Mindfulness, self-compassion, and happiness in non-meditators: A theoretical and empirical examination

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A B S T R A C T

This study examined relationships between mindfulness and indices of happiness and explored a five-factor model of mindfulness. Previous research using this mindfulness model has shown that several facets predicted psychological well-being (PWB) in meditating and non-meditating individuals. The current study tested the hypothesis that the prediction of PWB by mindfulness would be augmented and partially mediated by self-compassion. Participants were 27 men and 96 women (mean age = 20.9 years). All completed self-report measures of mindfulness, PWB, personality traits (NEO-PI-R), and self-compassion. Results show that mindfulness is related to psychologically adaptive variables and that self-compassion is a crucial attitudinal factor in the mindfulness–happiness relationship. Findings are interpreted from the humanistic perspective of a healthy personality.

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1. Introduction

The present investigation served several purposes. It primarily examined dispositional mindfulness in relation to happiness in non-meditating individuals. Recent studies show that individual differences in mindfulness exist also in non-meditators, albeit in weaker forms (e.g., Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). This growing literature indicates that mindfulness is a natural quality that promotes adaptive human functioning. Another purpose was to test and potentially expand the empirical evidence to date by placing mindfulness in relation to psychological well-being (PWB), self-compassion, and personality traits. Finally, this study sought to deepen understanding of the structure and mechanism of mindfulness by utilizing a recently developed empirical model (Baer et al., 2006), and hypothesizing that self-compassion mediates and augments mindfulness’s association with well-being.

1.1. The nature of mindfulness

"Mindfulness is a total clarity and presence of mind, actively passive, wherein events come and go like reflections in a mirror; nothing is reflected except what is."

Allan Watts (1957)

Mindfulness is a Buddhism-derived concept and practice that involves an undistracted awareness of the here-and-now. A lack of mindfulness means unknowing of underlying processes in our subjective and objective worlds. An example of this is seen by automaticity (Anderson, 1992), where a person goes into automatic-pilot-mode during a complex, well-learned activity. Likewise is the ‘unknowing’ of absorption in a daydream or rumination while driving and the state of flow, characterized by complete engagement, balance between challenge and expertise, and time seemingly to stand still (Csikszentmihalyi, 1997). In these states, consciousness is focused on the content of experience instead of the situation itself. Although automatic processing is reliable for well-learned behaviors and flow states are optimal for specific undertakings, these both can be inappropriate and problematic in the unknowing.

Mindfulness also involves a non-judging, non-identifying attitude. Thoughts, feelings, and sensations are observed as they follow a natural course in experience. Passive observation of one’s inner experience, as easy as it sounds, is difficult in practice: the mind struggles with stillness over time. Therefore, mindfulness requires vigilance and stable concentration as well as openness.

Because mindfulness means continual contact with experience, there is an opportunity for insight. Maintaining clear and open awareness over time allows first-hand experience of how the mind functions. Like shining a flashlight inwards, subtle mind-full processes are revealed, such as how strong are reactions and how rapid-fire is the change of thoughts and emotions.

Buddhist philosophy maintains that mindfulness leads to insight into suffering, non-self (i.e. no permanent ego or self that underlies experience), and impermanence (Radhakrishnan & Moore, 1957). Accordingly, knowing one’s true nature helps one make choices conducive to lasting happiness, not just ephemeral
pleasures. Buddhist philosophy further emphasizes the additional role of compassion and loving-kindness for happiness (see Rahula, 1959, p. 72; Salzberg, 1997). In this context, compassion arises naturally with mindfulness; understanding the ubiquity of suffering and the deep connection shared with other living beings inclines us to feel others’ pain and wish them well, just as we wish to be well.

Although psychologists have been exploring mindfulness in relation to well-being, there has of yet been little consideration of an initial compassion for self in terms of a supplementary role in this relationship. The current study investigates this phenomenon.

1.2. Self-compassion

The concept of self-compassion is fundamental to compassion for others, the heartfelt experience of sharing the pain of another, and the wish for alleviation of their suffering (Goldstein, 2003). The distinguishing feature of self-compassion is that it is directed to one’s private suffering.

Neff (2003) created a self-report measure of self-compassion that taps into six qualities, three positive (self-kindness, common humanity, and mindfulness) and three negative (self-judgment, isolation, and over-identification). This conceptualization has shown promising implications for psychological health. Neff, Kirkpatrick, and Rude (2007) found that self-compassion attenuated anxiety after an ego-threat, and that an increase of self-compassion over a one-month period was related to psychological-well being. In the current study, self-compassion was operationally defined and measured using Neff’s scale.

