on a list that was provided to them. One of the most widely used and psychometrically superior measures of sexual harassment is the SEQ and several studies have used this scale to measure prevalence rates and appraisals of sexually harassing experiences. An early study looking at sexual harassment of college women by male faculty found a prevalence rate of 49%; but only 20% of those women labeled endorsed items as sexual harassment (Cortina, Swan, Fitzgerald, & Waldo, 1998). Using a 12-item version of the SEQ, a prevalence rate of 56% was reported and of those women, 92% considered their experiences to be sexual harassment in a study that differentiated between harassment by another student from harassment by a faculty member (Huerta, Cortina, Pang, Torges, & Magley, 2006). This study's strength lies in their measurement of sexual harassment prevalence. The term "sexual harassment" did not appear until the end of the measure and questions about general student functioning were asked prior to sexual harassment questions so as to obtain unbiased measures of student functioning. This was important as a

second aim of Huerta et al.'s (2006) study was to understand the negative consequences associated with experiencing sexual harassment, so the order of the measures was an important variable to consider. Taking into account the multiple methodological limitations across numerous prevalence studies, research suggests that female college students report higher rates of sexual harassment than the general population, making the study of this subgroup of the population not just convenient; but a necessary priority especially given research suggesting potential negative consequences of sexual harassment (Fisher et al., 2000).

### **Negative Consequences of Sexual Harassment**

The negative consequences of sexual harassment have been suggested to be numerous and far reaching (Willness, Steel, & Lee, 2007). Huerta (2006) reported that women who were sexually harassed were less likely to be satisfied with and more likely to be disengaged from their academics. In the same study, being sexually harassed was related to greater psychological distress which in turn was related to disordered eating behavior and physical illness. It has also been found that women who report being sexually harassed on college campuses report greater difficulties academically, feeling less accepted by their peers, and more isolated (Cortina et al., 1998). Additional consequences that have been associated with sexual harassment include feeling powerless, experiencing PTSD symptoms, and anxiety. In fact, students who have been sexually harassed report greater rates of isolation, hopelessness, and suicidal ideation (deLara, 2012; MacKusick & Minick, 2010). These adverse reactions to sexual harassment have been suggested to contribute to and often compound into an overall sense of fear of daily life (Lapierre, Spector, & Leck, 2005) that may generalize to other situations and peer groups. Research suggests that these negative consequences tend to be long lasting as well. McMullin,

Worth and White (2007) reported that compared to women who had not been sexually harassed, the endorsement of negative attitudes about oneself was greater and more stable over time for women who had been sexually harassed. While negative self attributes may come and go for the general population, this study suggests that the experience of being sexually harassed can lead to victimized women internalizing such attitudes. The internalization of negative attitudes by sexually harassed women can lead to avoidant responses to distressing situations (Manos, Rusch, Kanter, & Clifford, 2009; Linn, 1999). In a meta-analysis on the consequences of sexual harassment, Willness and colleagues (2007) noted that the experience of being sexually harassed may in fact affect how one reacts to later stressful situations. Other consequences reported in the Willness meta-analysis include increased withdrawing behaviors, decreased organizational commitment, and symptoms of depression, anxiety, and PTSD (Tziner & Birati, 1996; Birnbaum, Leong, & Greenberg, 2003).

### **Suicidality**

Suicidality is a term that encompasses a number of related constructs, most typically, suicidal ideation and suicide-related behaviors. Suicidal ideation consists of thoughts about suicide and can range from infrequent and low severity thoughts to serious thoughts of death by suicide and can vary greatly in frequency of occurrence (O'Carroll, Berman, Moscicki, Tanney, & Silverman, 1996). Suicide-related behaviors range from self-harm behavior with no intent to die; often referred to as non-suicidal self-injury (NSSI) (Ougrin, 2012; Selby, Bender, Gordon, Bender, Nock, & Joiner, 2011); to more ambiguous self-harm behavior, suicide attempts, and death by suicide (Silverman, Berman, Sanddal, O'Carroll, & Joiner, 2007). An association between sexual harassment and several suicidality variables has been found in a variety of

different populations (Frank, Carrera, Stratton, Bickel, & Nora, 2006; Bagley, Bolitho, & Bertrand, 1997; Goodemann, Zammitt, & Hagedorn, 2012). A study of medical students found that they were at greater risk of making suicide attempts after experiencing sexual harassment, even when depression diagnoses were controlled for (Frank, Carrera, Stratton, Bickel, & Nora, 2006). In yet another population, U.S. Marines, sexual harassment during training was strongly associated with suicide attempts at a 10 year follow-up (Gradus, Shepherd, Suvak, Giasson, & Miller, 2012). More recently, research on LGBTQ populations has revealed even stronger associations between sexual harassment and a number of suicidality variables (Goodemann, Zammitt, & Hagedorn, 2012). For example, one study of an LGBTQ sample found that those who had been sexually harassed were two times more likely to have attempted suicide than those who had not reported a history of harassment with 15% of their “sexually harassed” sample reporting making a suicide attempt (Hidaka & Operario, 2006). In a longitudinal study on almost 1,000 adolescent girls, those who reported being sexually harassed in high school were almost 6 times more likely to report suicidal ideation and 5 times more likely to report engaging in self-harm behavior by the time they graduated (Chiodo, Wolfe, Crooks, Hughes, & Jaffe, 2009). Because this study’s measure of sexual harassment was dichotomized due to the data being positively skewed, we do not know if the severity or frequency of the sexual harassment had an effect on negative outcomes. In a study that compared men and women of all sexual orientations, a significant association was found between varying levels of harassment; from unwanted comments of a sexual nature to the propositioning of sexual acts in exchange for some favor; and suicidality for women only, regardless of sexual orientation (Ploderl & Fartacek, 2009). This study used only a collapsed “suicidality” score that included suicidal ideation, aborted suicide attempts, and suicide attempts not resulting in death, so limited information can

be gleaned from the data regarding what specific suicide-related behaviors were associated with sexual harassment.

Given the overall limited number of studies examining the relationship between sexual harassment and suicidality variables and that most of the studies either look at associating sexual harassment and suicide attempts or poorly defined suicidality variables there exists a gap in the research that looks at this complex relationship with clearly stated operationalized definitions. There is also a need to understand the mechanisms that may connect suicide related behaviors and experiencing sexual harassment. At this time, with the limited literature, it is not clear beyond very general risk factors, such as being female, identifying as LGBTQ, or working in a male dominated field, through what processes does sexual harassment lead to suicide related behaviors. It may be that through the examination of known correlates to suicidal risk, such as isolation and avoidant response styles, and careful examination of established theories about suicide, such as Joiner's Interpersonal Theory of Suicide, that we can better understand the possible path between sexual harassment and suicide-related behaviors.

### **Theories of Suicidal Behavior**

Few theories about why people engage in suicidal behavior have been posited (Prinstein, 2008). One of the earliest theories of suicidal behavior was that of Durkheim's theory of social integration (1897/1963). His theory posited that social exclusion was the primary drive of suicidal individuals. For almost a century this theory was accepted and little was added to it despite its simplicity. Baumeister's theory of suicide as an escape from one's self (1990) added to Durkheim's theory another dimension to consider and would today be likened to an inability to cope with negative emotions. A deeper examination of Baumeister's theory shows a one-

dimensional framework for understanding why people die by suicide, the theory only addresses the wish not to live. Joiner (2007) developed his Interpersonal-Psychological Theory of Suicidal Behavior to explain why people die by suicide and what sets his theory apart from previous attempts is its dynamic nature. The theory states that to overcome the innate motive of self-preservation, two factors need to be present, the capability to do harm to oneself and the desire to die by suicide (Ribeiro & Joiner, 2009).

Capability to harm oneself can be acquired through a number of different ways: combat exposure, self-inflicted deliberate self-harm, knowing someone who attempted or has died by suicide, and/or personal suicide attempts (Joiner, 2007). In addition, capability can also be acquired through a variety of situations that cause some type of pain, whether physical or emotional. Examples of traumatic events associated with acquired capability include being involved in a car accident, being sexually assaulted (Christensen, Batterham, Soubelet, & Mackinnon, 2013) or vicariously by witnessing trauma happen to others around you (Hawton, Clements, Sakarovitch, Simkin, & Deeks, 2001). Experiencing a continuous stream of adverse, pain-inducing events (experiencing or witnessing physical or emotional pain) can lead to a person habituating to pain experiences (Van Orden, Witte, Gordon, Bender, & Joiner, 2008). It has been noted that sexual harassment rarely occurs in isolated instances (Lim & Cortina, 2005). Frequency of sexual harassment has been found to account for almost 21% of the variance in victims' psychological distress and severity of harassment accounted for an additional 13% of the variance (Collinsworth, Fitzgerald, & Drasgow, 2009). It should be noted that severity of harassment was determined objectively in this study and previous work has found that frequency and subjective severity of sexual harassment are negatively correlated, suggesting the occurrence of habituation (Lafontaine & Tredeau, 1986; Gutek, 1995). In other words, the longer the sexual

harassment occurs the more it becomes a part of what a woman expects in her environment, with each occurrence seeming less severe than the last. Research suggests that the accumulation of these painful experiences will increase one's tolerance for pain (Joiner et al, 2009). Joiner posits that only when the desire for suicide and capability to overcome the innate motivation of self-preservation occurs, then someone is at the greatest risk for suicide because they become both willing and capable to self-inflict pain. While most studies testing the application of Joiner's Interpersonal-Psychological Theory of Suicidal Behavior have focused primarily on military populations, it can be reasoned that the model would extend to other populations experiencing different types of traumas/painful experiences, such as women who experience sexual harassment.

Suicidal desire is comprised of two variables, perceived burdensomeness and thwarted belongingness. Perceived burdensomeness is defined as thinking that one is incapable and incompetent and thus a burden on their family, friends, or society. Sexual harassment in the workplace has been found to be positively correlated with intent to quit (Hershcovis & Barling, 2010). While not stated explicitly, this finding suggests a relationship between sexual harassment and feelings of incompetence. Support for the relationship between sexual harassment and feeling incompetent at work was also found in Dardenne, Dumont, and Bollier (2007). Women who reported experiencing sexual harassment also reported feelings of personal incompetence (Rederstorft, Buchanan, & Settles, 2007). Finally, Paludi and Paludi (2003) looked at a college sample and found that sexual harassment was related to doing poorly on academic assignments and even dropping out, both of which could conceivably be the after effects of feelings of being incapable or incompetence. Perceived burdensomeness can also be experienced by women who are sexually harassed when deciding whether or not to disclose their

experiences (deLara, 2012). There are some cognitions on whether they will be believed, taken seriously, lose their autonomy, or assumed to be weak or incapable of handling such experiences.

Thwarted belongingness is defined as feeling disconnected from family, friends, and other groups one might normally identify with and believing that one's attempts to belong are or will be rejected. For women who are sexually harassed, they may have a sense of thwarted belongingness due to feeling that others cannot relate to what they are experiencing, or that others think they are being difficult or overly sensitive. Hence, these victims of SH may be reluctant to reach out to others which can leave them feeling isolated. Isolation is a key part of thwarted belongingness (Joiner, Van Orden, Witte, Selby, Ribeiro, Lewis, & Rudd, 2009). Characteristics of isolation associated with suicide include loneliness and low social support because they are "indicators that the need to belong has been thwarted" (Van Orden, Cukrowicz, Witte, & Joiner, 2012). In a setting of higher education, sexual harassment has the potential to prevent or thwart one's involvement in academic or social activities in an effort to avoid further harassment. Additional operationalizations of thwarted belongingness include one's expression of feeling lonely and feelings of not fitting in (Gunn, Lester, Haines, & Williams, 2012). This may be due to a disruption in social relationships or a perceived lacking of any social relationships at all (Zhang, Lester, Zhao, & Xhou, 2013). It has been reported that students who feel they have been victimized by their peers have a fear of developing strong interpersonal relationships with others (Blazer and Hybels, 2005). Sexual harassment contributes to a process where women feel apart from a group (of peers or colleagues) and part of this process of thwarted belongingness is that victims of sexual harassment increasingly isolate themselves to get away from their harassers.

## Isolation

As just described, isolation may be a critical construct in the development of thwarted belongingness. Early definitions of social isolation involved a lack of involvement in meaningful relationships, or closeness to others (Durkheim, 1897/2002) and this general conceptualization is still used today. However, Durkheim's definition did not specify social isolation as subjective or objective (Rojas & Stenberg, 2010). Today, the construct of social isolation is further broken down into perceived isolation and objective isolating behaviors (Cacioppo & Hawkey, 2009). An example of this contrast is someone who is surrounded by many people or has a family with whom they spend a lot of time with; but still feels lonely. Social isolation has been related to more severe psychopathology in adolescents with a variety of disorders (Bal, Crombez, Van Oost, Debourdeaudhuij, 2003). Finally, for over 100 years isolation has been related to suicide risk (Durkheim, 1897/2002; Rihmer, 2007). Given the dynamics of sexual harassment, it makes sense that victims of sexual harassment would feel isolated. Women who reported feeling they had been sexually harassed also reported feeling isolated in a study that looked at isolation as a potential mechanism for the effects of sexual harassment on women in male dominated environments (McLaughlin, et al., 2012). Sexual harassment negatively affects victims via isolation; victims feel shame and blame themselves, often without seeking disconfirming evidence (Ekore, Uggem, & Blackstone, 2012). Another study also found that women who experienced various types of sexual harassment reported social isolation (Zweig, Barber, & Eccles, 1997). The authors suggested that women who were verbally coerced may have been particularly vulnerable to negative consequences of sexual harassment, such as feeling isolated, because they may have felt like they ought to have prevented the experience. A sense of isolation may in particular be a consequence when a sexual harassment

situation is more subjective with less evidence for others to see because the victim may feel that others will doubt, or even blame them. Consequently, victims are more likely to withdraw from others as they think they are not trusted or believed by others. Women in military academies perceived the reporting of sexual harassment as increasing social isolation (Pershing, 2003). Participants reported a fear of being perceived as a snitch. Losing the trust of your comrades could add to one's feeling of isolation which may serve as the mechanism that connects sexual harassment and suicidality. In a study looking at a LGBTQ sample, findings suggested that perceived social isolation can result from being dually marginalized (Blosnich, Bossarte, & Silenzio, 2012), both as an individual identifying as LGBTQ and as a person being sexually harassed. This may be especially relevant if the content of the harassment one is receiving is targeted at their gender and/or their sexual orientation.

Isolating behavior is a common coping strategy in women who are sexually harassed (Wasti & Cortina, 2002) and there is evidence that isolating behavior is related to suicide related behavior, like self-harm, though this relationship is likely involving feelings of thwarted belongingness. It should be noted that in this study, isolation was conceptualized as a self-reported behavior as opposed to a perception of one's intentions not to engage with others. Additionally, this study did not report on what situations students were coping with, so it is unknown if similar findings would be found in the context of sexual harassment.

It is still unclear whether a lack of social support can lead to suicidal ideation, or if people already experiencing problems then isolate themselves, therefore making it worse (Evans, Hawton, & Rodham, 2005). Some research suggests that social isolation can act as a mediator in the context of emotional abuse and emotional wellbeing (Katz & Arias, 1999). In other words, if someone experiencing emotional abuse has a strong social support system, then the risk

of the emotional abuse causing harm to their emotional wellbeing is lessened. The role of isolation is important in understanding the risk for suicidality as it is part of the process for thwarted belongingness which is an important element in Joiner's Interpersonal Theory of Suicidality (Gunn, Lester, Haines, & Williams, 2012).

### **Avoidant Response Style**

It has been suggested that there are important potential factors that could impact the effects of sexual harassment (Ellis, Barak, & Pinto 1991). The response style theory proposed by Nolen-Hoeksema and Morrow (1991) provides a framework to understand how one's response style can influence response to negative events and ultimately subsequent psychopathology. Two well-studied response styles are approach and avoidance. Both approach and avoidance are problem solving strategies that have been found to moderate the relationship between a stressful event and suicidal behavior (Grover, Green, Pettit, Monteith, Garza, & Venta, 2009). In a review of the sexual harassment literature over the last 35 years, avoidance was found to be a common coping strategy for victims of sexual harassment (Pina & Gannon, 2012). Persons with an avoidant response style tend to avoid emotions, thoughts, and internal and external stimuli that can be distressful (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). When one has a limited repertoire of responses to negative events, they may be at greater risk of developing symptoms of depression, like isolation (Possel, 2011). Gross and Levenson (1997) published empirical evidence of the long term effects of an avoidant response style on social relationships. Their study found that individuals who tended to suppress their negative emotions concerning a nonagentic event, something commonly done by persons with an avoidant response style, often reduced their efforts at seeking interpersonal interactions, or in other words, they engaged in

isolating behavior. In a study that looked at eighth graders, isolating behavior was found to be dependent on the individual's response style, avoidance versus approach. Those who used avoidance were found to have a greater likelihood of isolating behavior when bullied than those who used an approach response style (Bowker & Raja, 2011). Similarly, it has been found that the tendency to cope with problems with avoidant behaviors rather than face the problems head on is fairly common in adolescents who engage in self harm or suicidal ideation (Evans, Hawton, & Rodham, 2005). This study provides some support that the relationship between experiencing serious interpersonal problems and suicidal ideation and self-harm may be moderated by how one approaches their problems on a daily basis. Other studies have also found that an avoidant response pattern can be linked to the risk for making suicide attempts (e.g. Sadowski & Kelley, 1993). In conclusion, research outside of the field of sexual harassment suggests a relationship between avoidant response styles and isolating behavior and self-harm behavior; but this remains an area in need of investigation in the sexual harassment literature.

