

The Effect of Mindfulness-Based Interventions on Insecure Attachment Styles

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Abstract. Mindfulness has been spreading rapidly in the study and practice of Western psychology. Large amounts of research have shown that mindfulness training is effective in improving a variety of symptoms associated with physical and psychological disorders such as chronic pain, anxiety and depression. Moreover, mindfulness training is also proven to improve the level of dispositional mindfulness as well as psychological well-being. Since individuals with insecure attachment styles who have either high anxiety or high avoidance in intimate relationships were found to have more severe psychological anguish, such as depression and anxiety, mindfulness training may be applied to alleviate the negative effects brought by insecure attachment styles. This article is aimed at reviewing related studies on attachment and mindfulness and exploring how the negative effects of insecure attachment can be alleviated by the application of mindfulness training. The author came to the conclusion that the negative effects of insecure attachment on individuals' well-being and emotion regulation can be alleviated by mindfulness-based interventions. In addition, the author predicts that mindfulness-based interventions can effectively improve attachment insecurity, but more meta-analyses are needed.

Keywords: attachment; mindfulness; psychological well-being; anxiety; avoidance.

1. Introduction

Throughout an individual's lifespan, his/her personal development and adaptive functioning are profoundly affected by his/her experiences in intimate relationships [1]. Motivated by Bowlby's attachment theory, extensive research has found that people who have experience in warm, sensitive, open, and trusty intimate relationships are more likely to have positive expectations of themselves and others, and they are more likely to be able to facilitate coping and interpersonal relationships with positive emotion expression and regulation skills [2]. By comparison, people who have experienced abandoned, neglected, enmeshed, and maltreated intimate relationships are more likely to hold negative expectations of themselves and others, and they are more likely to express and manage emotion in a defensive, and self-defeating way [1]. Thus, through experiencing similar intimate relationships repeatedly, people develop their attachment orientations, which define their internal cognitive-emotional strategies of sustaining security in intra- and inter-personal relationships [1].

Adult attachment orientations are measured in two dimensions: attachment anxiety and avoidance [3, 4]. Individuals who have low scores on anxiety and avoidance are considered to have a secure attachment style. In contrast, individuals who have high scores on anxiety or avoidance or both, are classified into the group with insecure attachment style [1]. If the attachment partner is not available consistently, individuals may develop hyperactivating attachment strategies implicitly, including amplifying the need for attachment, having negative emotions much more frequently, persisting to maintain the connection with the attached partner, and fearing abandonment intensely [5]. These hyperactivating strategies are associated with an anxious attachment style. Alternatively, if the attachment partner keeps being dismissive, abusive, or neglectful, individuals may adopt deactivating attachment strategies, including suppressing their needs for attachment, avoiding vulnerabilities, trying to be emotionally detached, and staying away from intimate relationships [5]. These deactivating strategies are related to avoidant attachment style.

By definition, mindfulness is a state in which an individual is attentive to events and experiences in present without discriminating cognition [6]. It involves sustainably paying attention to one's

ongoing sensory, and experience in cognition and emotion level, but not judging or elaborating on such kind of experience [7]. Converging research has brought interest in mindfulness, indicating that mindfulness level is positively correlated with various mental well-being indices [8]. Mediation or mindfulness-based training can increase mindfulness levels [8]. However, people with no prior experience in mindfulness training have been noted having differences in mindfulness levels [8]. Hence, Brown et al. suggested that mindfulness may be an implicit or dispositional trait [6]. More and more research has shown that improving mindfulness level by practicing mindfulness skills leads to the improvement of a variety of symptoms associated with physical and mental health, such as immune system, arthritic pain, anxiety, depression, and general life quality [1].

Standardized mindfulness-based interventions (MBIs) have been very successful through the years, which is very much likely to promote the rapid spread of the application of mindfulness in the study and practice of Western psychology. The most well-known two interventions are mindfulness-based stress reduction (MBSR) and mindfulness-based cognitive therapy (MBCT). These interventions combined the ideas of Eastern mindfulness meditation and Western cognitive-behavioral training [9]. Recent reviews of trials that are well-designed, randomized, and controlled have compared mindfulness therapies (mainly MBSR and MBCT) with active control conditions. These reviews suggest that MBIs can bring a broad range of positive effects on diverse populations [9]. The positive effects involve alleviation of clinical disorders and symptoms such as depression relapse risk, current depressive symptoms, anxiety, stress, improvement of well-being such as the alleviation of chronic pain, and increased life quality, and distress at the psychological level [9]. Moreover, MBIs were proven to be effective in specific mental disorders, such as affective dysregulation, cognitive biases, and interpersonal ineffectiveness [9].

