



ARTICLE

Mindfulness Facets and Psychological Well-Being among Meditators: Serenity as a Mediating Process

Rebecca Y. M. Cheung^{1,*}, Iris Yili Wang² and Elsa Ngar-Sze Lau³

¹School of Psychology and Clinical Language Sciences, University of Reading, Reading, UK

²Department of Special Education and Counselling, The Education University of Hong Kong, Hong Kong, China

³Department of Educational Administration and Policy, The Chinese University of Hong Kong, Hong Kong, China

*Corresponding Author: Rebecca Y. M. Cheung. Email: rebecca.cheung@reading.ac.uk

Received: 28 October 2023 Accepted: 19 January 2024 Published: 08 April 2024

ABSTRACT

Guided by the theoretical processes of mindfulness and psychological well-being, this study examined serenity as a mediator between mindfulness facets and psychological well-being, as indexed by depressive symptoms and life satisfaction. Participants were 133 mindfulness practitioners who took part in a 3-day transnational meditation event in Hong Kong. Upon informed consent, participants completed a self-report questionnaire. The findings from structural equation modeling showed that serenity mediated the relation between two facets of mindfulness, including describing and nonreacting to inner experience, and life satisfaction. Serenity also mediated the relation between the mindfulness facet of describing and depressive symptoms. Direct associations were indicated between two mindfulness facets, including observing and nonjudging of inner experience, and depressive symptoms. Taken together, the findings revealed mindfulness facets as major correlates of serenity and psychological outcomes among Chinese meditation practitioners. To foster psychological well-being, researchers, educators, and practitioners should pay attention to the role of serenity, describing, and nonreacting to inner experience in mental health.

KEYWORDS

Depressive symptoms; mindfulness; mindfulness practitioners; satisfaction with life; serenity

Introduction

Mindfulness has been practiced for centuries in the context of Buddhism and contemplative Christianity [1,2]. Nonetheless, research in this area has only flourished globally over the last two decades [3,4]. According to Kabat-Zinn [5], mindfulness refers to the awareness arising from paying attention nonjudgmentally to present-moment experiences such as emotions, thoughts, and body sensations. Numerous studies have shown that mindfulness has health benefits including better quality of life, better sleep quality, lower stress, less anxiety and depressive symptoms [6–9], and greater life satisfaction [10,11]. In addition, mindfulness also fosters greater spirituality. For instance, a meta-analytic study showed that after attending interventions such as

mindfulness-based cognitive therapy (MBCT; [12]) and mindfulness-based cancer recovery (MBCR; [13]), participants from diverse clinical and nonclinical samples experienced greater spirituality [14]. As such, studies to date have shown that mindfulness is broadly linked to better spirituality, health, and well-being.

Serenity as a Mediating Mechanism

According to Pesut [15], spirituality has two dimensions including a relationship to a supreme being or God, as well as intrapersonal and interpersonal connectedness. Kreitzer et al. [16] further explained that spirituality overarches multiple components including serenity, which is defined as the spiritual state of inner peace, regardless of the



experience of positive and negative life events [16–18]. More specifically, serenity is a three sub-dimensional construct including acceptance of self and uncontrollable events, ability to tap into the inner haven of peace, and trust in the meaningfulness and profoundness of life [16]. As such, serenity highlights individuals' connectedness within the self, to other people, and to nature, which are crucial for well-being and mental health [16]. Previous research indicated that greater mindfulness was linked to greater internal peace and harmony [19,20]. After attending mindfulness-based programs, such as the MBSR [21], health care practitioners reported increased serenity [22–24]. Importantly, Shapiro et al. [25] theorized that mindfulness practice enables a shift of perspectives that foster an accepting attitude toward negative emotions, an ability to enter the space of inner calmness, and a recognition of meaningful values, all of which point to greater serenity. Individuals who are more mindful are also more able to experience intense emotions with less reactivity and more objectivity. That is, mindfulness enables individuals to remain calm and non-reactive, despite an awareness of strong emotions [16,18]. Previous research suggested that the stability of inner peace brought by spirituality was related to positive well-being outcomes, including fewer depressive symptoms and greater life satisfaction [26–28]. Other studies differentially indicated various aspects of serenity (e.g., acceptance of self and events beyond one's control, inner peace, and faith in the meaningfulness of life and larger plan) as mediators between mindfulness and well-being outcomes [19,29,30]. As a unifying construct, serenity may serve as a mediator between mindfulness facets and well-being outcomes, including depressive symptoms and life satisfaction.

Differential Contributions of the Facets of Mindfulness

The Five Facets Mindfulness Questionnaire (FFMQ; [31]) is commonly used to measure mindfulness. It encompasses facets including observing, nonjudging of inner experience, describing, acting with awareness, and nonreacting to inner experience. According to Baer et al. [32], observing refers to attending to or noticing experiences internally and externally, namely sounds, emotions, and thoughts. Nonjudging of inner experience refers to adopting a nonevaluative position towards inner experiences, such as feelings and thoughts. Describing involves the labeling of inner experiences using words. Acting with awareness refers to attending to present-moment activities rather than being on autopilot. Finally, nonreacting to inner experience involves the inclination to let inner experiences (e.g., thoughts and feelings) come and go, instead of being taken away by them.

Although the longstanding literature has identified the positive associations between mindfulness and well-being outcomes [8–10], emerging studies have highlighted differential contributions of each mindfulness facet on psychological well-being [33–36]. For example, a study found that contradictory to other facets, observing was positively associated with psychological distress [33]. The authors speculated that the greater tendency to observe experiences may lead to anxiety or panic, particularly if the experiences are perceived as negative or dangerous. Another study

suggested that observing may be indicative of maladaptive self-attention, which may impede nonjudgmental moment-to-moment awareness and give rise to greater distress [36]. Furthermore, a study involving a nonclinical sample indicated that after controlling for age, gender, and meditation practices, observing and describing did not predict psychological distress, whereas the other three facets of mindfulness, including nonjudging, nonreacting, and acting with awareness, were significant predictors of distress [33]. Baer [37] posited that for individuals without an experience of meditation, observation and attention to the present moment may be impulsive and judgmental. On the contrary, mindfulness practices may enable meditators to observe openly and acceptingly [37]. Therefore, observing may be positively related to well-being outcomes among meditators. However, a study reported that observing was related to greater rumination and lower attentional control, and that the indirect effects of observing on mental and physical health complaints via greater body awareness and nonattachment were significant among samples with or without meditation experience [38]. As such, the association between observing and well-being among meditators and non-meditators remains inconsistent and unclear. As for the other mindfulness facets, Bergin and Pakenham [33] reported positive relations between all facets of mindfulness and life satisfaction, except for nonreacting. Given the inconsistency and scarcity of the findings especially among regular meditators, it is crucial to examine the unique contribution of each mindfulness facet to psychological well-being.

