Social Support Mediates the Relationship between Mindfulness, Life Satisfaction, and Loneliness among Foreign Students

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Abstract: Loneliness and life satisfaction are important indicators of people's mental health. The study found that Mindfulness plays an important role in improving Life Satisfaction and reducing Loneliness, but the underlying mechanism is unknown. This study examined the relationship between Mindfulness, Life Satisfaction, and Loneliness and the potential mediating of Social Support among foreign students in China. Yemeni students of the Chinese Universities during Academic Year 2020 (N = 509) were surveyed to determine levels of Mindfulness, Social Support, Life Satisfaction, and Loneliness. The study found that all the five dimensions of mindfulness are positively predicting the three dimensions of social support, and only the perceived support of friends can one experience life satisfaction, and only the perceived support of significant others can reduce loneliness.

Keywords: Social Support, Mindfulness, Life Satisfaction, Loneliness, Foreign students.

الدعم الاجتماعي يتوسط العلاقة بين اليقظة والرضا عن الحياة والشعور بالوحدة بين الطلاب الأجانب

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الملخص: الوحدة والرضا عن الحياة مؤشرات مهمة للصحة العقلية للأفراد. وجدت الدراسات أن اليقظة تلعب دورًا مهمًا في تحسين الرضا عن الحياة وتقليل الشعور بالوحدة النفسية، لكن الآلية الأساسية غير معروفة. درست هذه الدراسة العلاقة بين اليقظة العقلية

والرضا عن الحياة والوحدة النفسية والتوسط المحتمل للدعم الاجتماعي بين الطلبة الأجانب في الصين. تم مسح الطلاب اليمنيين الملتحقين بالجامعات الصينية خلال العام الدراسي 2020 (العدد = 509) لتحديد مستويات اليقظة العقلية والدعم الاجتماعي والرضا عن الحياة والشعور بالوحدة النفسية.

وجدت الدراسة أن جميع أبعاد اليقظة العقلية الخمسة تتنبأ بشكل إيجابي بالأبعاد الثلاثة للدعم الاجتماعي، وأن الدعم المتصور من الأصدقاء فقط هو الذي يمكن للمرء أن يشعر بالرضا عن الحياة، وفقط الدعم المتصور للآخرين المهمين يمكن أن يقلل من الشعور بالوحدة النفسية.

الكلمات المفتاحية: الدعم الاجتماعي، اليقظة العقلية، الرضا عن الحياة، الوحدة النفسية، الطلبة الأجانب.

1. Introduction

In the Covid-19 pandemic, prolonged restrictions on mobility and an economic downturn have brought about many negative psychological outcomes, such as loneliness and life dissatisfaction (Berg-Weger & Morley, 2020). Loneliness is a serious public health problem that has received great concern. It refers to a subjective experience or an unpleasant response that includes a self-perception of social insufficiency or a lack of social connection with others (Thamboo, 2016). Loneliness is painful because it indicates social exclusion (Hawkley & Cacioppo, 2010). It is one of the most robust risk factors for adverse health and well-being outcomes, including mortality (J. Holt-Lunstad, T. B. Smith, M. Baker, T. Harris, & D. Stephenson, 2015; Lindsay, Young, Brown, Smyth, & Creswell, 2019). Life satisfaction is a highly evaluated psychological construct because it relates to many positive outcomes, such as physical health, longevity, better relationship quality, more prosocial behavior, and productivity. During the Corona Virus Disease 2019 (COVID-19) pandemic more people experience loneliness and low life satisfaction because social interactions are not encouraged.

Literature shows that the enhancement of social and emotional skills (e.g., emotion management and interpersonal skills) can alleviate loneliness(Eccles, Qualter, Madsen, & Holstein, 2020). Mindfulness involves consciousness and nonjudgmental acceptance of moment-to-moment experiences(Kabat-Zinn & Zinn, 2013). When practicing mindfulness one focuses on the present moment experiences rather than imagining the future or rehashing the past, with sensations and emotions are perceived intentionally without judging whether they are good or bad and right or wrong. Mindfulness practice can bring about a wide range of health benefits such as improved physical, cognitive, emotional, and social functioning.