This article will discuss the efficacy of mindfulness in reducing the severity of anxiety and depression symptoms, as the main treatment or combined with other treatments [9]. This article is primarily aimed at exploring how the negative effects brought by insecure attachment can be alleviated by the application of mindfulness-based interventions.

2. Attachment theory

John Bowlby developed the theory of attachment in the 1980s. It explains the interpersonal connection with psychological theory [10]. Attachment theory implies that it is human nature to make connection with one another emotionally in intimate relationships [10]. According to the theory, children's development is greatly influenced by the way their parents, especially mothers treat them. It also indicates that individual's tendencies in intimate relationships in their later lives, based on an individual's early experiences with caregivers can be explained by a theory of developmental pathways [10]. Attachment theory tries to explain various kinds of emotional anguish people experienced in disrupted relationships [11]. Attachment styles can be divided into four categories: secure, avoidant, anxious, and disorganized. Avoidant, anxious, and disorganized attachment are all insecure attachment styles. Individuals who develop insecure attachment styles when they are children may exhibit psychological and physical problems when they are adults [12].

2.1. Secure attachment and insecure attachment

When children receive enough attention and love from the caregiver, and their safety and comfort needs are met by the caregiver consistently [13], they will develop an secure attachment style. In this situation, the caregiver acts as a "secure base" for children when they are exploring the environment [13]. However, when the caregiver does not provide consistent love and care to children, children will learn that trusting others is not safe for them, and they have to be independent and meet their emotional needs by themselves[13]. Children will then develop their own adaptive strategies associated with the parenting styles of their caregivers[13]. Children develop an anxious attachment style when their caregivers do not respond to them consistently and are not always available when needed [12]. When such children are under stress, they tend to cling to important others and be very

anxious [12]. They are super sensitive to signs suggesting rejection or abandonment, and they tend to develop harmful emotions more frequently and intensely as well as excessive rumination [14]. They also represent themselves negatively, and have lower self-esteem [14]. Children develop avoidant attachment when they are rejected by their caregiver, and they learn to expect rejection when they seek care [12]. Such a kind of children tends to suppress their needs for attachment in order to help themselves overcome the distress from rejection [12]. When they grow up, they learn to meet their emotional needs by relying on themselves, and tend not to depend on others for intimacy [12]. They deny their attachment needs and attachment-related thoughts, and suppress their vulnerability and needs for others. They defend themselves by exhibiting their own independence and strength, resulting in excessive self-reliance, apartness, emotional detachment and self-estrangement [14]. It has been confirmed by studies that, in intimate relationships, adults confront problems such as the fear of being rejected or abandoned in intimate relationships (anxiety), as well as negative expectations towards others and the tendency to get uncomfortable in intimate relationships (avoidance) [15]. These two factors, avoidance and anxiety, are associated with more severe psychological anguish [15].

According to Hazan and Shaver, compared with adults with secure attachment, individuals who have either anxious or avoidant attachment styles have the tendency to have a higher level of depression, anxiety and psychosomatic illnesses (such as intestinal problems) as well as physical illnesses (such as colds and influenza) [12]. In addition, individuals who strongly rely on emotion-focused responses when met with stressful circumstances use emotion regulation strategies rather than the management of the source of that distress [12]. This also leads to a higher risk of somatic complaints [12]. The above considerations propose that, in stressful circumstances, individuals who suppress their emotions, overly rely on themselves, and covertly depend on others may have a higher risk of having symptoms of psychological and physical problems [12].

3. Mindfulness and mindfulness-based interventions

3.1. Mindfulness

The concept of mindfulness derives from Buddhist psychology [16]. In the psychology domain, the word mindfulness is defined as the implicit ability of human awareness which makes individuals focus on present events without judgments and accept those events as they emerge in their consciousness [17].

