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Understanding the links of Mindfulness, Relationship Satisfaction, and Sexual Satisfaction

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UNDERSTANDING THE LINKS OF MINDFULNESS,
RELATIONSHIP SATISFACTION, AND SEXUAL SATISFACTION

THESIS

A thesis submitted in partial fulfillment of the
requirements for the degree of Master of Science in the
College of Education at the University of Kentucky

By

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Lexington, Kentucky

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Health Promotion

Lexington, Kentucky

2017

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ABSTRACT OF THESIS

UNDERSTANDING THE LINKS OF MINDFULNESS, RELATIONSHIP SATISFACTION, AND SEXUAL SATISFACTION

The purpose of the present study was to examine the relationship between mindfulness and its link to sexual satisfaction and relationship satisfaction. Data were collected from 809 individuals (18.8% bisexual, 60.7% straight, 19.2% gay/lesbian) in romantic relationships. Participants completed an online survey to measure mindfulness (five facets: observing of experience, describing with words, acting with awareness, non judging of inner experience, non reactivity to inner experience), sexual satisfaction, and relationship satisfaction. Results from two multivariate analyses (predicting sexual satisfaction and relationship satisfaction) revealed that relationship satisfaction is significantly predicted by three of the five facets of mindfulness – acting with awareness, describing with words, and non judging of inner experience. Sexual satisfaction was significantly predicted by the non judging of inner experience facet of mindfulness. Non judging of inner experience was the only facet that significantly predicted both relationship and sexual satisfaction. These findings indicate that when individuals are able to take a non-evaluative stance towards their sensations, cognitions, and emotions, they are more likely to be satisfied. Future research and clinical intervention for improving satisfaction may benefit from focusing on mindfulness related to the non judging of inner experience. Implications for clinical practice and future research will be discussed.

Keywords: Mindfulness, Sexual satisfaction, Relationship satisfaction, romantic relationships

Elizabeth Nicole Greer

April 26, 2017

UNDERSTANDING THE LINKS OF MINDFULNESS,
RELATIONSHIP SATISFACTION, AND SEXUAL
SATISFACTION

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Chapter 1: Introduction

Sexuality is an integral part of one's life from birth to death, and becomes particularly important in adolescence leading through to adulthood and into old age. Aside from having the role of increasing our population, sexual behavior is one of the most highly anticipated and desired events in people's lives (Haig, 2003). By the age of 19, 44% of females and 47% of males have had sexual intercourse at least once (CDC, 2015). In the United States, most individuals have entered into their first committed relationship between the ages of 18 to 25 (Khaddouma et al., 2014, Collins & Madsen, 2006, Arnett 2004). Research suggests that early engagement in sexual behavior has been associated with greater feelings of entitlement to sexual pleasure, increases in sexual self-efficacy, and sexual self-reflection (Zimmer-Gembeck, Ducat, Boisard, 2011; Zimmer-Gembeck & Hefand, 2008; Homer & Zimmer-Gembeck, 2005). In return, this has also shown increases in positive psychological and social functioning (Zimmer-Gembeck et al., 2011), providing support to show that sexual behavior and sexual satisfaction are important components of overall health. Dean and colleagues (2013) provided further support for this in their findings that satisfaction within different aspects of sex is important, and provides a strong association to ones' overall general health, relationships, and other aspects of well-being.

Once individuals begin dating, they often form standards for intimate relationships and gain experience with romantic partners before entering into a more permanent relationship, such as marriage (Fincham & Cui, 2010; Seiffge-Krenke, 2003). The initiative resides upon the overall formation and maintenance toward a stable, satisfied romantic relationship during adulthood. Braithwaite and colleagues (2010)

suggest that this type of a relationship is strongly correlated with better mental and physical health. Previous studies have also found that successful attainment of stable satisfied dating relationships have had significant implications for mental and behavioral health (Khaddouma et al., 2015, Whitton et al., 2013, Rhoades et al., 2011, Kamp, Dush & Amato, 2005).

Sexual health is important to overall health and can contribute to a productive and happier life (CDC, 2010). In addition to the physical benefits of healthy sexual development, sex can also provide intimacy through bringing people together and facilitating emotional and social support, that in turn improves one's overall health (Hui Liu, Shannon, & Wang, 2016; Schnarch, 1991). Hui Liu and colleagues (2016) further identify sexual health as being a response to stress relief when partnered with sexuality and satisfaction. A term often associated with stress relief is mindfulness. This term takes on a broader description in not only working through psychological based health (Brown & Ryan, 2003), but also supporting sexual health through enhancing the quality of romantic relationships (Krusemark, Campbell, & Rogge, 2007). Carson and colleagues (2004) found that mindfulness intervention influenced couple's relationship satisfaction closeness, acceptance of the partner, relationship distress, as well as individual well-being. This reflects back to the overall support surrounded by sexual health and how mindfulness supports that approach.

Mindfulness

Mindfulness is an age old practice defined as a state of enhanced awareness and attention to the present moment, without taking an evaluative or judgmental approach to one's experience (Brotto & Basson, 2014; Kozlowski, 2012). Having come from eastern

spiritual traditions, mindfulness was formed through the practice of meditation. Through mindfulness, increases in qualities such as awareness, insight, wisdom, compassion, and equanimity were formed (Baer et al., 2006; Goldstein, 2002; Kabat-Zinn, 2000). In practicing mindful meditation, an individual has the opportunity to allow themselves to be present-focused and non judgmental. In doing this, they are able to prevent themselves from reacting without fully processing a situation and instead, allowing themselves to have a more helpful and orderly approach. Two components of consciousness, attention and awareness are monitored through mindfulness, with the goal being the maintenance of a present-centered focus on the complete range of a person's experience (Baer et al., 2006). In being mindful, a person is able to be open, show compassion, and have affection with oneself and others. The focus is spent more on the observation of what is occurring in the present moment non-judgmentally, as it arises without attempting to change, escape or avoid it (Baer et al., 2006, Baer, 2003).

Research on mindfulness has presented evidence towards contributing to healthier relationships and improving sexual connection. Some of those interpersonal gains within relationships include increases in positive affectivity, self-esteem and life satisfaction, while also showing reductions in negative affectivity, anxiety, anger-hostility, depressive symptoms, and stress reactivity (Brown & Ryan, 2003). Gottman & Levenson (1992) have also provided evidence toward supporting how mindful people may view their romantic relationships more positively by being less prone to experiencing negative affectivity, a predictor of conflict and relationship dissolution (Baer et al., 2006). Previous research also supports the possibility that techniques aimed at enhancing mindfulness abilities can promote healthy functioning in relationships (Carson et al.,

2004). Carson and colleagues (2004) suggest that mindfulness skills have been associated with increased autonomy, relatedness, and closeness, as well as lower relationship distress among that of romantic partners. Brotto and colleagues (2014) have shown strong evidence for mindfulness as an effective treatment for low sexual desire, thereby potentially improving the sexual component of the relationship.

Sexual and Relationship Satisfaction

Freud (1930) viewed sexual satisfaction as the fulfillment of a wish that leads to reduction of tension, which leads to pleasure. In similar terms, Haig (2003) defines this construct as the experience of sexual gratification upon resolution of sexual relating; it can be viewed as the reduction of agitation from the pressure of a drive. It is further defined as with one feeling a mounting desire and urgency for sexual behavior, the consummation of which brings relief and relaxation. Joannides (2006) defines sexual satisfaction as feeling content with one's sexual interactions or the sexual aspects of one's relationship, feeling intense moments of pleasure during sex, or experiencing good sex. Though researchers provide different definitions for what sexual satisfaction is, it is good to note that there truly is not a gold standard for how to truly assess sexual satisfaction (Mark, Herbenick, Fortenberry, Sanders, & Reece, 2014). This indication further follows the phenomenon surrounding sexual satisfaction, as it is mostly defined in association with positive affect, expectations, or a balance between both positive and negative dimensions (Mark et al., 2014; McClelland, 2011).

Lack of sexual satisfaction can be a source of anxiety, anguish, and frustration that often leads to general unhappiness and distress in personal relationships (Wince & Carey, 1991), and can hinder one's ability to reach his or her developmental potential

(Peters, 2002). Not only can lack of sexual satisfaction impact an individual's wellbeing, but also could impose costs on third parties, including the welfare state and children, if sexual frustration ultimately led to infidelity or family breakdown (Rainer & Smith, 2012). Some research has been conducted to examine ways in which sexual satisfaction in a relationship can be maintained. Impacts on sexual satisfaction include variables ranging from communication (Rehman, Rellini, & Fallis, 2011; Mark, Milhausen, & Maitland, 2013) and attachment (Butzer & Campbell, 2008), to involving emotional awareness, psychosocial wellbeing (Brown & Ryan, 2003), and personality factors (Fisher & McNulty, 2008). There has also been a good deal of research indicating the interrelated nature of sexual satisfaction to relationship satisfaction. For example, Byers (2005) found that individuals who reported having greater relationship satisfaction also reported greater sexual satisfaction. This link was found to be bidirectional, such that the two impact each other, and there is no clear evidence to support one predicting the other.