Social support is the individuals' perception of care, support from people nearby, and social networks (Racino, 2006). It can be instrumental (e.g., financial support), informational (e.g., advice and valuable information), or emotional (e.g., companionship). Several studies found that mindfulness was a stronger predictor of social support. These studies have also shown that social support impacts mental health (Bouteyre, Maurel, & Bernaud, 2007; Eskin, 2003), and support from others are critical indicators of psychological well-being (Lau et al., 2016). Empirical evidence suggests that mindfulness can positively foresee perceived social support (Chen, 2018) because mindfulness allows individuals to concentrate on

current experience and become aware of the support they receive from their social network (Kuhl & Boyraz, 2017).

In contrast, there is a presumed relationship between mindfulness and loneliness, some studies have demonstrated that mindfulness can significantly and negatively predict loneliness (Akin, 2010; Jin, Zhang, Wang, & An, 2020).

University students face a larger number of problems related to mental health as compared to other individuals from a non-university background, where mindfulness practice may reduce the outcomes of loneliness on academic achievements (Rosenstreich & Margalit, 2015).

Foreign students suffer from poor communication with the surrounding community due to the differences in culture and language, which makes them experience social isolation and frustration of the need for relatedness. In December 2019 COVID-19 began to spread in China. In February 2020 all foreign students in China were required to stay in their universities and no one could go home. Most of the time they have to stay indoors and only contact their home and friends with mobile phones. When going outdoors, they have to keep a distance from others and cover their mouths and noses with masks to avoid infection. This was a time that everyone tends to feel lonely and experience negative emotions. So, this study aims to investigate the effect of mindfulness on loneliness and life satisfaction via social support among foreign students in China.

1.1 Mindfulness and Life Satisfaction

Mindfulness is accepting and paying attention to our thoughts and feeling as it is or without judging them. It means that accepting our beliefs without believing it as right or wrong. When practicing mindfulness, thoughts tune into what the individual sensing in the present moment rather than rehashing the past or imagining the future (Kabat-Zinn & Zinn, 2013). People who have a high level of mindfulness often show the qualities of compassion, acceptance and, empathy towards themselves and others, have advanced personal skills, communicate more effectively with others, and have a better lifestyle compared to people who do not have a high level of mindfulness (Burgoon, Berger, & Waldron, 2000; Feltman, Robinson, & Ode, 2009). Where individual deals with stimuli around him attentively and consciously by observing his thoughts, emotions, and feelings, living moment by moment with her, opening up to new experiences and communicating with them, which contributes to the self-behavioral organization of the individual, and give him the ability to make adaptive choices about different responses (Elder, 2010; Stoops, 2005).

On other hand, Life Satisfaction is a major psychological concept that is of interest to researchers in the field of psychology and mental health, as a manifestation of mental health (Harper, Guilbaul, Tucker & Austin 2007). Life satisfaction is defined as the process of evaluating an individual's quality of life,

degree of self-acceptance and achievements in the past and present in light of his personal criteria (Klassen, Pusic, Scott, Klok, & Cano 2009).

Correlation between mindfulness and life satisfaction is well established, many studies e.g.(Bajaj & Pande, 2016; Schutte & Malouff, 2011) have demonstrated that mindfulness positively correlated with life satisfaction.

1.2 Mindfulness and Loneliness

Loneliness is one of the most important concepts that have received great attention in recent times by researchers in the field of psychology. This attention in loneliness comes as a result of the economic, cultural, social, and political changes that the global community witnessed in the twenty-first century, which led to many stressful situations on the human psyche. According to Deborah (2018) loneliness causes mental and physical problem in individuals' life if it stays for a long period of time and increases heart disease, stroke and high rate of blood pressure.