Mindfulness can also refer to the process, resulting in a mental state where an individual is nonjudgmentally aware of experiences at this moment, including sensations, thoughts, bodily states, consciousness, and the environment, and being open, curious, and acceptive of these experiences [9]. Bishop and his colleagues divided mindfulness into two components, one is the self-regulation of attention and the other is the curious, open and acceptive attitude toward the present moment [9]. Individuals who are in a state of mindfulness have the capacity to jump out of normal automatic reactions to their thoughts and feelings and observe them from an external aspect, without accepting them as unquestionably true [14].

For most of people, their default attention mode is non-attention [9]. Thus mindfulness turns out to be completely different from what people may commonly experience in their daily lives [9]. Mind wandering is an omnipresent state of undergoing daily life mindlessly [9]. It is also known as running on autopilot [9]. Usually, when people try to focus on internal thoughts and feelings in the present, their attention is full of self-criticism, rumination, or vexatious thoughts and emotions that they are attempting to control [9]. This kind of experience can be so disgusting to some people that they would rather choose almost anything else [9]. A review of 11 studies carried in the lab about healthy grown-ups indicated that the majority of the participants prefer ordinary tasks, or even moderate electric shocks, to stay with their own thoughts alone [9].

Contemporary psychology has adopted mindfulness as a strategy for improving awareness and the capacity of managing mental processes that lead to mental distress and disorders in behavior [15].

Mindfulness also refers to a state, which can be arrived by applying a set of skills that can be obtained via practice [15]. Acceptance therapy implies that every individual is able to obtain a state of mindfulness by practicing different techniques [15].

3.2. Mindfulness-based interventions (MBIs)

In 1998, Seligman et al. put forward the concept of positive psychology, which brought focus to clinical psychology instead of simply manifesting and treating unpleasing symptoms of a disorder [18]. After this approach was in application, psychotherapy could also be used to improve people's well-being, more than just aiming at the improvement of the signs of a disorder. Mindfulness, proposed by Kabat-Zinn, is used as one of the therapies used in positive psychology [18].

MBIs put emphasis on focusing non-judgmentally on and being aware of the present, regulating emotion and behaviors, and mindfulness meditation practice [19]. Mindfulness-based mediation (MBM) is a process that trains the mind to function in a minute-to-minute mode without any judgments [20]. It helps one's mind to improve the level of awareness. People practicing MBM are taught to be sensitive to what they are thinking and feeling but let these thoughts and emotions pass without any judgments or immersion in these thoughts and emotions [20].

The principal theoretic precondition of MBIs is that mindfulness training (e.g. sitting meditation, yoga, etc.) can help individuals to react less to but reflect more on unpleasant internal feelings and thoughts, resulting in positive psychological outcomes [9].

MBIs have been proven to be therapeutically effective in several psychological as well as physical problems, such as chronic pain, anxiety, depression, postpartum depression and addictions [18]. This kind of intervention is targeted at alleviating causative agents, as well as obtaining the capacity to improve psychological and behavioral functioning [18]. In addition, MBIs were found to prominently reduce symptoms of depression and improve the level of mindfulness, life quality and self-compassion [19]. Apparently, well-being is promoted as mindfulness level is improved [18].

3.3. Mechanisms of MBIs

As indicated in studies, MBIs work in a mechanism that changes mindfulness, rumination, self-regulation, worry, compassion or meta-awareness to predict or mediate the outcomes of treatment [21]. Preliminary results also imply that the mechanisms also include changing one's attention, memory characteristics, self-discrepancy, emotional response and momentary positive or negative emotions [21]. MBIs also have modulatory effects on people with major depressive disorders, by impacting several brain regions [21].

3.4. Mindfulness-based stress reduction (MBSR)

In the early 1980s, MBSR was developed by Kabat-Zinn. It is the first and perhaps the most famous mindfulness-based intervention which is proven to be empirically useful in treating symptoms of psychological disorders [9]. MBSR is a highly structured program, which teaches mindfulness-based mediation as well as yoga. It is constitutive of 8-week group-based psychoeducational sessions, where participants meet once a week for a 2.5-h session as well as a day-long (8-h) mindfulness retreat [9, 19, 20]. The course mainly emphasizes the study of how to become aware of body sensations mindfully, by practicing mind-body meditative training such as sitting meditation, body scan, gentle stretching, and yoga [9]. Daily homework will be assigned to participants to do similar inquiry exercises to improve their observation capability [19, 20]. In addition, participants discuss in groups in classes about the application of the mindful practices learned in class in everyday life. The final goal of this kind of application is to be more adapted to manage stressors in life [9]. At first, MBSR was introduced to treat chronic pain [19]. Now it has been used to treat many other medical and psychiatric disorders [9].