Relationship satisfaction is defined as an interpersonal evaluation of the positivity of feelings for one's partner and attraction to the relationship (Rusbult & Buunk, 1993). There has been much debate on whether sexual satisfaction and relationship satisfaction influences the other substantially. One example of their directionality comes from The Sexual Crucible Model developed by Dr. David Schnarch in 1991. This model primarily used in marriage therapy accounts that both sexual and relationship satisfaction can be a manifestation of the other. The interaction of the two constructs often creates an interconnected system that is difficult to determine which dissatisfaction came first (Mark et al., 2013).

Sexual satisfaction can best be thought of as one component that goes into the calculation of one's overall satisfaction (Haig, 2003). Mark and colleagues (2013) support this notion in concluding that sexual and relationship satisfaction are not just heavily interconnected, but also involve a wide assortment of factors that individually contribute to the satisfaction present in the relationship. Research has also shown that couples that enjoy positive, satisfying sexual relationships have more stable relationships than couples who are less sexually satisfied or who report sexual problems (Sprecher, 2002).

In heterosexual couples, sexual frequency may reflect a compromise in the desires of the male and female partner (Impett et al., 2014). As a couple increases their sexual frequency, the desires for each individual could be met or could be restricted based on the act taking place during the sexual encounter. Research has found that most people who engage in undesired sexual activity with their partners characterize their experiences as pleasant and associated with positive outcomes, such as promoting their partners' satisfaction and enhancing relational intimacy (O'Sullivan & Allgeier, 1998; Mark, 2015). Though negative consequences could also occur in regards to this as well, it is understood that compatibility in relationships becomes key when dealing with this type of discrepancy. In creating a solution to the negative consequences, it should be suggested that it may be helpful in reminding couples that their individual preferences may vary at different times, and that incompatibility can occur in even the most satisfied couples (Zilbergeld & Ellison, 1980).

Henderson and colleagues (2009) presented evidence to support that there were no common differences when looking at both lesbian/bisexual couples and heterosexual

couples in response to sexual satisfaction. Both determinants provided the same determining factors and further support that sexual concerns may be better addressed at the relationship, rather than at the individual level (Henderson et al., 2009). Gottman and colleagues (2003) also provided supporting evidence in providing that gay and lesbian relationships primarily operate on essentially the same principles as heterosexual relationships. The current study will look deeper to see if different orientation groups (bisexual, lesbian, and gay) provide different correlations than heterosexual relationships within sexual satisfaction, relationship satisfaction, and mindfulness.

Mindfulness, Relationship, and Sexual Satisfaction

Given the previous literature, it is possible that mindfulness may in fact be related to relationship and sexual satisfaction. Studies have shown that relationship and sexual satisfaction influence each other bidirectionally over time (Byers, 2005, Sprecher & Cate, 2004). It may be possible that individuals who are more satisfied in their dating relationships (perhaps due to being more mindful and open in their relationships) are able to experience a more satisfying sexual relationship with their partner (Khaddouma et al., 2014). Some research supports that men have been reported to have higher sexual satisfaction when it comes to gender differences (Barrientos & Paez, 2006). Research has also shown that women are more sexually satisfied than men (Dunn & Croft, 2000). Still researchers have reported no differences being found between both men and women in their individual levels of sexual satisfaction (Young, Denny, Young, Luquis, 2000). To better understand this phenomenon, the idea of creating a regression analysis of the three variables will help to provide insight towards if a relationship persists, as well as identify any gender differences. The purpose of the study was to determine to what extent the

level of mindfulness one practices is related to relationship and sexual satisfaction. The study examined whether this link was different or similar between men and women, as well as in different orientation groups.

Individual and interpersonal constructs are utilized in this study and findings are framed within the Social Ecological Model. By examining both individual (e.g., demographic variables, mindfulness practices) and interpersonal (e.g., sexual satisfaction and relationship satisfaction in the context of romantic relationships), we were able to place the implications of the findings in broader context relevant to health promotion and health education specialists. The current study also provides context to help individuals with sexual distress or dysfunction. Further understanding will also be provided in creating a basis for creating programs that target mindfulness and sexual health.

Research Questions

This thesis aims to answer the following nine research questions:

1. What impact do demographic variables have on relationship satisfaction?
2. What impact do demographic variables have on sexual satisfaction?
3. Are there any gender differences in the facets of mindfulness?
4. Are there any gender differences in relationship satisfaction?
5. Are there any gender differences in sexual satisfaction?
6. Are there any sexual orientation differences in relationship satisfaction?
7. Are there any sexual orientation differences in sexual satisfaction?
8. What is the relative impact of demographic variables and the facets of mindfulness one practices on relationship satisfaction?

9. What is the relative impact of demographic variables and the facets of mindfulness on sexual satisfaction?

Chapter 2: Literature Review

Mindfulness, Sexual Satisfaction, Relationship Satisfaction

Mindfulness

Mindfulness has been defined as an age-old practice, as well as a state of enhanced awareness and attention to the present moment, without taking an evaluative or judgmental approach to one's experience (Brotto & Basson, 2014; Kozlowski, 2012).

Derived from eastern spiritual traditions, mindfulness was developed through the regular practice of meditation, resulting in increasing positive qualities such as awareness, insight, wisdom, compassion, and equanimity (Baer et al., 2006; Goldstein, 2002, Kabat-Zinn, 2000). Two components of consciousness, attention and awareness are monitored through mindfulness, with the goal being the maintenance of a present-centered focus on the complete range of a person's experience (Baer et al., 2006). If a person is being mindful, they must be able to be open, show compassion, and have affection with oneself and others. The focus is shifted and emphasized on the ongoing stream of internal and external stimuli non-judgmentally as it arises without attempting to change, escape, or avoid it (Baer et al., 2006, Baer, 2003).

Baer and colleagues (2006) conducted a study to explore different questionnaires associated with mindfulness and whether or not they were able to determine the main facets associated with mindfulness. The findings from the study support the conceptualization of mindfulness as a multifaceted construct. Results from the study conclude that there are five distinct facets to be represented with the questionnaires used.

Correlational analyses showed that four of these facets (describe, act with awareness, non judge, and non react) are elements of an overarching mindfulness construct, and three of these facets (act with awareness, non judge, and non react) were shown to have validity in the prediction of psychological symptoms (Baer et al., 2006). The findings from this study also help in supporting the “nature of acceptance” within mindfulness, as it is often discussed as a central component of mindfulness-based practices.

The five subcomponents that comprise the overall construct of mindfulness consist of: observing of experience, describing with words, acting with awareness, nonjudging of inner experience, and nonreactivity to inner experience.

- *Observing of experience* consists of showing a response to both internal and external experiences; such as sensations, cognitions, emotions, sights, sounds, and smells (Khaddouma et al., 2015).
- *Describing with words* involves being able to note and label your experiences with words.
- *Acting with awareness* is to act with attentiveness; to show purpose when answering, rather than behaving without purpose or being absent minded.
- *Nonjudging of inner experience* allows for the individual to take a non-evaluative stance towards sensations, cognitions, and emotions (Khaddouma et al., 2015).
- *Nonreactivity to inner experience* prevents an individual from being caught up in their thoughts and feelings. Instead, they would react differently by accepting and moving on.

The purpose of the remainder of this literature review is to examine the association of sexual satisfaction and relationship satisfaction individually related to mindfulness based intervention, as well as all three mechanisms together. Gaps in the

research are presented, as well as prior research conducted on mindfulness and satisfaction.

Relationship Satisfaction

Relationship satisfaction is defined as an interpersonal evaluation of the positivity of feelings for one's partner and attraction to the relationship (Rusbult & Buunk, 1993). Relationship satisfaction has received some attention regarding its connection to mindfulness and the health and well being of romantic relationships. Studies have consistently linked higher levels of trait mindfulness with increased relationship satisfaction (Khaddouma et al., 2015, Kozlowski, 2013).

Having the ability to remain present-focused and non-judgmental in a relationship may facilitate a person's ability to select more helpful and methodical responses to interpersonal interactions, preventing them from reacting in a hasty way (Kozlowski, 2013). This too could create greater relatedness in a relationship, as well as acceptance by discouraging thoughtless communication that often times could lead to interpersonal conflict. Wachs and Cordova (2007) further support this notion in hypothesizing that couples who are inclined to reside naturally in a more mindful state of awareness are able to identify and communicate their emotions better, as well as become more skilled through empathic response and anger regulation.

