

Mindfulness in the context of a romantic relationship to predict relationship satisfaction

Ehsan Khorasani, Hossein Farrokhi, Elahe Shoja, Mahyar Moghaddam, Seyed Ali Kimiaei

Abstract--- *Mindfulness appears to be one of the important predictors of relationship satisfaction. The degree of mindfulness displayed by a partner when involved in romantic relationship is known as relationship mindfulness. When it comes to the romantic relationship, researchers need to look at the specific type of mindfulness designed for the field of romantic relationships. Therefore, the present study seeks to show whether relationship mindfulness can predict relationship satisfaction directly. Moreover, there is a difference in mindfulness between males and females in the romantic relationship and how the relationship mindfulness can predict relationship satisfaction in this situation. In the present study, a multistage cluster sampling method was adopted to select participants from among the study population (n=386 individual). Structural equation modeling (SEM) and MANOVA was used for data analysis. Based on the results of the present study, relationship mindfulness predicted relationship satisfaction directly and significantly ($p < 0.05$). Further, the level of mindfulness in romantic relationship was higher for females in the present study. In addition, gratitude has been shown to be an appropriate mediator for the association between relationship mindfulness and relationship satisfaction.*

Keywords--- *Relationship mindfulness, relationship satisfaction, gender, gratitude, affectionate communication.*

I. INTRODUCTION

Prior studies (Harvey, Crowley, & Woszidlo, 2019; Kappen, Karremans, Burk, & Buyukcan-Tetik, 2018; Karing & Beelmann, 2019; Lenger, Gordon, & Nguyen, 2017; Maher & Cordova, 2019) showed an association between mindfulness and relationship satisfaction. Mindfulness can be defined as the tendency to be attentive and non-judgmental of things that take place in moment (Kimmes, Jaurequi, Roberts, Harris, & Fincham, 2019). As displayed by the findings of several studies (Barnes, Brown, Krusemark, Campbell, & Rogge, 2007; Iani, Lauriola, Chiesa, & Cafaro, 2019; Jones, Bodie, & Hughes, 2016; Karing & Beelmann, 2019; Karremans, Schellekens, & Kappen, 2017; Kemper & Khirallah, 2015; Kozlowski, 2013; Saavedra, Chapman, & Rogge, 2010), trait mindfulness can improve one's ability to deal with the relationship stress and to foster empathy, emotion regulation, executive control, and self-other connectedness. It has been shown to be inversely correlated with insecure attachment. For example, Burpee and Langer (2005) showed that mindfulness has a positive bearing on marital satisfaction by increasing open-mindedness and flexibility.

Although these studies consider mindfulness as a general concept, scientists have concluded that greater emphasis must be paid to the context. In other words, any work on mindfulness should consider the context in which the mindfulness is

Ehsan Khorasani*, Master student, department of faculty of education and psychology, Ferdowsi University of Mashhad, Mashhad, Iran.
*Correspond Author Email: Ehsan.khorasani@mail.um.ac.ir.

Hossein Farrokhi, PhD, department of faculty of education and psychology, Ferdowsi University of Mashhad, Mashhad, Iran, Email: Farrokhi.hossein@mail.um.ac.ir.

Elahe Shoja, master student, department of faculty of education and psychology, Ferdowsi University of Mashhad, Mashhad, Iran. Email: elahe.shoja@mail.um.ac.ir.

Mahyar Moghaddam, master student, department of faculty of education and psychology, Ferdowsi University of Mashhad, Mashhad, Iran. Email: Mahyar.moghaddam@mail.um.ac.ir.

Seyed Ali Kimiaei, associate professor, department of faculty of education and psychology, Ferdowsi University of Mashhad, Mashhad, Iran. Email: kimiaee@um.ac.ir.

about to be measured (Duncan, 2007; Kimmes, Jaurequi, May, Srivastava, & Fincham, 2018). For example, interpersonal mindfulness in parenting (IEM-P) scale (Duncan, 2007) and sexual five-facet mindfulness questionnaire (FFMQ_S) (Adam, Heeren, Day, & de Sutter, 2015). However, a person that is normally assumed to be mindful might experience varying degree of mindfulness in different situations. This is because mindfulness depends on the context. For example, in the context of romantic relationship, which is positively related to attachment and there is a higher level of intimacy and happiness, it is important to consider context (Kimmes et al., 2018). Therefore, mindfulness in the context of a romantic relationship is associated with relationship quality and relationship wellbeing (Kimmes et al., 2019). Mindfulness is known in the field of a romantic relationship as relationship mindfulness. The degree of mindfulness displayed by a partner in a romantic relationship is defined as relationship mindfulness. That is, we aimed to study the association between relationship mindfulness and relationship satisfaction.

While mindfulness was not associated with the quality of positive relationship in males, it was associated with relationship in females positively (Kimmes et al., 2019). Moreover, such a difference in the degree of mindfulness between males and females was emphasized by Katz and Toner (2013). Accordingly, such an assumption is promising in terms of studying the difference between the degree of mindfulness in males and females. For example, evidence (Hall & Matsumoto, 2004; Rojiani, Santoyo, Rahrig, Roth, & Britton, 2017) shows that females accounted for more conciseness awareness and also emotional awareness than males. The rationale behind these findings are the fact that females have more awareness of their emotional constructs (e.g., amygdala, prefrontal, regions) than males. In other words, the trait of observing emotion in females is stronger than males (Rojiani et al., 2017). In an experiment, Katsikitis, Pilowsky, and Innes (1997) showed that females were more successful at interpreting emotional states than males, which might suggests that females have more awareness of their emotions and also have more awareness of their partners emotional interpretations.