### **Hypotheses**

Few studies have explored suicidality concurrently with sexual harassment type, frequency, and severity (Frank, Carrere, Stratton, Bickel, & Nora, 2006; Garcia, Adams, Friedman, & East, 2002; Muehlenkamp, Swanson, & Brausch, 2005). In addition, the studies that have looked at both suicidality and sexual harassment have used an overly simplified concept of suicidality, without looking at relationships with suicidal ideation, attempts, and NSSI. Peer-to-peer sexual harassment with college populations has rarely been explored in the context of risk for suicide-related behaviors, such as non-suicidal self-injury. Very little is known about how an individual's response style may affect their risk for isolating after being

sexually harassed. Previous research has tended to collapse isolation within the construct of thwarted belongingness although the two are not synonymous; thus, this study will seek to better understand the role of isolation in Joiner's construct thwarted belongingness. Considerable research on other populations has demonstrated the relationship between thwarted belongingness and suicide risk and it is expected that a similar relationship will be found in victims of sexual harassment. In summary, prior research on the possible negative consequences of sexual harassment among college women suggests that sexual harassment puts victims at risk for depression, isolation, and suicidality. However, the mechanism for what characteristics put one at greater risk of engaging in suicide-related behaviors is not fully understood. Since sexual harassment occurs at a relatively high rate and occurs across many different settings, understanding how individuals respond to and cope with sexual harassment may be extremely important. What is learned regarding processes on how individuals respond to sexual harassment may help to inform prevention or treatment efforts that may then be able to at least curtail the negative consequences that often follow sexual harassment. Taking into account the reviewed literature and the proposed model, the following relationships are hypothesized (See Figure 1):

- Hypothesis 1: Women who report greater seriousness of sexual harassment experiences will report higher levels on suicidality variables (suicidal ideation, suicide attempts, and NSSI).
- Hypothesis 2: Women who report greater seriousness of sexual harassment experiences will report greater feelings of thwarted belongingness.
- Hypothesis 3: Sexual harassment seriousness will be positively correlated with isolation.

- Hypothesis 4: An avoidant response style will moderate the relationship between seriousness of sexual harassment and isolation in that one who has an avoidant response style will be more likely to feel isolated when they are sexually harassed.
- Hypothesis 5: Isolation will mediate the relationship between sexual harassment seriousness and thwarted belongingness.
- Hypothesis 6: Thwarted belongingness will mediate the relationship between isolation and suicidality variables (suicidal ideation, suicide attempts, and NSSI).

## Method

### Participants

Participants were undergraduate college women recruited from the University of South Florida (USF) psychology research pool using the SONA participant management system. Criteria for inclusion was any student who identified as female, was enrolled in a psychology course, was over the age of 18, and fluent in reading English. There were no other exclusionary criteria. Participants received extra credit in psychology courses as a result of their time participating in this study. A total of 268 participants met criteria, while 259 participants completed data and were included for analysis. Students had a mean age of 21 ( $SD = 3.23$ ), 26% of participants were freshmen, 17% were sophomores, 21% were juniors, and 35% were seniors. Approximately 63% of the sample was Caucasian, an additional 13% was Black or African-American, and the remainder were either Asian, Native American, more than one race, or identified as another racial group; 24% of the sample identified as Hispanic or Latino/a. Ninety-one percent of the sample identified as heterosexual, 5% of the sample identified as bi-sexual, and 2% identified as homosexual. Thirty-five percent of the sample lived with roommates in off-campus housing (See Table 1 for more detailed information on sample demographics).

### Measures

#### *Demographics*

Demographic information, such as age, sexual orientation, race/ethnicity, year in school, & living situation will be collected. This questionnaire took approximately two minutes to complete. This demographic information was selected because previous research has suggested

an association between these factors and sexual harassment (Chiodo, et al., 2009; Yoon et al., 2010; Blosnich, et al., 2012; Bergman & Henning, 2008; Huerta et al., 2006; Frank et al., 2006).

### *Sexual Harassment*

*The Sexual Experiences Questionnaire* (SEQ; Fitzgerald, Gelfand, & Drasgow, 1995) is a 19-item self-report scale designed to assess the occurrence of sexually harassing behaviors. The scale took approximately 5 minutes to complete. Participants responded to items that are behaviorally based (e.g. made crude sexual remarks, subtly bribed). The term “sexual harassment” does not appear until the end of the scale to prevent bias in responses. Response choices are on a 5-point scale and range from “never” to “6 or more times” (Fitzgerald, Swan, & Magley, 1997). The SEQ will be scored based on the method proposed by Fitzgerald et al (1995) where severity is weighted by frequency reported. The resulting score from the SEQ is a composite of type of sexual harassment type and frequency. The SEQ has been found to have high internal consistency in a college population ( $\alpha = .92$ ) (Fitzgerald, Shullman, Bailey, Richards, Swecker, Gold, Ormerod, & Weitzman, 1988). The SEQ has demonstrated high predictive validity in that it was negatively correlated with psychological well-being (Glomb, Richman, Hulin, & Drasgow, Schneider, & Fitzgerald, 1997). In Glomb and colleagues' study, individual scores on the SEQ were strongly associated with organizational measures of sexual harassment. Fitzgerald, Magley, Drasgow, and Waldo (1999) claim to have demonstrated construct validity in that higher scores on the SEQ were associated with outcomes expected of those who have been sexually harassed. Factor analysis has confirmed a three-factor structure in a college population with acceptable Cronbach's alphas for two of the factors: gender harassment ( $\alpha = .81$ ) and unwanted sexual attention ( $\alpha = .82$ ) (Fitzgerald, Gelfand, & Drasgow, 1995). The

authors have explained that the low coefficient alpha for the sexual coercion subscale ( $\alpha = .42$ ) can be attributed to the low baseline occurrence of these behaviors.

### *Response Style*

*The Cognitive-Behavioral Avoidance Scale (CBAS; Ottenbreit & Dobson, 2004)* is a 31-item self-report scale that measures use of behavioral and cognitive avoidance strategies. Participants completed the scale with instructions to reference how they typically handle interpersonal experiences (I just wait out tension in my relationships hoping that it will go away, I quit activities that challenge me too much). Participant's rated their responses on a 5-point Likert scale (1 -not at all true for me, 2 -somewhat true for me, 3 -moderately true for me, 4 -very much true for me, and 5 -extremely true for me). The measure took 5 minutes to complete. Internal consistency for the entire scale was found to be  $\alpha = .91$ . Factor analysis found 4 factors, each with high alphas: behavioral social ( $\alpha = .86$ ), cognitive nonsocial ( $\alpha = .80$ ), cognitive social ( $\alpha = .78$ ), and behavioral nonsocial ( $\alpha = .75$ ). Test-retest reliability at three weeks was found to be .92. In the original development study of the CBAS, moderate convergent validity was found in women when comparing the CBAS to the Coping Response Inventory's avoidance subscale ( $r = 0.34$ ) (CPI, Moos, 1988). In addition, the CBAS consistently showed negative associations with measures of approach response styles ( $r = -0.22$ ).

### *Isolation*

*The Ostracism Experiences Scale (OES) (Gilman, Carter-Sowell, DeWall, Adams, & Carboni, 2013)* is a 46-item self-report scale that measures a person's perceptions of being excluded or ignored from their social group. Examples of items on the scale include "people spread rumors about me" and "have ignored my greetings". The measure takes approximately 4 minutes to complete. Participants respond to items using a 7-point scale ranging from 1="hardly

ever" to 7="almost always". Factor analysis found two factors that are correlated, exclusion and being ignored. The OES has demonstrated high internal consistency ( $\alpha = .93$ ) in multiple populations, including university students (Carter-Sowell, Wesselmann, Wirth, Law, Chen, Kosasih, van der Lee, & Williams, 2010). Evidence of predictive validity was demonstrated as higher scores on the OES were positively correlated with depression and social stress. Convergent validity was demonstrated as scores on the OAS were associated with reports of peer victimization.

### *Thwarted Belongingness*

The *Interpersonal Needs Questionnaire* (INQ, Van Orden, Cukrowicz, Witte, & Joiner, 2012) is a 25-item self-report measure of two key factors, according to Joiner's Interpersonal Theory, that make up the phenomenon of suicidal desire, thwarted belongingness and perceived burdensomeness. Examples of items on the thwarted belongingness scale include "these days I feel disconnected" and "I am close to other people" (R). For the purpose of this study, only the thwarted belongingness scale is relevant to the stated hypotheses. Participants responded to statements using a 7-point Likert scale (1 = "Not at all true for me" to 7 = "Very true for me"). The INQ thwarted belongingness scale took approximately 2 minutes to complete. The thwarted belongingness scale has good internal consistency ( $\alpha = .85$ ). The INQ has been found to have good construct validity as the same factor structure has been found across multiple samples. In addition, thwarted belongingness, as measured by the INQ had a negative relationship with a measure of reciprocal care and a positive relationship with a measure of loneliness demonstrating discriminate and convergent validity (Marty, Segal, Coolidge, & Klebe, 2012).

### *Suicidality*

The *Deliberate Self-Harm Inventory* (DSHI; Gratz, 2001) is a 17-item self-report measure of lifetime history of non-suicidal self-injurious behaviors. Participants were instructed to refer to their time since starting college in order to compare results to previous studies that have looked at the relationship between sexual harassment and suicidality. Self-injurious behavior was defined as self-harm acts that lack suicidal intent. Examples of self-injurious behaviors covered in this measure include cutting and burning oneself. The DSHI provides a dichotomized (Yes/No) score in addition to a frequency of self-harm behaviors. The estimated time to complete this measure is dependent on the number of items endorsed by the participant and ranged from 10-30 minutes. The DSHI has demonstrated high internal consistency ( $\alpha = .82$ ) and convergent validity by correlating positively with other measures of self-harm and treatment history.

The *Self-Harm Behavior Questionnaire* (SHBQ; Gutierrez, Osman, Barrios, & Kopper, 2001) is a self-report, 41-item measure of lifetime history of self-injurious behavior, suicidal ideation, suicidal threats, and suicide attempts ( $\alpha = .96$ ). Participants were instructed to refer to their time since starting college in order to compare results to previous studies that have looked at the relationship between sexual harassment and suicidality. The SHBQ demonstrates high internal consistency, with subscales ranging from .89 to .96. Only 2 subscales were administered to participants: the suicidal ideation subscale ( $\alpha = .89$ ) and the suicide attempts subscale ( $\alpha = .96$ ), both of which have high internal consistency. The ideation and attempts subscales include 18 items that include both (yes/no) and open-ended responses. Both the ideation subscale and suicide attempts subscale have been found to significantly discriminate between suicidal and

non-suicidal individuals. Participants took 10-30 minutes to complete this measure with variation due to number of items endorsed.

### **Procedure**

Students who identified as female and were enrolled in the USF psychology department research subject pool were recruited for participation. The study was posted online using SONA, an online recruiting and data collection software used by USF. Students who met inclusionary criteria were given access to the study. After accessing the online survey, informed consent was provided electronically. Informed consent was provided via an online prompt that explained the requirements of participation, the purpose of the study, any possible risks and benefits, participant rights, and policies regarding confidentiality and its limits. Students were then provided another online prompt asking for their informed consent prior to completing the online self-report measures.

Participation (completion of measures on-line in random order) took between 40-90 minutes, depending on the students' responses, and students were rewarded one extra credit point for each half hour of participation. When all measures were completed, a debriefing page was presented explaining the purpose of the study and providing the contact information of the principal investigator. Because the survey asked about sexual harassment, mental health symptomatology, and suicidality, information about both community-based and on campus resources was provided in the event that participants were interested in seeking services for themselves or others. Contact information for the following resources was provided: USF Counseling Center, the National Suicide Prevention Lifeline, and the USF Psychological Services Center. All data was de-identified, assigned an anonymous, random code that is not connected to identifying information, and stored on a secure password protected server.

## Data Analysis

Upon completion of data being downloaded from the online survey system, subtest scores were calculated from the individual items of the measures. Descriptive statistics were run on all demographic variables and subtest scores to obtain means (continuous variables) or frequencies (categorical variables), standard deviations, and ranges. Data from each continuous variable was tested for homoscedascity using Levine's Test for Equality of Variance and the Shapiro-Wilk test for normality was used followed by any needed data transformations for skewed or otherwise not normally distributed. Bivariate and point-biserial correlations were conducted to test hypotheses 1-3. To examine whether avoidant response style moderated the relationship between sexual harassment and isolation (hypothesis 4), the centered sexual harassment and avoidant response style variables were entered in the first block of a hierarchical regression analysis, followed by the interaction term (product of the two variables) in the second block. Should the overall model interaction term be found to be significant and if there is a significant  $R^2$  change in variance explained compared to the initial model, then that would suggest that having an avoidant response style moderates the effect of sexual harassment on isolation. The relationship between the hypothesized interaction would be examined at 1 SD above and below the mean of the predictor variable, sexual harassment. Data would be plotted to examine how the slope of sexual harassment on isolation is dependent on the level of a person's avoidant response style. Mediation analyses using Preacher and Hayes (2008) bootstrap method was conducted to test hypotheses 5 and 6. Regression analyses were done to detect if isolation (H5) partially or completely mediated the relationship between sexual harassment and thwarted belongingness. First, sexual harassment was entered as the predictor variable and thwarted belongingness was entered as the criterion variable and if the model was significant, then it

would suggest a relationship mediated between sexual harassment and thwarted belongingness, or that path  $c$  is significant. Second, in another regression, sexual harassment was entered as the predictor variable and isolation was entered as the criterion variable and examined for significance to establish if there is a relationship between the predictor variable and the mediator, or that path  $a$  is significant. Third, in a multiple regression, isolation, the mediator, was entered as the predictor variable and thwarted belongingness was entered as the criterion variable and if isolation is a significant predictor in the model, while controlling for the predictor variable, sexual harassment, then one can infer that isolation accounts for some variance in thwarted belongingness and that path  $b$  is significant. For the fourth step, if sexual harassment (as the predictor variable) is no longer significant in the multiple regression model it can be inferred that isolation fully mediates the relationship between sexual harassment and thwarted belongingness. If sexual harassment is still a significant predictor of thwarted belongingness in the regression model with the inclusion of isolation, then there would be evidence that isolation partially mediates the relationship between sexual harassment and thwarted belongingness. The Sobel test (1982) was used to test the size of the mediation effect of isolation. Using Preacher and Hayes (2004) bootstrap method, point estimates and confidence intervals will be obtained to assess the significance of the mediation effect and if zero does not fall within the produced confidence intervals, then it can be inferred that the mediation effect is present and significant.

The following mediation analyses for hypothesis 6 will be repeated for suicidal ideation, suicide attempts, and non-suicidal self-injury. The steps of these analyses will be explained referring to a generic term "suicidality" that will represent each of these constructs separately. Regression analyses were done to detect if thwarted belongingness (H6) partially or completely mediates the relationship between isolation and suicidality. First, isolation was entered as the

predictor variable and suicidality was entered as the criterion variable and if the model is significant, then it would suggest there is a relationship that can be mediated between isolation and suicidality, or that path  $c$  is significant. Second, in another regression isolation was entered as the predictor variable and thwarted belongingness was entered as the criterion variable and examined for significance to establish that there is a relationship between the predictor variable and the mediator, or that path  $a$  is significant. Third, in a multiple regression, thwarted belongingness, the mediator, was entered as the predictor variable and suicidality was entered as the criterion variable and if thwarted belongingness is a significant predictor in the model, while controlling for the predictor variable, isolation, then one can infer that thwarted belongingness accounts for some variance in suicidality and that path  $b$  is significant. For step four, if isolation (as the predictor variable) is no longer significant in the multiple regression models it can be inferred that thwarted belongingness fully mediates the relationship between suicidality and isolation. If isolation is still significant, there is evidence that thwarted belongingness partially mediates the relationship between suicidality and isolation. The Sobel test (1982) was used to test the size of the mediation effect of thwarted belongingness. Using Preacher and Hayes (2004) bootstrap method, point estimates and confidence intervals were obtained to assess the significance of the mediation effect and if zero does not fall within the produced confidence intervals, then it can be inferred that the mediation effect is present and significant.