The Present Study

Guided by Shapiro et al.'s [25] theory on mindfulness, the present study investigated serenity as a mediator between mindfulness facets and well-being outcomes, including depressive symptoms and life satisfaction, among mindfulness practitioners. Of note, a majority of studies in this area involved samples from the community, university or clinical settings [27,28,30,39,40]. Relatively few studies have examined the role of mindfulness on mental health among meditators, particularly in diverse Chinese contexts. Among the studies conducted in the Chinese context, findings did show that dispositional mindfulness was linked to depression and life satisfaction [6,10,41] and that an aspect of serenity (i.e., self-acceptance) did mediate the association between mindfulness and mental health among emerging adults between 17 and 25 years of age in Hong Kong [26]. Nevertheless, more work is needed to understand the role of the unifying construct of serenity encompassing inner haven of peace, acceptance of self and uncontrollable events, and trust in the meaningfulness and profoundness of life.

Based on theory [25], the present study hypothesized that serenity would mediate the association between mindfulness facets and psychological well-being, including depressive symptoms and life satisfaction, among Chinese mindfulness practitioners. Importantly, facets of mindfulness including nonjudging and nonreacting to inner experience, noticing and describing inner experience with clarity, and being aware of and attending to the present moment were

expected to foster psychological functioning, including serenity. However, previous studies did reveal mixed findings between mindfulness facets such as observing and psychological distress [33,36,37], depending on people's experience of meditation [37]. Notably, as meditators were likely to observe their inner experience open-mindedly with curiosity, they might report better psychological functioning, including serenity and mental health. To understand the effect of meditation experience, supplementary analyses were conducted. Specifically, we tested a moderated mediation model, with hours of meditation per week as a moderator between mindfulness facets and psychological functioning, including serenity, depressive symptoms, and life satisfaction.

Methods

Participants

This study was part of a larger project conducted in Hong Kong, China, which aimed to investigate the psychological well-being among mindfulness practitioners [42]. Participants were mindfulness practitioners ($N = 133$; 75.94% women; 24.60% men) who took part in a 3-day transnational meditation event in Hong Kong in June 2019. The study was advertised at the event through verbal and email announcements. Individuals who were interested in the study signed up at the booth. Inclusion criteria were (a) above 18 years of age, (b) could read Chinese, and (c) were participants of the 3-day transnational meditation event. Participants were instructed to return the completed questionnaire within four weeks by mail, to the booth by the end of the event, or through one of the organizing parties. Ethics approval was sought by the ethics review committee at The Education University of Hong Kong (Approval ID: 2018-2019-0341) prior to the commencement of this study. Informed consent was collected from participants before they began the self-report questionnaire.

All participants were ethnically Chinese who were between 20 and 72 years old ($M = 47.95$ years; $SD = 11.55$ years). Regarding their education, 0.88% completed primary school, 7.08% completed junior high school, 29.21% completed senior high school, 9.73% had a higher diploma, 28.32% had a bachelor's degree, 23.01% had a master's degree, and 1.77% had a doctoral degree. The median monthly household income was HK\$30001–\$40000 (~US \$3846.28–\$5141.39), which was greater than the median household income in Hong Kong [43]. Regarding religion, 46.62% were Buddhists, 2.26% were non-Buddhist Chinese folk religion believers, 3.76% were Protestants, 2.26% were Catholics, 17.29% were Atheists, 8.27% were agnostic or did not have a particular religious belief, and 19.54% were "other". Participants reportedly had an average of meditation practice for 2.98 years ($SD = 4.13$ years). In addition, they reported practicing 2.42 h of meditation each week ($SD = 2.89$ h). Table 1 shows the demographic variables.

Measures

The Chinese version of the following measures was used. Specifically, guided by the back-translation procedures [44],

TABLE 1

Demographic information of the participants

	Mean	SD	Percentage/Median
Gender			
Women			75.94%
Men			24.06%
Age	47.95	11.55	
Education			
Primary school			0.88%
Junior high school			7.08%
Senior high school			29.21%
Diploma			9.73%
Bachelor's degree			28.32%
Master's degree			23.01%
Doctoral degree			1.77%
Income			HK\$30,001–\$40,000
Religion			
Buddhists			46.62%
Folk			2.26%
Protestants			3.76%
Catholics			2.26%
Atheists			17.29%
Agnostic			8.27%
Other			9.54%
Meditation practice (years)	2.98	4.13	
Meditation hour/week	2.42	2.89	

the measures were translated by independent research assistants from English to Chinese. Upon subsequent discussion with the research assistants, the discrepancies were resolved by the corresponding author.

Mindfulness. The 20-item Five Facet Mindfulness Questionnaire-Short Form (FFMQ-SF; [45]) was used to assess five facets of mindfulness, including observing, describing, nonjudging, acting with awareness, and nonreacting. Sample items included, "I pay attention to sensations, such as the wind in my hair or sun on my face" (observing), "I'm good at finding words to describe my feelings" (describing), "I tell myself I shouldn't be feeling the way I'm feeling" (nonjudging), "When I do things, my mind wanders off and I'm easily distracted" (acting with awareness), and "In difficult situations, I can pause without immediately reacting" (nonreacting). Participants rated on a 5-point scale from 1 (*never or very rarely true*) to 5 (*very often or always true*). Negative items were reverse scored, such that higher average scores indicated greater mindfulness. The measure had been validated in a Chinese sample from Hong Kong [45]. In this study, Cronbach's alpha = 0.83 for observing, 0.87 for describing, 0.65 for nonjudging, 0.89 for acting with awareness, and 0.88 for nonreacting.

Serenity. The 22-item Brief Serenity Scale (BSS; [16]) was used to assess three factors of serenity, including trust,

acceptance, and inner haven. Sample items included, “I trust that everything happens as it should” (trust), “In problem situations, I do what I am able to and then accept whatever happens even if I dislike it” (acceptance), and “I experience and inner calm even when I am under pressure” (inner haven). Participants rated on a 5-point scale from 1 (*never*) to 5 (*always*). Item scores were averaged to create three subscale scores. Higher scores indicated greater serenity. The measure has been used in Hong Kong to assess Chinese individuals’ serenity [40]. In this study, Cronbach’s alphas for the subscales = 0.91 for acceptance, 0.94 for inner haven, and 0.84 for trust.

Depressive Symptoms. The 9-item Patient Health Questionnaire (PHQ-9; [46]) was used to assess depressive symptoms over the last 2 weeks on a 4-point scale from 0 (*not at all*) to 3 (*nearly every day*). The measure had been validated in Chinese samples from Hong Kong [47]. Sample items included, “Feeling bad about yourself, or that you are a failure or have let yourself or your family down” and “Feeling down, depressed, or hopeless.” Higher averaged scores indicated greater depressive symptoms. In this study, Cronbach’s alpha = 0.93.