Literature shows that mindfulness exercise has a substantial effect on females than in males (Rojiani et al., 2017). In the same vein, meditation exercise in females was more influential in reducing anxiety and withdrawal of substance abuse than males (Chen, Comerford, Shinnick, & Ziedonis, 2010; Katz & Toner, 2013). Furthermore, mindfulness exercise is highly beneficial to reduce negative affect in females, while such a change has not seen in males. Also, mindfulness technique in females play a vital role in improving non-reactivity and non-judgmental comparison (Bishop et al., 2004; Rojiani et al., 2017).

In addition, Karremans et al. (2017) underscored the importance of examining how mindfulness can promote relationship satisfaction. Accordingly, studying the mediators (i.e., gratitude and affectionate communication) between relationship mindfulness and relationship satisfaction that facilitate this process are important. Thus, gratitude and affectionate communication serve as potential mediators in the present study. Besides, we hypothesized that these mediators establish a link between relationship mindfulness and relationship satisfaction.

Gratitude

The first mediator is a general experience that leads to an intense and meaningful interaction with other individuals (Swickert et al., 2019). This mediator represents positive emotions experienced when an individual is appreciated by others (Roberts, Tsang, & Manolis, 2015). Thus, as indicated in the literature (Emmons & Stern, 2013; Rosenzweig, 2013; Seear & Vella-Brodrick, 2013; Swickert et al., 2019), there is a positive association between mindfulness and gratitude. Nonetheless, mindfulness and gratitude are mutually related so that mindfulness plays a key role in the expression of gratitude. In addition, the components of mindfulness (i.e. openness, reception, and non-judgment) are key factors in the expression of gratitude (Swickert et al., 2019). For example, grateful individuals, who are more patient and contemplative, tend to be healthier and come up with solutions to deal with any problems or conflicts (Kornfield, 2009). Therefore,

consciousness of the environment, awareness of thoughts and emotions, and enhanced appreciation when one's partner is more mindful and grateful for the positive aspect of the partnership can improve serenity and wellbeing in life (Kimmes et al., 2018; Swickert et al., 2019; Voci, Veneziani, & Fuochi, 2019).

As noted in the literature, an intervention consisting of mindfulness and gratitude can be highly effective (Fuller-Tyszkiewicz et al., 2019; Ivtzan et al., 2016; Swain, Lennox Thompson, Gallagher, Paddison, & Mercer, 2019). Moreover, gratitude is significantly associated with relationship satisfaction and high-quality relationship (Algoe, Fredrickson, & Gable, 2013; Algoe, Gable, & Maisel, 2010; Roberts et al., 2015; Tsang & Martin, 2019). Gratitude is a crucial factor for maintaining a relationship, especially close and intimate ones (Algoe et al., 2010). In general, gratitude can simplify the expansion of close relationship (Algoe, Haidt, & Gable, 2008). We hypothesized that gratitude would partially mediate the positive relation between relationship mindfulness and relationship satisfaction.

Affectionate communication

Nonetheless, one major component that can improve and sustain a relationship is affectionate communication (Floyd & Riforgiate, 2008). It describes the way an individual communicates and affects a partner, and hence improves interpersonal communication and acceptance (Denes, Bennett, & Winkler, 2017). For instance, when a man says "I love you" for the first time and then hugs and kisses his partner, she would never forget (Floyd, 1997). People who are generous about giving and receiving affections are more likely to obtain mental and physical benefits (Denes et al., 2017). Affection can be expressed in three ways: verbal, nonverbal, and supportive behavior (Floyd, 1997). Several studies (Arch & Craske, 2006; Goldin & Gross, 2010) showed that mindfulness has a regulatory effect on difficult emotions. To the best of our knowledge, however, little research has been performed on the fact that mindfulness improve expressed affection in communication (Jones et al., 2016). Based on these findings, we investigated whether relationship mindfulness could increase the expression of affection in the romantic relationship. In general, mindfulness is defined as an affectionate attention (Shapiro, Oman, Thoresen, Plante, & Flinders, 2008). A mindful person knows how to feel and how to send, receive, and control verbal and nonverbal messages. Mindful people react to the emotional needs of their partner affectionately and show their emotional and social expressive skills sympathetically (Jones & Hansen, 2015). Lower levels of mindfulness are associated with negative affectivity and a higher level of mindfulness is linked to positive affectivity (Chambers, Lo, & Allen, 2008; Giluk, 2009; Shapiro, Schwartz, & Bonner, 1998; Siegel, Germer, & Olendzki, 2009; Wachs & Cordova, 2007).

In addition, mindful individuals pay non-judgmental and non-reactive attention to the environment (Jones et al., 2016). Due to this feature, mindful state is not distorted by cognitive biases in the relationships (Siegel et al., 2009), produces a lower reaction to distress in social situations (Allen & Knight, 2005) and is less perceptive of rejection (Eisenberger, Lieberman, & Williams, 2003). Accordingly, empathy and active listening with partner in a relationship improves (Jones et al., 2016). There is an extensive evidence (Floyd et al., 2009; Gullede, Gullede, & Stahmann, 2003; Punyanunt-Carter, 2004) that affectionate communication in a relationship is associated with higher relationship satisfaction and higher quality of the relationship. Also, affectionate communication can be crucial to forming and maintaining the relationship (Floyd, 2002). The lack of affectionate communication is associated with depression, loneliness, stress, and fear of intimacy (Denes et al., 2017). Lack of emotion and affection exerts a negative impact on the emotional experience of partners (Wachs & Cordova, 2007). We hypothesized that affectionate communication would partially mediate the positive relationship between relationship mindfulness and relationship satisfaction.

Present study

In this study, we investigate association between relationship mindfulness and relationship satisfaction. The three tested hypotheses:

1. Hypothesis: Relationship mindfulness can directly and positively anticipate relationship satisfaction.
2. Hypothesis: Females have more mindfulness than males in a romantic relationship.
3. Hypothesis: Gratitude and affectionate communication can mediate and facilitate the association between relationship mindfulness and relationship satisfaction.