Furthermore, loneliness does not affect only physical health (J. Holt-Lunstad, T. B. Smith, M. Baker, T. Harris, & D. J. P. o. p. s. Stephenson, 2015) but also mental health, cognitive functioning, and loneliness is the risk factor for many negative life results such as symptoms of depression (Cacioppo et al., 2002), sleep problems, and suicidal ideation (Moeller & Seehuus, 2019).

Loneliness is generally defined as a cognitive awareness of the deficiency in one's social and personal needs, and the emotion reactions of sorrow, vacuum, or longing (Asher & Paquette, 2003). According to Heinrich and Gullone (2006) feeling of loneliness is the result of the individual's perception when he think he is different from others and he think people are indifferent to him. Loneliness and being alone are not the same. For instance, a person can be in a gathering with others and still feel lonely; while, they can be alone by themselves and not really feel lonely (Aspel, 2001).

Research indicates that mindfulness plays a vital role in times of isolation. A research conducted on college students by Yuchang, Zhanga, Wanga, and Anb (2019) revealed a negative correlation between trait mindfulness and self-reported loneliness.

A study examined mindfulness training among Chinese university students and found that the interventions were effective in reducing loneliness (Zhang, Fan, Huang, & Rodriguez, 2016).

As a mindfulness training has been found to decrease loneliness (Rosenstreich & Margalit, 2015; Tu & Zhang, 2015), where practicing meditation resulted in significant decreasing in loneliness and increasing forgiveness. Another study shows the efficacy of smartphone-based mindfulness training for decreasing loneliness and increasing social contacts in daily life (Villalba et al., 2019).

Lindsay et al. (2019) conducted smartphone-based intervention research and found that mindfulness practice was correlated with decreased feelings of loneliness. The results indicated that

people who received the Monitor and Accept training intervention reported reduced daily-life loneliness by 22% over the control group (Lindsay et al. (2019).

1.3 Social Support as a mediator between Mindfulness and Life Satisfaction

An individual's satisfaction with his life is an indicator of his psychological health, and among the positive characteristics of the personality that help increase feelings of acceptance and a sense of security and reassurance, and build bridges of positive relationships with those around him, such as; family, children, society, aspects of work, religion, and the media, in the sense of general satisfaction of the individual with his life in its various fields.

The findings of many studies reveal that there is a statistically significant relationship between social support and satisfaction with life. A study conducted by (Castellá Sarriera, Jorge, Tiago Calza, Daniel Abs, & Casas, 2015) provided a fit model using the Personal Well-Being Index (PWI) as a mediating factor between social support and life satisfaction. The visualization of social support from family and friends has taken place in an important dimension of well-being among Brazilian adolescents to explain the importance of social support for subjective well-being by people how it contributes to overall satisfaction with adolescents' lives.

The exist literature indicates that mindfulness is useful to life satisfaction which refers to the individual's global cognitive assessment of satisfaction with their lives as all (Kong et al., 2014). Therefore, there has been increased attention in the cognitive neuroscience of mindfulness along the last decade fundamentally because of its known benefits on cognition, health, and happiness (Chiesa, Calati, & Serretti, 2011; Chiesa & Serretti, 2009; Eberth & Sedlmeier, 2012).

A study conducted by Bajaj and Pande (2016) found that Mindfulness predicts life satisfaction and resilience partially mediates the relationship between them. In this study we try to investigate the role of social support as a mediator in effect of mindfulness on life satisfaction and loneliness.

1.4 Social Support as a mediator between Mindfulness and Loneliness

Loneliness has been a prominently focus in recent studies on physical health, as loneliness and poor social support are associated with higher death rates, and that the effect is similar with some well-established risk factors such as physical inactivity, obesity, and smoking (Wang, Mann, Lloyd-Evans, Ma, & Johnson, 2018). Social support considers an important concept that is related to loneliness. According to the study conducted by Liu, Gou, and Zuo (2016) investigating the mediating of social support on the relationship between loneliness and depression found that social support was partially mediating between loneliness and depression. According to Feeney and Collins (2015) social support increases the positive effect and decreases the negative effects.