Again, according to Buddhist psychology combining high levels of compassion and mindfulness should relate to higher levels of happiness than when one of these constructs operates alone. Being mindful of thoughts, feelings, and sensations means an encounter with personal suffering (e.g., memories of hurtful events from childhood; realization of neglect for loved ones). Self-compassion teaches us the ameliorative effect of self-understanding, patience, and balance during difficult experiences, and reminds us that suffering is common to all.

1.3. Eudaimonism

Traditional and recent ideas about the nature of happiness have fallen under two general categories, hedonism and eudaimonism. The former view maintains that pleasure is the ultimate goal of life (Falkowski, 2004, p. 82), whereas the latter is concerned with actualization of human potential. Some contemporary psychologists (e.g., Ryan, Huta, & Deci, 2008) argue that hedonic happiness is reflected in what Diener, Lucas, and Oishi (2002) refer to as subjective well-being (SWB), a widely used measure for happiness that is reflected in what Diener, Lucas, and Oishi (2002) refer to as subjective well-being (SWB), a widely used measure for happiness. We maintain that the happiness–happiness relationship as outlined. For example, neuroticism is comprised of anxiety, hostility, and vulnerability to stress, which are conducive to maladaptive functioning. Conversely, agreeableness involves trust, tender-mindedness, and modesty, factors associated with well-being and the attitudinal components of mindfulness.

To measure happiness as eudaimonia, Ryff and colleagues (Ryff, 1989; Ryff & Keyes, 1995) devised a self-report, multidimensional questionnaire of psychological well-being (PWB) based on related work (e.g., Jung, Maslow, and Aristotle). The PWB Scale includes six sub-parts deemed necessary for a eudaimonic life, including sense of purpose, autonomy, warm relationships, personal growth, self-acceptance, and environmental mastery. In the present study, this scale served as the main index of happiness. We maintain that when mindfulness levels are high, people make decisions conducive to the characteristics of PWB. Further, this association is strengthened by self-compassion.

1.4. Mindfulness in contemporary psychology

The benefits of mindfulness are gaining empirical support in psychology (e.g., Baer et al., 2008; Brown & Ryan, 2003; Shapiro, Oman, Thoresen, Plante, & Flinders, 2008). Baer (2003) and Grossman, Niemann, Schmidt, and Walach (2004) conducted meta-analyses demonstrating effects of mindfulness-based interventions on positive functioning. Kabat-Zinn’s (1982) pioneering program Mindfulness-Based Stress Reduction (MBSR) has been shown to lower perceived stress and rumination in non-clinical undergraduates (Shapiro et al., 2008) and reduce anxiety and depression in clinical samples (Kabat-Zinn et al., 1992). Another successful program, Mindfulness-Based Cognitive Therapy (MBCT; Segal, Williams, & Teasdale, 2002; Teasdale et al., 2000), has been shown to reduce the relapse of major depression (when paired with a patient’s regular treatment) better than ordinary treatments alone.

Researchers have also focused on structural models of mindfulness. Shapiro, Carlson, Astin, and Freedman (2006) proposed a theoretical model stressing three fundamental components: intention, attention, and attitude (the IAA model). Intention refers to the underlying reason for developing mindfulness, which tends to shift over time from self-regulation to self-exploration, and then finally to self-liberation. Attention includes the ability to pay attention to one mental object over time, shift focus between objects, and inhibit thought processes. Finally, attitude refers to the heart-qualities embodied by mindfulness such as compassion, patience, and non-striving, as opposed to self-condemnation.

Researchers have also explored empirically-based models of mindfulness. Baer et al. (2006) conducted a factor analysis of several existing mindfulness questionnaires, yielding five major facets or skills involved in mindfulness. These skills include observing experiences, describing those experiences, acting with awareness, and non-judgment and non-reactivity to inner experience. From this model, Baer et al. created the Five-Factor Mindfulness Questionnaire (FFMQ), used in this investigation.