Life Satisfaction. The 5-item Satisfaction with Life Scale (SWLS; [48]) was used to assess life satisfaction on a 7-point scale from 1 (*totally disagree*) to 7 (*totally agree*). Sample items included, “I am satisfied with my life” and “So far I have gotten the important things I want in life.” The measure had been validated in a Chinese sample from Hong Kong [49]. Higher averaged scores indicated greater life satisfaction. In this study, Cronbach’s alpha = 0.86.

Data analysis

Preliminary analyses of the means, SDs, and correlations of the variables were conducted using IBM SPSS v28. A structural equation model (SEM) was conducted using MPLUS, Version 8.3 [50] to investigate the mediating effect of serenity between mindfulness and psychological well-being, including life satisfaction and depressive symptoms, over and above covariates including age, gender, education, household income, experience of meditation, as well as hours of meditation each week. The Maximum likelihood method was adopted to investigate the model fit to observed matrices of variance and covariance. Full information maximum likelihood estimation was used to handle missing data at the item or subscale level. Bootstrapping was used to investigate indirect mediation effects.

Results

Table 2 shows the correlations, means, and SDs of the variables. Given that the correlations between the subscales of serenity were high, with r s ranging from 0.70 to 0.90, p s < 0.001 (see Table 2), a latent variable of serenity was formed. The structural model fit adequately to the data, $\chi^2(279) = 384.79$, $p < 0.001$, CFI = 0.94, TLI = 0.93, RMSEA = 0.06; SRMR = 0.06 (see Table 3 and Fig. 1 for details). Latent variables including serenity, depressive symptoms, and life satisfaction were significantly indicated by their respective manifest indicators, p s < 0.001. After controlling for age, gender, income, years of education, meditation

experience, and hours of meditation per week, two facets of mindfulness including describing and nonreacting were positively associated with serenity ($B = 0.16$, $SE = 0.06$, $\beta = 0.18$, $p = 0.009$ and $B = 0.59$, $SE = 0.06$, $\beta = 0.71$, $p < 0.001$, respectively). Serenity was, in turn, negatively related to depressive symptoms ($B = -0.40$, $SE = 0.19$, $\beta = -0.40$, $p = 0.036$) and positively related to life satisfaction ($B = 1.98$, $SE = 0.34$, $\beta = 1.03$, $p < 0.001$). In addition, two other facets of mindfulness were associated with depressive symptoms. Specifically, observing was positively related to depressive symptoms ($B = 0.21$, $SE = 0.07$, $\beta = 0.28$, $p = 0.004$), whereas nonjudging was negatively related to depressive symptoms ($B = -0.23$, $SE = 0.07$, $\beta = -0.26$, $p = 0.001$).

Based on the above findings, the indirect effects between two facets of mindfulness, including describing and nonreacting, and depressive symptoms and life satisfaction through serenity were investigated. Based on 5000 bootstrap samples with replacement, the 95% confidence interval (CI) indicated that the unstandardized indirect effect between describing and depressive symptoms did not include a zero (CI: [-0.21, -0.001]). However, the 95% CI indicated that the unstandardized indirect effect between nonreacting and depressive symptoms included a zero (CI: [-0.56, 0.04]). As for life satisfaction, based on 5000 bootstrap samples with replacement, the 95% confidence interval (CI) indicated that the unstandardized indirect effect between describing and life satisfaction did not include a zero (CI: [0.06, 0.36]). In addition, the 95% CI indicated that the unstandardized indirect effect between nonreacting and life satisfaction did not include a zero (CI: [0.46, 1.11]). Hence, serenity mediated between describing and life satisfaction. Serenity also mediated between two facets of mindfulness, including describing and nonreacting, and life satisfaction.

Supplementary analysis was further conducted by examining the moderation effects of hours of meditation practice per week on the relation between mindfulness facets and well-being (i.e., depressive symptoms and life satisfaction), with serenity as a mediator. More specifically, the interaction terms were computed by centering and multiplying each facet of mindfulness and hours of meditation practice per week. To conduct the moderated mediation analysis, mindfulness facets, hours of meditation practice per week, and the interaction terms were entered as predictors of serenity, depressive symptoms, and life satisfaction. Findings revealed that the moderated mediation model did not fit adequately to the data, $\chi^2(360) = 838.07$, $p < 0.001$, CFI = 0.68, TLI = 0.63, RMSEA = 0.11; SRMR = 0.23. As such, the moderated mediation model was not supported.

Discussion

Guided by Shapiro et al.’s [25] theory on mindfulness, this study examined serenity as a mediating process between mindfulness facets and psychological outcomes. The present findings provided incremental support to suggest serenity as a mediator between two facets of mindfulness [31], namely describing and nonreacting to inner experience, and life satisfaction. Serenity also mediated the relation between describing and depressive symptoms. In addition, direct

TABLE 2
Zero-order correlations, means, and standard deviations of the variable

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Gender (0 = men; 1 = women)	-															
2. Age	-0.05	-														
3. Education	-0.00	-0.37***	-													
4. Income	0.06	-0.02	0.20*	-												
5. Experience of meditation (in months)	-0.02	0.30**	0.06	-0.09	-											
6. Hours of meditation per week	-0.02	0.13	-0.09	-0.09	0.40***	-										
7. Mindfulness: Observing	-0.04	0.05	0.05	-0.10	0.15	0.23*	-									
8. Mindfulness: Describing	-0.11	0.20*	0.17	0.17	0.21*	0.09	0.58***	-								
9. Mindfulness: Acting with awareness	-0.12	-0.02	-0.05	0.14	0.07	0.10	-0.01	-0.10	-							
10. Mindfulness: Nonjudging	-0.03	0.11	-0.13	-0.01	-0.07	0.04	-0.15	-0.12	0.27**	-						
11. Mindfulness: Nonreacting	-0.18	0.25**	-0.02	0.05	0.34***	0.34***	0.45***	0.62***	0.02	0.01	-					
12. Serenity: Acceptance	-0.17	0.21*	0.09	0.12	0.32***	0.31**	0.42***	0.63***	0.02	-0.01	0.83***	-				
13. Serenity: Inner haven	-0.13	0.22*	0.05	0.08	0.36***	0.35***	0.48***	0.65***	-0.02	-0.03	0.84***	0.90***	-			
14. Serenity: Trust	-0.20*	0.19*	0.15	0.14	0.27**	0.23*	0.40***	0.57***	-0.00	-0.05	0.70***	0.82***	0.75***	-		
15. Depressive symptoms	0.08	-0.35***	0.03	-0.15	-0.18	-0.19	0.05	-0.21*	-0.18*	-0.31***	-0.39***	-0.39***	-0.37***	-0.30**	-	
16. Life satisfaction	0.02	0.23*	0.12	0.22*	0.21*	0.08	0.30**	0.51***	0.00	-0.06	0.62***	0.71***	0.72***	0.62***	-0.36***	-
<i>M</i>	-	49.95	5.72	4.59	35.79	2.42	3.44	3.22	3.22	3.00	3.21	3.46	3.38	3.49	0.60	4.78
<i>SD</i>	-	11.55	2.17	2.86	49.60	2.59	0.91	0.81	1.05	0.78	0.84	0.72	0.83	0.82	0.66	1.30