Loneliness is an issue that Individuals feel when they lack confidential and close relations, Limited social support and absence of friends (Tikainnen & Heikkinen., 2004). It is an agonizing inclination that

shows that an individual's social needs are not being quantitatively or subjectively met (Yuchang et al., 2019). People who get more access of social support shows less loneliness and other psychological problems like depression (Kahn, Hessling, & Russell, 2003). Researchers found that Loneliness is positively associated with the sense of proximity and security thus the presence of high social support reports less loneliness. Loneliness is individuals' perceived unpleasant feelings that grow because of the discrepancy between their perception and existing social relationships (Peplau LA & D., 2001).

Social support is one of predicators of loneliness. Research conducted by Routasalo, Savikko, Tilvis, Strandberg, and Pitkala (2006) in Finland shows that, feelings of loneliness was highly prevalent in Finland and loneliness is correlated with the kind and quality of social support. Segment qualities, living courses of action, social help and character attributes were factors that lead people to loneliness (Alpass & Neville, 2003).

According to research conducted by Wang et al. (2018) shows that, when an individual faces low social support the rate of loneliness is high. A high rate of loneliness causes physical and psychological risks like obesity, physical inactiveness, and smoking. As a result, loneliness is interconnected with social isolation, low size social network, and objective social support received from others. The other research conducted by Cohen-Mansfield and Parpura-Gill (2007) cited in Oluwabusola (2010) found an inverse correlation between loneliness and social support.

To our knowledge, there is no study investigated the role of social support as a mediator between the relationship between mindfulness, life satisfaction, and loneliness, so this study attempt to examine this relationship among the foreign students in China.

2. The current study:

In the context of the COVID-19 epidemic, the mental health of foreign students is of concern. However, few studies have looked at the relationship between mindfulness and loneliness and life satisfaction among foreign students. In addition, for the foreign student community, social support felt during the COVID-19 may be a variable of concern. Therefore, the aim of this study was to explore the relationship between the level of mindfulness, loneliness and life satisfaction among Yemeni students in China under COVID-19 conditions, and the mediating role of perceived social support. In this study, we experimented with a conceptual model that through it mindfulness will become a predictor of loneliness and life satisfaction among foreign students. In particular, the aim of this study were two folds: (a) to test whether perceived social support mediates between mindfulness and loneliness in foreign students, and (b) to investigate whether perceived social support mediates between mindfulness and loneliness in Foreign students. Altogether, these two research questions constitute two mediation models. Figure 1 illustrates the suggested model. Founded on the literature reviewed overhead, we set forward the following hypotheses:

Hypothesis 1. Mindfulness increases perceived social support, which in turn increases life satisfaction among foreign students. In other words, perceived social support mediates between mindfulness and life satisfaction.