Recent studies examining the efficacy of interventions to enhance mindfulness skills have provided support in promoting healthy romantic relationship functioning. Carson, Carson, Gil, and Baucom (2004) conducted an 8-week longitudinal study focused around mindfulness-based relationship enhancement in non-distressed couples. The study found that the intervention influenced the couples' relationship satisfaction, closeness,

acceptance of the partner, relationship distress, and other relationship outcomes (Barnes et al., 2007). This study also positively impacted an individuals' overall well-being. Also, Carson et al. (2004) found that by practicing a greater level of mindfulness on a given day, they were more likely to improve relationship happiness, stress coping efficacy, and lower relationship-specific and overall stress.

Two studies conducted by Barnes and colleagues (2007) examined the role of mindfulness in romantic relationship satisfaction and in responses to relationship stress. Using a longitudinal design, the first study found that higher levels of trait mindfulness predicted higher levels of relationship satisfaction and greater capacities to respond constructively to relationship stress (Barnes et al., 2007). The results indicated that people higher in levels relating to dispositional mindfulness reported having lower levels of post discussion anxiety and anger-hostility. Mindfulness was also shown to predict positive change within love and commitment as it was analyzed in the study. The second study replicated these findings and further supported the previous results. The present study also supports that of Carson et al. (2004) in providing positive result for mindfulness possibly being an active ingredient in relationship satisfaction and stress reduction.

Though relationship satisfaction and mindfulness have been presented in studies across research, there are still a wide array of concerns and gaps in truly understanding the connection between the two. With sexual satisfaction playing a key role as well, it becomes difficult to see what truly constitutes the pattern in increasing relationship satisfaction as a whole. While research suggests that both trait based mindfulness and learned mindfulness skills promote relationship satisfaction, it is still worth further

looking into to try and discover how the individual mechanisms operate when presented together.

Sexual Satisfaction

Freud (1930) viewed sexual satisfaction as the fulfillment of a wish that leads to reduction of tension, which leads to pleasure. Haig (2003) defined sexual satisfaction as the experience of sexual gratification upon resolution of sexual relating; it can be viewed as the reduction of agitation from the pressure of a drive. It is further defined as with one feeling a mounting desire and urgency for sexual behavior, the consummation of which brings relief and relaxation. Joannides (2006) defines sexual satisfaction as feeling content with one's sexual interactions or the sexual aspects of one's relationship, feeling intense moments of pleasure during sex, or experiencing good sex. Though researchers provide different definitions for what sexual satisfaction is, it is good to note that there truly is not a gold standard for how to truly assess sexual satisfaction (Mark, Herbenick, Fortenberry, Sanders, & Reece, 2014). This indication further follows the phenomenon surrounding sexual satisfaction, as it is mostly defined in association with positive affect, expectations, or a balance between both positive and negative dimensions (Mark et al., 2014; McClelland, 2011).

There are a multitude of individual factors that affect an individual's level of feeling sexually satisfied. However, only a few have been linked to that of mindfulness. One construct often associated with sexual satisfaction is sexual desire. Diamond (2004) defines this term as a drive or motivation to seek out sexual objects to engage in sexual activities. Most people want to engage in sex, and one of the most common found reasons for engaging in sex is out of powerful feelings of attraction and love for an intimate

partner (Impett et al., 2005). A strong factor in sexual desire is the ideal component of frequency of sex. Desired frequency of sex appears to be a major factor in overall sexual satisfaction (Smith et al., 2011).

Research has found that most people who engage in undesired sexual activity with their partner characterize their experiences as pleasant and associated with positive outcomes such as promoting their partners' satisfaction and enhancing relational intimacy (Mark, 2015; O'Sullivan & Allgeier, 1998). A recent study looking at the effects of physical activity on sexuality found that individuals who consistently practiced yoga or another activity involving a mindfulness component reported having more sexual desire and had higher levels of sexual awareness than individuals who engaged in physical activity lacking in mindfulness (Dunkley, Goldsmith, & Gorzalka, 2015; Lazaridou & Kalogianni, 2013). This research provides a focus to that of mindfulness and helps to show a relationship between that of mindfulness and sexual satisfaction.

Brotto & Basson (2014) conducted a study on group mindfulness-based therapy and its improvement on sexual desire in women. Mindful meditation, cognitive therapy, and education were the focus of four 90-minute group sessions among the women. The study consisted of two groups – testing the effectiveness of the mindfulness-based therapy, either immediately or after a 3-month waiting period. Overall, the treatment significantly improved sexual desire, sexual arousal, lubrication, sexual satisfaction, and overall sexual functioning (Brotto & Basson, 2014). Increases in mindfulness and a reduction in depressive like symptoms helped to show the prediction of improvement in sexual desire. McCarthy & Wald (2013) proposed that a core concept for sexual mindfulness is the acceptance of physical and psychological relaxation as the basis of

sexual response. The focus shifts from that of individual sex performance, but instead on the sexual desire and satisfaction as an interpersonal process of “showing up” and sharing sexual pleasure and sexual play. This in turn shows linkage to mindfulness, but also through sexual satisfaction in helping their partners to experience more sexual satisfaction within their relationship.

Positive body image and body esteem have also been linked to enhanced sexual well being and can likely be augmented through increased mindfulness as a means of improving sexual satisfaction and reducing sexual insecurities (Dunkley et al., 2015). Several aspects of body image, including weight concern, physical condition, sexual attractiveness, and thoughts about the body during sexual activity were shown to be predictors in sexual satisfaction for women (Pujols et al., 2010). A survey published in women’s health and fitness magazine of women aged 14-74 reported that body image has been associated with greater frequency of sexual activity, adventure, optimism, and function, whereas negative body image has been shown to lead to sexual avoidance (Ackard et al., 2000).

A study conducted by Milhausen (2015) found that multiple domains of body image were associated with sexual satisfaction in men, whereas no body image variable was associated with sexual satisfaction in women. A similar study also found that in men, higher body image was associated with higher sexual satisfaction (Holt & Lyness, 2007). The studies above help provide knowledge on the research surrounding body image and esteem. They also show how intervention through mindfulness based therapy could be beneficial in raising body image, and increasing sexual satisfaction among both men and

women. Mindfulness overall can help in positively influencing sexual satisfaction through the reduction of sexual insecurities (Dunkley et al., 2015).

Sexual desire (Brotto & Basson, 2014), and body image (Milhausen, 2015) have shown to be related to both mindfulness and sexual satisfaction. Therefore, this has indicated that the link between mindfulness and satisfaction may be meaningful and the current research aims to fill the gap in literature. Though research has shown that there is positive links relating relationship satisfaction and mindfulness to one another, it is still uncertain as to how inevitably it really happens. In looking further into the facets of mindfulness (as presented at the beginning) and relationship satisfaction, only then would we be able to determine how mindfulness influences the well-being and functioning of romantic relationships. This uncertainty could also provide itself as a resource in providing information as to which aspects of mindfulness specifically influence relationship health and satisfaction.

Mindfulness, Relationship, and Sexual Satisfaction

There has been a lack of research conducted on the effects of mindfulness and how it relates to relationship and sexual satisfaction. There has been some research focusing on each construct individually, but little support in showing their connection all together. Based on previous research and theory, it is possible that the facets associated with mindfulness might be positively related to greater relationship satisfaction through the association of sexual satisfaction (Khaddouma et al., 2015).

Referring back to the study conducted by Khaddouma and colleagues (2015) on the facets of trait mindfulness, sexual satisfaction was used as a mediating variable in the link between mindfulness and relationship satisfaction. Their hypothesis proposed that

that individuals showing higher levels of trait mindfulness (involving the five facets) would have more satisfying relationships with their partners and would overall lead to greater relationship satisfaction. Further support was shown in stating that individuals who are more satisfied in their current relationship (perhaps, due to being mindful and open in the context of the relationship) are more likely to experience a satisfied sexual relationship with their partner (Khaddouma et al., 2015). This study provides empirical support for the link between mindfulness and sexual satisfaction in dating relationships and shows a strong correlation toward increasing the quality of relationship satisfaction.

There is a lack of research examining the ways in which mindfulness predicts levels of sexual and relationship satisfaction. To this date, there is only one study that looks at all three constructs together (Khaddouma et al., 2015). The current study aimed to bridge a gap in the research by drawing a stronger connection between these constructs and providing evidence to support these links, which may have implications for future research examining mindfulness-based intervention. The current study also aimed to provide greater understanding of satisfaction and mindfulness across men and women, as well as other orientation groups in the context of romantic relationships, and provide analysis towards any gender differences.