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

TABLE 3

Path estimates of the mediation model

Parameter	Unstandardized B (SE)	Standardized β
Measurement model		
Serenity		
→ Acceptance	1.00 ^f	0.96***
→ Inner haven	1.15 (0.07)	0.95***
→ Trust	0.98 (0.07)	0.82***
Depressive symptoms		
→ PHQ item 1	1.00 ^f	0.81***
→ PHQ item 2	1.04 (0.09)	0.89***
→ PHQ item 3	0.91 (0.11)	0.68***
→ PHQ item 4	0.84 (0.11)	0.66***
→ PHQ item 5	0.92 (0.09)	0.79***
→ PHQ item 6	1.22 (0.11)	0.88***
→ PHQ item 7	0.98 (0.10)	0.79***
→ PHQ item 8	0.88 (0.10)	0.74***
→ PHQ item 9	0.60 (0.07)	0.71***
Life satisfaction		
→ SWLS item 1	1.00 ^f	0.85***
→ SWLS item 2	0.82 (0.09)	0.75***
→ SWLS item 3	1.07 (0.09)	0.90***
→ SWLS item 4	1.04 (0.10)	0.82***
→ SWLS item 5	0.63 (0.13)	0.46***
Structural model		
Mindfulness: Observing		
→ Serenity	0.03 (0.05)	0.04
→ Depressive symptoms	0.21 (0.07)	0.28**
→ Life satisfaction	-0.06 (0.11)	-0.04
Mindfulness: Describing		
→ Serenity	0.16 (0.06)	0.18**
→ Depressive symptoms	-0.02 (0.10)	-0.03
→ Life satisfaction	-0.08 (0.16)	-0.05
Mindfulness: Acting with awareness		
→ Serenity	0.01 (0.03)	0.01
→ Depressive symptoms	-0.09 (0.05)	-0.13
→ Life satisfaction	0.07 (0.08)	0.06
Mindfulness: Nonjudging		
→ Serenity	-0.01 (0.04)	-0.01
→ Depressive symptoms	-0.23 (0.07)	-0.26**
→ Life satisfaction	-0.08 (0.11)	-0.05
Mindfulness: Nonreacting		
→ Serenity	0.59 (0.06)	0.71***
→ Depressive symptoms	-0.06 (0.14)	-0.07
→ Life satisfaction	-0.19 (0.23)	-0.12
Serenity		
→ Depressive symptoms	-0.40 (0.19)	-0.40*

(Continued)

Table 3 (continued)

Parameter	Unstandardized B (SE)	Standardized β
→ Life satisfaction	1.98 (0.34)	1.03***
Covariance and error covariance		
Mindfulness: Observing		
↔ Mindfulness: Describing	0.41 (0.08)	0.57***
↔ Mindfulness: Acting with awareness	-0.01 (0.09)	-0.01
↔ Mindfulness: Nonjudging	-0.11 (0.07)	-0.15
↔ Mindfulness: Nonreacting	0.33 (0.07)	0.44***
Mindfulness: Describing		
↔ Mindfulness: Acting with awareness	-0.08 (0.08)	-0.10
↔ Mindfulness: Nonjudging	-0.07 (0.06)	-0.11
↔ Mindfulness: Nonreacting	0.41 (0.07)	0.62***
Mindfulness: Acting with awareness		
↔ Mindfulness: Nonjudging	0.22 (0.08)	0.27**
↔ Mindfulness: Nonreacting	0.02 (0.08)	0.02
Mindfulness: Nonjudging		
↔ Mindfulness: Nonreacting	0.01 (0.06)	0.01
Gender (0 = men; 1 = women)		
↔ Mindfulness: Observing	-0.02 (0.03)	-0.08
↔ Mindfulness: Describing	-0.04 (0.02)	-0.15
↔ Mindfulness: Acting with awareness	-0.02 (0.03)	-0.07
↔ Mindfulness: Nonjudging	0.00 (0.02)	0.01
↔ Mindfulness: Nonreacting	-0.06 (0.02)	-0.21*
→ Serenity	-0.01 (0.11)	-0.01
→ Depressive symptoms	-0.06 (0.17)	-0.03
→ Life satisfaction	0.54 (0.27)	0.13*
Age		
↔ Mindfulness: Observing	0.30 (1.03)	0.03
↔ Mindfulness: Describing	1.85 (0.93)	0.20*
↔ Mindfulness: Acting with awareness	-0.53 (1.20)	-0.04
↔ Mindfulness: Nonjudging	0.73 (0.92)	0.08

(Continued)

Table 3 (continued)		
Parameter	Unstandardized B (SE)	Standardized β
\leftrightarrow Mindfulness: Nonreacting	2.03 (0.93)	0.21*
\rightarrow Serenity	0.00 (0.00)	0.02
\rightarrow Depressive symptoms	-0.02 (0.01)	-0.26**
\rightarrow Life satisfaction	0.01 (0.01)	0.12
Education level		
\leftrightarrow Mindfulness: Observing	0.19 (0.27)	0.07
\leftrightarrow Mindfulness: Describing	0.42 (0.24)	0.17
\leftrightarrow Mindfulness: Acting with awareness	-0.14 (0.31)	-0.04
\leftrightarrow Mindfulness: Nonjudging	-0.31 (0.24)	-0.13
\leftrightarrow Mindfulness: Nonreacting	0.02 (0.23)	0.01
\rightarrow Serenity	0.02 (0.01)	0.07
\rightarrow Depressive symptoms	-0.01 (0.02)	-0.05
\rightarrow Life satisfaction	0.01 (0.03)	0.03
Income		
\leftrightarrow Mindfulness: Observing	-0.22 (0.27)	-0.08
\leftrightarrow Mindfulness: Describing	0.41 (0.22)	0.18*
\leftrightarrow Mindfulness: Acting with awareness	0.45 (0.30)	0.15
\leftrightarrow Mindfulness: Nonjudging	0.02 (0.22)	0.01
\leftrightarrow Mindfulness: Nonreacting	0.17 (0.23)	0.07
\rightarrow Serenity	-0.01 (0.01)	0.04
\rightarrow Depressive symptoms	-0.01 (0.02)	-0.06
\rightarrow Life satisfaction	0.03 (0.03)	0.06
Experience of meditation (in months)		
\leftrightarrow Mindfulness: Observing	7.20 (4.35)	0.16
\leftrightarrow Mindfulness: Describing	8.13 (3.77)	0.21*
\leftrightarrow Mindfulness: Acting with awareness	1.86 (5.08)	0.04
\leftrightarrow Mindfulness: Nonjudging	-3.70 (3.78)	-0.10
\leftrightarrow Mindfulness: Nonreacting	13.29 (4.02)	0.33***
\rightarrow Serenity	0.00 (0.00)	0.04
\rightarrow Depressive symptoms	0.00 (0.00)	0.00
\rightarrow Life satisfaction	-0.00 (0.00)	0.02
Hours of meditation per week		