## Results

Data was screened for completeness, kurtosis, skewness, and internal consistency. If skewness and kurtosis was between +2 and -2, then scores were considered normally distributed (Cameron, 2004). Data was collected from 270 participants and descriptive statistics were run on participants with complete data ( $N=261$ ). To be included in the analyses, participants had to have completed at least 50% of the survey. A 50% cut-off is customary in this area of research (Huerta et al., 2006). Chi-square tests of independence were performed to examine the relation between categorical demographic variables and completion of the survey. T-tests were also performed to examine the relation between continuous demographic variables and completion of survey. The 9 participants whose data was excluded from analysis did not statistically differ from the rest of the sample on any variables.

### Descriptive Statistics

#### *The Sexual Experiences Questionnaire.*

The endorsement of the occurrence of sexually harassing behaviors on each of the three sub-scales (gender harassment, unwanted sexual attention, and coercion) as reported on the Sexual Experiences Questionnaire is presented in Table 2. The SEQ showed excellent internal consistency, with a Cronbach's alpha of .94. Skewness and kurtosis for the SEQ were within limits for normality criteria. Scores on the subscale of *The Sexual Experiences Questionnaire-Gender Harassment* were normally distributed and were not significantly different from scores in

other populations reported elsewhere; ( $M_c^1=1.49$ ;  $t(716)=-6.37$ ,  $p = .064$ ) (Fitzgerald et al, 1997); evidence of range restriction was present. Similarly, scores on the SEQ subscale *Unwanted Sexual Attention* were normally distributed and were not significantly different from scores in other populations reported elsewhere; ( $M_c = 1.19$ ;  $t(716)=-2.20$ ,  $p = .054$ ); (Fitzgerald et al, 1997); evidence of range restriction was present. Alternatively, scores on the *Sexual Coercion* subscale were positively skewed and were significantly lower than scores in other populations reported elsewhere; ( $M_c = 1.01$ ;  $t(716)=-25.78$ ,  $p = .028$ ); (Fitzgerald et al, 1997); evidence of range restriction was present.

Sexual harassment occurred in a variety of locations. Of those who reported where they were sexually harassed (125), 50 (40%) participants reported that it occurred on campus, and 2 (2%) reported that it occurred off campus. Finally, 73 (58%) reported that the sexual harassment occurred at parties or social gatherings; but it was unclear if these occurred on campus. Of the 204 (81%) participants who endorsed any objective sexual harassment, only 2 participants indicated that they experienced it at a fraternity party.

#### *The Cognitive-Behavioral Avoidance Scale.*

The sub-scale and total scale endorsements of the use of behavioral and cognitive avoidance strategies as reported on the Cognitive –Behavioral Avoidance Scale are presented in Table 2. The CBAS showed excellent internal consistency, with a Cronbach’s alpha of .96. Skewness and kurtosis for the CBAS were within limits for normality criteria; the range of scores was restricted towards the lower end of the scale. Scores on the *Cognitive-Behavioral Avoidance Scale* were positively skewed; but were not significantly different from scores in other female college populations reported elsewhere; ( $M_c = 59.26$ ;  $t(308)=-1.48$ ,  $p = .139$ );

---

<sup>1</sup> Mean from compared study

(Moulds, Kandris, Starr, & Wong, 2007); evidence of range restriction was present. Scores on the subscale of *The Cognitive-Behavioral Avoidance Scale-Cognitive Nonsocial* were positively skewed; but were not significantly different from scores in other female college populations reported elsewhere; ( $M_c = 18.27$ ,  $t(325) = 1.25$ ,  $p = .21$ ); (Moulds, et al., 2007); evidence of range restriction was present. Scores on the subscale of the *CBAS-Behavioral Nonsocial* were positively skewed; but were not significantly different from scores in other female college populations reported elsewhere; ( $M_c = 13.09$ ;  $t(326) = .82$ ,  $p = .40$ ); (Moulds, et al., 2007); evidence of range restriction was present. Scores on the subscale of the *CBAS-Cognitive Social* were not significantly different from scores in other female college populations reported elsewhere ( $M_c = 12.99$ ;  $t(327) = .26$ ,  $p = .78$ ); (Moulds, et al., 2007); evidence of range restriction was present. Finally, scores on the subscale of the *CBAS-Behavioral Social* were positively skewed and were not significantly different from scores in other female college populations reported elsewhere ( $M_c = 14.73$ ;  $t(320) = .55$ ,  $p = .57$ ); (Moulds, et al., 2007); evidence of range restriction was present.

#### *Ostracism Experiences Scale.*

The endorsement of a person's perceptions of being excluded or ignored from their social group as reported on the Ostracism Experiences Scale are presented in Table 2. The OES showed excellent internal consistency, with a Cronbach's alpha of .94. Skewness and kurtosis for the OES were within limits for normality criteria. Data collected in this study were significantly different than in the study done by Carter-Sowell (2010). Compared to the Carter-Sowell (2010) study, the current study's sample's scores on the *Ostracism Experiences Scale* were significantly different from a sub-sample of participants who were in an "included" condition ( $M_c = 1.70$ ;  $t(313) = 7.21$ ,  $p < .0001$ ) and were also significantly different than a sub-

sample of participants who were in an “excluded” condition ( $M_c = 3.68$ ;  $t(313) = 11.09$ ,  $p < .0001$ ) (Carter-Sowell, 2010). There was no evidence of range restriction present. The current study’s sample had scores that were significantly higher than Carter-Sowell’s “included” group and significantly lower than the “excluded” group, thus the current study’s sample appears to include individual scores that range across both included and excluded perceptions.

#### *Interpersonal Needs Questionnaire*

Scores indicating feelings of thwarted belongingness as reported on the Interpersonal Needs Questionnaire, Belongingness Subscale are presented in Table 2. The INQ Belongingness Subscale showed acceptable internal consistency, with a Cronbach’s alpha of .73. Skewness and kurtosis for the INQ were within limits for normality criteria; but were restricted to the lower end of the scale. Interestingly, typical samples are skewed whereas the sample in this study, although range restricted, was normally distributed. Developers of the INQ have noted that the constructs measured by this scale are not meant to be normally distributed among the population and therefore do not recommend transformations (Van Orden et al, 2012). Scores on the subscale of *The Interpersonal Needs Questionnaire-Thwarted Belongingness* were significantly higher than scores in other college populations reported elsewhere ( $M_c = 21.92$ ;  $t(531) = 7.14$ ,  $p < .0001$ ); (Anestis & Joiner, 2012). Evidence of range restriction was present.

#### *Deliberate Self-Harm Inventory.*

Endorsement of self-harm behaviors using the DSHI is reported in Table 2. Overall, 47 women (17.5% of the sample) had engaged in non-suicidal self-injurious behaviors on at least one occasion over their time in college. The most frequently reported non-suicidal self-injurious behaviors were cutting (17.5%), scratching until bleeding or scarring occurred (11.2%), and preventing wounds from healing (10.4%). Because the *Deliberate Self-Harm Inventory* only

produces frequency counts of behaviors, not subscales, internal consistencies and univariate normality parameters are not presented. Someone who engages in one type of self-harm behavior is not necessarily likely to engage in all 16 types listed on the scale. The *Deliberate Self-Harm Inventory* is best used as an index than a scale. Mean scores on the *Deliberate Self-Harm Inventory* were significantly higher than another study looking at NSSI during college ( $M_c = .45$ ;  $t(961) = 2.57$ ,  $p = .01$ , Heath, Toste, Nedecheva, & Charlebois, 2008), Incident rates on the DSHI were also significantly higher than incident rates in other college populations reported elsewhere (11.68%;  $z = 2.4$ ,  $p < .015$ , Heath, et al., 2008), and showed a significant degree of range restriction, as the highest score in the sample (8) was significantly lower than the maximum of 17. The significant difference in means and prevalence rates could be explained by the difference in the composition of the samples, Heath et al.'s (2008) study was made up of men and women and there is research to suggest that women at this age engage in NSSI at a higher rate than men (Muehlenkamp, Cowels, & Gutierrez, 2010). Interestingly, Heath, et al. (2008) noted that 39% of their sample reported age of onset of self harm was 17 years old making this particular sample more appropriate for comparison to the current study. It should be noted that most other studies using the DSHI refer to lifetime self-harm frequency.

#### *Self-Harm Behavior Questionnaire.*

The frequency and percentages of endorsement of various suicide-related behaviors as reported on the Self-Harm Behavior Questionnaire are presented in Table 3. A total of 12 women endorsed a suicide attempt (4.6% of the total sample) while in college. Prevalence rates on the SHBQ were significantly higher in a study that used the scale with high school students (21%;  $z = 5.4$ ,  $p < .0001$ , Muehlenkamp, et al., 2010). This difference is not surprising given that on average 8% of U.S. high school students report making a suicide attempt in the previous year

(YRBS, 2013). Typical suicide attempt rates for college students is around 8% (Drum, Brownson, Denmark, & Smith, 2009). In the current study, on average, of those who endorsed a suicide attempt while in college, respondents had more than one attempt ( $M=1.58$ ,  $SD=.99$ ). Additionally, 61 women endorsed suicidal ideation while in college (23.6% of the total sample) which was not significantly different than a sample of high school aged students (28%;  $z=1.2$ ,  $p=.22$ , Muehlenkamp, et al., 2009). Twenty-four women reported making suicidal threats while at college (9.3% of the total sample) which was not significantly different than what was reported by high school students (9.8%;  $z=.2$ ,  $p<.84$ , Muehlenkamp, et al., 2009). An additional 103 women reported thinking about or wanting to die but without actually considering suicide during college (39.8% of the total sample). There was a discrepancy between the DSHI ( $N= 41$ ) and the SHBQ ( $N= 57$ ) in the number of women reporting NSSI. Every participant who endorsed NSSI on the DSHI also endorsed NSSI on the SHBQ; however not every participant who endorsed NSSI on the SHBQ endorsed self-harm on the DSHI. Because of this pattern of responses, the SHBQ will be used as a measure of NSSI for hypothesis testing.

## **Hypothesis Testing**

### *Hypothesis 1*

It was hypothesized that women who reported greater seriousness of sexual harassment experiences would report higher levels on suicidality variables (suicidal ideation, suicide attempts, and NSSI). Significant positive correlations were found between objective scores on the SEQ and endorsement of suicidal ideation,  $r = .238$ ,  $p < .01$  using a point-biserial correlation and non-suicidal self-injury,  $r = .258$ ,  $p < .01$  using Pearson correlation. Objective scores of sexual harassment were also significantly but mildly related to endorsement of suicide attempts,

$r = .126, p < .05$ , using Pearson correlations. Please refer to Table 4. The hypothesis that sexual harassment would be related to a variety of suicidality variables was supported.

#### *Hypothesis 2*

It was hypothesized that women who report greater seriousness of sexual harassment experiences will report greater feelings of thwarted belongingness. A significant, but small, positive correlation was found between scores on objective SEQ and the thwarted belongingness subscale of the INQ,  $r = .170, p < .05$ . The hypothesis that sexual harassment and feelings of thwarted belongingness would be positively related was supported as a mild relationship was found in the expected direction.

#### *Hypothesis 3*

It was hypothesized that sexual harassment seriousness will be positively correlated with isolation. A significant, medium effect, positive correlation was found between sexual harassment and isolation as measured by the OES,  $r = .181, p < .01$ . The hypothesis that sexual harassment and isolation would be positively correlated was supported.

#### *Hypothesis 4*

To examine whether avoidant response style moderated the relationship between objective sexual harassment and isolation, the centered sexual harassment and avoidant response style variables were entered in the first block of a hierarchical regression analysis, ( $F(1, 215) = .49, p = .48, R^2 = .2867$ ) followed by the interaction term (product of the two variables) in the second block. This moderation model was not supported, ( $F(1, 215) = .52, p = .052, R^2 = .2884$ ). Thus, avoidant response style was not a significant moderator of the relationship between sexual harassment and isolation and hypothesis 4 was not supported (see Table 5).

### *Hypothesis 5*

It was hypothesized that isolation will mediate the relationship between objective sexual harassment seriousness and thwarted belongingness. That is, that sexual harassment seriousness would be positively associated with isolation and that through this association, thwarted belongingness would be predicted when controlling for demographics.

Objective sexual harassment seriousness was significantly associated with thwarted belongingness ( $b = .170$ ,  $SE = .068$ ,  $p < .05$ ; C Path). Sexual harassment was significantly related to the mediating variable, isolation ( $b = .181$ ,  $SE = .067$ ,  $p < .01$ ; A Path). Isolation was significantly associated with thwarted belongingness ( $b = .311$ ,  $SE = .057$ ,  $p < .01$ ; B Path). When testing the indirect pathway of sexual harassment through isolation, bootstrapping analyses did support an indirect effect ( $b = .079$ ,  $SE = .027$ , 95% CI = 0.036 -.141,  $p < .001$ ). After accounting for the indirect path, the direct effect of objective sexual harassment on thwarted belongingness was not significant ( $b = .112$ ,  $SE = .086$ ,  $p = .09$ , C' Path; see Figure 2) suggesting full mediation.

### *Hypothesis 6*

Thwarted belongingness will mediate the relationship between isolation and suicidality variables (suicidal ideation, suicide attempts, and NSSI).

The sample used to test this hypothesis was made up of 226 participants. The 35 participants whose data was excluded from analysis (due to missing data) did not statistically differ from the rest of the sample on any demographic variable or constructs of interest. Isolation was not significantly associated with suicidal ideation ( $b = .282$ ,  $SE = .159$ ,  $p = .08$ ; C Path). Isolation was significantly related to the mediating variable, thwarted belongingness ( $b = .268$ ,  $SE = .063$ ,  $p < .001$ ; A Path). Thwarted belongingness was significantly associated with

suicidal ideation ( $b = .389, SE = .167, p < .05$ ; B Path). When testing the indirect pathway of isolation to suicidal ideation through thwarted belongingness, bootstrapping analysis showed a significant indirect effect ( $b = .149, SE = .081, 95\% CI = .0153 - .3407, p < .001$ ). After accounting for the indirect path, the direct effect of objective sexual harassment on thwarted belongingness had increased but was still not significant ( $b = .370, SE = .214; p = .08, C'$ ; see Figure 3) suggesting full indirect only mediation.

Isolation was not significantly associated with suicide attempts ( $b = .031, SE = .053, p = .65$ ; C Path). Isolation was significantly related to the mediating variable, thwarted belongingness ( $b = .311, SE = .054, p < .01$ ; A Path). Thwarted belongingness was significantly associated with suicide attempts ( $b = .167, SE = .056, p < .05$ ; B Path). When testing the indirect pathway of isolation through thwarted belongingness to suicide attempts, bootstrapping analyses did support a significant indirect effect ( $b = .027, SE = .016, 95\% CI = .005 - .078, p < .001$ ). After accounting for the indirect path, the direct effect of isolation on suicide attempts was not significant ( $b = .117, SE = .038, p = .08$ ; C' Path, see Figure 4) suggesting an indirect only mediation.

Isolation was significantly associated with NSSI ( $b = .184, SE = .069, p < .01$ ; C Path). Isolation was significantly related to the mediating variable, thwarted belongingness ( $b = .311, SE = .054, p < .01$ ; A Path). Thwarted belongingness was not significantly associated with NSSI ( $b = .067, SE = .061, p = .33$ ; B Path). When testing the indirect pathway of isolation through thwarted belongingness to NSSI, bootstrapping analyses did not support a significant indirect effect ( $b = .122, SE = .415, 95\% CI = -.781-.889, p < .001$ ). The analyses failed to detect the hypothesized mediation effect.