Chapter 3: Methods

Participants

Participants' data were drawn from a larger dataset based on eligibility criteria and resulted in a total of 809 participants (female $n = 524$; male $n = 285$). Eligibility criteria for this study required participants be over the age of 18 and currently in a romantic relationship. The average age of participants was 34.09 years ($SD = 5.62$, $range = 19-68$). Over half of the participants identified as heterosexual/straight (60.7%).

Bisexual participants made up 18.8%, with 19.2% identifying as homosexual/lesbian/gay, and 1.4% as other. The majority of the participants were White/Caucasian (87.6%), with a minority of the participants identifying their race/ethnicity as American Indian or Alaska Native (.7%), Asian or Asian American (2.2%), Black or African American (2.0%), Native Hawaiian or Pacific Islander (.2%), and as Multiracial (4.3%). A majority of participants had either some college (18.5%), were a college/university graduate (31.0%), or a Graduate school graduate (33.4%) at the time of data collection. Over half of the participants did not identify with a specific religion (52.7%), however, some identified as Catholic (9.6%) or Christian (11.2%). Regarding relationship cohabitation, 43.9% of participants reported being married and living with their spouse, 31.1% partnered and living with their partner, and 24.5% indicated they were in a relationship but not currently living with their partner. Current relationship in months was also determined. 15 years was found to be the participants' longest relationship (.2%), whereas the other participants fell between 0 to 11 years. The average relationship length in years was 5.36 ($SD = 3.26$, $Range = 15$). See Table 1 for additional demographic details of the sample.

Table 1: Participant Demographics

	Women N = 524 (64.8%)	Men N = 285 (35.2%)	Total N = 809 (100%)
Age	32.17 (8.72)	37.63 (9.84)	34.09 (9.5)
Sexual Orientation			
Bisexual	122 (23.3%)	30 (10.5%)	152 (18.8%)
Heterosexual/Straight	336 (64.1%)	155 (54.4%)	491 (60.7%)
Homosexual/Lesbian/Gay	58 (11.1%)	97 (34.0%)	155 (19.2%)
Other, please specify:	8 (1.5%)	3 (1.1%)	11 (1.4%)
Relationship Status			
Married, living with spouse	218 (41.6%)	137 (48.1%)	355 (43.9%)
Married, not living with spouse	3 (.6%)	1 (.4%)	4 (.5%)

Partnered, living with spouse	163 (31.1%)	89 (31.2%)	252 (31.1%)
Partnered, not living with partner	140 (26.7%)	58 (20.4%)	198 (24.5%)
Education			
Grade School	3 (.6%)	0	3 (.4%)
Middle School	0	1 (.4%)	1 (.1%)
Some High School	2 (.4%)	0	2 (.2%)
High School Graduate or GED	15 (2.9%)	15 (5.3%)	30 (3.7%)
Some college/university or a 2yr	103 (19.7%)	47 (16.5%)	150 (18.5%)
College/University Graduate	163 (31.1%)	88 (30.9%)	251 (31.0%)
Some Graduate School	62 (11.8%)	26 (9.1%)	88 (10.9%)
Graduate School Graduate	164 (31.3%)	106 (37.2%)	270 (33.4%)
Other, please specify:	12 (2.3%)	2 (.7%)	14 (1.7%)
Ethnicity			
American Indian or Alaska Native	4 (.8%)	3 (1.1%)	7 (.9%)
Asian or Asian American	11 (2.1%)	7 (2.5%)	18 (2.2%)
Black or African American	9 (1.7%)	7 (2.5%)	16 (2.0%)
Native Hawaiian or OPI	1 (.2%)	1 (.4%)	2 (.2%)
White or Caucasian	455 (86.8%)	254 (89.1%)	709 (87.6%)
Multiracial, please specific:	29 (5.5%)	6 (2.1%)	35 (4.3%)
Other, please specify:	4 (1.4%)	4 (1.4%)	16 (2.0%)
No response	3 (1.1%)	3 (1.1%)	6 (.7%)
Religion			
Catholic	46 (8.8%)	32 (11.2%)	78 (9.6%)
Christian	65 (12.4%)	26 (9.1%)	91 (11.2%)
Hindu	0	2 (.7%)	2 (.2%)
Jewish	24 (4.6%)	16 (5.6%)	40 (4.9%)
Mormon/Latter Day Saints	1 (.2%)	4 (1.4%)	5 (.6%)
Muslim/Islam	9 (1.7%)	0	9 (1.1%)
Protestant (Baptist, Lutheran, etc.)	28 (5.3%)	13 (4.6%)	41 (5.1%)
I don't identify with any specific religion	273 (52.1%)	153 (53.7%)	426 (52.7%)
Other, please specify:	75 (14.3%)	35 (12.3%)	110 (13.6%)
No response	3 (.6%)	4 (1.4%)	7 (.9%)

Measures

Demographic Questions

A number of demographic questions were asked of the participants that included questions regarding age, sexual orientation, relationship status, education, ethnicity, and religion.

Sexual Satisfaction

The Global Measure of Sexual Satisfaction (GMSEX; Lawrance & Byers, 1998) tool was used to assess sexual satisfaction. The GMSEX is comprised of five 7-point semantic differentials. Those dimensions are centered around the question, “In general, how would you describe your sexual relationship with your partner.” The dimensions are comprised of: *Good-Bad, Pleasant-Unpleasant, Positive-Negative, Satisfying-Unsatisfying, and Valuable-Worthless*. The scale is scored through a summation of all five items with higher scores indicative of a higher level of sexual satisfaction. This scale has demonstrated strong reliability and validity in a number of studies that utilized similar samples to this one (e.g., Lawrance & Byers, 1998; Mark et al., 2012). In the current study, the reliability of the scale was strong, with the Cronbach Alpha at .96 for men and .95 for women.

Relationship Satisfaction

The Global Measure of Relationship Satisfaction (GMREL; Lawrance & Byers, 1998) tool was used to assess relationship satisfaction. Similar to the GMSEX, participants were asked to rate their overall partner relationship satisfaction through five 7-point semantic differentials. Those dimensions are centered around the question, “In general, how would describe your overall relationship satisfaction with your partner.” Those dimensions include: *Good-Bad, Pleasant-Unpleasant, Positive-Negative, Satisfying-Unsatisfying, and Valuable-Worthless*. The summation scale score results in higher scores as indicative of a higher level of relationship satisfaction. Prior studies have found this scale to be psychometrically strong (Lawrance & Byers, 1998). In the

current study, the Cronbach Alpha was .96 for men and .96 for women, indicating strong reliability.

Mindfulness

The five-facet mindfulness questionnaire (FFMQ-SF; Bohlmeijer, ten Klooster, Fledderus, Veehof, & Baer, 2011) was used to measure mindfulness. This self-report measure is a condensed portion of the original questionnaire (FFMQ; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). This measure consists of 24 questions assessing the facets associated with trait mindfulness: Observing of experience, describing with words, acting with awareness, nonjudging of inner experience, and nonreactivity to inner experience. *Observing of experience* consists of showing a response to both internal and external experiences (e.g., sensations, cognitions, emotions, sights, sounds, and smells) (Khaddouma et al., 2015). *Describing with words* involves being able to note and label your experiences with words. *Acting with awareness* is to act with attentiveness; to show purpose when answering, rather than being absent minded. *Nonjudging of inner experience* allows for the individual to take a non-evaluative approach towards ones' thoughts and feelings. *Nonreactivity to inner experience* prevents an individual from being caught up in their thoughts and feels. Instead, they would react differently by accepting and moving forward. Respondents answered questions on a 5-point Likert scale ranging from 1 "Never or rarely true" to 5 "Very often or always true". Previous studies have found this scale to show reliability and validity when assessing mindfulness (Bohlmeijer et al., 2011; Stolarski, Vowinckel, Jamkowski, & Zajenkowski, 2016). In the current study, the Cronbachs alpha for observing of experience was .74 (.71 men, .75 women). For describing with words, it was .86 (.85 men, .87 women). Acting with

Awareness showed a Cronbachs alpha of .85 (.84 men, .86 women). Nonjudging of inner experience was .83 (.82 men, .84 women) and Nonreactivity to inner experience was .79 (.75 men, .79 women).

Procedure

Participants were recruited from Amazon's Mechanical Turk, email listservs, as well as through social media outlets (e.g., Facebook, Twitter). The year of recruitment was 2015-2016. Once participants clicked on the informational website, they were given additional information about the study, and could choose whether they consented to participate or not. If the participant consented to participate, they were redirected to the survey. The online survey, hosted by Qualtrics, directed participants through a series of questions assessing basic demographics, mindfulness, sexual satisfaction, and relationship satisfaction, in addition to a number of other questions not relevant to the current study. All research protocol were approved by the Institutional Review Board at the University of Kentucky.