Consequently, a special look at the field of mindfulness, that is relationship mindfulness, can take a deeper and more complete investigation into the field of a romantic relationship. In the present study, the association between relationship mindfulness and relationship satisfaction is measured. The second assumption is that females are more mindful in a romantic relationship. The third assumption is, gratitude and affectionate communication are used as mediators. Mindful individual can pay attention to all aspects of the relationship. Also, gratitude can make positive space in the relationship, this space could improve and facilitate express affection between partners.

II. METHOD

My aim in the present study is to investigate the association between relationship mindfulness and relationship satisfaction. The participants (N = 410) of the present study were students of University between June and July 2019. From these participants, 24 were excluded due to incomplete answers. The final sample was 386 individuals (females = 242; males = 144); (mean = 34.25); (SD = 9.56); (range = 18 – 52). The mean and SD for years of marriage were 10.34 and 9.76, respectively. The multistage cluster sampling was used to select participants from various faculties. Accordingly, six departments were selected initially of which three classes were chosen randomly. One of the researchers was in charge of collecting data from the sample. Inclusion criteria were (a) 18-60 years of age, (b) being student at university, and (c) their marriages have at least a 6-month history. The exclusion criterion is not having mental or physical disorder. An informed consent form was obtained from the participants before the start of study. Moreover, participants' email addresses were obtained to send test results

Measures

Relationship mindfulness

Relationship mindfulness shows the degree of a partner's mindfulness during a period of relation. It consists of five questions (e.g., when my partner and I discuss an issue or work on a problem together, I behave automatically, without being aware of what I am saying or doing) (Kimmes et al., 2018). Each item is scored on a 6-point Likert scale (ranging from 1 = almost always to 6=almost never) with higher scores indicating a higher-level of mindfulness in the relationship. The first phase coefficient alpha was 86% and the second phase coefficient alpha 93% (Kimmes et al., 2018). In the present study, the Cronbach's alpha was used to validate the relationship mindfulness ($\alpha = 0.70$).

Gratitude (GQ-6)

Gratitude questionnaire measures the level of one's appreciation in life. It comprises 6 items (e.g., I feel thankful for what I have in life) (McCullough, Emmons, & Tsang, 2002). This questionnaire is scored on a 7-point Likert scale with scores in the range of 6 to 42, where higher scores indicate a higher level of Gratitude. The desirable internal consistency of this test has already been shown ($\alpha = 0.82$) (McCullough et al., 2002). In the present study, the Cronbach's alpha was used for validation of gratitude questionnaire ($\alpha = 0.68$).

Affectionate Communication Index (ACI)

Affectionate communication 18-item questionnaire measures the frequency with which a person engages in three types of affectionate behaviors including verbal behaviors (e.g., "I care about you"), direct nonverbal behaviors (e.g., "hug him or her"), and social support behaviors (e.g., "help him or her deal with problems") (Floyd & Morman, 1998). The items are scored on a 7-point Likert scale. Cronbach's alpha for the participant and partner is 84% and 92% for verbal, 92%, and 88% for nonverbal, and 75% and 74% for supportive behavior, respectively (Floyd & Morman, 1998). In the present study, the ACI was validated by Cronbach's alpha ($\alpha = 0.95$).

The Relationship Assessment Scale (RAS)

The relationship assessment scale has 7-item questionnaire measures relationship satisfaction. Items are scored on a 5-point Likert scale. For example (e.g., "How well does your partner meet your needs?" or "How often do you wish you had not gotten in to this problem?") The coefficient alpha of this test is 86% (Hendrick, 1988). In the present study, the Cronbach's alpha was used to validate the relationship assessment scale ($\alpha = 0.78$).

Data Analysis

To analyze the association between relationship mindfulness and relationship satisfaction, we used the structural equation modeling (SEM). Moreover, EM method of measurement was used for missing values. This method consists of two stages: in the first stage and based on known values, the average missing data is calculated, and in the second stage, a complete dataset is created. This process continues several times to make sure that estimates are accurate. As suggested by the evidence (Enders, 2003), this method appears to be more accurate. In the present study, we did not observe any data outliers and the skewness (1.357-.076) kurtosis (1.470-.016) were desirable.

A two-stage SEM strategy was applied to estimate parameters using Amos software. This strategy involves estimating the measurement model before estimating the structural and measurement sub-models. Although the measurement model provides confirmatory convergent validity and discriminant validity, both measurement and structural models provide a comprehensive and confirmatory evaluation of the construct validity.

To determine the significance of the indirect effect of the variables, the bootstrap repeat sampling was used with a 95% confidence interval from the sampling distribution

Multivariate analysis of variance-covariance (MANOVA) was used to analyze the data on the differences between the two groups of males and females in terms of the component of relationship mindfulness.

The assumption of this test was to examine by Box-test, Wilks Lambda test, and Levene-test. For this purpose, a Box-test was used to examine the assumption of homogeneity of the variance-covariance matrixes of the components of relationship mindfulness in the studied groups.

III. RESULTS

A series of operations including four confirmatory factor analyses was undertaken to assess the construct validity of latent variables (relationship mindfulness, gratitude, affectionate communication, and relationship satisfaction). We measured three latent variables (gratitude, relationship satisfaction, and relationship mindfulness) by two observed variables and the fourth latent variable (affectionate communication) by three observed variables.

According to the results, the assumed model fits well with the observed data ($\chi^2 (9, N=368) = 10.47, p < .001$; CFI=.982, NFI=.941, RMSEA=.062). The model path coefficients are shown in Figure 1. All measured variables had a relatively strong correlation with their factors. Figure 1 shows the association between relationship mindfulness,

relationship satisfaction, gratitude, and affectionate communication within the framework of structural modeling. The significant level of the study was set at $*p<.001$.