## Supplemental Analyses

Competing mediational models were computed to examine the possibility that isolation mediated the effect thwarted belongingness had on sexual harassment and the possibility that thwarted belongingness mediated the effect of suicide-related variables on isolation. Standard mediation guidelines were applied to reverse mediations in order to test potential bi-directionality among proposed causation models. Reverse mediation analyses of isolation mediating the effect of thwarted belongingness on sexual harassment were conducted. Thwarted belongingness was significantly associated with sexual harassment ( $b = .089, SE = .052, p < .01$ ; C Path), thwarted belongingness was significantly related to the mediating variable, isolation ( $b = .283, SE = .063, p < .001$ ; A Path). Isolation was significantly associated with sexual harassment ( $b = .152, SE = .052, p < .01$ ; B Path). When testing the indirect pathway of thwarted belongingness through isolation, bootstrapping analyses did support an indirect effect ( $b = .040, SE = .01, 95\% CI = .013 -.079, p < .001$ ). After accounting for the indirect path, the direct effect of objective thwarted belongingness on sexual harassment was not significant ( $b = .089, SE = .052, p = .08, C' Path$ ). These results suggest that the hypothesized mediation model might be bi-directional as full mediation is supported by the data, however, the relationships for the hypothesized direction of mediation were stronger in the hypothesized model ( $b = .079, SE = .027, 95\% CI = .036 -.141, p < .001$ ).

Reverse mediation analyses of thwarted belongingness mediating the effect of suicide attempts on isolation was conducted. Suicide attempts was not significantly associated with isolation ( $b = -.035, SE = .117, p < .77$ ; C Path), suicide attempts was significantly related to the mediating variable, thwarted belongingness ( $b = .409, SE = .161, p < .05$ ; A Path), and thwarted belongingness was significantly associated with isolation ( $b = .216, SE = .047, p < .001$ ; B Path).

When testing the indirect pathway of suicide attempts through thwarted belongingness, bootstrapping analyses did support an indirect effect ( $b = .083$ ,  $SE = .03$ , 95% CI = .032 - .161,  $p < .001$ ). After accounting for the indirect path, the direct effect of suicide attempts on isolation was not significant ( $b = -.033$ ,  $SE = .11$ ,  $p = .77$ , C' Path). These results suggest that the hypothesized mediation model is likely bi-directional in nature as indirect only mediation was supported. Interestingly, a stronger relationship was found for the reverse mediation direction of suicide attempts on isolation through thwarted belongingness than for the hypothesized mediation model ( $b = .027$ ,  $SE = .016$ , 95% CI = .005 - .078,  $p < .001$ ).

Reverse mediation analyses of thwarted belongingness mediating the effect of suicidal ideation on isolation were also conducted. Suicidal ideation was not significantly associated with isolation ( $b = .191$ ,  $SE = .11$ ,  $p = .08$ ; C Path) and suicidal ideation was significantly related to the mediating variable, thwarted belongingness ( $b = .445$ ,  $SE = .154$ ,  $p < .05$ ; A Path), and thwarted belongingness was significantly associated with isolation ( $b = .198$ ,  $SE = .047$ ,  $p < .001$ ; B Path). When testing the indirect pathway of suicidal ideation through thwarted belongingness, bootstrapping analyses did support an indirect effect ( $b = .088$ ,  $SE = .04$ , 95% CI = .027 - .192,  $p < .01$ ). After accounting for the indirect path, the direct effect of suicidal ideation on isolation was not significant ( $b = .191$ ,  $SE = .11$ ,  $p = .08$ , C' Path). These results suggest that the hypothesized mediation model is likely bi-directional in nature as indirect only mediation was supported, however, the hypothesized direction of the mediation indirect effect was stronger for the hypothesized model than that of the reverse mediation model ( $b = .149$ ,  $SE = .081$ , 95% CI = .0153 - .3407,  $p < .001$ ).

Because the measures used for isolation and thwarted belongingness could appear similar in content, item responses for both were plotted together with total scores (see Figure 6) to

examine how closely related the two measures actually were. Each item of the isolation measure (OES) was correlated with the total score of the thwarted belongingness scale and Figure 6 demonstrates that items on the Thwarted Belongingness scale were more closely related to the total score of the Thwarted Belongingness scale than items from the isolation scale.

Additionally, each item of the thwarted belongingness measure was correlated with the total scores of the isolation measure, indicating that most items on the OES were more closely related to isolation than Thwarted Belongingness (it should be noted that there were 10 items on the OES that did not appear to be related to the total score of either measure). Overall, this suggests that while items on both measures may appear similar and there was some content overlap, they were likely measuring different constructs.

## **Discussion**

The goal of this study was to explore whether the experience of sexual harassment is related to an increase in a number of suicide-related variables and if these hypothesized relationships are mediated or moderated by other factors such as an individual's response style and/or degree of connection to or isolation from others. The few studies that have looked at both suicidality and sexual harassment concurrently have used an overly simplified concept of suicidality, without looking at relationships with suicidal ideation, attempts, and NSSI separately. It was hypothesized that women who report greater seriousness of objective sexual harassment experiences will report higher levels of suicidal ideation, suicide attempts, and non-suicidal self-injury (NSSI) in addition to thwarted belongingness. It was also hypothesized that the relationships between isolation and suicidal ideation; suicide attempts; and NSSI would be mediated by reports of thwarted belongingness.

The study provided support for several of the hypotheses. Greater reports of objective sexual harassment were associated with a number of suicide-related behaviors and thoughts. Remarkably, as hypothesized, college women who reported a greater number of sexual harassment experiences were more likely (small to medium effects) to report having experienced suicidal ideation, engaging in NSSI, and making suicide attempts, while in college. Two issues should be considered when evaluating these results, suicidal ideation was a fairly low base rate, dichotomous variable and the distributions of NSSI and suicide attempts were both positively skewed (not normally distributed). Additionally, non-suicidal self-injury and suicide attempts have low base rates. When variables have low base rates and/or are non-normally distributed,

this tends to decrease one's ability to detect relationships between variables (Garson, 2007). Hence, it is possible that the effects found are an underestimate of the serious effect of sexual harassment on suicide-related behaviors. The spectrum of what constitutes sexual harassment is wide, ranging from verbal gender harassment to violent sexual assault and yet persistent exposure is related to suicide-related behaviors. This relationship fits theoretically within Joiner's Interpersonal Theory of Suicide (Joiner, et al., 2007) in that it may add to one's acquired capability for making a suicide attempt. According to Joiner's theory, when individuals are faced with repeated pain and fear inducing situations that they do not escape from, their tolerance for such situations are increased, particularly, it adds to their acquired capability for self-harm. What would normally cause fear of pain becomes normalized and this generalizes to other types of pain inflicted on the body. Sexual harassment may follow a parallel path in which women will tolerate increasing sexual harassment; they may then become used to the pain and fear that sexual harassment induces. Repeated sexual harassment may act as a conduit to engaging in self-harm or making a suicide attempt via habituation to fear and emotional pain. The relationship between sexual harassment and suicide related behaviors is also consistent with previous research looking at the negative consequences associated with sexual harassment and could be worse than has been previously realized. Previous negative effects that have been documented include feeling alone or ignored greater likelihood of psychopathology, and symptoms that are consistent with PTSD (Galatzer-Levy et al., 2010; Landstedt & Gadin, 2011; DeSouza, 2010). Another notable point was that far more women endorsed experiencing sexual harassing behaviors when they were listed as objective behaviors than those who identified themselves subjectively as having been sexually harassed. This is an important nuance to understanding sexual harassment; women did not need to subjectively identify their experiences

as sexual harassment for a relationship of sexual harassment to suicide-related behaviors to exist. Quite notable, there was no significant relationship between subjective and objective measures of sexual harassment. That is to say, women who endorsed more severe, overt types of sexual harassment were not more likely to label their experiences subjectively as sexual harassment as one might expect. Self labeling of sexual harassment experiences has received very little attention; however, in the few studies that have looked at differential consequences of subjective versus objective measures of sexual harassment, no differences have been found in regards to negative consequences (Magley, Hulin, Fitzgeralds, & DeNardo, 1999). Unfortunately, not feeling or believing one has been sexually harassed does not inoculate one from long term negative effects. The positive correlation between being objectively sexually harassed and NSSI, suicidal ideation, and suicide attempts is not only an important finding; but also a serious public health concern. It is vital to understand what processes might explain these relationships in order to inform future suicide prevention efforts that also support sexually harassed victims.

It was hypothesized that sexual harassment would be related to suicide-related behaviors through two mediational processes involving isolation and thwarted belongingness. As hypothesized, the relationship between sexual harassment and thwarted belongingness was fully mediated by isolation. This relationship is not surprising given previous research on the relationship between sexual harassment and isolation (McLaughlin et al., 2012) and isolation and thwarted belongingness (VanOrden et al., 2012). Nonetheless, this finding is noteworthy because it conjoins two distinct areas of research, sexual harassment research and research on Joiner's Interpersonal Theory of Suicide. This is the first known study to explore sexual harassment concurrently with thwarted belongingness. It is also noteworthy that the relationship between sexual harassment and thwarted belongingness was fully explained by isolation in this

study, suggesting that isolation is potentially a key variable in how sexual harassment may lead to increased suicidality. Perhaps of all of the negative consequences that follow sexual harassment, isolation may be one of the most detrimental because in isolating, they likely, not being around others, may perceive themselves as not belonging which is very concerning given that thwarted belongingness is a major component of Joiner's suicidal desire construct. Future research on understanding mechanisms in which sexual harassment is related to suicidality should look at climate factors that may contribute to an environment that protects the harasser and blames the harassed. Many behaviors that are objectively labeled as harassing are normalized in patriarchal societies. If the harasser is someone who is generally well liked and accepted within a group of friends, unless their harassing behavior is overt and discriminatory, the one who is harassed could potentially feel like the outsider who does not belong and feel driven to isolation from the others in their group. If several people are being harassed by the same person; but only one is vocal about how it negatively impacts them, then that person may appear to be "the problem" and they may perceive the harassers as the ones who belong. This is why it is also important to look at what might be considered individual characteristics and responses (internal and external) that put one who is sexually harassed at risk for suicidality. Individual characteristics/processes such as levels of assertiveness, resilience, perceived norms, attitudes, and/or attributions might help to explain variability in how persons who are sexually harassed respond. These additional areas should be considered in order to identify persons who could be most at-risk from sexual harassment and also to consider environmental and individual factors that could be addressed by sexual harassment prevention and post-harassment intervention programs.

In order to examine what individuals might be most at risk for isolation and thus perceived thwarted belongingness, it was hypothesized that individuals who have an avoidant response style might be the most likely to isolate themselves in response to sexual harassment. However, the hypothesis that the interaction between avoidant response style and sexual harassment would account for variance in isolation was not supported. This suggests that the relationship among sexual harassment and isolation is not moderated by a victimized person having an avoidant response style. In other words, persons with an avoidant response style were not more at risk for isolating in response to sexual harassment than persons who do not have an avoidant response style. Interestingly, the moderation results from this study may actually be consistent with the literature on sexual harassment, as avoidance of the harasser or environments where sexual harassment occurs has been found in prior research (Pina et al., 2012). Thus, it may be that most victims of sexual harassment engage in avoidant behavior and there is no extra avoidance that is engaged in by persons with an avoidant response style. In fact, some research suggests that being sexually harassed may lead one to be more avoidant (Manos et al., 2009). Given that avoidant response style has an established relationship to suicidality (Sadowsky et al., 1993); it may be that avoidance following sexual harassment may serve an important role in increasing isolation and ultimately suicide risk. In other words, a mediation model might better explain how the variables of avoidance and isolation are related. This study conceptualized an avoidant response style as trait-like but it may be more of a state-like avoidance that is important in the relationship between sexual harassment and suicide-related variables. Future research will need to examine whether a process occurs where sexual harassment victims avoid harassers and harassing situations which leads to overall increased isolation.

Given the previous findings of sexual harassment being found related to thwarted belongingness through isolation, the hypothesis of thwarted belongingness as a mediator of isolation on suicide attempts, suicidal ideation, and NSSI was explored through separate mediation analyses in order to understand if the same process applies to these three related suicide-related variables. Interestingly, mediation analyses did in fact provide support for indirect relationships between isolation and some of the suicidality variables through thwarted belongingness, but this was not found for all of the suicide related variables. Somewhat consistent with initial hypotheses, the mediation analyses concerning the relationship between isolation, thwarted belongingness, and suicide attempts detected a significant indirect only mediation relationship. An indirect only effect is likely because there is a mediated effect (A path \* B path); but not a direct C path; it is likely that the C path only adds error. In other words, it is likely that isolation is *only* related to suicide attempts through thwarted belongingness. These findings are consistent with earlier research on the relationship between thwarted belongingness and suicide attempts, especially in the context of interpersonal conflicts (You, VanOrden, & Conner, 2011). Perceived isolation in itself is likely not a sufficient risk factor for making suicide attempts because one may isolate for more benign reasons like a preference for solitude (Long & Averill, 2003) in which case, the isolating person would not experience thwarted belongingness and likely not be at increased risk of a suicide attempt. In other words, perceived isolation is not synonymous with thwarted belongingness and this indirect only relationship between isolation and suicide attempts provides further support of that distinction. However, it is possible that isolation that occurs outside of one's control, via being rejected or driven away by the behavior of others (leading to a perception of thwarted belongingness), may be an important risk factor for making a suicide attempt. Specific to the situation of sexual harassment,

one may isolate for reasons such as avoiding a harasser (Long, et al., 2003) which may inadvertently lead to feelings of loneliness and a reduction in social support (Van Orden, et al., 2012) which are also related to feelings of thwarted belongingness. However, it should be noted that reasons for isolating behavior were not examined in this study and thus, future research could look at examining how different functions of isolation may have differential effects on one's self-perceptions.

Similar to the relationship between isolation, thwarted belongingness, and suicide attempts, as hypothesized, the relationship between isolation and suicidal ideation was mediated by thwarted belongingness. These results provide evidence that the association between isolation and suicidal ideation is explained by an indirect only effect as well. This is in concert with existing literature that posits isolating from one's support system or perceiving that one is alone in their suffering is related to negative cognitions (Basson, 2008) which can lead to thoughts of dying by suicide (Bearman & Moody, 2004). Thus, thwarted belongingness is an important mechanism through which isolation is associated with suicidal ideation which is supported by prior research by Joiner et al. (2009) that found that thwarted belongingness is predictive of suicidal ideation. In a study that sought to predict suicidality, distorted cognitions and maladaptive coping explained greater variance in suicide-related behaviors (Bonner & Rich, 1987) than low social support alone. There are likely more mechanisms that need to be explored connecting isolation to suicidal ideation given how isolation is such a well documented risk factor for suicidality. There is research to support the potential for negative cognitions to be exaggerated when isolating oneself (Cacioppo, et al., 2009), though this relationship is likely not a direct one as suggested by the results of this study. Isolation is also related to poorer problem solving abilities, leaving an already distressed individual to rely on the most salient or obvious

option they perceive rather than considering multiple, potentially more helpful options for dealing with strong emotions (Rubin, Daniels-Bierness, & Brems, 1984). Negative cognitions and poor problem solving have been found to be related to the onset of suicidal ideation (Smith, Alloy, & Abramson, 2006; Linda, Marroquin, Miranda, 2012). It is possible that poorer problem solving abilities and thus maladaptive coping skills may serve as another mediator between isolation and suicidal ideation. Future research should look at these potential mechanisms that might additionally explain the relationship between isolation and suicide ideation and especially in the context of sexual harassment.

In contrast with the other suicidality variables, mediation analyses did not provide support for an indirect relationship between isolation and NSSI through thwarted belongingness. That is, the relationship between isolation and NSSI was not mediated by thwarted belongingness as was hypothesized. It appears, given the results of this study, that women who engage in NSSI do not do so because of a sense of thwarted belongingness. It is possible that there are other reasons not explored in this study that explain the relationship between isolation and NSSI. Prior research has found that emotional distress resulting from social interactions can lead to a greater likelihood of engaging in isolation and NSSI (Jiang & Jianing, 2014). Further, isolating from social groups could lead to even less positive social interactions which would leave individuals even more isolated and potentially amplify a negative emotional state. Perhaps isolation is a risk factor for a pattern of deteriorating, unhealthy, or inconsistent social interactions which might lead to a loss in desire to even care about belonging. This in turn could increase the likelihood of engaging in NSSI. Isolation could also be a pre-cursor to setting oneself up to ruminate with negative cognitions, without having the opportunity to receive validation from others that might prevent engaging in NSSI. While in isolation, cognitions

involving low self-worth, inefficacy, and feeling like a burden may occur and without the opportunity to discuss whether there is evidence that supports these negative thoughts, one could be at greater risk of engaging in NSSI.