Unique to the present study is that mindfulness is approached as common to the experience of non-meditating individuals. Also, little is known about the mindfulness–happiness phenomenon in connection to fundamental personality structures. Therefore, we included a measure of the five-factor model of personality (Costa & McCrae, 1985). Neuroticism, agreeableness, and openness, are of particular interest because they closely relate to the mindfulness–happiness relationship as outlined. For example, neuroticism is comprised of anxiety, hostility, and vulnerability to stress, which are conducive to maladaptive functioning. Conversely, agreeableness involves trust, tender-mindedness, and modesty, factors associated with well-being and the attitudinal components of mindfulness. People high in openness tend to be very imaginative, interested in intellectual and abstract material, and sensitive to the depths of emotions, which are theoretically related to the cognitive elements of mindfulness (e.g., observing and describing).
1.5. Hypotheses

Hypothesis 1. Moderate to strong positive correlations are expected between mindfulness and PWB, self-compassion, openness, and agreeableness. We expect a strong negative correlation between mindfulness and neuroticism.

Hypothesis 2. The prediction of PWB by mindfulness will be augmented and partially mediated by self-compassion.

2. Method

2.1. Participants

Participants were 27 men and 96 women (N = 123, mean age = 20.9 years). Of these, 59% (N = 73) were undergraduate students and 41% (N = 50) were demographically similar community members. Undergraduates were offered course credit and community volunteers received appreciation notes. Although 50% of the participants claimed to have meditated previously, none were engaged in a regular meditation practice at the time of the study. Furthermore, 84% of the sample fell between the ages of 18 and 24, suggesting minimal experience with meditation compared to long-term practitioners. The purpose of selecting a non-meditating sample was to explore the overarching questions, “Is mindfulness a measurable quality in people who do not practice mindfulness-based meditation? And if so, is it a predictor of well-being?”

2.2. Procedure

Undergraduates were recruited via a research pool website. Students met in small groups with the researcher for 10 min where they received consent forms, were given instructions for online participation, and provided their email addresses. Community volunteers were recruited via Facebook (a social-internet forum). The researcher provided a description of the study and an opportunity for interested people to submit their email addresses safely. Participants were 27 men and 96 women (N = 123, mean age = 20.9 years). Of these, 59% (N = 73) were undergraduate students and 41% (N = 50) were demographically similar community members. Undergraduates were offered course credit and community volunteers received appreciation notes. Although 50% of the participants claimed to have meditated previously, none were engaged in a regular meditation practice at the time of the study. Furthermore, 84% of the sample fell between the ages of 18 and 24, suggesting minimal experience with meditation compared to long-term practitioners. The purpose of selecting a non-meditating sample was to explore the overarching questions, “Is mindfulness a measurable quality in people who do not practice mindfulness-based meditation? And if so, is it a predictor of well-being?”

2.3. Measures

All questionnaires used in this study were self-report measurements scored on Likert-type scales. Each scale has been shown to demonstrate sound psychometric properties.

2.3.1. Mindfulness

Mindfulness levels were assessed using the Five-Factor Mindfulness Questionnaire (FFMQ, Baer et al., 2006). This 39-item scale measures five fundamental skills of mindfulness, namely observing, describing, non-judgment of and non-reactivity to inner experience, and acting with awareness. A total mindfulness score as well as subscale scores were calculated, with higher scores indicating greater mindfulness.

2.3.2. Psychological well-being (PWB)

To examine happiness in line with the eudaimonic tradition, each participant filled out Ryff’s (1989) PWB scale. This scale is based on positive human functioning (Ryff & Singer, 2008) and is comprised of 84 items that tap into several elements considered fundamental to a eudaimonic life, including self-acceptance, personal growth, autonomy, positive relationships, environmental mastery, and purpose in life. A composite score was used, higher scores indicating greater PWB.

2.3.3. Self-compassion

We measured self-compassion according to Neff’s (2003) 26-item Self-Compassion Scale, which involves high levels of self-kindness, common humanity (the belief that we all suffer), and mindfulness, and low levels of isolation, over-identification, and self-judgment. For our analyses, we used a composite score as well as factor scores.

2.3.4. Five-factor model of personality

Each participant also completed the NEO-PI-R designed by Costa and McCrae (1985). This 240-item scale measures the five-factor model of personality, which includes neuroticism, agreeableness, extraversion, conscientiousness, and openness to experience.

3. Results

Table 1 displays correlations between mindfulness and PWB, self-compassion, and the five-factor model of personality. As expected, mindfulness was positively and significantly correlated with happiness-related constructs, namely PWB (r = .75), self-compassion (r = .69), agreeableness (r = .36), and openness (r = .35), and negatively with neuroticism (r = -.66) (all ps < .001). Mindfulness was also positively and significantly correlated with extraversion (r = .42) and conscientiousness (r = .46), although these constructs were not mentioned in our hypotheses. Note how the different personality traits tend to relate strongly to one or two particular mindfulness facets compared to the others. For example, neuroticism is most strongly correlated (inversely) with non-reacting (r = -.57) and non-judging (r = -.55), whereas openness is strongly linked to observing (r = .51), and conscientiousness with acting aware (r = .59).