(Continued)

Table 3 (continued)		
Parameter	Unstandardized B (SE)	Standardized β
\leftrightarrow Mindfulness: Observing	0.64 (0.27)	0.25*
\leftrightarrow Mindfulness: Describing	0.23 (0.22)	0.10
\leftrightarrow Mindfulness: Acting with awareness	0.25 (0.30)	0.08
\leftrightarrow Mindfulness: Nonjudging	-0.01 (0.22)	-0.00
\leftrightarrow Mindfulness: Nonreacting	0.76 (0.23)	0.32***
\rightarrow Serenity	0.01 (0.02)	0.06
\rightarrow Depressive symptoms	-0.01 (0.01)	-0.06
\rightarrow Life satisfaction	-0.08 (0.02)	-0.18*
Depressive symptoms \leftrightarrow Life satisfaction	-0.08 (0.04)	-0.23

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

associations were evidenced between mindfulness facets (i.e., observing and nonjudging of inner experience) and depressive symptoms. Altogether, the findings revealed mindfulness facets as major correlates of serenity and psychological outcomes among Chinese mindfulness practitioners, over and above the effects of age, gender, education, household income, experience of meditation, as well as hours of meditation each week.

In this study, serenity was associated with mindfulness facets (i.e., describing and nonreacting to inner experience) and psychological well-being. When people were capable of describing clearly and responding skillfully (*vs.* reacting mindlessly) to their experiences, they were also more likely to have greater serenity, e.g., accept themselves and uncontrollable events, touch the inner haven of peace, and trust that life is meaningful and profound [16]. Between the two mindfulness facets, the strength of association between nonreacting to inner experience and serenity was particularly strong, suggesting that the ability to pause, to “step back” without being taken over by inner experience, and to let go were especially crucial to shifting perspectives that foster serenity (see also [25]). Hence, to promote serenity, researchers, educators, and mindfulness practitioners should pay close attention to the role of nonreacting to inner experience.

Somewhat surprisingly, other facets of mindfulness including observing, nonjudging of inner experience, and acting with awareness were unrelated to the spiritual state of serenity. Even though the mindfulness facets were intercorrelated, their relations with serenity did not bear out after describing and nonreacting to inner experience were taken into account. Nonjudging of inner experience and observing were, instead, directly related to depressive symptoms, a core indicator of mental health. Consistent with previous research [34,51,52], when people were more judgmental and critical of their inner experience (e.g., “my thoughts are good, bad, or inappropriate”) and of how they

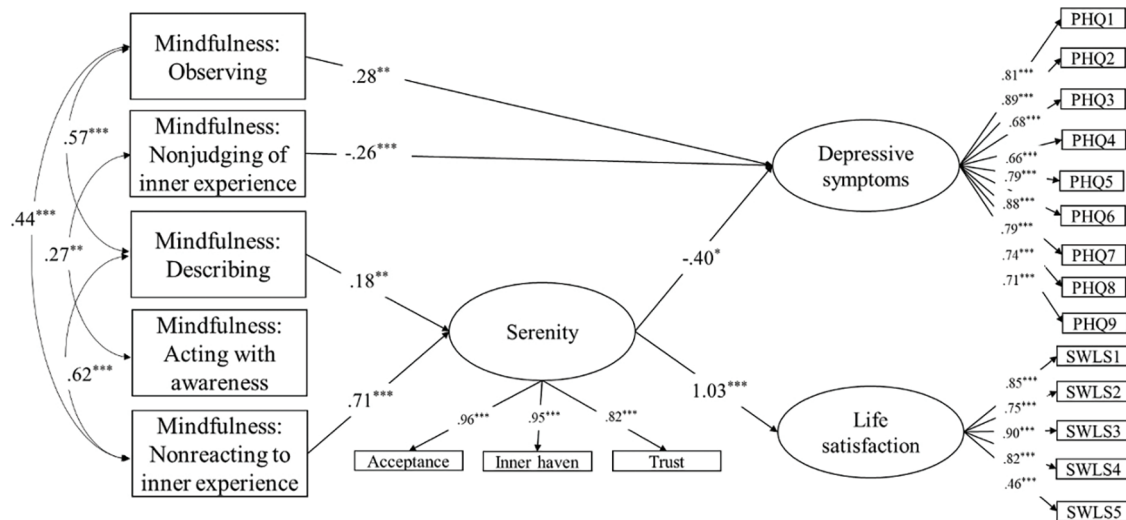


FIGURE 1. Final model of serenity as a mediator between mindfulness and depressive symptoms and life satisfaction, over and above covariates including age, gender, education, household income, experience of meditation, as well as hours of meditation each week. Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Non-significant paths are not show to increase clarity.

should be (e.g., “I shouldn’t feel this way”), they were more likely to have greater depressive symptoms. Nevertheless, when people were more observant of their experiences internally and externally, they were also more likely to have greater depressive symptoms. The findings corroborated previous research [33,36] to suggest that observing was positively related to depressive symptoms. As speculated by Tran et al. [36], perhaps observing was indicative of maladaptive self-attention that gave rise to depressive symptoms. Although Baer [37] argued that people without meditation experiences might observe the present judgmentally and impulsively, whereas practitioners might observe with openness and acceptance, in this study we found a positive link between observing and depressive symptoms among practitioners with a regular meditation practice (See [53] and [38] for similar findings). In addition, our SEM findings revealed that observing was not related to nonjudging of inner experience at all (see Fig. 1). Given that observing was moderately related to describing ($r = 0.57$, $p < 0.001$) and nonreacting to inner experience ($r = 0.44$, $p < 0.001$), the finding between observing and depressive symptoms could also be the result of multicollinearity. Hence, the study of observing and depression among people with and without meditation experience warrants future investigation.

Interestingly, acting with awareness was not related to serenity, depressive symptoms, or life satisfaction. That is, the ability to pay attention without distractions, daydreaming, or worrying was not related to serenity and psychological functioning, particularly when other mindfulness facets were taken into account. The null finding was intriguing, as it diverged from existing findings between mindful attention awareness [54], mind wandering, and psychological well-being [55,56]. It also contradicted previous findings between mindful awareness and serenity based on samples from the Western contexts [16,28]. Given that our participants were meditators, it is possible that advanced mindfulness skills, such as nonreacting and nonjudging [57], had a stronger effect on psychological

functioning. This might overshadow the effect of acting with awareness, which is a fundamental mindfulness skill that involves the arising awareness from paying attention to the present moment. To fully understand the link between acting with awareness and serenity, or the lack thereof, researchers should pay a closer attention to the use of assessments (e.g., FFMQ; [31] vs. Mindfulness Attention and Awareness Scale, MAAS; [54]), the role of culture (e.g., collectivistic vs. individualistic cultures), and sample characteristics (e.g., people with and without experiences of meditation, clinical samples, non-clinical samples).