Figure 1:

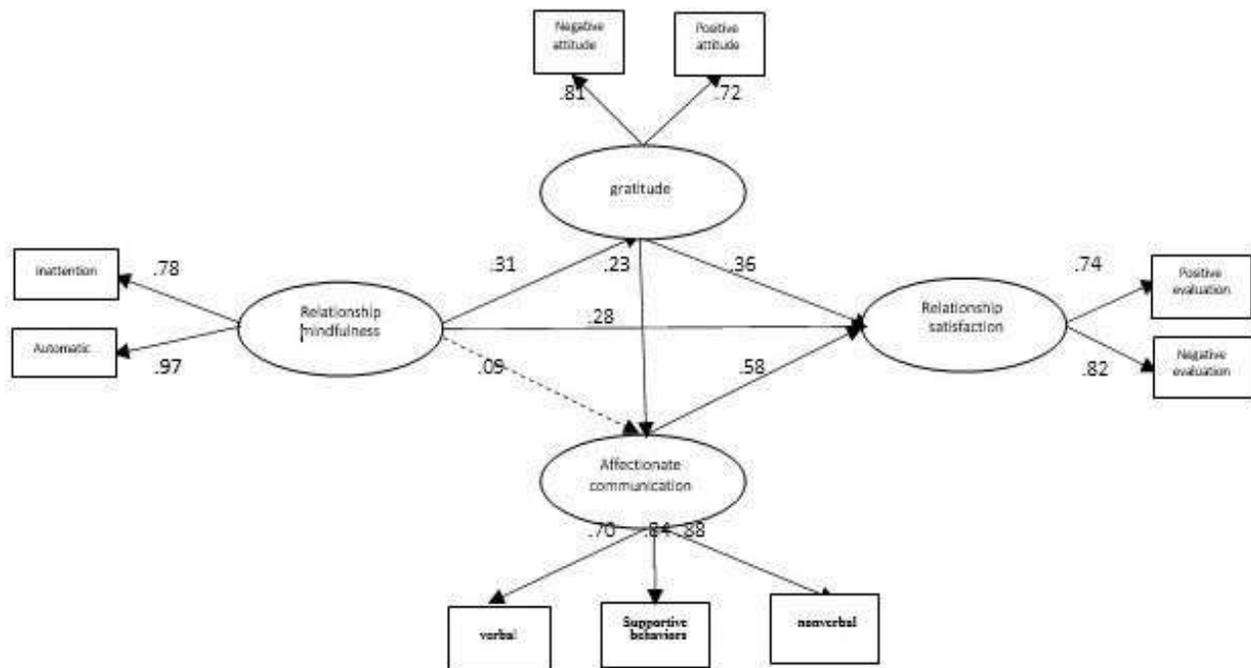


Figure 1 shows the association between relationship mindfulness, relationship satisfaction, gratitude, and affectionate communication within the framework of structural modeling. The significant level of the study was set at $*p<.001$. Solid line indicates significant effect.

Table 1- Demographic and mean and standard deviation of variables

Variables	Mean/frequency	Standard deviation/percent
age	34/24	9/56
Duration of marriages	10/33	9/76
Relationship mindfulness	18/50	4/92
gratitude	30/10	6/67
Affectionate communication	86/28	22/20
Relationship satisfaction	24/59	5/45

Table 2- Correlation

		gratitude	Relationship satisfaction	Affectionate communication	Relationship mindfulness
gratitude	Pearson Correlation	1	.362**	.238**	.312**
	Sig. (2-tailed)		.000	.000	.000
	N	386	386	386	386
Relationship	Pearson Correlation	.362**	1	.582**	.288**

satisfaction	Sig. (2-tailed)	.000		.000	.000
	N	386	386	386	386
Affectionate communication	Pearson Correlation	.238**	.582**	1	.094
	Sig. (2-tailed)	.000	.000		.065
	N	386	386	386	386
Relationship mindfulness	Pearson Correlation	.312**	.288**	.094	1
	Sig. (2-tailed)	.000	.000	.065	
	N	386	386	386	386

** . Correlation is significant at the 0.01 level (2-tailed).

Table 3

Variable	gender	Mean	Std. Deviation
Q1	male	3.5764	1.45121
	female	3.4959	1.36418
Q2	male	3.4236	1.56706
	female	3.9298	1.44872
Q3	male	3.3125	1.43614
	female	4.0248	1.35097
Q4	male	3.2083	1.49065
	female	3.9380	1.39660
Q5	male	3.2917	1.51392
	female	4.1157	1.42991

Table shows the mean and standard deviation of the females and males group in the relationship mindfulness component of question 1 to 5.

Table 4

Levene Statistic	df1	df2	Sig.
.908	1	384	.341
4.086	1	384	.054
3.558	1	384	.060
1.816	1	384	.179
2.424	1	384	.120

The table above shows that the variance of the components of relationship mindfulness in the two groups are equal and do not differ significantly from each other, which shows the reliability of subsequent result.

Table 5- Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Powerf
gender	p4q1	.585	1	.585	.300	.584	.001	.085
	p4q2	23.128	1	23.128	10.363	.001	.026	.895
	p4q3	45.805	1	45.805	23.937	.000	.059	.998
	p4q4	48.068	1	48.068	23.430	.000	.058	.998
	p4q5	61.303	1	61.303	28.690	.000	.070	1.000
Error	p4q1	749.656	384	1.952				
	p4q2	856.966	384	2.232				
	p4q3	734.789	384	1.914				
	p4q4	787.820	384	2.052				
	p4q5	820.510	384	2.137				

The Box-test indicates that the homogeneity condition of the variance-covariance matrix is significant ($p > 0.05$, $F = 1.287$)

The Wilks Lambda test shows that there is a significant ($P < 0.001$, $F = 8.245$) difference between the two groups in relationship mindfulness.

The Levene-test was also used to predict the equivalence of variance in relationship mindfulness in the study groups. The results of the Levene-test are shown in table 4:

Table 5 shows the Box-tests, Wilks Lambda test, and Levene-test between the subjects of difference between males and females.