Hypothesis 2. Mindfulness can increase perceived social support and thus reduce loneliness in foreign students. That is, perceived social support mediates between levels of mindfulness and perceived loneliness.
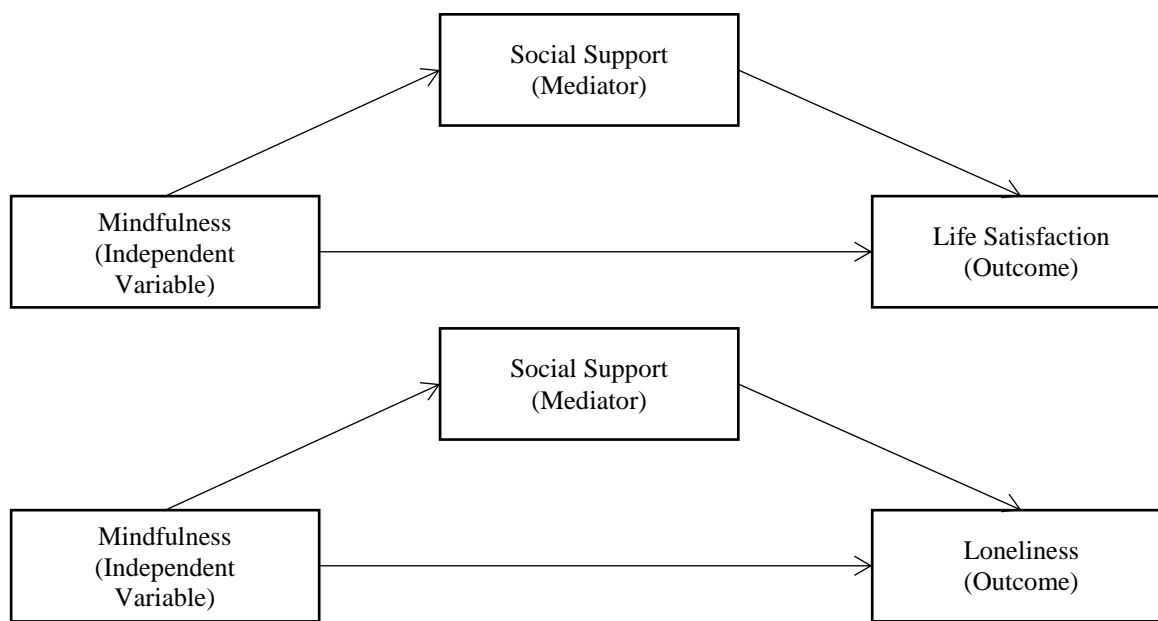

Figure (1) The proposed mediation models.

3. Method

3.1 Participants

This study conducted during 10/02/2020 to 30/03/2020. Participants included (509) Yemeni students completing graduate and undergraduate studies at the Chinese Universities during Academic Year 2020. The age range of the sample was (18 - 40) years.

3.2 Instruments

Participants completed four questionnaires: (a) The Five-Facet Mindfulness Questionnaire (FFMQ), (b) The Scale of Perceived Social Support (MSS), (c) The Life Satisfaction scales (SWLS) and (d) The loneliness scale (UCLA). As following:

3.2.1 **Mindfulness.** The Five Facet Mindfulness Scale (FFMQ) which contains 39 items (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006; Deng, Liu, Rodriguez, & Xia, 2011) has been mostly used to assess levels of Mindfulness. The Arabic version has been confirmed to be a reliable and valid scale in assessing Mindfulness (e.g. (Najwani, 2019). In this study, the coefficient of Cronbach alpha for the FFMQ scale is 0.95.

3.2.2 Social Support. The Multi-dimensional of Perceived Social Support Scale (MSS) which contains 12-items; (Zimet, Dahlem, Zimet, & Farley, 1988) has been mostly used to assess levels of Social Support. The Arabic version has been confirmed to be a reliable and valid scale in assessing Social Support (e.g. (Tashtoush, 2015). In this study, the coefficient of Cronbach alpha for the MSS scale is 0.85.

3.2.3 Life Satisfaction. The Life Satisfaction scale (SWLS) which contains 5-items (Diener, Emmons, Larsen, & Griffin, 1985) has been mostly used to assess levels of Life Satisfaction. The Arabic version has been confirmed to be a reliable and valid scale in assessing Life Satisfaction. In this study, the coefficient of Cronbach alpha for the SWLS scale is 0.92.

3.2.4 Loneliness. The University of California loneliness scale (UCLA) which contains 20 items has been mostly used to assess levels of loneliness. The Arabic version has been confirmed to be a reliable and valid scale in assessing loneliness (e.g.,(Al-Shammari, 2019)). In this study, the coefficient of Cronbach alpha for the UCLA is 0.81.