It is possible that looking at perceived burdensomeness as a mediator might better explain the relationship between isolation and NSSI while in keeping with Joiner's Interpersonal Theory of Suicide (Conner, Britton, Sworts, & Joiner, 2007). Previous research has found that those who engage in NSSI are more self-critical than those who do not and that the focus of that criticism can be diverse, including even feeling like a burden (St. Germain & Hooley, 2013). According to St. Germain and Hooley, being highly self-critical increases one's tolerance for pain because they feel they should be punished. To date, perceived burdensomeness and NSSI have not been studied together as NSSI has traditionally been thought to add only to the acquired capability part of Joiner's theory. This relationship may be more complicated than originally proposed by Joiner's Theory of Interpersonal Suicide. Additionally, non-suicidal self-injury has been theorized to serve a number of other functions that do not equate to being suicidal. NSSI has been found to serve as a coping strategy to deal with distressing feelings related to anxiety and depression, or what is commonly referred to as emotion regulation (Gratz, 2003). A four function model has been proposed for understanding why persons engage in NSSI (Nock, 2010). One of the functions of NSSI proposed is that of social positive reinforcement (SPR). A state of isolation might serve as an additional negative deprivation state in which the need to elicit access to resources is activated, resulting in greater likelihood of engaging in NSSI in order to attain social attention (thus, NSSI is socially positively reinforced). Cognitions about desiring social attention may serve to mediate the relationship between isolation and NSSI in some circumstances. On the other hand, automatic negative reinforcement (APR) may be the function

of NSSI in some circumstances. NSSI behavior may serve to alleviate the aversive negative cognitions and feelings that occur when isolating. Engaging in NSSI behavior, may be reinforced by the reduction in aversive feelings and cognitions. This suggests that cognitions about desiring the removal of aversive feelings may mediate the relationship between isolation and NSSI. Automatic positive reinforcement (APR) may lead one to isolate because they feel alone. APR could act as a mediator of cognitions that include the desire to feel something. NSSI could be reinforced because the individual is feeling something as opposed to a feeling of numbness. Social negative reinforcement (SNR) might apply when one is harassed and they are trying to escape the harassers by engaging in NSSI. Engaging in NSSI becomes an attempt to drive others away. In this case the cognitions that NSSI will keep away or stop sexual harassment is the mediator, in which NSSI is reinforced when in fact the sexual harassment ceases or the sexual harasser does avoid the victim. Future studies should explore some of these potential cognitive mediators in order to understand how the relationship between isolation and NSSI is better explained.

### **Limitations**

Although this study was an initial step towards understanding the relationship between sexual harassment and suicide-related variables there are some additional limitations to this research study that should be considered outside those mentioned above (study design preventing the establishment of temporal precedence and possibly being underpowered). A better understanding of these additional limitations may help to influence the design of future studies looking at these extremely important, yet complicated relationships.

In order to protect participants' anonymity, the study was conducted online. The potential for random responding or lack of conscientious responding is a realistic concern.

However, data was closely screened for the appearance of random responding. For example, participants who answered the same level of agreement on every item of a measure that included reverse scored items were dropped from the sample for analysis purposes. In addition, there were two measures of self harm which were highly correlated. Participants who reported drastically different frequencies on these measures were dropped from analysis. Additionally, data on all constructs were obtained through self-report questionnaires which are vulnerable to recollection problems and social desirability bias. However, when studying suicide-related behaviors, self-report measures yield greater disclosure than in-person interviews (Kaplan, Asnis, Sanderson, Keswani, de Lecouna, & Joseph, 1994). Self-harm behaviors and suicidal ideation have been reported to be difficult to talk about because of the stigma related to mental illness and thus individuals are more likely to reveal this information via self-report than verbally to another person (Corrigan & Watson, 2002). In addition, suicidal ideation and self-harm are internal and/or covert phenomena and thus are best measured through self-report by their very nature of not being readily observable by others. Similar to other internalizing phenomena like depression, self-reported internalizing symptoms (e.g. rumination, compulsive counting) are more predictive of internalizing diagnoses than internalizing symptoms reported by other informants (Manassis, Tannock, & Monga, 2009). In addition, the measures of response style and belongingness do not have clear face validity, in other words, participants may not have known what the researcher was measuring, which may have buffered against socially desirable responding. As for the measures that had greater face validity, thus being more prone to social desirability bias; the online, anonymous format likely helped to minimize social desirability. Another limitation to consider is the potential for shared method variance among constructs due to the utilization of a single informant. It would be ideal to compile information from multiple

informants; however, the feasibility of that design prohibits its implementation, especially in a college sample and with the variables being examined. Suicide related behaviors are not easily detectible by people other than the individual and there is a great risk of stigmatization in asking others to report on another's experience with suicidality. Sexual harassment is fraught with implications in regards to reporting, which likely would result in even greater underreporting if data depended on reports from others. Third party observers could have fears of retribution for speaking up about perceived sexual harassment of others much like is felt by the victims themselves (Cass, Levett, & Bull Kovora, 2010). Reports on the occurrence of sexual harassment might be an underestimate from other informants also due to victims not disclosing their experiences of sexual harassment with others (they then cannot report second hand information) or informants not witnessing occurrences of sexual harassment. Even if sexual harassment is observed by a third party, by definition, sexual harassment includes "unwanted" sexual advances and personal violations, these are subjective experiences and may not be observable by informants, therefore self-report on the experience of sexual harassment is likely to be the most informative. A further limitation is that sexual harassment and suicide-related behavior measures instructed participants to refer only to their time in college which is rife with potential recollection problems. It is impossible to know if participants in fact only referred to their time in college and not their final years of high school or the summer before starting college. However, on every variable except thwarted belongingness and NSSI, means reported in this study were not significantly different from other studies with similar populations. The sample in this study did report higher rates of thwarted belongingness and NSSI. In regards to thwarted belongingness, the school at which this study's sample came from is considered a commuter school, thereby possibly resulting in an environment where students are more prone to

thwarted feelings of belongingness. In contrast, non-commuter schools tend to be characterized by providing the “dorm experience” and promoting a sense of identity with the school (Forbus, Newbold, & Mehta, 2011). The sample to which this study’s sample was compared was not a commuter school (M. Anestis, personal communication, May 25, 2015). The difference in rates of reported NSSI between the current study and the comparison study could also be attributed to a difference in procedures; in the study that was compared to the current study (Heath et al., 2008), the researchers administered their survey in-person, during class while the current study utilized a more private online survey. It is possible that students in the earlier study were not as forthcoming as they might have been had the study been conducted online (O’Neill, Ferry, Murphy, Corry, Bolton, Devine, Ennis, & Bunting, 2014). While generalizability could potentially be questioned because this sample consisted of female college students enrolled in psychology courses at one university, it is worth pointing out that the purpose of this study was to examine female college student experiences with sexual harassment, so this was more than a convenience sample; it was the population of interest. In addition, students in this sample reported a wide variety of majors; they did not consist of psychology majors only. Nonetheless, the conclusions drawn cannot be generalized to male students, students not enrolled in psychology classes, students who chose not to participate in research for extra credit, or students from other universities. Further, because this was a cross-sectional, correlational design, one cannot assume that incidents of sexual harassment occurred before suicide-related behaviors as is the hypothesized order of events. A longitudinal design would better answer the hypothetical question of which occurred first, sexual harassment or suicide-related behaviors; at this point, with the current study, one could not rule out that suicide-related behaviors might put one at risk for sexual harassment. It is possible that persons who feel like they do not belong could be

easier victims of sexual harassment. Several studies have found a number of individual risk factors for being sexually harassed, including sex-roles, physical attractiveness, and power-differentials (O'Hare & O'Donohue, 1998; Cense & Brackenridge, 2001). In a study on sexual harassment among athletes, individuals who were already isolated from their team members or had fewer friends were more likely to be sexually harassed (Brackenridge, 1997). While there is some evidence that persons who are already isolated may be at greater risk of being sexually harassed, there is no known literature to support that suicide-related behaviors put one at risk for being sexually harassed. However, very little research has been done on the relationship between sexual harassment and suicidality, so the lack of evidence may be due to a lack of research on this potential order of events. Future research involving longitudinal designs could address the likely order of events with the same mediation models, modified by switching the independent, mediating, and dependent variables.

### **Summary and Future Directions**

This study has the potential to contribute to the field uniquely in several ways. While previous studies have conjectured that being sexually harassed is linked to negative outcomes, possibly including suicidality, this is the first study to look at specific suicide-related behaviors. This is the first to study to conceptualize sexual harassment as a traumatic event that should theoretically add to one's acquired capability for suicide; however that specifically was not measured as no data on previous traumatic events were collected from participants in this study. One important finding included that experiencing what is objectively defined as sexual harassment is related to a greater likelihood of engaging in non-suicidal self-injury, suicidal ideation, and suicide attempts. This is initial evidence for the need to incorporate sexual

harassment prevention into the climate of organizations and campuses, not just as a response to an event that could lead to a lawsuit. The relationship between sexual harassment and suicidality also calls for a need to develop interventions that do not blame victims or leave them open to retribution. In addition, not every person who experiences sexual harassment responds the same way. The design of interventions should be flexible enough to account for individual differences in terms of negative effects of the harassment and needs of the victims. Victims will respond differently to sexual harassment. This study looked at response style; but failed to find a relationship that explained why individuals respond differentially to sexual harassment. Further research on this would inform the field on how to design interventions that can help encourage more adaptive responses to sexual harassment.

Research on the relationship between sexual harassment and suicide-related behaviors is far from robust. Future research should look at individual and environmental characteristics that may contribute to sexual harassment and its consequences. Research on sexual harassment is relatively nascent. Individual characteristics of the victim have been discussed in prior literature to a greater extent than individual characteristics of those who sexually harass others (Basile, et al., 2007). A proactive approach would be to study individuals who do not engage in sexual harassing behaviors. To date, this has not been done. Interventions to prevent sexual harassment have focused on what behaviors should be avoided; yet have neglected to provide replacement behaviors. Behavior modification is most successful using positive reinforcement and perhaps sexual harassment prevention interventions have lacked this essential piece to changing behavior. What behaviors do individuals engage in who do not sexually harass their peers? This question has not yet been asked or answered in the literature; but could prove to be a positive addition to sexual harassment trainings. Additionally, what aspects about an environment, whether it be a

college campus or a company, permits sexual harassment to occur? According to behavior modification principles, there must be something in the environment to reinforce such behavior as it continues to occur despite laws and administrative policies that proscribe such behaviors. Again some research suggests organizations that are male-dominated, secretive, and place value on extreme loyalty are primed for sexual harassment (Bergman & Henning, 2008), yet no research exists on what makes an environment not susceptible to sexual harassment. Are there organizational climate variables that actually prevent sexual harassment and provide an environment that is egalitarian and respectful?

This study also attempted to disentangle the complex relationships between sexual harassment and suicide-related behaviors by examining several hypothesized mechanisms that further explain a well-supported theory (Joiner's Theory of Interpersonal Suicide). This was the first study to measure sexual harassment and thwarted belongingness concurrently, or in other words to look at sexual harassment in the context of Joiner's Theory of Interpersonal Suicide. While not a construct in Joiner's theory, isolation was also focused on in this study because of its complex role (antecedent or consequence) with victims of sexual harassment. The Asset Building Framework (Austrian & Muthengi, 2014) has been applied in research on the vulnerability of young girls to sexual harassment, sexual assault, and overall health outcomes. According to this framework, lack of a support system or isolation puts one at risk for sexual harassment. Other research on the consequences of sexual harassment has found that isolation is used as a coping strategy (Wasti et al., 2002), as one may isolate themselves from the person sexually harassing them or the environment in which the sexual harassment is permitted. Still other research has contextualized isolation as a negative consequence of being sexually harassed because of its risk for depression (Teo, Choi, & Valenstein, 2013). Thwarted belongingness was

heavily focused on as a mediator between sexual harassment and isolation. Thwarted belongingness was found to partially mediate the relationship between isolation and suicidal ideation and to fully mediate (indirect only mediation) the relationship between isolation and suicide attempts. Isolation could be acting as a risk factor or a consequence suggesting that prevention programming for sexual harassment should address the potential for isolating behavior among victims. From a public health standpoint, isolation may be an important warning sign for a host of problems that can arise which may precipitate interpersonal issues within an organization. This process was not found for isolation and NSSI, necessitating the need to further examine other mechanisms that explain the relationship between sexual harassment and NSSI such as functions that NSSI may serve and the potential role of perceived belongingness.

Future studies on the relationship between sexual harassment and suicide-related behaviors could be greatly improved by changes in design. It would be ideal to follow students through college, tracking their experiences with sexual harassment and suicide-related behaviors in order to establish temporal precedence. In addition, to understand if experiencing sexual harassment adds to one's acquired capability, an assumption made in the current study, previous traumatic events would need to be asked of participants. This study needs to be replicated in other universities and departments to see if other samples made up of different characteristics, such as students at small, liberal arts colleges reported similar levels of thwarted belongingness and experiences of sexual harassment. As research on how sexual harassment might increase the risk for engaging in suicide-related behaviors is built upon, our understanding about antecedents and consequences will grow. This growing area of research could lead to better prevention programming and interventions for victims of sexual harassment.

### Tables and Figures

Table 1: *Sample Demographics: Age, Race/Ethnicity, Sexual Orientation, and Living Arrangements*

<u>Variable</u>		<u>N (%)</u>	<u>Mean</u>	<u>SD</u>	<u>Skewness</u>	<u>Kurtosis</u>
<u>Age</u>		270 (96%)	21	3.22	3.20	13.20
<u>Year</u>	Freshman	70 (26%)				
	Sophomore	46 (17%)				
	Junior	57 (21%)				
	Senior	94 (36%)				
<u>Race/Ethnicity*</u>	Asian	25 (9%)				
	Black/ African-American	36 (13%)				
	Caucasian	168 (62%)				
	Hispanic/Latina	64 (24%)				
	More than 1 race	19 (7%)				
	Other	18 (7%)				
<u>Sexual Orientation</u>	Bi-sexual	14 (5%)				
	Heterosexual	246 (91%)				
	Homosexual	5 (2%)				
<u>Living Arrangement</u>	With Roommates off-campus	96 (36%)				
	With Roommates on-campus	71 (26%)				
	Alone off-campus	7 (3%)				
	Alone on-campus	14 (5%)				
	With parents/family	65 (24%)				
	Other	14 (5%)				

\*This variable does not add up to 100% due to multiple responses

Table 2: Descriptive Statistics on Independent and Dependent Variables

<u>Variable</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>Min</u>	<u>Max</u>	<u>Skewness</u>	<u>Kurtosis</u>	<u>Cronbach's Alpha</u>
<u>Sexual Experiences Questionnaire</u>	253	.79 (81%) <sup>a</sup>	.78	0	3.74	.98	.36	.95
Gender Harassment Subscale	259	1.10	1.05	0	4	.82	-.16	.88
Unwanted Sexual Attention Subscale	256	1.07	1.06	0	4	.77	-.43	.93
Sexual Coercion Subscale	258	.30	.60	0	3.60	2.74	8.32	.87
<u>Cognitive-Behavioral Avoidance Scale</u>	244	1.86	.78	1	4.71	1.10	.77	.97
Behavioral Social Subscale	252	1.86	.80	1	4.75	1.12	1.03	.88
Behavioral Nonsocial Subscale	253	1.98	.89	1	5	.93	.26	.86
Cognitive Social Subscale	253	1.71	.76	1	4.43	1.15	.63	.88
Cognitive Nonsocial Subscale	253	1.83	.83	1	4.7	1.05	.53	.93
<u>Thwarted Belongingness Scale</u>	252	2.87	1.10	1	5.33	.13	-1.03	.78
<u>Ostracism Experiences Scale</u>	241	2.46	.74	1	6	.84	1.73	.93
<u>Deliberate Self-Harm Inventory</u>	238	.77 (34%) <sup>b</sup>	1.44	0	8	2.40	6.45	.70

Note: The total number of persons who engaged in self-harm during college = 80.

a-Frequency of objective sexual harassment

b-Frequency of deliberate self-harm

Table 3: Percentages of suicide-related behaviors on The Self-Harm Behavior Questionnaire (SHBQ)

<u>Suicide-Related Behaviors</u>	<u>Frequency</u>	<u>% of Sample</u>	<u>% of Self-Harm Group</u>
Suicidal Ideation	61	22.9	77.2
Suicide Attempts	12	4.5	15.1
Overdose	7	2.8	8.8
Hanging or asphyxiation	2	.8	2.5
Multiple methods	1	.4	1.2

Table 4: *Intercorrelations of Variables of Interest*

	1	2	3	4	5	6	7
1. Avoidant Response Style	1						
2. Thwarted Belongingness	.236**	1					
3. Sexual Harassment	.080	.170*	1				
4. Isolation	.515**	.311**	.181**	1			
5. Suicide Attempts	.120	.163*	.120	.030	1		
6. NSSI	.246**	.068	.258**	.184**	.188*	1	
7. Suicidal Ideation	.190*** <sup>a</sup>	.192** <sup>a</sup>	.238** <sup>a</sup>	.149* <sup>a</sup>	.259** <sup>a</sup>	.198** <sup>a</sup>	1

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ , All correlations are Pearson's  $r$  unless otherwise noted.