Analyses

To answer the research questions of interest, bivariate analyses were first performed to determine what variables are appropriate for the multivariate model. Bivariate analyses involved correlations, t-tests, and chi-square analyses that determined the relationship between demographic variables and the 5 subscales of the mindfulness scale with both outcome variables: sexual and relationship satisfaction. To follow, two multivariate multiple regression models were used with sexual satisfaction and relationship satisfaction as the two outcome (dependent) variables. The predictor (independent) variables consisted of all variables that were significant at the bivariate

level. The critical p-value was set to 0.05. All analyses were conducted using SPSS 23.0.

Chapter 4: Results

First, descriptive statistics on the variables of interest were conducted by gender (Table 2) and sexual orientation (Table 3). To determine whether there were significant gender differences in the outcome variables (sexual satisfaction and relationship satisfaction), two independent samples *t*-tests were conducted (one for sexual satisfaction and one for relationship satisfaction). There were no significant differences between men and women on sexual satisfaction (men: $M = 39.21$, $SD = 6.73$; women: $M = 39.60$, $SD = 7.19$) or relationship satisfaction (men: $M = 35.67$, $SD = 8.78$; women: $M = 36.86$, $SD = 8.57$). Two one-way ANOVAs were conducted to examine sexual orientation group differences in sexual satisfaction and relationship satisfaction. The one-way ANOVA was not significant for relationship satisfaction ($F(3,747) = .15$, $p = .93$) or sexual satisfaction ($F(3,748) = 2.04$, $p = .12$), indicating sexual and relationship satisfaction were not significantly different between orientation groups.

Table 2: Mean and standard deviation for variables of interest by gender

	Men M(SD)	Women M(SD)	Total M(SD)
Relationship Satisfaction	39.21 (6.73)	39.60 (7.20)	39.47 (7.04)
Sexual Satisfaction	35.67 (8.78)	36.86 (8.57)	36.45 (8.65)
Nonreactivity to Inner Experience	15.88 (3.78)	13.54 (3.91)	14.34 (4.02)
Observing of Experience	14.59 (3.01)	15.28 (3.04)	15.04 (3.05)
Acting with Awareness	17.29 (4.14)	16.63 (4.34)	16.86 (4.28)

Describing with Words	18.80 (4.24)	18.84 (4.27)	18.83 (4.26)
Nonjudging of Inner Experience	16.16 (4.58)	15.39 (4.63)	15.66 (4.62)

Table 3: Mean and standard deviation for variables of interest by sexual orientation

	Bisexual M(SD)	Straight M(SD)	Gay M(SD)	Lesbian M(SD)	Total M(SD)
RS	39.40 (7.66)	39.38 (6.84)	39.86 (6.93)	39.73 (7.28)	39.47 (7.04)
SS	36.84 (8.95)	36.82 (8.16)	35.20 (9.74)	34.42 (9.70)	36.45 (8.65)
M1	13.56 (4.37)	14.49 (3.98)	15.18 (3.76)	13.89 (3.46)	14.34 (4.02)
M2	15.69 (2.84)	14.85 (3.03)	14.86 (3.15)	15.20 (3.36)	15.04 (3.05)
M3	16.24 (4.43)	16.9 (4.32)	17.84 (3.72)	16.65 (4.23)	16.86 (4.28)
M4	18.44 (4.36)	18.95 (4.16)	18.88 (4.41)	18.76 (4.60)	18.83 (4.26)
M5	14.90 (5.13)	15.80 (4.53)	16.02 (3.98)	15.94 (4.74)	15.66 (4.62)

Note: RS = Relationship Satisfaction (GMREL); SS = Sexual Satisfaction (GMSEX); Mindfulness Facets, M1 = Nonreactivity to inner experience; M2 = Observing of experience; M3 = Acting with awareness; M4 = Describing with words; M5 = Nonjudging of inner experience

Additional bivariate analyses were performed to examine the relationship between sexual satisfaction, relationship satisfaction, and the five facets of mindfulness (observing of experience, describing with words, acting with awareness, non judging of inner experience, non reactivity to inner experience), as well as between sexual satisfaction, relationship satisfaction, and the demographic variables of interest (age, sexual orientation, current relationship status, current relationship in months, education, ethnicity, religion). This was to determine what variables were significant at the bivariate level and should be included in the multivariate analysis. A one-way ANOVA was conducted with sexual satisfaction and relationship satisfaction as the dependent variables, with each of the categorical demographic variables as the independent variables. Education was not significantly related to sexual satisfaction ($F(8,743) = 1.4$, $p = .12$) or relationship satisfaction ($F(8,742) = .119$, $p = .30$). Race was not

significantly related to sexual satisfaction ($F(7,744) = .66, p = .71$) or relationship satisfaction ($F(7,743) = .79, p = .59$). Religion was not significantly related to sexual satisfaction ($F(9,742) = .78, p = .64$) or relationship satisfaction ($F(9,741) = .87, p = .55$). Relationship length is shown in the bivariate analyses table and is not significant within sexual satisfaction ($p = .46$) and relationship satisfaction ($p = .92$). Age, however was shown to be significant within sexual satisfaction ($p = .00$) and relationship satisfaction ($p = .00$). Table 4 provides the findings from the bivariate analyses.

Additionally, the age demographic was shown to be significant, as well as 4 of the 5 facets of mindfulness (observing of experience, acting with awareness, describing with words, non judging of inner experience). Non reactivity to inner experience did not show any significance when the correlation was performed and will not be examined further in the multivariate analyses.

Table 4: *Correlation coefficients for the variables of interest*

	Correlation	Significance (2-tailed)	N
Sexual Satisfaction	1		752
Relationship Satisfaction	.65	.00	748
Age			
Sexual Satisfaction	-.17	.00	752
Relationship Satisfaction	-.12	.00	751
Current Relationship (Months)			
Sexual Satisfaction	-.03	.46	608
Relationship Satisfaction	.12	.92	751
Nonreactivity to Inner Experience			
Sexual Satisfaction	.01	.79	699
Relationship Satisfaction	.07	.08	698
Observing of Experience			
Sexual Satisfaction	.10	.01	704
Relationship Satisfaction	.10	.01	703
Acting with Awareness			
Sexual Satisfaction	.16	.00	701
Relationship Satisfaction	.24	.00	701

Describing with Words			
Sexual Satisfaction	.14	.00	707
Relationship Satisfaction	.18	.00	706
Nonjudging of Inner Experience			
Sexual Satisfaction	.13	.001	701
Relationship Satisfaction	.16	.00	709

Multivariate Analyses

Two multivariate regression analyses were performed, one with relationship satisfaction as the outcome variable and one with sexual satisfaction as the outcome variable. Only variables that were significant at the bivariate level were included in the multivariate analysis. Relationship satisfaction was significantly predicted by age ($\beta = -.16$), mindfulness related to acting with awareness ($\beta = .15$), describing with words ($\beta = .10$), and non judging of inner experience ($\beta = .11$). Sexual satisfaction was also significantly predicted by age ($\beta = -.20$) and mindfulness related to non judging to inner experience ($\beta = .12$). None of the other variables were significant predictors of sexual satisfaction. See Table 5 for regression coefficients in predicting relationship satisfaction and Table 6 for regression coefficients in predicting sexual satisfaction.

Table 5 *Multivariate Analyses for Relationship Satisfaction*

Variable	<i>B</i>	<i>t</i>	β
Model 1			
Constant		73.4	.00
Age	-.12	-3.23	.00
Model 2 (Relationship Satisfaction)			
Constant		16.25	.00
Age	-.16	-4.12	-.16***
M2	.05	1.34	.05
M3	.15	3.6	.15***
M4	.1	2.41	.10*
M5	.11	2.78	.11**

* $p < .05$, ** $p < .01$

Table 6: *Multivariate Analyses for Sexual Satisfaction*

Variable	<i>B</i>	<i>t</i>	β
Model 1			
Constant		57.8	.00
Age	-.17	-4.56	.00
Model 2 (Sexual Satisfaction)			
Constant		12.42	
Age	-.2	-5.3	-.20***
M2	.07	1.89	.07
M3	.07	1.73	.07
M4	.07	1.8	.07
M5	.12	3.01	.12***

* $p < .05$, ** $p < .01$

Chapter 5: Discussion

Findings from the current study revealed that the facets of mindfulness are associated differently with sexual satisfaction and relationship satisfaction among dating partners. Relatively few studies have focused on the facets of mindfulness and their association with sexual satisfaction and relationship satisfaction. Therefore, the current study contributed to a growing body of literature with a sexually diverse sample of adults who reported on their sexual and relationship satisfaction. Interestingly, there were not significant differences between gender or orientation groups in the experience of sexual and relationship satisfaction indicating that there may be more similarities between groups than within. The current study added to the literature by providing this analysis in the context of a more diverse sample of participants.