3.3 Procedures

Participants completed the online questionnaire, which took 15–30 min to complete, after the researcher instructed them and assured the privacy of their responses.

3.4 Data Analysis

Peterson's correlation test was used to find correlations between variables. To conduct the mediation and moderation analysis, the PROCESS macro (version 2.15; (Hayes, 2013) on SPSS was used. In the model of this study, the indirect effect was examined using 5000 bootstraps resamples to produce 95% confidence intervals(Hayes, 2013). The statistics were mean-centered before committing analyzing.

4. Results

We explored the relationship between mindfulness, social support, and loneliness, and here are the results.

4.1 Descriptive Statistics and Correlation Analysis

Means, standard deviations, and Pearson correlations among the study variables were analyzed and presented in Table 1.

Table (1) Means, standard deviations, and correlations among study variables (N = 509).

	1	2	3	4	5	6	7	8	9	10
1.observing	1									
2.describing	.86**	1								
3.acting with awareness	.87**	.86**	1							

	1	2	3	4	5	6	7	8	9	10
4.non-reactivity to inner experience	.84**	.85**	.83**	1						
5.non-judging	.83**	.81**	.79**	.84**	1					
6.family support	.18**	.14**	.16**	.14**	.12**	1				
7.friend support	.31**	.29**	.29**	.30**	.28**	.62**	1			
8.significant other support	.27**	.20**	.22**	.21**	.21**	.45**	.59**	1		
9.life satisfaction	.22**	.29**	.29**	.27**	.24**	.21**	.37**	.17**	1	
10.loneliness	.06	.22**	.13**	.18**	.11*	-.11*	-.18**	-.37**	.29**	1
M	17.70	17.65	17.77	16.93	16.06	31.60	30.84	31.72	11.00	50.94
SD	4.00	4.13	4.26	3.97	3.60	2.72	2.70	2.74	5.78	7.49

M: mean; SD: standard deviation; N = 509.

**: p <0.01.

4.2 Direct and indirect effects of Mindfulness on Life Satisfaction

In the observing dimension of mindfulness, the results showed that the total effect of observing on life satisfaction was significant (β = .32, SE = .06, p <.05, 95% CI = [.20, .44]). The direct effect of observing on life satisfaction was significant (β = .18, SE = .06, p < .05, 95% CI = [.06, .31]). The total indirect effect of observing on life satisfaction was significant (β = .14, SE = .04, p < .05, 95% CI = [.07, .22]). However, the mediating effect of social support was significant only when it came from friends (β = .18, SE = .04, p < .05, 95% CI = [.10, .27]).

In the describing dimension of mindfulness, the results showed that the total effect of describing on life satisfaction was significant (β = .40, SE = .06, p <.05, 95% CI = [.29, .52]). The direct effect of describing on life satisfaction was significant (β = .27, SE = .06, p < .05, 95% CI = [.16, .39]). The total indirect effect of describing on life satisfaction was significant (β = .13, SE = .03, p < .05, 95% CI = [.07, .20]). However, the mediating effect of social support was significant only when it came from friends (β = .15, SE = .04, p < .05, 95% CI = [.08, .23]).

In the acting with awareness dimension of mindfulness, the results showed that the total effect of acting with awareness on life satisfaction was significant (β = .39, SE = .06, p <.05, 95% CI = [.28, .51]). The direct effect of acting with awareness on life satisfaction was significant (β = .27, SE = .06, p < .05, 95% CI = [.16, .38]). The total indirect effect of acting with awareness on life satisfaction was significant (β = .12, SE = .03, p < .05, 95% CI = [.06, .19]). However, the mediating effect of social support was significant only when it came from friends (β = .15, SE = .04, p < .05, 95% CI = [.08, .23]).