Based on table 5, there is a significant difference between males and females in question 2 to 5 of the Relationship mindfulness questionnaire. Thus, the relationship mindfulness score of the male's group is significantly lower than the females. But in question 1, there is not such a difference between males and females in the component of relationship mindfulness.

IV. DISCUSSION

The present study was conducted to investigate the association between relationship mindfulness and relationship satisfaction. Also, understanding which gender had more mindfulness in a romantic relationship. Although, gratitude can mediate the association between relationship mindfulness and relationship satisfaction. Affectionate communication cannot mediate this association.

The first hypotheses that relationship mindfulness predict relationship satisfaction was significant. Based on the findings of the present study (see Figure 1), relationship mindfulness is directly and positively correlated with relationship satisfaction. As far as we know, the only study that measured the association between relationship mindfulness and relationship satisfaction are (Kimmes et al., 2018; Kimmes et al., 2019). However, they have just shown the association of relationship mindfulness with lower level of negative relationship quality and with higher level of positive relationship quality. Evidence shows that when one partner is mindfulness in a relationship, is more likely to behave with awareness and also control automatic impulses which finally leads to a positive evaluation of the other partner relationship (Karremans et al., 2017). Moreover, mindfulness in a romantic relationship can have an important effect on the reduction of conflict. In the same way, the mindful partner has less emotional stress (Barnes et al., 2007).

Another assumption is that females are more mindful than males in romantic a relationship. This study was coinciding with Chen et al. (2010); Katz and Toner (2013); Kimmes et al. (2019); Rojiani et al. (2017). Rojiani et al. (2017) showed

The Box-test indicates that the homogeneity condition of the variance-covariance matrix is significant ($p > 0.05$, $F = 1.287$)

The Wilks Lambda test shows that there is a significant ($P < 0.001$, $F = 8.245$) difference between the two groups in relationship mindfulness.

The Levene-test was also used to predict the equivalence of variance in relationship mindfulness in the study groups. The results of the Levene-test are shown in table 4:

Table 5 shows the Box-tests, Wilks Lambda test, and Levene-test between the subjects of difference between males and females.

females have a pivotal stand in non-reactivity, non-judgment, observing emotion than males. Another reason for this instance is that males are less active in adjusted emotional constructs (e.g., amygdala, prefrontal regions) when communicating and expressing their emotions, while females can use the emotional constructs of their brain with a

mindfully in a communication (Rojiani et al., 2017). Based on FMRI studies, during working memory tasks, females emotional constructs(e.g., amygdala and the orbitofrontal) more active than males. (Koch et al., 2007). Kimmes et al. (2019) also found that female mindfulness had a positive and significant association with positive relationship quality, while this association was not seen in males. These findings show the importance of gender difference in the field of mindfulness.

The other important rationale of the present study is that gratitude and affectionate communication can mediate the association between relationship mindfulness and relationship satisfaction. Relationship mindfulness is also indirectly correlated with relationship satisfaction through the mediation of gratitude(see Figure 1).Mindful individuals appreciate their positive routines, which can improve their relational well-being in the long run (Rosenzweig, 2013). Nonetheless, in light of the association between relationship mindfulness and gratitude, a greater understanding and appreciation of one's partner can improve the quality of positive relationships (Kimmes et al., 2018). With no bias, a mindful individual can focus on all aspects of life. In addition, they appreciate the positive aspects of their relationship, which increases the possibility of establishing rapport (Swickert et al., 2019). Consequently, the results of this study show that gratitude and relationship satisfaction are positively correlated (see Figure 1).

However, the association between relationship mindfulness and affectionate communication was not significant in the present study (see Figure 1). Although research showed mindfulness able to create balanced in negative affection, mindfulness cannot necessarily boosts positive affection between partners (Chambers et al., 2008). Rojiani et al. (2017) when females improve in mindfulness skill has a decrease in negative emotion but not have an increase in positive emotion. Breslin, Zack, and McMain (2002) mindfulness leads to more tolerate difficult emotion. Furthermore, perhaps one of the reasons why this relationship is not significance is that affectionate communication questionnaire only measures the practical dimension of expressing affection and has nothing to do with managing and controlling it. Moreover, in the present study, gratitude and affectionate communication are almost associated with each other. This strong linkage has something to do with the expressive affective role of gratitude (Robustelli & Whisman, 2018). In the present study, affectionate communication and relationship satisfaction are also related. In other words, expressive affection and nonverbal affection are important for greater relationship satisfaction(Floyd et al., 2009). For example, affectionate communication influence physical wellbeing apparently via perceived stress(Floyd et al., 2005). overall, affectionate communication can boosts quality of romantic relationship (Punyanunt-Carter, 2004).

Future research

In the research aspect, relationship mindfulness necessitates more study in the field of romantic relationship and variables such as (self-esteem, partner closeness), and also need to discovery of mediating variables to increase well-being and relationship satisfaction. Moreover, this area needs to have more study about gender differences in relationship mindfulness degree.

In the intervention aspect, research confirms that when mindfulness is used in a specific context e.g. Romantic relationship or parent context , it is more effective (Papies, 2017). Using mindfulness-intervention for couples included loving-kindness mediation, eye gazing, and synchronized breathing should be more considered(Carson, Carson, Gil, & Baucom, 2004; Gambrel & Piercy, 2015). Furthermore, based on this research, overall, women have more mindfulness in a romantic relationship. This finding can lead to more attention to gender in intervention planning.

V. CONCLUSION

The primary outcomes of the present study show that relationship mindfulness can predict relationship satisfaction. Likewise, when a partner has more mindful in a romantic relationship leads to a positive quality of the relationship. In

addition, females accounted for more mindfulness than males in a romantic relationship. This finding could be further explored in planning treatment and replicated in future studies. Besides, gratitude could be a decisive mediator for this estimate. In the other words, reinforcing the gratitude in romantic relationship can facilitate the association between the two variables.