To test the hypothesis that self-compassion mediates the mindfulness–happiness relationship, we used the Baron and Kenny (1986) approach followed by the Sobel (1982) test of the indirect effect. According to Baron and Kenny, mediation is determined by running a series of regression equations which must show that: (1) the IV significantly predicts the proposed mediator, (2) the IV significantly predicts the DV, and (3) when the IV and the mediator simultaneously predict the DV, the effect of the IV is lower than in the second equation.

The mediation results are displayed in Fig. 1. Mindfulness (the IV) significantly predicted self-compassion (the proposed mediator) (β = .69, R² = .47, p < .001) and PWB (the DV) (β = .75, R² = .55, p < .001), which met the first two mediation criteria. When mindfulness and self-compassion were considered together, mindfulness’ regression weight on PWB was reduced but remained significant (β = .46, R² = .64, p < .001), satisfying the third criterion in terms of partial mediation. The Sobel (1982) test indicated that the indirect effect was in fact statistically significant (z = 4.92, p < .001), thereby supporting our hypothesis that mindfulness is partially linked to happiness through self-compassion.

We also hypothesized that self-compassion would augment mindfulness in predicting PWB. Statistically, we expected self-compassion to increase the amount of variance accounted for in PWB compared to mindfulness alone. Additionally, we were interested in examining these constructs at the factor level to observe the relative predictive weight of each factor. Therefore, we conducted another series of multiple regression equations...
In the first equation (Table 2), each mindfulness facet uniquely and significantly predicted PWB ($R^2 = .55$, $p < .001$). In the equation involving self-compassion facets (Table 3), common humanity, isolation, and mindfulness were unique, significant predictors of PWB ($R^2 = .57$, $p < .001$). Interestingly, when all factors from both constructs were considered simultaneously (Table 4), only three factors remained significant predictors. These included describing and acting aware of mindfulness, self-compassion, and isolation (inversely) of self-compassion ($R^2 = .69$, $p < .001$). The weights of the other factors dropped to non-significance. Furthermore, comparing Tables 2 and 4 shows that adding self-compassion to mindfulness (Table 4) accounts for significantly greater variance in PWB than mindfulness alone (Table 2) ($\Delta R^2 = .14$, $p < .001$). This finding supports our hypothesis that self-compassion augments the mindfulness–happiness relationship.

### 4. Discussion

#### 4.1. Mindfulness and well-being

This study supports the emerging literature on the benefits of mindfulness. We empirically explored mindfulness in a non-meditating population, investigated self-compassion as a mediator and augmenter of the mindfulness–happiness association, and considered the connection of broad personality traits. Participants who scored high on mindfulness also tended to score high on self-compassion, psychological well-being, agreeableness, extraversion, openness, and conscientiousness, and low on neuroticism. In line with the mindfulness literature, we interpret this finding to suggest that people high in this construct are better equipped to recognize, manage, and resolve day-to-day problems, which promotes a healthy mind. Often times we find it...
difficult to resolve the conditions that deeply ail us and return repeatedly to ingrained, maladaptive habits. The ability to notice moment-to-moment experience, with compassion, facilitates insight, clarity, and acceptance. In turn, we are at an advantage to recognize the nature of a problem and can devise strategies for management and resolution, a sign of positive development.

According to self-determination theory (Ryan et al., 2008), a contemporary meta-motivational model of human behavior, clear awareness is critical for satisfying our basic psychological needs and living according to eudaimonic principles. Likewise, this idea is reflected by humanistic psychologists Maslow and Rogers, who agree that deepening one’s self-awareness and self-understanding is vital to the process of realizing one’s highest potential (see Frick, 1971).

4.2. Mindfulness and self-compassion

In line with our mediation hypothesis, self-compassion partially mediated the mindfulness–happiness relationship (Fig. 1). This supports the notion that mindfulness cultivates a compassionate attitude, which in turn safeguards against the pernicious effects of negative feelings such as guilt and self-criticism, and facilitates well-being. We do not posit that self-compassion is the only mechanism underlying the mindfulness–happiness relationship; our mediation analysis indicates that self-compassion is a partial, not complete mediator. Certainly there are other potential mediator variables.

One example of a potential mediator is insight. As discussed earlier, Buddhist psychology posits that mindfulness leads to insight into and liberation from suffering. In this respect, happiness appears subsequent to seeing reality with depth and clarity. Future research should explore if people high in mindfulness tend to be more insightful, and if mindfulness training increases one’s level of insight over time.