<sup>a</sup>-point-biserial correlation

Participants were instructed to refer to time in college for the following variables: sexual harassment, suicide attempts, non-suicidal self-injury, and suicidal ideation.

Note the sample for this correlation table is  $N=261$ .

Table 5: *Hierarchical Regression Analysis predicting Isolation with Avoidant Response Style and Objective Sexual Harassment and their interaction.*

Variables	Unstandardized		Standardized		R <sup>2</sup>	t	Correlations		
	B	SE β	β				Zero - order	Partial	Part
Step 1					.2867	13.09***			
Constant	1.55	.072				10.18**			
Avoidant	.436	.056	.491***			8.77***	.517	.348	.314
Response Style									
Objective	.039	.057	.140*			2.42*	.181	.019	.016
Sexual Harassment									
Step 2					.2884				
Constant	1.55	.152				10.18***			
Avoidant	.436	.080	.462			5.45***	.517	.348	.314
Response Style									
Objective	.039	.144	.041			.274	.181	.019	.016
Sexual Harassment									
Interaction	.052	.0589	.0417			.71	.357	.048	.041
(ARS x OSH)									

Note:  $\Delta R^2 = .0017, p = .52$ ; <sup>a</sup> $df = 1, 215, *p < .05, **p < .01, ***p < .001$ ;  
 ARS: Avoidant Response Style, OSH: Objective Sexual Harassment

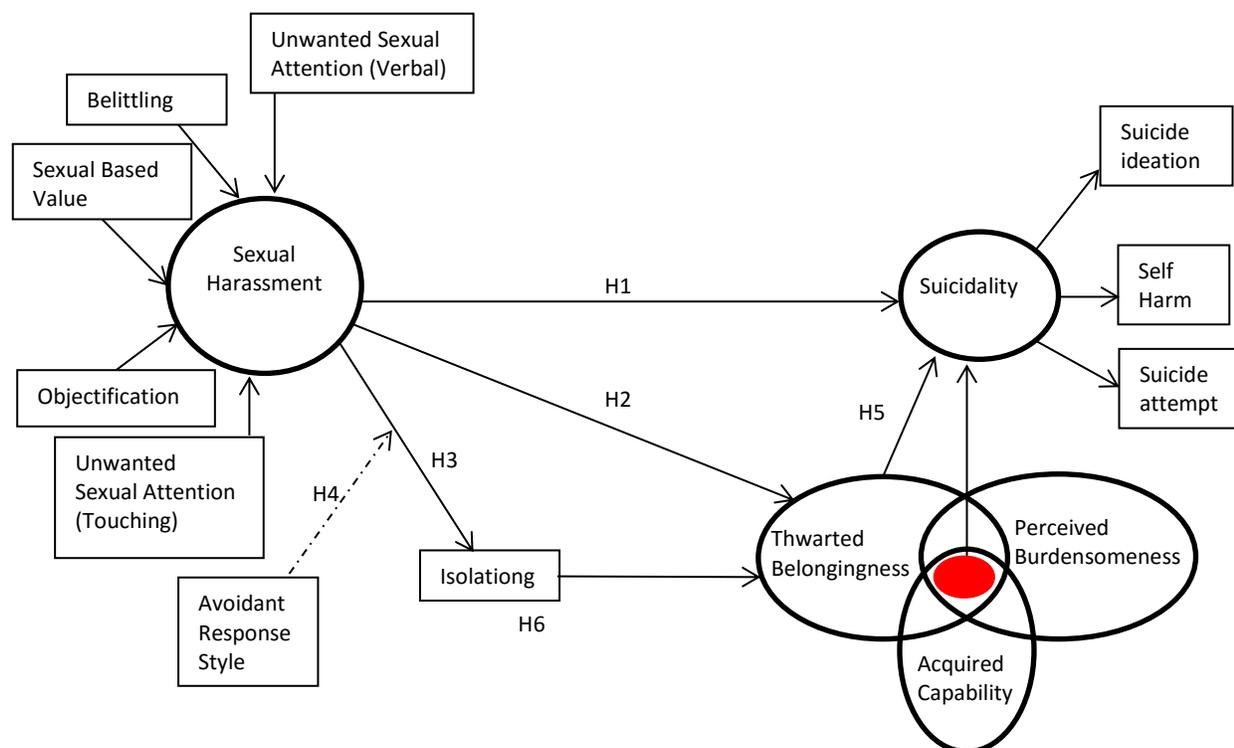


Figure 1: *Theoretical Model*

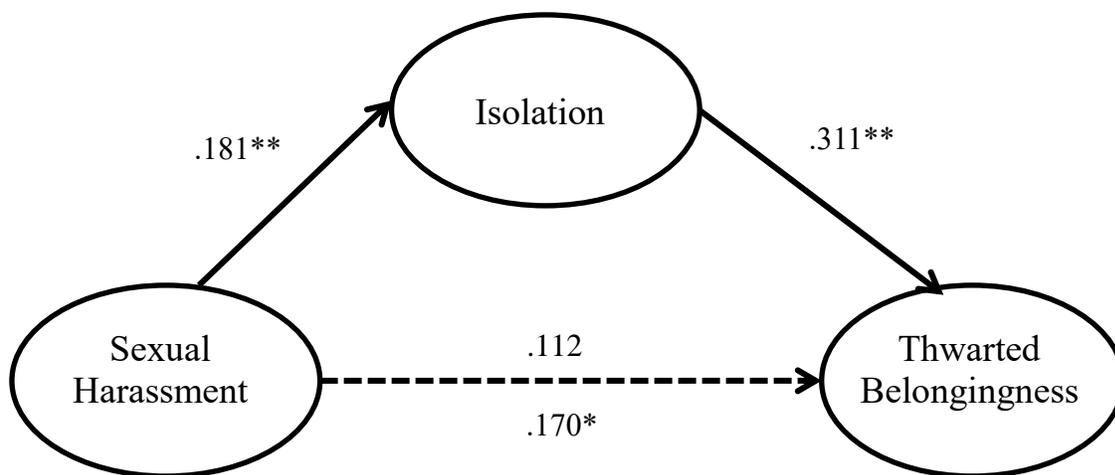


Figure 2: *Isolation Mediation Model*. This figure illustrates significance levels and beta coefficients for the A, B, C, and C' paths of this model. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

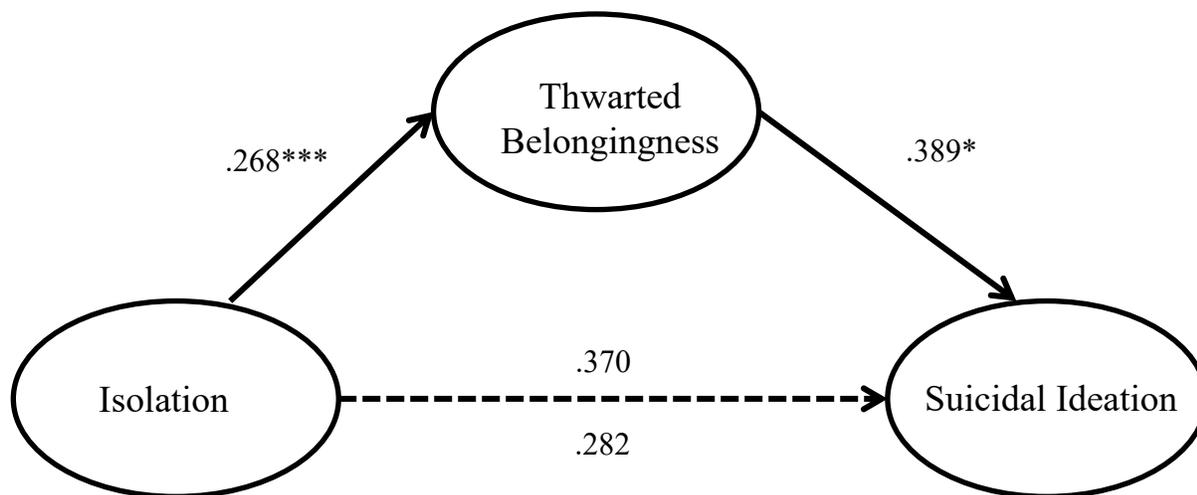


Figure 3: *Thwarted Belongingness Mediation Model with Suicidal Ideation.* This figure illustrates significance levels and beta coefficients for the A, B, C, and C' paths of this model. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ , Note the sample for this mediation is  $N=226$

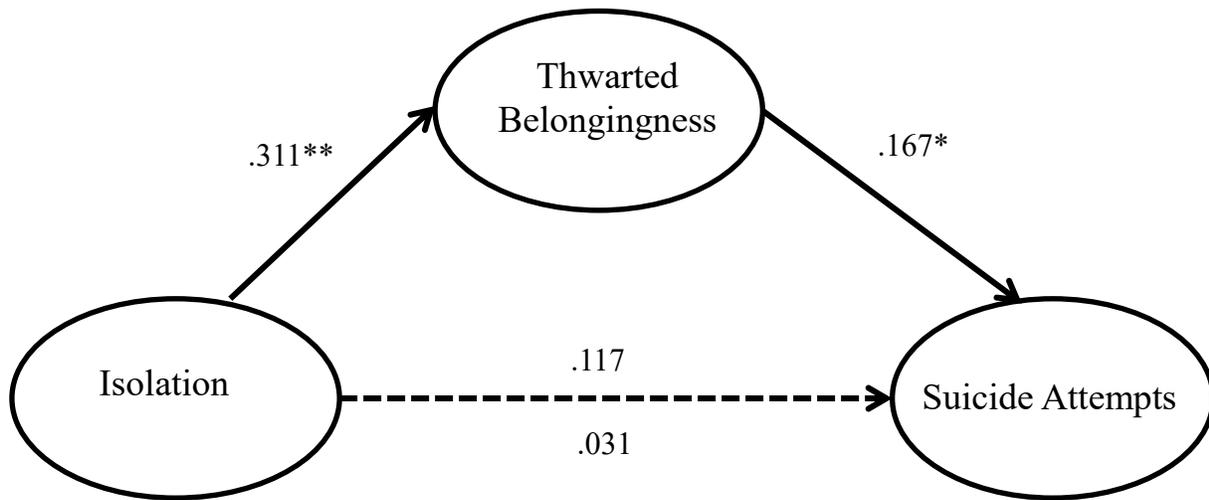


Figure 4: *Thwarted Belongingness Mediation Model with Suicide Attempts.* This figure illustrates significance levels and beta coefficients for the A, B, C, and C' paths of this model. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

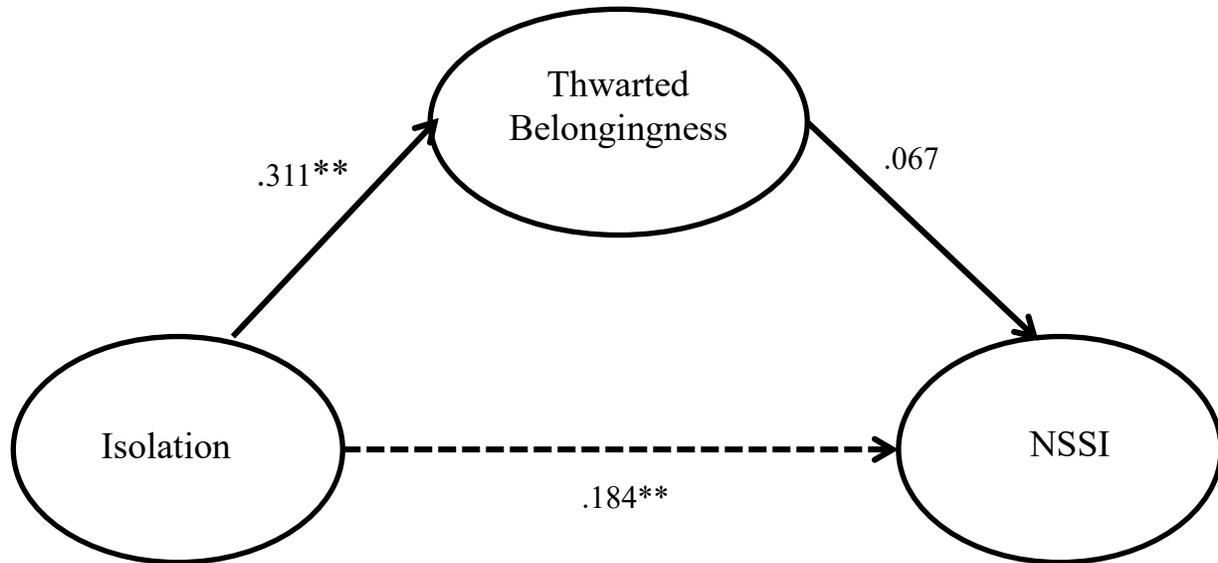


Figure 5: *Thwarted Belongingness Mediation Model with NSSI*. This figure illustrates significance levels and beta coefficients for the A, B, and C paths of this model. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$  Note: There is no C Prime path listed because there is no significant indirect effect

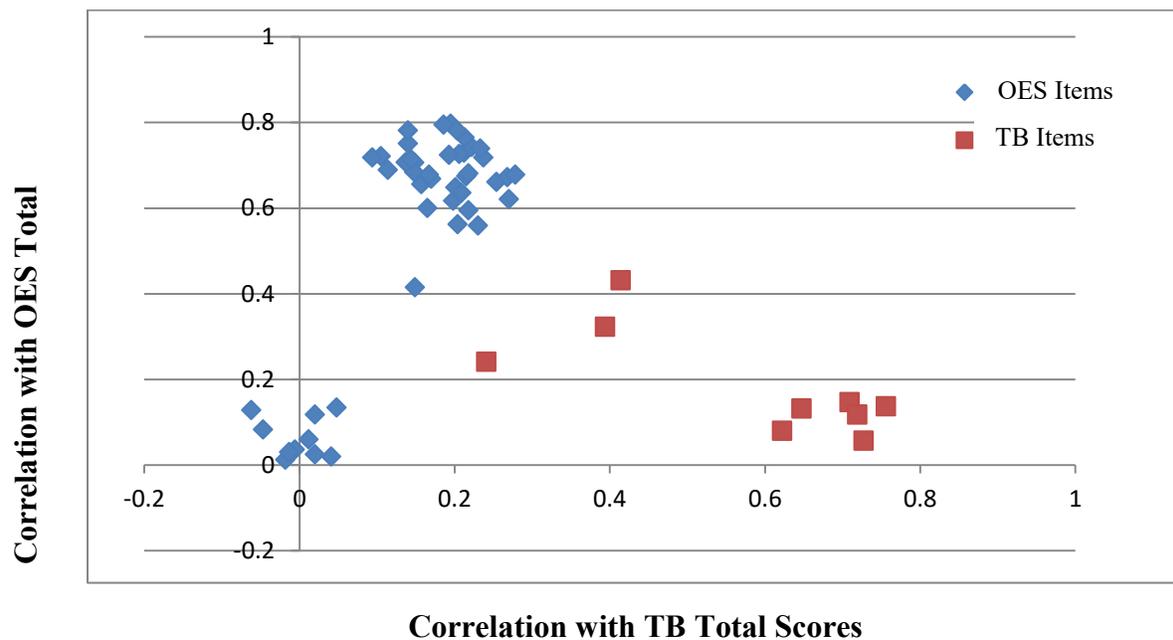


Figure 6: *Pearson's r Correlations of individual items from both the Thwarted Belongingness (TB) and Ostracism Experience Scales (OES) with the total scores for the TB and OES Scales.*

## References

- Anestis, M. D. & Joiner, T. E. (2012). Behaviorally-indexed distress tolerance and suicidality. *Journal of Psychiatric Research, 46*, 703-707.
- Australian Human Rights Commission (2009). *Annual Report 2008-2009: Australian Human Rights Commission*. Retrieved from [www.humanrights.gov/au](http://www.humanrights.gov.au)
- Austrian K. & Muthengi, E. (2014). Can economic assets increase girls' risk of sexual harassment? Evaluation results from a social, health, and economic asset-building intervention for vulnerable girls in Uganda. *Children and Youth Services Review, 47*, 168-175.
- Bagley, C., Bolitho, F., & Bertrand, L. (1997). Sexual assault in school, mental health and suicidal behaviors in adolescent women in Canada. *Adolescence Sum, 32*(126), 361-366.
- Bal, S., Crombez, G., Oost, P.V., Debourdeaudhuji, I. (2003). The role of social support in well-being and coping with self-reported stressful events in adolescents. *Child Abuse and Neglect, 27*(1), 1377-1395. DOI: 10.1016/j.chiabu.2003.06.002
- Barak, A., Fisher, W. A., & Houston, S. (1992). Individual difference correlates of the experience of sexual harassment among female university students. *Journal of Applied Social Psychology, 22*(1), 17-37. DOI:10.1111/j.1559-1816.1992.tb01519.x
- Basile, K. C., Chen, J., Black, M. C., & Saltzman, L. E. (2007). Prevalence and characteristics of sexual violence victimization among U.S. adults, 2001–2003. *Violence and Victims, 22*(4), 437-448. DOI:10.1891/088667007781553955

- Basile, K. C., Espelage, D. L., Rivers, I., McMahon, P. M., & Simon, T. R. (2009). The theoretical and empirical links between bullying behavior and male sexual violence perpetration. *Aggression and Violent Behavior, 14*(5), 336-347.  
DOI:10.1016/j.avb.2009.06.001
- Basson, R. A. (2008). Women's sexual function and dysfunction: Current uncertainties, future directions. *International Journal of Impotence Research, 20*, 466-478.
- Bearman, P. S. & Moody, J. (2004). Suicide and friendships among American adolescents. *American Journal of Public Health, 94*, 89-95.
- Bergman, M. E., Henning, J. B. (2008). Sex and ethnicity as moderators in the relationship between sexual harassment climate and sexual harassment. *Journal of Occupational Health Psychology, 13*(1), 152-167.
- Birnbaum, H. G., Leong, S. A., & Greenberg, P. E. (2003). The economics of women and depression: an employer's perspective. *Journal of affective disorders, 74*(1), 15-22.
- Blazer II, D. G., Hybels, C.F. (2005). Origins of depression in later life. *Psychological Medicine, 35*(1), 1-12. DOI: 10.1017/S0033291705004411
- Blosnich, J. R., Bossarte, R. M., & Silenzio, V. M. B. (2012). Suicidal ideation among sexual minority veterans: Results from the 2005-2010 Massachusetts Behavioral Risk Factor Surveillance Survey. *American Journal of Public Health, 102*(S1), S44-S47.  
DOI:10.2105/AJPH.2011.300565
- Boardman, A. P., Grimbaldeston, A. H., Handley, C., Jones, P. W., & Willmott, S. (1999). The North Staffordshire Suicide Study: a case-control study of suicide in one health district. *Psychological Medicine, 29*, 27-33.