In the non-reactivity to inner experience dimension of mindfulness, the results showed that the total effect of non-reactivity to inner experience on life satisfaction was significant (β = .40, SE = .06, p <.05, 95% CI = [.27, .52]). The direct effect of non-reactivity to inner experience on life satisfaction was significant (β = .26, SE = .06, p < .05, 95% CI = [.14, .38]). The total indirect effect of non-reactivity to inner experience on life satisfaction was significant (β = .13, SE = .06, p < .05, 95% CI = [.07, .21]). However, the mediating effect of social support was significant only when it came from friends (β = .16, SE = .04, p < .05, 95% CI = [.09, .25]).

In the non-judging dimension of mindfulness, the results showed that the total effect of non-judging on life satisfaction was significant (β = .39, SE = .07, p <.05, 95% CI = [.25, .52]). The direct effect of non-judging on life satisfaction was significant (β = .25, SE = .07, p < .05, 95% CI = [.11, .38]). The total indirect effect of non-judging on life satisfaction was significant (β = .14, SE = .04, p < .05, 95% CI = [.07, .22]). However, the mediating effect of social support was significant only when it came from friends (β = .17, SE = .04, p < .05, 95% CI = [.10, .26]).

4.3 Direct and indirect effects of Mindfulness on loneliness

In the observing dimension of mindfulness, the results showed that the total effect of observing on loneliness was not significant (β = .12, SE = .08, p >.05, 95% CI = [-.04, .28]).

In the describing dimension of mindfulness, the results showed that the total effect of describing on loneliness was significant (β = .40, SE = .08, p <.05, 95% CI = [.25, .56]). The direct effect of describing on loneliness was significant (β = .56, SE = .07, p < .05, 95% CI = [.41, .70]). The total indirect effect of describing on loneliness was significant (β =-.02, SE = .01, p < .05, 95% CI = [-.03,-.01]). However, the mediating effect of social support was significant only when it came from significant other (β =-.02, SE = .01, p < .05, 95% CI = [-.03, -.01]).

In the acting with awareness dimension of mindfulness, the results showed that the total effect of acting with awareness on loneliness was significant (β = .23, SE = .08, p <.05, 95% CI = [.08, .39]). The direct effect of acting with awareness on loneliness was significant (β = .38, SE = .07, p < .05, 95% CI = [.24, .53]). The total indirect effect of acting with awareness on loneliness was significant (β =- .15, SE = .05, p < .05, 95% CI = [-.24, -.06]). However, the mediating effect of social support was significant only when it came from significant other (β = -.18, SE = .05, p < .05, 95% CI = [-.27, -.08]).

In the non-reactivity to inner experience dimension of mindfulness, the results showed that the total effect of non-reactivity to inner experience on loneliness was significant (β = .33, SE = .08, p <.05, 95% CI = [.16, .49]). The direct effect of non-reactivity to inner experience on loneliness was significant (β = .50, SE = .08, p < .05, 95% CI = [.34, .65]). The total indirect effect of non-reactivity to inner experience on loneliness was significant (β =-.17, SE = .05, p < .05, 95% CI = [-.26, -.08]). However, the mediating effect

of social support was significant only when it came from significant other (β = -.18, SE = .04, p < .05, 95% CI = [-.27, -.11]).

In the non-judging dimension of mindfulness, the results showed that the total effect of non-judging on loneliness was significant (β = .22, SE = .09, p <.05, 95% CI = [.04, .41]). The direct effect of non-judging on loneliness was significant (β = .39, SE = .09, p < .05, 95% CI = [.22, .56]). The total indirect effect of non-judging on loneliness was significant (β = -.17, SE = .05, p < .05, 95% CI = [-.27, -.07]). However, the mediating effect of social support was significant only when it came from significant other (β =-.20, SE = .05, p < .05, 95% CI = [-.31, -.11]).