Although Baer [37] argued that the effects of mindfulness facets could differ between meditators and non-meditators, in this study the hours of meditation per week did not moderate the associations between mindfulness and psychological functioning. Given that all of our participants practiced meditation, perhaps the hours of meditation were not the most crucial in changing the relation between mindfulness and psychological functioning. Alternatively, it could be that the statistical power of this study was insufficient to draw meaningful conclusions on the moderated mediation model. As such, future studies should include a larger sample for conducting complex moderated mediation analyses.

Consistent with previous findings [16,28], the core aspects of serenity were related to both depressive symptoms and life satisfaction. These findings suggested an important link between spiritual health and psychological well-being. In addition, serenity served as a potential mechanism between the mindfulness facets of describing and nonreacting to inner experience and psychological well-being. Supporting the literature, the findings inform researchers, educators, and mindfulness and mental health practitioners of the relevance of being mindful and serene in mental health.

Limitations and Future Directions

The present study has several limitations. First of all, the utilization of a self-report questionnaire had resulted in

method bias [58]. Thus, future studies should include multiple methods and multiple informants to reduce potential biases. Second, due to the cross-sectional design of the present study, we were unable to draw conclusions on the temporal sequence between the study variables. Future research should utilize a longitudinal design in testing mediation [59]. Third, although nonreacting to inner experience and aspects of serenity are theoretically distinct variables, their zero-order correlations were large [60], ranging between $r_s = 0.70$ and 0.84 (see Table 2). According to Baer et al. [32 p. 330], nonreacting to inner experience refers to “the tendency to allow thoughts and feelings to come and go, without getting caught up in or carried away by them.” As an overarching construct, serenity refers to the spiritual state of inner peace, regardless of the experience of positive and negative life events [16]. Although both constructs suggest nonreactivity to experiences, the mindfulness facet of nonreacting points primarily to inner experiences (e.g., thoughts, and feelings), whereas serenity involves spiritual states regardless of internal vs. external experiences or stimuli. Serenity further involves an added layer of peace, trust, and acceptance beyond nonreactivity. Despite the potential differences, future research should distinguish or clarify theoretically and empirically the relation between non-reactivity and serenity. Moreover, the participants in this study were self-reported meditators with an average practice of 2.98 years ($SD = 4.13$ years). As such, the generalizability of the present findings to other samples was limited. Future studies should replicate the present findings in diverse samples, such as clinical samples, community samples, and samples from diverse cultural contexts. Next, given the theoretical considerations [16] and the strong correlations between the subscales of serenity (See Table 2), serenity was examined as a latent construct. However, serenity subscales including inner haven of peace, acceptance of self and uncontrollable events, and trust in the meaningfulness and profoundness of life may be differentiated across different cultural contexts. Hence, future studies may recruit a larger sample to further examine the unique relations between dimensions of mindfulness and serenity, respectively. Moreover, given previous research found significant associations between mindfulness, life satisfaction, and depressive symptoms [61–64], the present study aimed to replicate the findings and examine the incremental value of serenity. Nevertheless, other variables of psychological well-being such as anxiety, perceived stress, self-regulation, emotional stability, and self-esteem might also be linked to mindfulness and serenity. As such, future studies should examine a wide range of psychological outcomes to add generalizability and specificity to the present findings. Finally, in this study, the recruitment of mindfulness practitioners took place in a meditation event and most of the study participants were women. Hence, future work is necessary to increase generalizability.

Despite the above limitations, the present study lends preliminary support to Shapiro et al.’s [25] theory on mindfulness and broadens the literature involving serenity as a process between mindfulness facets and psychological outcomes. As practical implications, educators and mental

health practitioners should attend to the relations between various facets of mindfulness, serenity, and mental health. Notably, describing and nonreacting to inner experience may foster serenity, which is linked to well-being outcomes including better life satisfaction and fewer depressive symptoms. In terms of research implications, theoretical and empirical studies are necessary to clarify why, how, and when mindfulness facets are linked to serenity and mental health. Translational research gearing towards enhancing mindfulness and serenity also merits future investigations.

Acknowledgement: We would like to thank the Buddhist Compassion Bi-Weekly Magazine for their help and support of this study.

Funding Statement: The study was not funded by a grant.

Author Contributions: Rebecca Y. M. Cheung conceptualized the study, supervised the execution of the study, performed formal analyses, and collaborated with the writing and revising of the manuscript. Iris Yili Wang collaborated with the writing and revising of the manuscript. Elsa Ngar-Sze Lau conceptualized the study, supervised the execution of the study, and collaborated with the revising of the manuscript.

Availability of Data and Materials: The dataset analyzed in this article is not publicly available. Requests to access the dataset should be directed to the corresponding author.

Ethics Approval: The present study was approved by the ethics committee at The Education University of Hong Kong (Protocol number: 2018-2019-0341) and was conducted in accordance with the ethical standards in the 1964 Declaration of Helsinki and its later amendments. The project title was “Mindfulness, Spirituality, and Well-being: A Mixed-Method Study Involving Chinese Meditation Practitioners.” All participants signed the informed consent in this study.

Conflicts of Interest: The authors declare that they have no conflicts of interest to report regarding the present study.

References

1. Kabat-Zinn J. Some reflections on the origins of MBSR, skillful means, and the trouble with maps. *Contemp Buddhism*. 2011; 12(1):281–306. doi:10.1080/14639947.2011.564844.
2. Trammel RC. Mindfulness as enhancing ethical decision-making and the Christian integration of mindful practice. *Soc Work Christ*. 2015;42(2):165–77.
3. Chi X, Bo A, Liu T, Zhang P, Chi I. Effects of mindfulness-based stress reduction on depression in adolescents and young adults: a systematic review and meta-analysis. *Front Psychol*. 2018;9:1034. doi:10.3389/fpsyg.2018.01034.
4. Garland EL, Farb NA, Goldin PR, Fredrickson BL. Mindfulness broadens awareness and builds eudaimonic meaning: a process model of mindful positive emotion regulation. *Psychol Inq*. 2015;26(4):293–314. doi:10.1080/1047840X.2015.1064294.
5. Kabat-Zinn J. Wherever you go, there you are: mindfulness meditation in everyday life. Hyperion. 1994;119(1):124.