REFERENCES

- [1] Adam, F., Heeren, A., Day, J., & de Sutter, P. (2015). Development of the Sexual Five-Facet Mindfulness Questionnaire (FFMQ-S): Validation among a community sample of French-speaking women. *The Journal of Sex Research*, 52(6), 617-626. doi:<https://doi.org/10.1007/s10608-007-9119-0>
- [2] Algoe, S. B., Fredrickson, B. L., & Gable, S. L. (2013). The social functions of the emotion of gratitude via expression. *Emotion*, 13(4), 605. doi:<https://doi.org/10.1037/a0032701>
- [3] Algoe, S. B., Gable, S. L., & Maisel, N. C. (2010). It's the little things: Everyday gratitude as a booster shot for romantic relationships. *Personal relationships*, 17(2), 217-233. doi:<https://doi.org/10.1111/j.1475-6811.2010.01273.x/10.1111>
- [4] Algoe, S. B., Haidt, J., & Gable, S. L. (2008). Beyond reciprocity: Gratitude and relationships in everyday life. *Emotion*, 8(3), 425. doi:<https://doi.org/10.1037/1528-3542.8.3.425>
- [5] Allen, N. B., & Knight, W. (2005). Mindfulness, compassion for self, and compassion for others. *Compassion: Conceptualizations, research and use in psychotherapy*, 239-262. doi:<http://dx.doi.org/10.1037/0033-2909.129.6.887>
- [6] Arch, J. J., & Craske, M. G. (2006). Mechanisms of mindfulness: Emotion regulation following a focused breathing induction. *Behaviour research and therapy*, 44(12), 1849-1858. doi:<https://doi.org/10.1016/j.brat.2005.12.007>
- [7] 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. doi:<https://doi.org/10.1111/j.1752-0606.2007.00033.x>
- [8] Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J., . . . Velting, D. (2004). Mindfulness: A proposed operational definition. *Clinical psychology: Science and practice*, 11(3), 230-241. doi:<https://doi.org/10.1093/clipsy.bph077>
- [9] Breslin, F. C., Zack, M., & McMain, S. (2002). An information-processing analysis of mindfulness: Implications for relapse prevention in the treatment of substance abuse. *Clinical psychology: Science and practice*, 9(3), 275-299. doi:<https://doi.org/10.1093/clipsy.9.3.275>
- [10] Burpee, L. C., & Langer, E. J. (2005). Mindfulness and marital satisfaction. *Journal of Adult Development*, 12(1), 43-51. doi:<https://doi.org/10.1007/s10804-005-1281-6>
- [11] Carson, J. W., Carson, K. M., Gil, K. M., & Baucom, D. H. (2004). Mindfulness-based relationship enhancement. *Behavior therapy*, 35(3), 471-494. doi:[https://doi.org/10.1016/S0005-7894\(04\)80028-5](https://doi.org/10.1016/S0005-7894(04)80028-5)
- [12] Chambers, R., Lo, B. C. Y., & Allen, N. B. (2008). The impact of intensive mindfulness training on attentional control, cognitive style, and affect. *Cognitive therapy and research*, 32(3), 303-322. doi:<https://doi.org/10.1007/s10608-007-9119-0>
- [13] Chen, K. W., Comerford, A., Shinnick, P., & Ziedonis, D. M. (2010). Introducing qigong meditation into residential addiction treatment: a pilot study where gender makes a difference. *The journal of alternative and complementary medicine*, 16(8), 875-882. doi:<https://DOI.org/10.1089/acm.2009.0443>
- [14] Denes, A., Bennett, M., & Winkler, K. L. (2017). Exploring the benefits of affectionate communication: implications for interpersonal acceptance–rejection theory. *Journal of Family Theory & Review*, 9(4), 491-506. doi:<https://doi.org/10.1111/jfr.12218>
- [15] Duncan, L. G. (2007). Assessment of mindful parenting among parents of early adolescents: Development and validation of the Interpersonal Mindfulness in Parenting scale.
- [16] Eisenberger, N. I., Lieberman, M. D., & Williams, K. D. (2003). Does rejection hurt? An fMRI study of social exclusion. *Science*, 302(5643), 290-292. doi:<https://doi.org/10.1126/science.1089134>
- [17] Emmons, R. A., & Stern, R. (2013). Gratitude as a psychotherapeutic intervention. *Journal of clinical psychology*, 69(8), 846-855. doi:<https://doi.org/10.1002/jclp.22020>
- [18] Enders, C. K. (2003). Using the expectation maximization algorithm to estimate coefficient alpha for scales with item-level missing data. *Psychological methods*, 8(3), 322. doi: <https://doi.org/10.1037/1082-989X.8.3.322>
- [19] Floyd, K. (1997). Communicating affection in dyadic relationships: An assessment of behavior and expectancies. *Communication Quarterly*, 45(1), 68-80. doi:<https://doi.org/10.1080/01463379709370045>
- [20] Floyd, K. (2002). Human affection exchange: V. Attributes of the highly affectionate. *Communication Quarterly*, 50(2), 135-152. doi:<https://doi.org/10.1080/01463370209385653>