5. Discussion:

loneliness causes a wide range of physical and mental health problems (Zhang et al., 2016) Loneliness is strongly related to the negative feelings and behaviors in college students and social relationships are strongly related to life satisfaction. Studies such as Akin (2010); (Jin et al., 2020) have found that mindfulness negatively predicts loneliness. In contrast, social support increases the positive effect and decreases the negative effects Feeney and Collins (2015) and influences mental health (Bouteyre et al., 2007; Eskin, 2003). In addition, support from others is a stronger predictor of psychological well-being (Lau et al., 2016). While Social support is significant predictors of life satisfaction (Nabulsi, 2015).

The current study investigated the relationship between Mindfulness, Life Satisfaction, and Loneliness and the potential mediating of Social Support, and found that Life Satisfaction was positively associated with Mindfulness and Social Support, while Loneliness was negatively associated with Social Support.

The results also showed that the total effect of observing, describing, acting with awareness, non-reactivity to inner experience, and non-judging on life satisfaction were significant. The direct and total indirect effects of these dimensions on life satisfaction are significant. However, the mediating effects of social support were significant only when it came from friends. This finding is partially consistent with many studies findings such as (Bajaj & Pande, 2016; Kong et al., 2014).

Also, the total effect of observing, describing, acting with awareness, non-reactivity to inner experience, and non-judging on loneliness were significant. The direct and total indirect effects of these dimensions on life satisfaction are significant. However, the mediating effects of social support were significant only when it came from significant other.

The study is consistent with scholars conducted a study earlier on the idea of loneliness and social support like (Kahn et al., 2003); Tikainnen and Heikkinen. (2004). In their study, they found a significant relationship between social support and loneliness. When individuals experience high social support shows a low level of loneliness. This study is also consistent with Wang et al. (2018) findings on poor

social support and a high amount of mortality, thus this study also shows that there is an effect of social support on loneliness.

5.1 Limitations and future directions.

Several limitations of this study should be addressed. First, this study adopted a cross-sectional design and mainly relied on self-report measures. Therefore, hypothesized associations among research variables may not be causal. Further studies should apply longitudinal studies and experimental designs to emphasize the causal hypothesizes in this study. Second, the measures used are based on self-report scales, future studies should attempt to collect data from various informants (e.g., teachers, peers, or parents) to support our findings. Finally, the participants in our study were Yemeni students in China, whether the findings can be generalized to other populations and other cultural backgrounds are not known. Future research can interest from experimenting the model in other samples, such as the clinical samples.

5.2 Implications

There are many important implications from the results this study. First, these results highlight the importance of mindfulness in improving life satisfaction and reducing loneliness among Yemeni students in China. Improving the level of mindfulness can help reduce the loneliness of overseas students and enhance their life satisfaction, given the negative impact of loneliness on people, such as physical health, mood, and peer relationship. Teachers should pay attention to mindfulness training for foreign students, which in turn can reduce loneliness and improve life satisfaction. Second, our results can help educators to understand how mindfulness is linked to loneliness and life satisfaction by establishing the mediation model; it can provide insights for potential interventions. For instance, interventions that focus on improving the level of mindfulness of Foreign students can improve their perception of social support (such as parents, friends, and significant others). Third, due to the COVID-19 pandemic, it is difficult for foreign students returning to their home countries. As a result, they face greater pressure and a sense of helplessness than domestic students. At this time, the need for a relationship is a very important need for foreign students. We should give preventions and interventions in people with low perceptions of social support as our priority. Prevention and intervention efforts aiming to increase people's perception of support from parents, friends and significant others also could probably contribute to the prevention or decreasing of the physical and psychological harms related to loneliness and improve life satisfaction.

6. Conclusion:

In conclusion, this study suggests that mindfulness could be a predictor of loneliness and life satisfaction among Yemeni students in China during the COVID-19 epidemic. Furthermore, mediating

analysis of mindfulness and loneliness with life satisfaction suggests that social support may be one of the underlying mechanisms of this relationship.

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