6. Cheung RYM, Ng MC. Mindfulness and symptoms of depression and anxiety: the underlying roles of awareness, acceptance, impulse control, and emotion regulation. *Mindfulness*. 2019; 10(6):1124–35. doi:10.1007/s12671-018-1069-y.
7. Garland EL, Hanley AW, Goldin PR, Gross JJ. Testing the mindfulness-to-meaning theory: evidence for mindful positive emotion regulation from a reanalysis of longitudinal data. *PLoS One*. 2017;12(12):e0187727. doi:10.1371/journal.pone.0187727.
8. Grossman P, Niemann L, Schmidt S, Walach H. Mindfulness-based stress reduction and health benefits: a meta-analysis. *J Psychosom Res*. 2004;57(1):35–43. doi:10.1016/S0022-3999(03)00573-7.
9. Khoury B, Lecomte T, Fortin G, Masse M, Therien P, Bouchard V, et al. Mindfulness-based therapy: a comprehensive meta-analysis. *Clin Psychol Rev*. 2013;33(6):763–71. doi:10.1016/j.cpr.2013.05.005.
10. Kong F, Wang X, Zhao J. Dispositional mindfulness and life satisfaction: the role of core self-evaluations. *Pers Individ Dif*. 2014;56(3):165–9. doi:10.1016/j.paid.2013.09.002.
11. Valikhani A, Kashani V, Rahmanian M, Sattarian R, Rahmati Kankat L, Mills P. Examining the mediating role of perceived stress in the relationship between mindfulness and quality of life and mental health: testing the mindfulness stress buffering model. *Anxiety Stress Coping*. 2020;33(3):311–25. doi:10.1080/10615806.2020.1723006.
12. Segal ZV, Williams JMG, Teasdale JD. *Mindfulness-based cognitive therapy for depression: a new approach to preventing relapse*. New York: Guilford Press; 2002.
13. Carlson LE, Speca M, Segal ZV. *Mindfulness-based cancer recovery: a step-by-step MBSR approach to help you cope with treatment and reclaim your life*. Oakland: New Harbinger Publications; 2011.
14. Landau S, Jones F. Finding the spiritual in the secular: a meta-analysis of changes in spirituality following secular mindfulness-based programs. *Mindfulness*. 2021;12(7):1567–81. doi:10.1007/s12671-021-01600-0.
15. Pesut B. The development of nursing students' spirituality and spiritual care-giving. *Nurs Educ Today*. 2002;22(2):128–35. doi:10.1054/nedt.2001.0664.
16. Kreitzer M, Gross C, Waleekhachonloet O, Reilly-Spong M, Byrd M. The brief serenity scale. *J Holist Nurs*. 2009;27(1):7–16. doi:10.1177/0898010108327212.
17. McEwan W. Spirituality in nursing. *Orthop Nurs*. 2004;23(5): 321–6. doi:10.1097/00006416-200409000-00008.
18. Roberts K, Cunningham G. Serenity: concept analysis and measurement. *Educ Gerontol*. 1990;16(6):577–89. doi:10.1080/0380127900160607.
19. Ge J, Yang J, Song J, Jiang G, Zheng Y. Dispositional mindfulness and past-negative time perspective: the differential mediation effects of resilience and inner peace in meditators and non-meditators. *Psychol Res Behav Manag*. 2020;13:397–405. doi:10.2147/PRBM.S229705.
20. Xu W, Rodriguez M, Zhang Q, Liu X. The mediating effect of self-acceptance in the relationship between mindfulness and peace of mind. *Mindfulness*. 2014;6(4):797–802. doi:10.1007/s12671-014-0319-x.
21. Kabat-Zinn J. *Full catastrophe living: using the wisdom of your body and mind to face, stress, pain and illness*. New York, Bantam: Guilford Press; 2013.
22. Bazarko D, Cate R, Azocar F, Kreitzer M. The impact of an innovative mindfulness-based stress reduction program on the health and well-being of nurses employed in a corporate setting. *J Workplace Behav Health*. 2013;28(2):107–33. doi:10.1080/15555240.2013.779518.
23. Hilcove K, Marceau C, Thekdi P, Larkey L, Brewer MA, Jones K. Holistic nursing in practice: mindfulness-based yoga as an intervention to manage stress and burnout. *J Holist Nurs*. 2021;39(1):29–42. doi:10.1177/0898010120921587.
24. Penque S. Mindfulness to promote nurses' well-being. *Nurs Manag*. 2019;50(5):38–44. doi:10.1097/01.NUMA.0000557621.42684.c4.
25. Shapiro S, Carlson L, Astin J, Freedman B. Mechanisms of mindfulness. *J Clin Psychol*. 2006;62(3):373–86. doi:10.1002/jclp.20237.
26. Ma Y, Siu AFY. Dispositional mindfulness and mental health in Hong Kong college students: the mediating roles of decentering and self-acceptance. *Aust J Psychol*. 2020;72(2):156–64. doi:10.1111/ajpy.12269.
27. Maier K, Surzykiewicz J. Mediated association between spirituality and life satisfaction in chronically ill undergraduate students. *Psychol Relig Spirit*. 2020;12(3):311–23. doi:10.1037/rel0000275.
28. Soysa C, Zhang F, Parmley M, Lahikainen K. Dispositional mindfulness and serenity: their unique relations with stress and mental well-being. *J Happiness Stud*. 2021;22(3):1517–36. doi:10.1007/s10902-020-00282-0.
29. Klussman K, Nichols A, Langer J, Curtin N, Lindeman M. The relationship between mindfulness and subjective well-being: examining the indirect effects of self-connection and meaning in life. *Appl Res Qual Life*. 2022;17(4):2423–43. doi:10.1007/s11482-021-10025-9.
30. Whitehead R, Bates G, Elphinstone B, Yang Y, Murray G. Nonattachment mediates the relationship between mindfulness and psychological well-being, subjective well-being, and depression, anxiety and stress. *J Happiness Stud*. 2020;20(7): 2141–58. doi:10.1007/s10902-018-0041-9.
31. Baer R, Smith G, Hopkins J, Krietemeyer J, Toney L. Using self-report assessment methods to explore facets of mindfulness. *Assessment*. 2006;13(1):27–45. doi:10.1177/1073191105283504.
32. Baer R, Smith GT, Lykins E, Button D, Krietemeyer J, Sauer S, et al. Construct validity of the five facet mindfulness questionnaire in meditating and nonmeditating samples. *Assessment*. 2008;15(3):329–42. doi:10.1177/1073191107313003.
33. Bergin A, Pakenham K. The stress-buffering role of mindfulness in the relationship between perceived stress and psychological adjustment. *Mindfulness*. 2016;7(4):928–39. doi:10.1007/s12671-016-0532-x.
34. Medvedev O, Norden P, Krägeloh C, Siegert R. Investigating unique contributions of dispositional mindfulness facets to depression, anxiety, and stress in general and student populations. *Mindfulness*. 2018;9(6):1757–67. doi:10.1007/s12671-018-0917-0.
35. Roemer A, Sutton A, Grimm C, Medvedev O. Differential contribution of the five facets of mindfulness to well-being and psychological distress. *Mindfulness*. 2020;12(3):693–700. doi:10.1007/s12671-020-01535-y.
36. Tran U, Glück T, Nader I. Investigating the five facet mindfulness questionnaire (FFMQ): construction of a short form and evidence of a two-factor higher order structure of mindfulness. *J Clin Psychol*. 2013;69(9):951–65. doi:10.1002/jclp.21996.
37. Baer R. Assessment of mindfulness and closely related constructs: introduction to the special issue. *Psychol Assess*. 2016;28(7):787–90. doi:10.1037/pas0000309.
38. Karing C, Oeltjen L, Beelmann A. Relationships between mindfulness facets and mental and physical health in meditating