The current study also provided evidence towards supporting how techniques aimed at enhancing mindfulness abilities can promote healthy functioning in relationships (Carson et al., 2004). Research supports mindfulness to promote healthy functioning in

relationships (Carson et al., 2004), while also providing evidence that supports individuals to have improved positive affectivity, self-esteem, and life satisfaction, and in turn showing reductions in negative affectivity, anger-hostility, depressive symptoms, and stress reactivity (Brown & Ryan, 2003). This study not only provides additional evidence for mindfulness and its relation to sexual satisfaction and relationship satisfaction, but also allows for greater understanding in the role of mindfulness on overall health.

The correlational findings suggest that the five facets of mindfulness may be related to sexual satisfaction and relationship satisfaction in different ways. Relationship satisfaction was strongly correlated with three of the five facets of mindfulness: acting with awareness, describing with words, and non judging of inner experience. Acting with awareness demonstrated the strongest association with relationship satisfaction. In seeing the importance of this facet in relation to relationship satisfaction, it becomes evident of the need for attentiveness, aside from being absent-minded. By being in the present moment and being engaged with ones' partner, they are able to fully provide feelings of support, as well as form a relationship that is shaped through empathy (Kozlowski, 2012). Describing with words within a relationship allows for effective communication by articulating an individuals' experiences with words. In following the empathetic approach, the relationship has the opportunity to form a state of unity in being able to subside anger and effectively identify and communicate emotional experiences to one another. (Kozlowski, 2012; Wachs & Cordova, 2007). This also follows through with the facet of non judging of inner experience. When a relationship is mindful and non

judgmental in this context, they are able to refrain from labeling things good and bad, as well as disengage from becoming consumed with ones' ideas and opinions.

The correlation associated with acting with awareness, describing with words, and non judging of inner experience provides insight towards the importance that comes when a relationship is able to efficiently act with attentiveness, to show purpose when answering, aside from being absent minded. It also provides understanding on the importance of acceptance in a relationship and the role it plays in helping maintain healthy romantic relationships (Christensen & Jacobson, 2000). Wachs and Cordova (2007) suggested that mindfulness may promote a more accepting and less experientially avoidant orientation to challenging emotions, allowing for more responsive and relationally healthy approaches of responding to become possible. An individual with the mindful capacity to remain present-focused and non-judgmental could also allow for the individual to select more helpful and careful responses to interpersonal interactions, instead of reacting in a hasty way. The results from the study support this finding and help to provide further understanding on how mindfulness practice can help promote overall satisfaction among couples.

In the multivariate model, sexual satisfaction was only strongly associated with the mindfulness facet of non-judging of inner experience. This is important to note due to this facet being defined as having the ability to take a non-evaluative stance towards sensations, cognitions, and emotions. In sexual satisfaction, this allows for an individual to focus on the whole picture, both the needs and wants, rather than solely having a desire for something in return. In being mindful within this facet, an individual is able to be more open and pleasing to the opposite partner, which could then lead to a more

pleasurable experience overall. McCarthy & Wald (2013) further support this ideal in finding that a core concept of sexual mindfulness deals with the acceptance of physical and psychological relaxation as the basis of sexual response. The focus shifts from that of individual sex performance, and instead on the sexual desire and satisfaction as an interpersonal process of “showing up” and sharing sexual pleasure and play. This ties the facet of mindfulness to its linkage of sexual satisfaction by providing understanding on how mindfulness can play a key role towards increased sexual satisfaction in couples. This being the only facet to be strongly associated with sexual satisfaction could also provide insight into more studies with a focus supporting the individual process of showing up, as mentioned above. Observing of experience was not strongly associated with sexual satisfaction, however was marginally significant ($p = .06$), indicating a potential for inclusion and should be considered in future research, as it may have some explanative power in an individuals’ tendencies to notice or attend to internal or external experiences (Khaddouma et al., 2014).

Non judging of inner experience was the only facet to show strong predictive value in sexual satisfaction *and* relationship satisfaction. This finding supports previous literature as non judging of inner experience was significantly associated with relationship satisfaction through sexual satisfaction (Khaddouma et al., 2014). It is important to note that this study is only the second to look into the connection of mindfulness, sexual satisfaction, and relationship satisfaction, and we see similar findings. This specific facet could also provide more understanding toward overall satisfaction in a relationship by providing a tie that draws sexual satisfaction and relationship satisfaction to one another, something that is supported in a good deal of

prior research (e.g., Fallis et al., 2016; Lawrance & Byers, 1995). The results differ between studies as the facet of observing of experience was shown to be significant within the previous study, but did not hold true in the current one. This facet however provides understanding within relationships in showing more satisfaction overall when couples reduce tendencies to evaluate or judge one's own or partner's performance during sexual activity (Masters & Johnson, 1970). Based on the larger sample set in this study, and larger sample of participants who were married, it is important to note this difference as future studies continue to discover more evidence and provide further support to expand these findings.

This study provides empirical support to show that that the facets of mindfulness provide common differences between sexual and relationship satisfaction. It further supports that the two constructs are more than just interconnected (Mark et al., 2013) and individually contribute to a partners' satisfaction present in a relationship. Overall, the current findings suggest that satisfaction in a relationship can be obtained when both partners are able to show purpose and attentiveness when choosing to adapt to their partner's sexual needs and desires (Khaddouma et al., 2014), while also being able to express their feelings openly with their partner (Kozlowski, 2012). A relationship further obtains satisfaction when each partner is able to be non judgmental of their own or partner's sexual and emotional experiences (Khaddouma et al., 2014; Masters & Johnson, 1970). In doing this, those in relationships are able to pay attention to the here and now sensations and reduce overall tendencies of judgment to the current moment.

The findings should be considered in the context of the study's limitations. First, this study relied on self-report measures of mindfulness, sexual satisfaction, and

relationship satisfaction. Additional findings may emerge if this study were to include observational findings or interviews. However, researchers have found that when reporting on sensitive topics such as sexual health, participants are often more honest in their accounts of their experiences when provided an online self-report medium to report through (Riva, Teruzzi, & Anolli, 2004; Schroder, Carey, & Venable, 2003; Taylor, Rosen, & Leiblum, 1994; Alexander, Somerfield, Ensiminger, Johnson, & Kim, 1993). The current study utilized data collected from only one member of the couple at one time point. It would be ideal to collect data from both members of a couple so that additional context of the relationship dynamic, particularly the sexual and relationship satisfaction, could be examined. Additionally, over-time data would provide greater specificity of the ways in which mindfulness impacts sexual and relationship satisfaction on a daily level or over longer periods of time and future research would benefit from examining these research questions in this way.

Sexual satisfaction, relationship satisfaction, and mindfulness are important constructs at the interpersonal and individual level. The Social Ecological Model can provide a framework with which to understand the role of mindfulness in sexual health, and its relationship to future health promotion initiatives. By using this model, we were able to see identifiable factors at both levels to address implications found through the results section and further apply it to real world approaches. This provides for better understanding in relating this theory to principle and could help in implementing programs surrounded by mindfulness and sexual health.

For romantic relationships with distress or dysfunction, this model surrounded by mindfulness approaches could become an effective target to help reach out to

distressed relationships. In targeting someone at the individual level, mindfulness could play an integral role in helping an individual develop both the knowledge and skills to overcome the health concern of sexual distress or dysfunction. They could receive information discussing individual facets of mindfulness, especially the ones that provided most relevance in this study. Activities surrounded by meditation and approaching oneself to be in the present moment could be key integrative approaches in helping an individual get started. Research has found that mindfulness practice is associated with increasing body awareness, emotion regulation, physiological arousal, and open awareness (Khaddouma et al., 2014; Atkinson, 2013; Holzel, Lazar, Gard, Schuman-Olivier, Vago, & Ott, 2011.) Evidence supports that higher levels of trait mindfulness may help in the overall reduction of sexual dysfunction (Dove & Wiederman, 2000). By providing an individual with the knowledge surrounding the facets of mindfulness, as well as giving them examples of ways to become more present, we would be giving them the resources and understanding to develop the self-efficacy that could help in reducing any possible distress or dysfunction they are dealing with.