A study conducted by Hoge and colleagues implies that MBSR has better effects in the population with generalized anxiety disorder than an active stress-management education program [9]. For

example, MBSR is now used in stress reduction through enhanced mindfulness skills obtained in regular meditation training [9].

3.5. Clinical applications of MBSR

According to Ramel et al.'s study, 38 subjects who were previously diagnosed with a mood disorder were found to have a decrease in symptoms associated with depression and anxiety after attending an 8-week MBSR program [20]. Further analysis implied that rumination and anxiety and depressive symptoms are positively correlated [20]. Regression analyses also inhibited that the amount of MBM practiced and rumination are negatively correlated. This implies that MBSR can reduce anxiety and increase the expression of negative emotions effectively [20]. A literature review of 10 clinical trials conducted by Smith et al. found that MBSR had positive effects in stress reduction and quality of sleep and mood improvement among people diagnosed with cancer [20]. Grossman et al. did a meta-analysis of 20 studies in 2004, indicating that MBSR was effective in stress reduction as well as improvement of life quality for people diagnosed with various diseases [20]. Subjects in this meta-analysis consist of patients diagnosed with chronic pain, cardiovascular diseases, psychiatric disorders and cancer [20]. A meta-analysis was conducted by Eberth and Sedlmeier on 38 studies that evaluated if mindfulness meditation was effective at improving psychological well-being [18]. They came to the conclusion that MBSR was the most effective way to attain higher psychological well-being [18].

4. Effects of MBIs on insecure attachment styles

MBIs combine the ideas of various disciplines, which includes health, cognitive, clinical, positive psychology, and Buddhist theories of mind [22]. It has been proven that MBIs are effective in alleviating some of the symptoms of common psychological disorders [21].

Popular web-based mindfulness interventions are also proven to be effective in alleviating anxiety and depression among people diagnosed with anxiety disorders [21]. A recent meta-analysis of 18 qualified studies indicated that mindfulness practices such as body scan, breathing space, soundscan, and sitting meditation had a small to medium impact on depression and anxiety [21]. It may also be effective in improving ecological and social sustainability, through promoting people's psychological well-being and positive connection with other people, society as well as nature [21].

Mindfulness mediation training is commonly conceptualized as attending openly, without conceptualization and judgement, focusing on body sensations as well as mental events, aiming at cultivating equanimity and awareness [23]. This training in observation is aimed to help practitioners obtain an equanimous and neutral attitude towards what they have experienced on their own and eventually help them to be subjectively detached from identification with themselves as well as their thinking called 'decentering' [23]. The decentering process is thought to be fundamentally involved in subjective changes made by improved cognitive functioning as well as psychological well-being [23].

4.1. Well-being

Psychological well-being refers to a state of ideal human functioning, including the realizing an individual's potential as well as true self [24]. It can be divided into multiple dimensions: personal growth, self-acceptance, autonomy, life purpose, environmental mastery and positive connections with others [24].

Existing research has shown that psychological well-being affects every aspect of life and human functioning, and closely relates to psychological and physical health [24]. Flourishing is a state where people have high levels of psychological and social well-being, and is proven to protect one's mental health [24]. In contrast, low levels of psychological well-being can lead to higher possibilities of the development of psychiatric disorders [24].

An individual's well-being is thought to be significantly influenced by attachment orientations [24]. Consistent findings indicate that secure attachment is positively correlated to overall well-being, whereas insecure attachment (anxious and avoidant) is negatively correlated, either directly or indirectly, to overall well-being [24]. The attachment theory introduced by Bowlby indicates that early experiences with caregivers form individuals' internal working model of attachment, which can be relatively stable over time [24]. This internal working model guides individuals when they are seeking intimate relationships as adults [24]. Individuals who develop secure attachment styles have characteristics such as emotional stability, high self-esteem and positive expectations towards themselves and others, which have a positive effect on individuals' behavior, cognition, emotion regulation, and on their well-being consequently [24].