- Bonner, R. L. & Rich, A. R. (1987). A prospective investigation of suicidal ideation in college students: a test of a model. *Suicide and Life Threatening Behavior*, 18, 245-258.
- Bowker, J. C., & Raja, R. (2011). Social withdrawal subtypes during early adolescence in India. *Journal of Abnormal Child Psychology*, 39(2), 201-212. DOI:10.1007/s10802-010-9461-7.
- Brackenridge, C. (1997). Playing safe: assessing the risk of sexual abuse to elite child athletes. *International Review for the Sociology of Sport* December 1997, 32: 407-418.
- Brase, G. L., & Miller, R. L. (2001). Differences in the perception of and reasoning about quid pro quo sexual harassment. *Psychology, Evolution & Gender*, 3(3), 241-264.  
DOI:10.1080/14616660110104814
- Brubaker, S. J. (2009). Sexual assault prevalence, reporting and policies: Comparing college and university campuses and military service academies. *Security Journal*, 22(1), 56-72.  
DOI:10.1057/sj.2008.10
- Cacioppo, J.T., Hawkey, L.C. (2009). Perceived social isolation and cognition. *Trends in Cognitive Science*, 13(10), 447-454. DOI: 10.1016/j.tics.2009.06.005
- Cameron, A. C. (2004). Kurtosis. In M. S. Lewis-Beck, A. Bryman & T. F. Liao (Eds.), *The Sage Encyclopedia of Social Science Research Methods* (Vol. 2, pp. 543-544). Thousand Oaks, CA: Sage Publications.
- Carter-Sowell, A. R., Wesselmann, E. D., Wirth, J. H., Law, A. T., Chen, Z., Kosasih, M., van der Lee, R., & Williams, K. D. (2010). Belonging trumps justice: Effects of being ostracized for being better or worse than the others. *Journal of Individual Psychology*, 66, 68-92

- Cass, S. A., Levett, L.M., Kovera, M. B. (2010). The effects of harassment severity and organizational behavior on damage awards in a hostile work environment sexual harassment case. *Behavioral Science & the Law*, 28, 303-321.
- Cense, M. & Brackenridge, C. (2001). Temporal and developmental risk factors for sexual harassment and abuse in sport. *European Physical Education Review*, 7, 61-79.
- Chiodo, D., Wolfe, D.A., Crooks, C., Hughes, R., & Jaffe, P. (2009). Impact of sexual harassment victimization by peers on subsequent adolescent victimization and adjustment: a longitudinal study. *Journal of Adolescent Health*, 45, 24-252. DOI: 10.1016/j.jadohealth.2009.01.006
- Christensen, H., Batterham, P. J., Soubelet, A., & Mackinnon, A. J. (2013). A test of the Interpersonal Theory of Suicide in a large community-based cohort. *Journal of Affective Disorders*, 144(3), 225-234. DOI:10.1016/j.jad.2012.07.002
- Cochran, C. C., Frazier, P. A., & Olson, A. M. (1997). Predictors of responses to unwanted sexual attention. *Psychology of Women Quarterly*, 21(2), 207-226. DOI:10.1111/j.1471-6402.1997.tb00109.x
- Collinson, D., & Collinson, M. (1996). Barriers to employee rights: Gender, selection and the labor process. *Employee Responsibilities And Rights Journal*, 9(3), 229-249. doi:10.1007/BF02629071
- Collinsworth, L. L., Fitzgerald, L. F., & Drasgow, F. (2009). In harm's way: Factors related to psychological distress following sexual harassment. *Psychology of Women Quarterly*, 33(4), 475-490. DOI:10.1111/j.1471-6402.2009.01525.x

- Conner, K., Britton, P., Sworts, L., & Joiner, T. (2007). Suicide attempts among individuals with opiate dependence: The critical role of felt belonging. *Addictive Behaviors, 32*, 1395-1404.
- Corrigan, P. W. & Watson, A. C. (2002). The paradox of self-stigma and mental illness. *Clinical Psychology: Science and Practice, 9*, 35-53.
- Cortina, L. M., Swan, S., Fitzgerald, L. F., & Waldo, C. (1998). Sexual harassment and assault: Chilling the climate for women in academia. *Psychology of Women Quarterly, 22*(3), 419-441. DOI:10.1111/j.1471-6402.1998.tb00166.x
- Crown, L., & Roberts, L. J. (2007). Against their will: Young women's nonagentic sexual experiences. *Journal of Social and Personal Relationships, 24*(3), 385-405.  
DOI:10.1177/0265407507077228
- Dardenne, B., Dumont, M., & Bollier, T. (2007). Insidious dangers of benevolent sexism: consequences for women's performance. *Journal of personality and social psychology, 93*(5), 764.
- Delara, E. W. (2012). Why adolescents don't disclose incidents of bullying and harassment. *Journal of School Violence, 11*, 288-305. DOI:10.1080/15388220.2012.705931
- DeLorenzo, L. (1998). *Developing a sexual harassment hostile work environment policy*. (Applied research project, National Fire Academy).
- DeSouza, E. R. (2010). Frequency rates and correlates of contrapower harassment in higher education. *Journal of Interpersonal Violence, 26*, 158-188.

- Drum DJ, Brownson C, Denmark AB, Smith SE. (2009). New data on the nature of suicidal crises in college students: Shifting the paradigm. *Professional Psychology, 40*(3): 213-222.
- Durkheim, E. (1997). *Suicide: A study in sociology. Translated by JA Spaulding and G. Simpson.* Glencoe, Illinois: The Free Press, 1951.
- Ekore, J. O. (2012). Gender differences in perception of sexual harassment among university students. *Gender & Behaviour, 10*(1), 4358-4369.
- Ekore, H., Uggen, C., & Blackstone, A. (2012). Sexual harassment, workplace authority, and the paradox of power. *American Sociological Review, 77*(4), 625-647.  
DOI:10.1177/0003122412451728
- Elkins, T. J., Phillips, J. S., & Ward, S. G. (2008). Organizational sexual harassment investigations: Observers' perceptions of fairness. *Journal of Managerial Issues, 20*(1), 88-108.
- Ellis, S., Barak, A., & Pinto, A. (1991). Moderating effects of personal cognitions on experienced and perceived sexual harassment of women at the workplace. *Journal of Applied Social Psychology, 21*(16), 1320-1337.
- EEOC. Civil Rights Act of 1964 – CRA – Title VII – Equal Employment Opportunities – 42 US Code Chapter 21". 2009.
- Evans, E., Hawton, K., & Rodham K. (2005). In what ways are adolescents who engage in self-harm or experience thoughts of self-harm different in terms of help-seeking, communication and coping strategies? *Journal of Adolescence, 28*(4), 573-587.  
DOI:10.1016/j.adolescence.2004.11.001
- Fisher, B. S., Cullen, F. T., & Turner, M. G. (2000). The sexual victimization of college women. *U.S. National Institute of Justice, 1-39.*

- Fitzgerald, L. F., Gelfand, M. J., & Drasgow, F. (1995). Measuring sexual harassment: Theoretical and psychometric advances. *Basic and Applied Social Psychology, 17*(4), 425-445. DOI:10.1207/s15324834basp1704\_2
- Fitzgerald, L. F., Magley, V. J., Drasgow, F., & Waldo, C. R. (1999). Measuring sexual harassment in the military: The Sexual Experiences Questionnaire (SEQ-DoD). *Military Psychology, 11*(3), 243-263.
- Fitzgerald, L. F., Shullman, S. L., Bailey, N., Richards, M., Swecker, J., Gold, Y., Ormerod, M., Weitzman, L. (1988). The incidence and dimensions of sexual harassment in academia and the workplace. *Journal of Vocational Behavior, 32*(1), 152-175.
- Fitzgerald, L. F., Swan, S., & Magley, V. J. (1997). But was it really sexual harassment? Legal, behavioral, and psychological definitions of the workplace victimization of women. In W. O'Donahue (Ed.), *Sexual harassment: Theory, research, and treatment* (pp. 5–28). Boston: Allyn & Bacon.
- Forbus, P., Newbold, J. J., Mehta, S. S. (2011). A study of non-traditional and traditional students in terms of their time management behaviors, stress factors, and coping strategies. *Academy of Educational Leadership, 15*.
- Foshee, V. A. (1996). Gender differences in adolescent dating abuse prevalence, types and injuries. *Health Education Research, 11*(3), 275-286. doi:10.1093/her/11.3.275-a
- Frank, E., Carrera, J. S., Stratton, T., Bickel, J., & Nora, L. M. (2006). Experiences of belittlement and harassment and their correlates among medical students in the United States: Longitudinal survey. *British Medical Journal, 333*(7570), 1-6.  
DOI:10.1136/bmj.38924.722037.7C

- Gådin, K. (2012). Sexual harassment of girls in elementary school: A concealed phenomenon within a heterosexual romantic discourse. *Journal Of Interpersonal Violence*, 27(9), 1762-1779. doi:10.1177/0886260511430387
- Galatzer-Levy, I. R., Ankri, Y., Freedman, S., Israeli-Shalev, Y., Roitman, P., Gilad, M., & Shalev, A. Y. (2010). Early PTSD Symptom Trajectories: Persistence, Recovery, and Response to Treatment: Results from the Jerusalem Trauma Outreach and Prevention Study (J-TOPS). *PLoS ONE* 8(8): e70084. doi:10.1371/journal.pone.0070084
- Garcia, J., Adams, J., Friedman, L., & East, P. (2002). Links between past abuse, suicide ideation, and sexual orientation among San Diego college students. *Journal of American College Health*, 51(1), 9-14. DOI:10.1080/07448480209596322
- Garson, G. D. (2007). *Structural equation modeling*. Online resource. Retrieved from [www.chass.ncsu.edu/garson](http://www.chass.ncsu.edu/garson)
- Gilman, R., Carter-Sowell, A., DeWall, C. N., Adams, R. E., Carboni, I. (2013). Validation of the ostracism experience scale for adolescents. *American Psychological Association*, 25(2), 319-330. DOI: 10.1037/a0030913
- Glomb, T. M., Richman, W. L., Hulin, C. L., Drasgow, F., Schneider, K. T., & Fitzgerald, L. F. (1997). Ambient sexual harassment: An integrated model of antecedents and consequences. *Organizational Behavior and Human Decision Processes*, 71(3), 309-328.
- Goodemann, C., Zammitt, K. A., & Hagedorn, M. (2012). The wolf in sheep's clothing: Student harassment veiled as bullying. *Children & Schools*, 34(2), 124-127. DOI:10.1093/cs/cds022

- Gradus, J. L., Shepherd, J. C., Suvak, M. K., Giasson, H. L., & Miller, M. (2012). Suicide attempts and suicide among marines: A decade of follow-up. *Suicide and Life-Threatening Behavior*, 43(1), 39-49. DOI:10.1111/j.1943-278X.2012.00126.x
- Gratz, K. L. (2001). Measurement of deliberate self-harm: Preliminary data on the Deliberate Self-Harm Inventory. *Journal of Psychopathology and Behavioral Assessment*, 23(1), 253-263.
- Gross, J. J., & Levenson, R. W. (1997). Hiding feelings: the acute effects of inhibiting negative and positive emotion. *Journal of Abnormal Psychology*, 106(1), 95.
- Grover, K. E., Green, K. L., Pettit, J. W., Monteith, L. L., Garza, M. J., & Venta, A. (2009). Problem solving moderates the effects of life event stress and chronic stress on suicidal behaviors in adolescence. *Journal of Clinical Psychology*, 65(12), 1281-1290. DOI:10.1002/jclp.20632
- Gruber, J. E., & Fineran, S. (2008). Comparing the impact of bullying and sexual harassment victimization on the mental and physical health of adolescents. *Sex Roles*, 59(1-2), 1-13. DOI:10.1007/s11199-008-9431-5
- Gunn, J. F., Lester, D., Haines, J., & Williams, C. L. (2012). Thwarted belongingness and perceived burdensomeness in suicide notes. *Crisis: The Journal of Crisis Intervention and Suicide Prevention*, 33(3), 178-181. DOI:10.1027/0227-5910/a000123
- Gutek, B.A. (1995). *The dynamics of service: Reflections on the changing nature of customer/provider interactions*. San Francisco, CA: Jossey-Bass.
- Guitierrez, P. M., Osman, A., Barrios, F. X., & Kopper, B. A. (2001). Development and initial validation of the self-harm behavior questionnaire. *Journal of Personality Assessment*, 77(3), 475-490.