It is also important to be aware of the influence the interpersonal aspect may play for the individual in trying to overcome this barrier. By including the interpersonal role as the other individual in the relationship, it could propose importance to shift a focus of overall understanding around mindfulness and its approach in this study to help both the individual and their counterpart. Not only that, but could also provide further explanation on the correlation between that of sexual satisfaction and relationship satisfaction. The current study found that both sexual satisfaction and relationship satisfaction provided different responses when correlated with mindfulness. By creating a mindfulness-based

program towards these findings, as well as the other research looking at the three constructs (Khaddouma et al., 2014), organizational prospects and other community involvement could see the effectiveness this information provides and the support to help in enhancing an individuals' overall well being. By seeing this change, processes could also be performed to help implement a more policy based approach, ensuring that mindfulness based practices provided empirical evidence in helping increase relationship efficacy. The underlying goal of the program would be to provide information and equip understanding for individuals to take a strong approach in adapting these practices to inhibit change.

The current study utilized self reports across orientation groups (bisexual, gay, straight, lesbian), as well as provided a large data set in coming from individuals who were both in romantic relationships and married. This study served a strong purpose in providing more understanding towards the link of mindfulness, sexual satisfaction, and relationship satisfaction by expanding the current literature. Future research should look more into the facets of mindfulness on the association between that of sexual satisfaction and relationship satisfaction. Though this study provided more understanding when looking across orientation groups and romantic partners who are married, it would still be beneficial to further expand to provide more understanding to what truly impacts a partners' overall satisfaction in a relationship. Expanding the research would also provide more understanding in the development of educational programs and could provide a basis for reaching out to relationships who experience distress or dysfunction.

References

- Alexander, C. S., Somerfield, M. R., Ensminger, M. E., Johnson, K. E., & Kim, Y. J. (1993). Consistency of adolescents' self-report of sexual behavior in a longitudinal study. *Journal of Youth and Adolescence*, 22(5), 455-471.
- Arnett, J. J. (2004). *Emerging adulthood: The winding road from the late teens through the twenties*. New York, NY: Oxford University Press.
- Atkinson, B. J. (2013). Mindfulness training and the cultivation of secure, satisfying couple relationships. *Couple and Family Psychology: Research and Practice*, 2(2), 73-94.
- Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using Self-Report Assessment Methods to Explore Facets of Mindfulness. *Assessment*, 13(1), 27-45.
- Baer, R. A. (2003). Mindfulness training as a clinical intervention: A conceptual and empirical review. *Clinical Psychology: Science and Practice*, 10, 25-143.
- Barnes, S., Brown, K. W., Krusemark, E., Campbell, W. K., & Rogge, R. D. (2007). The Role of Mindfulness in Romantic Relationship Satisfaction and Responses to Relationship Stress. *Journal of Marital and Family Therapy*, 33(4), 482-500.
- Barrientos, J., & Paez, D. (2006). Psychosocial variables of sexual satisfaction in Chili. *Journal of Sex and Marital Therapy*, 32(5), 351-368.
- Bohlmeijer, E., ten Klooster, P. M., Fledderus, M., Veehof, M., & Baer, R. (2011). Psychometric properties of the five facet mindfulness questionnaire in depressed adults and development of a short form. *Assessment*, 18, 308–320.

- Braithwaite, R., Delevi, R., & Fincham, F. D. (2010). Romantic Relationships and the physical and mental health of college students. *Personal Relationships, 17*(1),1-12.
- Brotto, L. A., & Basson, R. (2014). Group mindfulness-based therapy significantly improves sexual desire in women. *Behaviour Research and Therapy, 57*, 43-54.
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological wellbeing. *Journal of Personality and Social Psychology, 84*, 822-848.
- Butzer, B., & Campbell, L. (2008). Adult attachment, sexual satisfaction, and relationship satisfaction: A study of married couples. *Personal Relationships, 15*, 141-154.
- Byers, E. S. (2005). Relationship satisfaction and sexual satisfaction. A longitudinal study of individuals in long-term relationships. *Journal of Sex Research, 42*(2), 113-118.
- Carson, J. W., Carson, K. M., Gil, K. M., & Baucom, D. H. (2004). Mindfulness- based relationship enhancement. *Behaviour Therapy, 35*, 471-494.
- Centers for Disease Control and Prevention (2010). A Public Health Approach for Advancing Sexual Health in the United States: Rationale and Options for implementation, Meeting Report of an External Consultation. Retrieved January 19, 2017, from <https://www.cdc.gov/sexualhealth/docs/sexualhealthreport-2011-508s.pdf>
- Centers for Disease Control and Prevention (2011). Models and Frameworks for the Practice of Community Engagement – Principles of Community Engagement Second Edition. *ATSDR, Agency for Toxic Substances and Disease Registry*.

Retrieved January 19, 2017 from

https://www.atsdr.cdc.gov/communityengagement/pce_models.html

Centers for Disease Control and Prevention (2015). Sexual Activity, Contraceptive Use, and Childbearing Teenagers Aged 15-19 in the United States. *NCHS Data Brief No. 209, 2015*. Retrieved July 29, 2016, from <http://www.cdc.gov/nchs/data/databriefs/db209.htm>

Christensen, A., & Jacobson, N. S. (2000). *Reconcilable differences*. New York: The Guilford Press.

Collins, W. A., & Madsen, S. D. (2006). Personal relationships in adolescence and early adulthood. In A.L. Vangelisti & D. Perlman (Eds.), *The Cambridge handbook of personal relationships*, 191-209. New York, NY: Cambridge University Press.

Collins, W. A., Welsh, D. P., & Furman, W. (2009). Adolescent Romantic Relationships. *Annual Review of Psychology, 60*, 631-652.

Croyle, K. L. & Waltz, J. (2002). Emotional awareness and couples' relationship satisfaction. *Journal of Marital and Family Therapy, 28*, 435-444.

Dean, J., Shecter, A., Vertkin, A., Weiss, P., Yaman, O., Hodik, M., Ginovker, A. (2013). Sexual Health and Overall Wellness (SHOW) survey in men and women in selected European and Middle Eastern countries. *Journal of Internal Medical Research, 41*(2), 482-492.

Dove, L., Wiederman, N. M. (2000). Cognitive distraction and women's sexual functioning. *Journal of Sex & Marital Therapy, 26*(1), 67-78.

Dunkley, C. R., Goldsmith, K. M., & Gorzalka, B. B. (2015). The potential role of mindfulness in protecting against sexual insecurities. *The Canadian Journal of*

- Human Sexuality*, 24(2), 92-103.
- Dunn, K. M., & Croft, P. R. (2000). Satisfaction in the sex life of a general population sample. *Journal of Sex and Marital Therapy*, 26(2), 141-151.
- Fallis, E. E., Rehman, U. S., Woody, E. Z., Purdon, C. (2016). The Longitudinal Association of Relationship Satisfaction and Sexual Satisfaction in Long-Term Relationships. *Journal of Family Psychology*, 30(7), 822-831.
- Finchman, F. D. & M. Cui (Eds.). (2010). *Romantic relationships in emerging adulthood*. New York, NY: Cambridge University Press.
- Freud, S. (1930) *Three Contributions to the Theory of Sex*. New York, NY: Nervous and Mental Disease Publishing Company.
- Fisher, T. D., & McNulty, J. K. (2008). Neuroticism and marital satisfaction. The mediating role played by the sexual relationship. *Journal of Family Psychology*, 22(1), 112-122.
- Goldstein, J. (2002). *One Dharma: The emerging Western Buddhism*. San Francisco: Harper Collins.
- Gottman, J. M., & Levenson, R. W. (1992). Marital processes predictive of later dissolution: Behaviour, physiology and health. *Journal of Personality and Social Psychology*, 63, 221-233.
- Gottman, J. M., Levenson, R. W., Gross, J., Frederickson, B. L., McCoy, K., Rosenthal, L., Ruef, A., & Yoshimoto, A. R. (2008). Correlates of Gay and Lesbian Couples' Relationship Satisfaction and Relationship Dissolution. *Journal of Homosexuality*, 23-43.
- Haig, J. R. (2003). Sexual Satisfaction: Its Structure, Stability, and Correlates, *ProQuest*

Dissertations and Theses, 1-157.