- and non-meditating university students. *Eur J Health Psychol.* 2021;28(4):183–92. doi:10.1027/2512-8442/a000085.
39. Cheung RYM, Ng MCY. Disentangling the effects of mindfulness, savoring, and depressive symptoms among emerging adults. *Int J Environ Res Public Health.* 2023;20(8):5568. doi:10.3390/ijerph20085568.
 40. He WJ. The predictive power of dispositional mindfulness and dispositional serenity for creative functioning. *Think Skills Creat.* 2023;49:101328. doi:10.1016/j.tsc.2023.101328.
 41. Cheung RYM, Ke Z, Ng MCY. Dispositional mindfulness and mental health: a multilevel model with emotion regulation as a mediating mechanism. *PLoS One.* 2020;15(11):e0239575. doi:10.1371/journal.pone.0239575.
 42. Cheung RYM, Lau ENS. Is mindfulness linked to life satisfaction? Testing savoring positive experiences and gratitude as mediators. *Front Psychol.* 2021;12:591103. doi:10.3389/fpsyg.2021.591103.
 43. Census and Statistics Department. Hong Kong annual digest of statistics–2019 edition. 2019. Hong Kong (HK): Census and Statistics Department, Hong Kong Special Administrative Region. Available from: <https://www.statistics.gov.hk/pub/B10100032019AN19B0100.pdf> [Accessed 2019].
 44. Brislin RW. Back-translation for cross-cultural research. *J Cross Cult Psychol.* 1970;1(3):185–216.
 45. Hou J, Wong SYS, Lo HHM, Mak WWS, Ma HSW. Validation of a Chinese version of the five facet mindfulness questionnaire in Hong Kong and development of a short form. *Assessment.* 2014;21(3):363–71. doi:10.1177/1073191113485121.
 46. Kroenke K, Spitzer R. The PHQ-9: a new depression diagnostic and severity measure. *Psychiatr Ann.* 2002;32(9):509–15. doi:10.3928/0048-5713-20020901-06.
 47. Cheung RYM. Patient Health Questionnaire-9 (PHQ-9). In: Medvedev ON, Krägeloh CU, Siegert RJ, Singh NN, editors. *Handbook of Assessment in Mindfulness Research.* New York: Springer; 2023. doi:10.1007/978-3-030-77644-2_63-1.
 48. Diener ED, Emmons RA, Larsen RJ, Griffin S. The satisfaction with life scale. *J Pers Assess.* 1985;49(1):71–5. doi:10.1207/s15327752jpa4901_13.
 49. Sachs J. Validation of the satisfaction with life scale in a sample of Hong Kong university students. *Psychologia.* 2003;46(4):225–34. doi:10.2117/psysoc.2003.225.
 50. Muthén LK, Muthén BO. MPLUS: statistical analysis with latent variables: user's guide (Version 8). Muthén & Muthén Los Angeles, CA. <https://www.statmodel.com/ugexcerpts.shtml> [Accessed 2017].
 51. Cash M, Whittingham K. What facets of mindfulness contribute to psychological well-being and depressive, anxious, and stress-related symptomatology? *Mindfulness.* 2010;1(3):177–82. doi:10.1007/s12671-010-0023-4.
 52. Rohde K, Adolph D, Dietrich DE, Michalak J. Mindful attention regulation and non-judgmental orientation in depression: a multi-method approach. *Biol Psychol.* 2014;101:36–43. doi:10.1016/j.biopsycho.2014.06.009.
 53. Bednar K, Voracek M, Tran US. Common factors underlying the five facets of mindfulness and proposed mechanisms: a psychometric study among meditators and non-meditators. *Mindfulness.* 2020;11(12):2804–17. doi:10.1007/s12671-020-01492-6.
 54. Brown KW, Ryan RM. The benefits of being present: mindfulness and its role in psychological well-being. *J Pers Soc Psychol.* 2003;84(4):822–48. doi:10.1037/0022-3514.84.4.822.
 55. Deng YQ, Li S, Tang YY. The relationship between wandering mind, depression and mindfulness. *Mindfulness.* 2014;5(2):124–8. doi:10.1007/s12671-012-0157-7.
 56. Nayda DM, Takarangi MKT. The cost of being absent: is meta-awareness of mind-wandering related to depression symptom severity, rumination tendencies and trauma intrusions? *J Affect Disord.* 2021;292:131–8. doi:10.1016/j.jad.2021.05.053.
 57. Lilja JL, Lundh LG, Josefsson T, Falkenström F. Observing as an essential facet of mindfulness: a comparison of FFMQ patterns in meditating and non-meditating individuals. *Mindfulness.* 2013;4(3):203–12. doi:10.1007/s12671-012-0111-8.
 58. Podsakoff PM, MacKenzie SB, Podsakoff NP. Sources of method bias in social science research and recommendations on how to control it. *Annu Rev Psychol.* 2012;63(1):539–69. doi:10.1146/annurev-psych-120710-100452.
 59. Maxwell SE, Cole DA. Bias in cross-sectional analyses of longitudinal mediation. *Psychol Methods.* 2007;12(1):23–44. doi:10.1037/1082-989x.12.1.23.
 60. Cohen J. *Statistical power analysis for the behavioral sciences.* 2nd. New York: Erlbaum; 1988.
 61. Agarwal A, Dixit V. The role of meditation on mindful awareness and life satisfaction of adolescents. *J Psychosoc.* 2017;12(1):59.
 62. Chen M, Cheung RYM. Testing interdependent self-construal as a moderator between mindfulness, emotion regulation, and psychological health among emerging adults. *Int J Environ Res Public Health.* 2021;18(2):444. doi:10.3390/ijerph18020444.
 63. Christopher MS, Gilbert BD. Incremental validity of components of mindfulness in the prediction of satisfaction with life and depression. *Curr Psychol.* 2009;29(1):10–23. doi:10.1007/s12144-009-9067-9.
 64. Feliu-Soler A, Perez-Aranda A, Luciano JV, Demarzo M, Marino M, Soler J, et al. Psychometric properties of the 15-item five facet mindfulness questionnaire in a large sample of Spanish pilgrims. *Mindfulness.* 2021;12(4):852–62. doi:10.1007/s12671-020-01549-6.