We also examined the various facets of self-compassion and mindfulness in relation to PWB. Each mindfulness facet significantly predicted PWB, although acting with awareness and describing experiences were the strongest predictors (see Table 3). This suggests that although the attitudinal and attentional components of mindfulness are important for eudaimonic well-being, the latter may play a more dominant role.

Within self-compassion (see Table 3), common humanity, isolation (inversely), and mindfulness were significant predictors of happiness, whereas self-kindness, self-judgment, and over-identification were non-significant. This finding indicates that high levels of awareness and ego transcendence – as reflected in the qualities of mindfulness, low isolation, and a sense of the ubiquity of suffering – plays an important role in living well. The other factors, although important for happiness, did not account for enough unique variance in PWB to be statistically significant.

Interestingly, when all factors from both constructs were examined simultaneously (see Table 4), only acting with awareness and describing experiences of mindfulness, and low isolation (feeling connected) of self-compassion significantly predicted PWB. This suggests that these three qualities are major, distinct factors relating to eudaimonic functioning within mindfulness and self-compassion. Further, this finding supports our hypothesis that self-compassion augments the mindfulness–happiness relationship – significantly more variance in PWB was accounted for when all facets combined compared to when only mindfulness was considered (Table 2). The attentional processes of mindfulness are compounded by feelings of connectedness with other sentient beings afforded by self-compassion, resulting in greater PWB.

In terms of personality, results showed that personality dimensions are differentially related to various aspects of mindfulness, with interesting implications. For example, this could mean that our current personality makes us inclined to manifest a particular part of mindful awareness. Someone high in neuroticism, according to our results, is less likely to demonstrate the attitudinal components of non-judging and non-reacting compared to someone low in this trait. This finding is intuitive given neuroticism’s link to emotional instability, worrying, and criticism (Roelofs, Huibers, Peeters, Arntz, & Van Os, 2008). Similarly, a highly conscientious person is more inclined to act with awareness (an attentional component of mindfulness) compared to someone low in this trait. These findings support similar findings of Baer et al. (2006), who suggested that certain adaptive behaviors involve only one or more mindfulness facets. As mentioned before, personality traits have received little to no attention in mindfulness research despite the knowledge that relatively stable personality traits influence much of our behavioral tendencies. Therefore, this correlation pattern offers new empirical information on this front.

These correlations must be interpreted cautiously in terms of causation. Future research should investigate these insights further, as they have important practical implications. An interesting research question is whether techniques to cultivate mindfulness transform personality traits; for example, making one less neurotic and more conscientious. Alternatively, researchers might use a longitudinal design to see whether a particular trait or combination of traits facilitates the cultivation of mindfulness and well-being.

4.3. Final thoughts

Although results support the role of self-compassion as a partial mediator, more research is necessary to clarify what aspects of self-compassion are doing the work. This study offers an initial attempt in this direction. We were interested in self-compassion generally and therefore did not analyze each of the six factors as potential mediators. That said, our study points to the quality of connectedness (or low isolation). We encourage researchers to explore this phenomenon in greater detail as well as other potential mediators of the mindfulness–happiness connection, such as insight character strengths and virtues, and connection with nature.

Overall, this study demonstrated that mindfulness is not only related to well-being, but is a measurable quality possessed even by those who do not practice mindfulness meditation. Therefore, mindfulness can be regarded as a positive potentiality of human consciousness, comprised of a confluence of cognitive (e.g. observation and description) and attitudinal (e.g. self-compassion) elements which are inherent to all of us. This finding, combined with the supporting literature, can be used in a wide variety of settings. For example, educators whose aim is to encourage positive growth may use this information to help better understand their students and develop more humanistic approaches to their work.

Psychotherapists might be interested in incorporating self-compassion into their work to benefit their clients. This is already reflected in the Rogersian notion of the necessary and sufficient ingredients of therapeutic change: unconditional positive regard, empathy, and genuineness set by the therapist (Rogers, 1957). More recent initiatives in this realm include Paul Gilbert’s (e.g., Gilbert, 2009) work on Compassion-Focused Therapy, a unique form of psychotherapy that utilizes compassion to overcome a variety of psychological problems.

The mindfulness–happiness phenomenon lends itself to anyone who sets well-being as a priority in theory, practice, or experience. Research should continue to explore this burgeoning topic in a wide range of settings, such as education, parenting, marriage, and government.
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References