- Henderson, A. W., Lehavot, K., & Simoni, J. M., (2008). Ecological Models of Sexual Satisfaction among Lesbian/Bisexual and Heterosexual Women. *Archives of Sexual Behavior*, 38(1), 50-65.
- Holzel, B. K., Lazar, S. W., Gard, T., Schuman-Olivier, Z., Vago, D. R., & Ott, U. (2011). How does mindfulness meditation work? Proposing mechanisms of action from a conceptual and neural perspective. *Perspectives on Psychological Science*, 6(6), 537-559.
- Horne, S., & Zimmer-Gembeck, M. J. (2005). Female sexual subjectivity and well-being: Comparing late adolescents with different sexual experiences. *Sexuality Research & Social Policy: Journal of the NSRC*, 2, 25-40.
- Hui Liu, L. J., Waite, S. S., & Wang, D. H. (2016). Is sex good for your health? A national study on partnered sexuality and cardiovascular risk among older men and women. *Journal of Health and Social Behavior*, 57(3), 276-296.
- Impett, E. A., Muise, A., & Peragine, D. (2014). Sexuality in the context of relationships. In D. L. Tolman, L. M. Diamond, J. A. Bauermeister, W. H. George, J. G. Pfaus, & M. L. Ward (Eds.) *APA Handbook of Sexuality and Psychology, Vol. 1: Person-based Approaches*, (pp. 269-315). American Psychological Association: Washington, DC.
- Joannides, P. (2006). *The guide to getting it on (4th ed.)*. Waldport, OR: Goofy Foot Press.
- Kabat-Zinn, J. (2000) Indra's net at work. The mainstreaming of Dharma practice in society. In G. Watson & S. Batchelor (Eds.), *The psychology of awakening: Buddhism, science, and our day-to-day lives* (pp. 225-249). North

Beach, ME: Weiser.

- Kamp Dush, C. M., & Amato, P. R. (2005). Consequences of relationship status and quality for subjective well-being. *Journal of Social and Personal Relationships*, 22(5), 607-627.
- Khaddouma, A., Gordon, K. C., & Bolden, J. (2015). Zen and the art of sex: examining associations among mindfulness, sexual satisfaction, and relationship satisfaction in dating relationships. *Sexual and Relationship Therapy*, (30) 2, 268-285.
- Kozlowski, A. (2012). Mindful mating: exploring the connection between mindfulness and relationship satisfaction. *Sexual and Relationship Therapy*, (28) 1-2, 92-104.
- Krusemark, E., Campbell, W. K., & Rogge, R. D. (2007). The role of mindfulness in romantic relationship satisfaction and responses to relationship stress. *Journal of Marital and Family Therapy*, 33(4), 482-500.
- Lawrance, K., & Byers, E. S. (1995). Sexual satisfaction in long-term heterosexual relationships: The Interpersonal Exchange Model of Sexual Satisfaction. *Personal Relationships*, 2, 267-285.
- Lawrance, K., & Byers, E. S. (1998). Interpersonal Exchange Model of Sexual Satisfaction Questionnaire. In C. M. Davis, W. L. Yarber, R. Baureman, G. Schreer, & S. L. Davis (Eds.), *Sexuality related measures: A compendium* (2nd ed., pp. 514-519). Thousand Oaks, CA: Sage.
- Lazaridou, A., & Kalogianni, C. (2013). Mindfulness and sexuality. *Sexual and Relationship Therapy*, 28(1-2), 29-38.
- Mark, K. P., Herbenick, D., Fortenberry, J. D., Sanders, S., & Reece, M. (2014). A

- psychometric comparison of three scales and a single-item measure to assess sexual satisfaction. *Journal of Sex Research*, 51(2), 159-169.
- Mark, K. P., Milhausen, R. R., & Maitland, S. (2013). The Impact of Sexual Compatibility on Sexual and Relationship Satisfaction in a sample of young heterosexual couples. *Sexual and Relationship Therapy*, 28(3), 201-214.
- Masters, W. H., & Johnson, V. E. (1970). *Human sexual inadequacy*. Boston, MA: Little, Brown, and Company.
- McCarthy, B., & Wald, L. M. (2013). Mindfulness and Good Enough Sex. *Sexual and Relationship Therapy*, 28(1-2), 39-47.
- McClelland, S. I. (2011). Who is the “self” in self reports of sexual satisfaction. Research and policy implications. *Sexuality Research and Social Policy*, 8(4), 304-320.
- O’Sullivan, L. F., & Allgeier, E. R. (1998). Feigning sexual desire: consenting to unwanted sexual activity in heterosexual dating relationship. *Journal of Sex Research*, 35, 234-243.
- Peters, S. K. W. (2002). Gender identity, gender role, and body image as predictors of sexual satisfaction. *Proquest Dissertation and Theses*, 1-248.
- Rainer, H., & Smith, I. (2012). Education, Communication and Wellbeing: An Application to Sexual Satisfaction. *KYKLOS*, 65(4), 581-598.
- Rehman, U., Rellini, A., & Fallis, E. (2011). The Importance of Sexual Self-disclosure to Sexual Satisfaction and Functioning in Committed Relationships. *Journal of Sexual Medicine*, 8, 3108-3115.
- Rhoades, G. K., Kamp Dush, C. M., Atkins, D. C., Stanley, S. M., & Markman, H. J. (2011) Breaking up is hard to do: The impact of unmarried relationship dissolution on mental health and life satisfaction. *Journal*

of Family Psychology, 25(3), 366-374.

Riva, G., Teruzzi, T., & Anolli, L. (2004). The Use of the Internet in Psychological Research: Comparison of Online and Offline Questionnaires. *CyberPsychology & Behavior*, 6(1), 73-80.

Rusbult, C. E., & Buunk, B. P. (1993). Commitment processes in close relationships: An interdependence analysis, *Journal of Social and Personal Relationships*, 10, 175-204.

Schroder, K. E. E., Carey, M. P., Vanable, P. A. (2003). Methodological challenges in research on sexual risk behavior: II. Accuracy of self-reports. *Annals of Behavioral Medicine*, 26(2), 104-123.

Scnarch, D. M. (1991). *Constructing the Sexual Crucible: An Integration of Sexual and Marital Therapy*. New York: Norton.

Segal, Z. V., Williams, J. M. G., & Teasdale, J. D. (2002). *Mindfulness-based cognitive therapy for depression: A new approach to preventing relapse*. New York: Guilford.

Seiffge-Krene, I. (2003). Testing theories of romantic development from adolescence to young adulthood: Evidence of a developmental sequence. *International Journal of Behavioral Development*, 27(6), 519-531.

Smith, A., Patrick, K., Heywood, W., Pitts, M. K., Richters, J., Simpson, J. M., & Ryall, R. (2012). Body mass index, sexual difficulties and sexual satisfaction among people in regular heterosexual relationships: a population based study. *Internal Medicine Journal*, 641-651.

Sprecher, S., & Cate, R. M. (2004). Sexual satisfaction in premarital relationships.

- Associations with satisfaction, love, commitment, and stability. *Journal of Sex Research*, 39(3), 190-196.
- Steele, J. R. (1999). Teenage sexuality and media practice: Factoring in the influences of family, friends, and school. *The Journal of Sex Research*, (56) 331-341.
- Stolarksi, M., Vowinckel, J., Jankowski, K. S., & Zajenkowski, M. (2016). Mind the balance, be contented: Balanced time perspective mediates the relationship between mindfulness and life satisfaction. *Personality and Individual Differences*, 93, 27-31.
- Taylor, J. F., Rosen, R. C., & Leiblum, S. R. (1994). Self-report assessment of female sexual function: Psychometric evaluation of the brief index of sexual functioning for women. *Archives of Sexual Behavior*, 23(6), 627-643.
- Wachs, K., & Cordova, J. V. (2007). Mindful relating: Exploring mindfulness and emotion repertoires in intimate relationships. *Journal of Marital and Family Therapy*, 33, 461-481.
- Whitton, S. W., Weitbrecht, E. M., Kuryluk, A. D., & Bruner, M. R. (2013). Committed dating relationships and mental health among college students. *Journal of American College Health*, 61(3), 176-183.
- Wince, J. P., & Carey, M. P. (1991). *Sexual dysfunction: A guide for assessment and treatment*. New York: Guilford Press.
- Young, M., Denny, G., Young, T., & Luquis, R. (2000). Sexual satisfaction among married women. *American Journal of Health Studies*, 16(2), 73-84.
- Zilbergeld, B., Ellison, C. R. (1980) Desire discrepancies and arousal problems in sex therapy, *Principles and Practice of Sex Therapy*, 65-101.

Zimmer-Gembeck, M. J., Ducat, W. H., Boislard-Pepin, M. (2011). A Prospective Study of Young Females' Sexual Subjectivity: Associations with Age, Sexual Behavior, and Dating. *Archives of Sexual Behavior*, 927-938.

Zimmer-Gembeck, M. J., & Helfand, M. (2008). Ten years of longitudinal research on U.S. adolescent sexual behavior: The evidence for multiple pathways to sexual intercourse, and the importance of age, gender, and ethnic background. *Developmental Review*, 28, 153-224.

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