- [21] Floyd, K., Boren, J. P., Hannawa, A. F., Hesse, C., McEwan, B., & Veksler, A. E. (2009). Kissing in marital and cohabiting relationships: Effects on blood lipids, stress, and relationship satisfaction. *Western Journal of Communication*, 73(2), 113-133. doi:<https://doi.org/10.1080/10570310902856071>
- [22] Floyd, K., Hess, J. A., Miczo, L. A., Halone, K. K., Mikkelson, A. C., & Tusing, K. J. (2005). Human affection exchange: VIII. Further evidence of the benefits of expressed affection. *Communication Quarterly*, 53(3), 285-303. doi:<https://doi.org/10.1080/01463370500101071>
- [23] Floyd, K., & Morman, M. T. (1998). The measurement of affectionate communication. *Communication Quarterly*, 46(2), 144-162. doi:<https://doi.org/10.1080/01463379809370092>
- [24] Floyd, K., & Riforgiate, S. (2008). Affectionate communication received from spouses predicts stress hormone levels in healthy adults. *Communication monographs*, 75(4), 351-368. doi:<https://doi.org/10.1080/03637750802512371>
- [25] Fuller-Tyszkiewicz, M., Richardson, B., Lewis, V., Linardon, J., Mills, J., Juknaitis, K., . . . Arulkadacham, L. (2019). A randomized trial exploring mindfulness and gratitude exercises as eHealth-based micro-interventions for improving body satisfaction. *Computers in Human Behavior*, 95, 58-65. doi:<https://doi.org/10.1016/j.chb.2019.01.028>
- [26] Gambrel, L. E., & Piercy, F. P. (2015). Mindfulness-based relationship education for couples expecting their first child—Part 1: A randomized mixed-methods program evaluation. *Journal of marital and family therapy*, 41(1), 5-24. doi:<https://doi.org/10.1111/jmft.12066>
- [27] Giluk, T. L. (2009). Mindfulness, Big Five personality, and affect: A meta-analysis. *Personality and Individual Differences*, 47(8), 805-811. doi:<https://doi.org/10.1016/j.paid.2009.06.026>
- [28] Goldin, P. R., & Gross, J. J. (2010). Effects of mindfulness-based stress reduction (MBSR) on emotion regulation in social anxiety disorder. *Emotion*, 10(1), 83. doi:<https://doi.org/10.1037/a0018441>
- [29] Gullede, A. K., Gullede, M. H., & Stahmann, R. F. (2003). Romantic physical affection types and relationship satisfaction. *The American Journal of Family Therapy*, 31(4), 233-242. doi:<https://doi.org/10.1080/01926180390201936>
- [30] Hall, J. A., & Matsumoto, D. (2004). Gender differences in judgments of multiple emotions from facial expressions. *Emotion*, 4(2), 201. doi:<https://doi.org/10.1037/1528-3542.4.2.201>
- [31] Harvey, J., Crowley, J., & Wozidlo, A. (2019). Mindfulness, Conflict Strategy Use, and Relational Satisfaction: a Dyadic Investigation. *Mindfulness*, 10(4), 749-758. doi:<https://doi.org/10.1007/s12671-018-1040-y>
- [32] Hendrick, S. S. (1988). A generic measure of relationship satisfaction. *Journal of Marriage and the Family*, 93-98. doi:<https://doi.org/10.2307/352430>
- [33] Iani, L., Lauriola, M., Chiesa, A., & Cafaro, V. (2019). Associations between mindfulness and emotion regulation: The key role of describing and nonreactivity. *Mindfulness*, 10(2), 366-375. doi:<https://doi.org/10.1007/s12671-018-0981-5>
- [34] Ivztan, I., Young, T., Martman, J., Jeffrey, A., Lomas, T., Hart, R., & Eiroa-Orosa, F. J. (2016). Integrating mindfulness into positive psychology: A randomised controlled trial of an online positive mindfulness program. *Mindfulness*, 7(6), 1396-1407. doi:<https://doi.org/10.1007/s12671-016-0581-1>
- [35] Jones, S. M., Bodie, G. D., & Hughes, S. D. (2016). The impact of mindfulness on empathy, active listening, and perceived provisions of emotional support. *Communication Research*, 0093650215626983. doi:<https://doi.org/10.1177/0093650215626983>
- [36] Kappen, G., Karremans, J. C., Burk, W. J., & Buyukcan-Tetik, A. (2018). On the association between mindfulness and romantic relationship satisfaction: The role of partner acceptance. *Mindfulness*, 9(5), 1543-1556. doi:<https://doi.org/10.1007/s12671-018-0902-7>
- [37] Karing, C., & Beelmann, A. (2019). Cognitive Emotional Regulation Strategies: Potential Mediators in the Relationship Between Mindfulness, Emotional Exhaustion, and Satisfaction? *Mindfulness*, 10(3), 459-468. doi:<https://doi.org/10.1007/s12671-018-0987-z>
- [38] Karremans, J. C., Schellekens, M. P., & Kappen, G. (2017). Bridging the sciences of mindfulness and romantic relationships: A theoretical model and research agenda. *Personality and Social Psychology Review*, 21(1), 29-49. doi:<https://doi.org/10.1177/1088868315615450>
- [39] Katsikitis, M., Pilowsky, I., & Innes, J. M. (1997). Encoding and decoding of facial expression. *The Journal of General Psychology*, 124(4), 357-370. doi:[https://doi.org/10.1016/0092-6566\(81\)90023-4](https://doi.org/10.1016/0092-6566(81)90023-4)
- [40] Katz, D., & Toner, B. (2013). A systematic review of gender differences in the effectiveness of mindfulness-based treatments for substance use disorders. *Mindfulness*, 4(4), 318-331. doi:<https://doi.org/10.1007/s12671-012-0132-3>
- [41] Kemper, K. J., & Khirallah, M. (2015). Acute effects of online mind-body skills training on resilience, mindfulness, and empathy. *Journal of evidence-based complementary & alternative medicine*, 20(4), 247-253. doi:<https://doi.org/10.1177/2156587215575816>

