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The clinical value, principle, and basic practical technique of mindfulness intervention

Tao ZOU¹, Chenghan WU¹, Xiaoduo FAN^{2,*}

Summary: Mindfulness intervention is a psychotherapy based on the Buddhist practice of meditation, combining the theories and methodology of contemporary psychology. The empirical research in recent years has indicated that mindfulness intervention yields favorable results including reduction of depression relapse, alleviation of the symptoms of depression and anxiety, reduction of substance abuse, relief of pain, blood pressure management, enhancement of immunity, and improvement of sleep. Currently, mindfulness therapy has become the mainstream of psychotherapy in the realm of European and American psychotherapy. The fields of psychology and psychotherapy in China have also begun to introduce mindfulness intervention in recent years. However, there is a lack of relevant practice and research in the field of clinical mental health. This article will briefly introduce the concept of mindfulness, the basic mechanism of the intervention, and the basic skills and guidelines in clinical practice.

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1. Introduction

Mindfulness intervention (MI) has spread worldwide in the past 30 years and its literatures have grown exponentially. The contents of the literatures have broad coverage, ranging from scientific research reports to general public media coverage. After initial suspicion in western society, the concept of mindfulness has increased in popularity, fascination, and acceptance; its impact extends from the field of scientific research to the general public. The application of mindfulness intervention has got into clinical health treatment, workplace, school, and even military and prison systems. ^[1] In recent years, the realms of psychology and psychotherapy in China have also begun to introduce mindfulness intervention, in theory reviews and some laboratory studies. ^[2] Nevertheless, there is a lack of relevant practice and research in the most widely used field of clinical mental health. An important reason is that there is a lack of understanding in clinical knowledge such as the skill set, training, and practice of mindfulness intervention among clinical psychiatrists and psychotherapists.

This article briefly introduces the concept of mindfulness and the basic mechanism of the intervention, and emphasizes the introduction of the scope of application in clinical practice, especially the basic skill set and guideline in practice. This article wishes to draw the attention of China's psychiatric clinicians and promote the practice and research of mindfulness intervention in clinical practice.

2. Overview

Mindfulness originated from the Buddhist style of mediation. This was combined with contemporary psychology to form a series of mindfulness intervention therapies. In these intervention therapies, mindfulness is usually defined as a kind of perception generated through conscious awareness in addition to uncritically accepting the perceived experience of every moment. ^[3] There are two crucial features ^[4] in the definition of mindfulness in modern psychology. The first feature is the awareness and perception of current experiences. The second feature is utilizing the attitude of acceptance

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and openness (curiosity, detachment, irregular thinking) to face personal experiences.

Various types of mindfulness interventions related to the field of mental health emerged based on this concept. The 5 common types^[5] are Mindfulness-based Stress Reduction (MBSR), Mindfulness Cognitive-behavioral Therapy (MBCT), Dialectical Behavior Therapy (DBT), Acceptance and Commitment Therapy (ACT) and Mindfulness-based Relapse Prevention (MBRP). Among the 5 types, MBSR and MBCT are the most mature and systematic mindfulness intervention therapies to date. Although the remaining 3 types of therapies involve mindfulness techniques, there is much variation compared to the previous 2 ones on the length and frequency of the application of the mindfulness techniques, mindfulness psychological education, and the composition of the components of non-mindfulness therapies.

Mindfulness-based Stress Reduction (MBSR)^[6] was founded by Dr. Jon Kabat-Zinn of the University of Massachusetts Medical School in the United States. The mindfulness elements include meditation, body scanning, and mindfulness yoga. The purpose of MBSR is to assist (not to replace) conventional medical treatments, to facilitate the patients to cultivate mindfulness, and to fairly view and accept the present experience.

Mindfulness Cognitive-behavioral Therapy (MBCT)^[7] was developed from the basis of MBSR by Zindel Segal, Mark Williams, and John Teasdale. This therapy integrates the principles of mindfulness and cognitive therapies. At first, it mainly focused on the prevention of depression recurrence through teaching the patients to identify the aggravated mood so as to break free from depression-recurrence-causing rumination and destructive thinking. It is noted that there are many differences on the treatment practice in cognitive behavioral therapy (CBT) and cognitive therapy (CT), although MBCT is integrated with the concept of cognitive therapy. The discussion of MBCT to cognition is not for searching irrational concepts, emphasizing change or thinking at a different angle, but for a better acceptance and compliance of the present self. (See the clinic practice principle guideline for specifics)

The remaining 3 methods had their own specific targets when they were first launched. Yet, the range of application has become broader in recent years, becoming an important means of clinical psychotherapy in the west. DBT^[8] was founded by Linehan and was primarily used for treating borderline personality disorder initially. However, DBT was also used frequently for dealing with issues of patients' extreme emotion management and behavior control. ACT^[9] was founded by Hayes. It increases the psychological flexibility of patients through the use of acceptance, mindfulness, commitment, and behavior change. MBRP^[10] is mainly for substance abuse.