Dispositional mindfulness is defined as individuals' implicit dispositional trait, referring to their level of mindfulness in general daily life [24]. Mindfulness-based interventions are proven to improve an individual's dispositional mindfulness. All empirical findings imply that dispositional mindfulness has a substantial, direct or mediating effect on one's well-being, resulting in large differences in individuals' psychological well-being, general distress, and psychiatric symptoms [24]. The peculiar attachment strategies of behavior, cognition, and emotion regulation used by individuals' with insecure attachment styles can explain why dispositional mindfulness is negatively impacted by insecure attachment [24].

4.2. Emotion regulation

4.2.1 Depression and anxiety

As it has been increasingly recognized that mindfulness is beneficial, emotion regulation is identified as correlated to mindfulness [25]. Gratz and Roemer indicated that emotion regulation is defined as the capacity to understand, accept and manage emotions and to continue one's purposeful behaviours when emotions are activated [25]. Mindfulness practice has been proven to have effects on emotion regulation abilities at neural as well as cognitive levels [25]. Furthermore, mindfulness-based interventions can alleviate symptoms of emotional disorders such as depression and anxiety disorder [25].

Early emotion regulation is believed to evolve originally from dyadic management of emotion between parents and children, suggesting the impact of early interactions between parents and children on later emotion regulation capabilities when children grow up as adults [25]. According to Siegel, due to the reason that mothers with a higher level of mindfulness tend to be more receptively attentive to their children's needs and emotional states, resulting in their children having more secure attachment and higher mindfulness, variances in maternal interaction style may mediate the simultaneous development of both mindfulness and emotion regulation [25].

It has been proven that secure attachment is positively related to several indices of emotion regulation capacity, such as lower response to stress, lower physiological response to stimuli that threat one's ego state and better behaviour regulation [25]. In contrast, insecure attachment is positively related to more severe depression, anxiety and body symptoms as well as disordered traits of personality [25].

It has been sufficiently proved with meta-analysis that MBIs are moderate to strongly effective at alleviating symptoms of depression and anxiety [21]. A systematic review showed that MBIs were also applicable during pregnancy, which can help moderately to largely reduce perinatal anxiety; however, they were less effective at alleviating perinatal depression [21]. Trending web-based interventions are also proven to be effective in alleviating anxiety and depression symptoms among individuals with anxiety disorder [21]. However, it is still unclear whether mindfulness training is a standalone intervention, because it is hard to dismantle the impact of social interaction and psychoeducation that are also involved in many MBIs, from merely mindfulness training [21]. A recent meta-analysis of 18 qualified studies investigated the gap by demonstrating that mindfulness training itself could impact both depression and anxiety at a small to medium level [21]. According to randomized controlled trials that compare MBSR with active control conditions, MBSR can

alleviate the symptom of depression and anxiety at a moderate to a large level, among people diagnosed with a broad range of medical and psychiatric disorders [9].

4.2.2 Stress

The moderate impact of MBIs on stress reduction is overall supported by current evidence, but we need more robust studies to draw conclusions among different populations [21]. A meta-analysis of 5 randomized control trials testing the impact of MBIs on cortisol levels found that MBIs may be effective in healthy adult populations, though the overall impact size was relatively low [21]. Yet another meta-analysis implied that MBIs have a medium and remarkable effect of meditation interventions on cortisol levels, but the effect was only present for samples that are at risk such as those who are under stress in life [21]. Studies are also conducted among specific populations such as students who have received high education as well as old people, implying uncertain outcomes [21]. Among students with high education, there was a moderate effect of MBIs on stress, but most studies were not highly qualified. Among the old population, there was no clear evidence suggesting that MBIs are useful in stress reduction [21].

5. Conclusion

In conclusion, mindfulness-based interventions, especially mindfulness-based stress reduction, were proven to be effective in alleviating the negative impact of insecure attachment on individuals' well-being by improving their dispositional mindfulness. Moreover, these kinds of interventions were also proved to be effective in the reduction of emotion regulation problems such as anxiety, depression and stress brought by insecure attachment. Hence, it can be predicted that mindfulness-based interventions can be effective in improving attachment insecurity, such as alleviating anxiety and avoidance in intimate relationships. But more meta-analyses on different populations are needed. If with more empirical evidence, mindfulness-based interventions may be applied to individuals with insecure attachment styles and help them obtain better psychological well-being.

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