- Hawton, K., Clements, A., Sakarovitch, C., Simkin, S., Deeks, J. J. (2001). Suicide in doctors: a study of risk according to gender, seniority and specialty in medical practitioners in England and Wales, 1979- 1995. *J Epidemiol Community Health*, 55, 296-300. DOI: 10.1136/jech.55.5.296
- Hayes, S. C., Wilson, K.G., Gifford, E. V., Follette, V. M., Strosahl, K. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Counseling and Clinical Psychology*, 64(64), 1152-1168.
- Heath, N. L., Toste, J. R., Nedecheva, T., & Charlebois, A. (2008). An examination of nonsuicidal self-injury among college students. *Journal of Mental Health Counseling*, 30, 137-156.
- Hershcovis, M. S., & Barling, J. (2010). Comparing victim attributions and outcomes for workplace aggression and sexual harassment. *Journal of Applied Psychology*, 95(5), 874-888. DOI:10.1037/a0020070
- Hidaka, Y., & Operario, D. (2006). Attempted suicide, psychological health and exposure to harassment among Japanese homosexual, bisexual or other men questioning their sexual orientation recruited via the Internet. *Journal of Epidemiology and Community Health*, 60(11), 962–967. DOI:10.1136/jech.2005.045336
- Howard, D.E., Griffin, M.A., Boekeloo, B.O. (2008). Prevalence and psychosocial correlates of alcohol-related sexual assault among university students. *Adolescence*, 43, 733-750.
- Huerta, M., Cortina, L. M., Pang, J. S., Torges, C. M., & Magley, V. J. (2006). Sex and power in the academy: Modeling sexual harassment in the lives of college women. *Personality and Social Psychology Bulletin*, 32(5), 616-628. DOI:10.1177/0146167205284281

- Ilies, R., Hauserman, N., Schwochau, S., & Stibal, J. (2003). Reported incidence rates of work-related sexual harassment in the United States: Using meta-analysis to explain reported rate disparities. *Personnel Psychology, 56*(3), 607-631. doi:10.1111/j.1744-6570.2003.tb00752.x
- Jiang, Y. & Jianing, Y. (2014). Pain regulation in nonsuicidal self-injury. *Journal of Psychological Abnormalities in Children, 4*, 1-2.
- Joiner, T. E. (2007). *Why People Die by Suicide*. United States of America: Library of Congress Cataloging-in-Publication Data.
- Joiner, T. E., Van Orden, K. A., Witte, T. K., Selby, E. A., Ribeiro, J. D., Lewis, R., & Rudd, M. D. (2009). Main predictions of the interpersonal–psychological theory of suicidal behavior: Empirical tests in two samples of young adults. *Journal of Abnormal Psychology, 118*(3), 634-646. DOI:10.1037/a0016500
- Joslin, C. G. (1999). Recognizing a cause of action under Title IX for student-student sexual harassment. *Harvard Civil Rights-Civil Liberties Law Review, 34*(1), 201-244.
- Katz, J., & Arias, I. (1999). Psychological abuse and depressive symptoms in dating women: Do different types of abuse have differential effects? *Journal of Family Violence, 14*(3), 281-295.
- Kaplan, M. L., Asnis, G. M., Sanderson, W. C., Keswani, L., de Lecouna, J. M., & Joseph, S. (1994). Suicide assessment: Clinical interview vs. self-report. *Journal of Clinical Psychology, 2*, 294-298.
- Kearney, L. K., & Rochlen, A. B. (2012). Mexican-American and Caucasian university men's experience of sexual harassment: A preliminary report. *Psychology of Men & Masculinity, 13*(3), 264–269. DOI:10.1037/a0025031

- King, K., Stohr, M. K., Kelley, L., Vazquez, S., Smith-Daniels, S., & Uhlenkott, R. (2009). They said: An analysis of state level sexual and gender harassment data. *Criminal Justice Studies*, 22(3), 281–297. DOI:10.1080/14786010903167021
- Klein, K. M., Apple, K. J., & Kahn, A. S. (2011). Attributions of blame and responsibility in sexual harassment: Reexamining a psychological model. *Law and Human Behavior*, 35(2), 92–103. DOI:10.1007/s10979-009-9216-6
- Koss, M. P., Gidycz, C. A., & Wisniewski, N. (1987). The scope of rape: incidence and prevalence of sexual aggression and victimization in a national sample of higher education students. *Journal of consulting and clinical psychology*, 55(2), 162.
- Landstedt, E. & Gadin, K. G. (2011). Deliberate self-harm and associated factors in 17-year-old Swedish students. *Scandinavian Journal of Public Health*, 39, 17-25.
- Lapierre, L. M., Spector, P. E., & Leck, J. D. (2005). Sexual versus nonsexual workplace aggression and victims' overall job satisfaction: a meta-analysis. *Journal of Occupational Health Psychology*, 10(2), 155.
- Lafontaine, E., & Tredeau, L. (1986). The frequency, sources, and correlates of sexual harassment among women in traditional male occupations. *Sex Roles*, 15(7-8), 433-442. DOI: 10.1007/BF00287982
- Lim, S. & Cortina, L. M. (2005). Interpersonal mistreatment in the workplace: the interface and impact of general incivility and sexual harassment. *Journal of Applied Psychology* 90(3), 483-496. DOI: 10.1037/0021-9010.90.3.483
- Linda, W. P., Marroquin, B., Miranda, R. (2012). Active and passive problem solving as moderators of the relation between negative life event stress and suicidal ideation among suicide attempters and non-attempters. *Archives of Suicide Research*, 16, 183-197.

- Linn, S. G. (1999). An investigation of sexual harassment and acquaintance rape experiences: Cognitive appraisals, internalization of gender-role ideologies, and negative psychological impact. *Dissertation Abstracts International*, 60(8-B), 1-191.
- Long, C. R. & Averill, J. R. (2003). Solitude: An Exploration of the Benefits of Being Alone. *Journal for the Theory of Social Behaviour* 33, 21-44.
- MacKusick, C. I., & Minick, P. (2010). Why are nurses leaving? Findings from an initial qualitative study on nursing attrition. *Nursing*, 19(6), 335-340.
- Magley, V. J., Hulin, C. L., Fitzgerald, L. Fl., & DeNardo, M. (1999). Outcomes of self-labeling sexual harassment. *Journal of Applied Psychology*, 84(3), 390-402.
- Mannassis, K., Tannock, R., & Monga, S. (2009). Anxious by maternal- versus self-report: Are they the same children? *Journal of the Canadian Academy of Child & Adolescent Psychiatry*, 18, 103-109.
- Manos, R. C., Rusch, L. C., Kanter, J. W., & Clifford, L. M. (2009). Depression self-stigma as a mediator of the relationship between depression severity and avoidance. *Journal of Social and Clinical Psychology*, 28(9), 1128-1143.
- Marty, M. A., Segal, D. L., Coolidge, F. L., Klebe, K. J. (2012). Analysis of the psychometric properties of the interpersonal needs questionnaire (INQ) among community-dwelling older adults. *Journal of Clinical Psychology*, 98(9), 1008-1018. DOI: 10.1002/jclp.21877
- McLaughlin, H., Uggan, C., & Blackstone, A. (2012). "Sexual Harassment, Workplace Authority, and the Paradox of Power" *American Sociological Review*, 77, 625-647.
- McMullin, D., Wirth, R. J., & White, J. W. (2007). The impact of sexual victimization on personality: A longitudinal study of gendered attributes. *Sex Roles*, 56(7-8), 403-414. DOI:10.1007/s11199-006-9179-8

- Moos, R. H. (1988). Coping Response Inventory (CPI). Available at PAR.
- Moulds, M. L., Kandris, E., Starr, S., & Wong, A. C. M. (2007). The relationship between rumination, avoidance, and depression in a non-clinical sample. *Behaviour, Research, and Therapy, 45*, 251-261.
- Muehlenkamp, J. J., Cowles, M. L., Gutierrez, P.M. (2009). Validity of the Self-Harm Behavior Questionnaire with diverse adolescents. *Journal Psychopathology Behavior Assessment, 32*, 236-245.
- Muehlenkamp, J. J., Swanson, J. D., & Brausch, A. M. (2005). Self-objectification, risk taking, and self-harm in college women. *Psychology of Women Quarterly, 29*(1), 24-32.  
DOI:10.1111/j.1471-6402.2005.00164.x
- Munson, L. J., Miner, A. G., & Hulin, C. (2001). Labeling sexual harassment in the military: An extension and replication. *Journal Of Applied Psychology, 86*(2), 293-303.  
doi:10.1037/0021-9010.86.2.293
- Murdoch, M., Pryor, J. B., Polusny, M. A., & Gackstetter, G. D. (2007). Functioning and psychiatric symptoms among military men and women exposed to sexual stressors. *Military Medicine, 172*(7), 718-725.
- Murdoch, M., Pryor, J. B., Polusny, M. A., Wall, M. M., Ripley, D. C., & Gackstetter, G. D. (2010). The association between military sexual stress and psychiatric symptoms after controlling for other stressors. *Journal of Psychiatric Research, 44*(16), 1129-1136.  
DOI:10.1016/j.jpsychires.2010.09.009
- Nielsen, M. B., & Einarsen, S. (2012). Prospective relationships between workplace sexual harassment and psychological distress. *Occupational Medicine, 62*(3), 226–228.  
DOI:10.1093/occmed/kqs010

- Nock, M. K. (2010). Self-injury. *Annual Review of Clinical Psychology*, 6, 339-363.
- Nolen-Hoeksema, S., & Morrow, J. (1991). A prospective study of depression and posttraumatic stress symptoms after a natural disaster: The 1989 Loma Prieta Earthquake. *Journal of Personality and Social Psychology*, 61(1), 115.
- Novik, M. G., Howard, D. E., & Boekeloo, B. O. (2011). Drinking motivations and experiences of unwanted sexual advances among undergraduate students. *Journal of Interpersonal Violence*, 26(1), 34-49. DOI:10.1177/0886260510362884
- O'Carroll, P. W., Berman, A. L., Maris, R. W., Moscicki, E. K., Tanney, B. L., & Silverman, M. M. (1996). Beyond the Tower of Babel: a nomenclature for suicidology. *Suicide and Life-Threatening Behavior*, 26(3), 237-252.
- O'Hare, E. A. & O'Donohue, W. (1998). Sexual Harassment: Identifying risk. *Archives of Sexual Behavior*, 27, 561-580.
- O'Neill, S., Ferry, F., Murphy, S., Corry, C., Bolton, D., Devine, B., Ennis, E., & Bunting, B. (2014). Patterns of suicidal ideation and behavior in Northern Ireland and associations with conflict related trauma. *PloS One*, 9, e91532.
- Ottenbreit, N. D., Dobson, K. S. (2004). Avoidance and depression: The construction of the cognitive-behavioral avoidance scale. *Behaviour Research and Therapy*, 42(1), 293-313. DOI: 10.1016/S0005-7967(03)00140-2
- Ougrin, D. (2012). Commentary: self-harm in adolescents: the best predictor of death by suicide? – reflections on Hawton et al. *The Journal of Child Psychology and Psychiatry*, 53(12), 1220-1221. DOI: 10.1111/j.1469-7610.2012.02622.x

- Paludi, M. A., & Paludi Jr, C. A. (Eds.). (2003). *Academic and workplace sexual harassment: A handbook of cultural, social science, management, and legal perspectives*. Westport, CT: Greenwood Publishing Group.
- Pershing, J. L. (2003). Why women don't report sexual harassment: A case study of an elite military institution. *Gender Issues*, 21(4), 3-30.
- Pina, A., & Gannon, T. A. (2012). An overview of the literature on antecedents, perceptions and behavioural consequences of sexual harassment. *Journal of Sexual Aggression*, 18(2), 209-232. DOI:10.1080/13552600.2010.501909
- Ploderl, M., & Fartacek, R. (2009). Childhood gender nonconformity and harassment as predictors of suicidality among gay, lesbian, bisexual, and heterosexual Austrians. *Archives of Sexual Behavior*, 38(3), 400-410. DOI:10.1007/s10508-007-9244-6
- Possel, P. (2011). Can beck's theory of depression and the response style theory be integrated? *Journal of Counseling Psychology*, 58(4) 618-629. DOI: 10.1037/a0025092
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36(4), 717-731.
- Prinstein, M. J., Nock, M. K., Simon, V., Aikins, J. W., Cheah, C. S. L., & Spirito, A. (2008). Longitudinal trajectories and predictors of adolescent suicidal ideation and attempts following inpatient hospitalization. *Journal of Consulting and Clinical Psychology*, 76(1), 92-103. DOI:10.1037/0022-006X.76.1.92

- Rederstorff, J. C., Buchanan, N. T., & Settles, I. H. (2007). The moderating roles of race and gender-role attitudes in the relationship between sexual harassment and psychological well-being. *Psychology of Women Quarterly, 31*(1), 50-61. DOI:10.1111/j.1471-6402.2007.00330.x
- Ribeiro, J. D. & Joiner, T. E. (2009). The interpersonal-psychological theory of suicidal behavior: Current status and future directions. *Journal of Clinical Psychology, 65*, 1291-1299.
- Rihmer, Z. (2007). Suicide risk in mood disorders. *Current Opinion in Psychiatry, 20*(1), 17-22.
- Robinson, M. D., & Clore, G. L. (2001). Simulation, scenarios, and emotional appraisal: Testing the convergence of real and imagined reactions to emotional stimuli. *Personality and Social Psychology Bulletin, 27*(11), 1520-1532. DOI:10.1177/01461672012711012
- Rojas, Y., & Stenberg, S. A. (2010). Early life circumstances and male suicide: A 30-year follow-up of a Stockholm cohort born in 1953. *Social Science & Medicine, 70*(3), 420-427. DOI:10.1016/j.socscimed.2009.10.026
- Rubin, K.H. , Daniels-Beirness, T. & Bream, L. (1984). Social isolation and social problem solving: A longitudinal study. *Journal of Consulting and Clinical Psychology, 52*, 17-25
- Sadowski, C., Kelley, M. L. (1993). Social problem solving in suicidal adolescents. *Journal of Counseling and Clinical Psychology, 61*(1) 121-127.
- Selby, A. E., Gordon, K. H., Bender, T. W., Knock, M. K., & Joiner, T. E. (2011). Non-suicidal self-injury (nssi) disorder: a preliminary study. *Personality Disorders: Theory, Research, and Treatment 3*(2), 167-175. DOI: 10.1037/a0024405

- Silverman, M. M. Berman, A.L., Sandaal, N. D., O'Carroll, P.W., & Joiner, T.E. Rebuilding the tower of babel: a revised nomenclature for the study of suicide and suicidal behaviors part 2: suicide-related ideations, communications, and behaviors. *Suicide and Life-Threatening Behavior*, 37(3), 264-277. DOI: 10.1521/suli.2007.37.3.264
- Smith, J. M., Alloy, L. B., & Abramson, L. Y. (2006). Cognitive vulnerability to depression, rumination, hopelessness, and suicidal ideation: multiple pathways to self-injurious thinking. *Suicide and Life Threatening Behavior*, 36, 443-454.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. *Sociological Methodology*, 13(1982), 290-312.
- St. Germain, S. A. & Hooley, J.M. (2013). Aberrant pain perception in direct and indirect non-suicidal self-injury: An empirical test of Joiner's Interpersonal Theory. *Comprehensive Psychiatry*, 54, 694-701.
- Teo AR, Choi H, Valenstein M. (2013) Social Relationships and Depression: Ten-Year Follow-Up from a Nationally Representative Study. *PLoS ONE* 8(4):e62396. doi: 10.1371/journal.pone.0062396
- Till, F. J., & United States. (1980). *Sexual harassment: A report on the sexual harassment of students*. Washington, D.C: U.S. Dept. of Education.
- Timmerman, G., & Bajema, C. (1999). Incidence and methodology in sexual harassment research in Northwest Europe. *Women's Studies International Forum*, 22(6), 673-681. doi:10.1016/S0277-5395(99)00076-X
- Tziner, A., & Birati, A. (1996). Assessing employee turnover costs: A revised approach. *Human Resource Management Review*, 6(2), 113-122.

- Uggen, C., & Blackstone, A. (2004). Sexual harassment as a gendered expression of power. *American Sociological Review*, 69(1), 64-92. DOI:10.1177/000312240406900105
- U.S. Merit Systems Protection Board (USMSPB). 1995. Sexual Harassment in the Federal Workplace: Trends, Progress, Continuing Challenges. Washington, D.C.: U.S. Government Printing Office.
- Van Orden, K. A., Witte, T. K., Gordon, K. H., Bender, T. W., & Joiner, T. E. (2008). Suicidal desire and the capability for suicide: tests of the interpersonal-psychological theory of suicidal behavior among adults. *Journal of Consulting and Clinical Psychology*, 76(1), 72-83. DOI: 10.1037/0022-006X.76.1.72
- Van Orden, K. A., Cukrowicz, K. C., Witte, T. K., & Joiner, T. E. (2012). Thwarted belongingness and perceived burdensomeness: Construct validity and psychometric properties of the interpersonal needs questionnaire. *Psychological Assessment*, 24(1), 197-215. DOI:10.1037/a0025358
- Wasti, S.A., Cortina, L. M. (2002). Coping in context: Sociocultural determinants of responses to sexual harassment. *Journal of Personality and Social Psychology*, 83(2), 394-405. DOI: 10.1037//0022-3514.83.2.394
- Willness, C. R., Steel, P., & Lee, K. (2007). A meta-analysis of the antecedents and consequences of workplace sexual harassment. *Personnel Psychology*, 60, 127-162.
- Yoon, E., Funk, R. S., & Kropf, N. P. (2010). Sexual harassment experiences and their psychological correlates among a diverse sample of college women. *Affilia: Journal of Women & Social Work*, 25(1), 8-18. DOI:10.1177/0886109909354979
- You S, Van Orden KA, Conner KR.(2011). Social connections and suicidal thoughts and behavior. *Journal of the Society of Psychologists in Addictive Behaviors*, 25(1):180-4.

Zhang, J., Lester, D., Zhao, S., Xhou, C. (2013). Suicidal ideation and its correlates: Testing the interpersonal theory of suicide in Chinese students. *Archives of Suicide Research, 17*(1), 236-241.

Zweig, J. M., Barber, B. L., & Eccles, J. S. (1997). Sexual coercion and well-being in young adulthood: Comparisons by gender and college status. *Journal of Interpersonal Violence, 12*(2), 291-308. DOI:10.1177/088626097012002009