- [42] Kimmes, J. G., Jaurequi, M. E., May, R. W., Srivastava, S., & Fincham, F. D. (2018). Mindfulness in the context of romantic relationships: Initial development and validation of the Relationship Mindfulness Measure. *Journal of Marital and Family therapy*, 44(4), 575-589. doi:http://doi.org/10.1111/jmft12296
- [43] Kimmes, J. G., Jaurequi, M. E., Roberts, K., Harris, V. W., & Fincham, F. D. (2019). An Examination of the Association Between Relationship Mindfulness and Psychological and Relational Well-being in Committed Couples. *Journal of Marital and Family therapy*. doi:https://doi.org/1.1111/jmft12388
- [44] Koch, K., Pauly, K., Kellermann, T., Seiferth, N. Y., Reske, M., Backes, V., . . . Kircher, T. (2007). Gender differences in the cognitive control of emotion: An fMRI study. *Neuropsychologia*, 45(12), 2744-2754. doi:https://doi.org/10.1016/j.neuropsychologia.2007.04.012
- [45] Kornfield, J. (2009). *The wise heart: A guide to the universal teachings of Buddhist psychology*: Bantam.
- [46] Kozlowski, A. (2013). Mindful mating: Exploring the connection between mindfulness and relationship satisfaction. *Sexual and Relationship Therapy*, 28(1-2), 92-104. doi:https://doi.org/10.1080/14681994.2012.748889
- [47] Lenger, K. A., Gordon, C. L., & Nguyen, S. P. (2017). Intra-individual and cross-partner associations between the five facets of mindfulness and relationship satisfaction. *Mindfulness*, 8(1), 171-180. doi:https://doi.org/10.1007/s12671-016-0590-0
- [48] Maher, E. L., & Cordova, J. V. (2019). Evaluating equanimity: Mindfulness, intimate safety, and relationship satisfaction among meditators. *Couple and Family Psychology: Research and Practice*, 8(2), 77. doi:https://dx.doi.org/10.1037/cfp000019
- [49] McCullough, M. E., Emmons, R. A., & Tsang, J.-A. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of personality and social psychology*, 82(1), 112. doi:https://10.1037//0022-3514.82.1.112
- [50] Papias, E. K. (2017). Mindfulness and health behavior: Examining the roles of attention regulation and decentering. *Mindfulness in social psychology*, 102-116.
- [51] Punyanunt-Carter, N. M. (2004). Reported affectionate communication and satisfaction in marital and dating relationships. *Psychological reports*, 95(3_suppl), 1154-1160. doi:https://doi.org/10.2466/pr0.95.3f.1154-1160
- [52] Roberts, J. A., Tsang, J.-A., & Manolis, C. (2015). Looking for happiness in all the wrong places: The moderating role of gratitude and affect in the materialism–life satisfaction relationship. *The Journal of Positive Psychology*, 10(6), 489-498. doi:https://doi.org/10.1080/17439760.2015.1004553
- [53] Robustelli, B. L., & Whisman, M. A. (2018). Gratitude and life satisfaction in the United States and Japan. *Journal of happiness studies*, 19(1), 41-55. doi:https://doi.org/10.1007/s10902-016-9802-5
- [54] Rojiani, R., Santoyo, J. F., Rahrig, H., Roth, H. D., & Britton, W. B. (2017). Women benefit more than men in response to college-based meditation training. *Frontiers in psychology*, 8, 551. doi:https://doi.org/10.3389/fpsyg.2017.00551
- [55] Rosenzweig, D. (2013). The sisters of mindfulness. *Journal of clinical psychology*, 69(8), 793-804. doi:https://10.1002/jclp.22015
- [56] Saavedra, M. C., Chapman, K. E., & Rogge, R. D. (2010). Clarifying links between attachment and relationship quality: Hostile conflict and mindfulness as moderators. *Journal of Family Psychology*, 24(4), 380.
- [57] Seear, K. H., & Vella-Brodrick, D. A. (2013). Efficacy of positive psychology interventions to increase well-being: Examining the role of dispositional mindfulness. *Social Indicators Research*, 114(3), 1125-1141. doi:https://doi.org/10.1007/s11205-012-0193-7
- [58] Shapiro, S. L., Oman, D., Thoresen, C. E., Plante, T. G., & Flinders, T. (2008). Cultivating mindfulness: effects on well-being. *Journal of clinical psychology*, 64(7), 840-862.
- [59] Shapiro, S. L., Schwartz, G. E., & Bonner, G. (1998). Effects of mindfulness-based stress reduction on medical and premedical students. *Journal of behavioral medicine*, 21(6), 581-599. doi:https://doi.org/10.1023/A:1018700829825
- [60] Siegel, R. D., Germer, C. K., & Olendzki, A. (2009). Mindfulness: What is it? Where did it come from? In *Clinical handbook of mindfulness* (pp. 17-35): Springer.
- [61] Swain, N., Lennox Thompson, B., Gallagher, S., Paddison, J., & Mercer, S. (2019). Gratitude Enhanced Mindfulness (GEM): A pilot study of an internet-delivered programme for self-management of pain and disability in people with arthritis. *The Journal of Positive Psychology*, 1-7. doi:https://doi.org/10.1080/17439760.2019.1627397
- [62] Swickert, R., Bailey, E., Hittner, J., Spector, A., Benson-Townsend, B., & Silver, N. C. (2019). The mediational roles of gratitude and perceived support in explaining the relationship between mindfulness and mood. *Journal of happiness studies*, 20(3), 815-828. doi:https://doi.org/10.1007/s10902-017-9952-0

- [63] Tsang, J.-A., & Martin, S. R. (2019). Four experiments on the relational dynamics and prosocial consequences of gratitude. *The Journal of Positive Psychology*, 14(2), 188-205. doi:<https://doi.org/10.1080/17439760.2017.1388435>
- [64] Voci, A., Veneziani, C. A., & Fuochi, G. (2019). Relating mindfulness, heartfulness, and psychological well-being: the role of self-compassion and gratitude. *Mindfulness*, 10(2), 339-351. doi:<https://doi.org/10.1007/s12671-018-0978-0>
- [65] Wachs, K., & Cordova, J. V. (2007). Mindful relating: Exploring mindfulness and emotion repertoires in intimate relationships. *Journal of Marital and Family therapy*, 33(4), 464-481. doi:<https://doi.org/10.1111/j.1752-0606.2007.00032.x>