Although mindfulness therapy originated from Buddhist practice, it is only based on psychosomatic

medicine and the results of clinical research to explain mindfulness practice. Nothing is involved with the principles and the classics of Buddhism. Increased recognition was gained in its 30 years of development. The validity of the MBSR and MBCT got an increasing amount of support from research evidence. For example, MBSR has had the longest history and has become the largest scale of stress reduction therapy in the current American healthcare system. From statistics (2004) 10 years ago, there were more than 240 medical centers, hospitals, or clinics that provided MBSR^[11] in western countries such as the United States, Canada, and England.

3. The mechanism of mindfulness intervention

3.1 Psychological theory model

Research on the mechanism of mindfulness intervention is usually based on the theories on MBSR and MBCT. Currently, there is a huge amount of evidence proving the validity of MBSR and MBCT. However, their mechanisms are not fully understood. This article only briefly describes a few representative psychological theory models in order to facilitate clinical physicians to better comprehend and apply mindfulness intervention.

A theoretical premise of mindfulness therapy is: the development and growth of mindfulness makes the individual accept the current self experience and feelings using a non-judgmental and non-reactive attitude so as to engender the positive psychological effect. People such as Kate Cavanagh^[3] chose the following psychological constructs as the mediation of mindfulness intervention: mindfulness, repetitive negative thinking (rumination, worry, and concerns), self-compassion, psychological flexibility, emotional reactivity, cognitive reactivity, and the specificity of autobiographical memory. The results support the abovementioned theoretical premise of mindfulness intervention after conducting a meta-analysis. The researchers put forward a series of theoretical models or summaries of the mindfulness therapies' potential mechanism via the integration of various psychological mediations.^[12-17] See table 1 for the mindfulness therapy mechanism proposed by the theoretical models.

3.2. Neural mechanism

There has been some research pertaining to the neural mechanism of mindfulness in recent years. However, little is known about the therapeutic effect of the neural mechanism compared to the method of mindfulness intervention. What is already known is that mindfulness intervention must be brain-mediated^[18]. Mindfulness meditation (for example, breathing's awareness of consciousness) has been proven to be able to activate some portions of the regions in the brain including the insular, putamen, somatosensory cortex, parts of the anterior cingulate cortex, and prefrontal cortex.^[19-21] There is also some preliminary evidence showing that mindfulness interventions could alter the brain

Table 1. Model of the mindfulness therapy mechanism

Bare (2003)	Brown and colleagues (2007)	Grabovac et al (2011)	Holzel and colleagues (2011)	Shapiro and colleagues (2006)	Vago and Silbersweig (2012)
(a) Exposure	(a) Insight	(a) Acceptance/empathy	(a) Pay attention to regulation	(a) Sensory reconstruction, self regulation (functional stability and change adaptability)	(a) Self awareness
(b) Change of cognition	(b) Exposure	(b) Pay attention to regulation	(b) Physical awareness	(b) Emotional, cognition, and flexibility of behavior,	(b) Self regulation
(c) Self-management (increase adaptive coping skills)	(c) Putting down obsession (away from greed)	(c) Ethical practice	(c) Emotional regulation (re-evaluation, exposure, repeal, and consolidation)	(c) Analysis of values	(c) Self transcendence (other self related links)
(d) Relaxation	(d) Perfect mental and physical function and comprehensive function (behavior is more meaningful)	(d) Away from greed	(d) Changes in self perception	(d) Exposure	
(e) Acceptance		(e) Psychological derivation (narrative thinking process)			

structurally and increase the density of the grey matter in the hippocampus. [22] Additionally, the amygdala is regarded as a threat detector. Its increase in activity will lead to fear-related behaviors. Meanwhile, the amygdala is also related to anxiety and depression. There is research indicating that mindfulness practice could reduce emotional responses through adjusting the activity of the amygdala. [23] The lateral prefrontal cortex takes part in the behavior control and emotional regulation through the feedback regulation of the amygdala. It means that mindfulness practice enhances emotional control through increasing the activity of the lateral prefrontal cortex, resulting in the reduction of excessive emotional response symptoms. [23]

4. The guideline of clinical practice

There are a lot of differences when psychiatrists use mindfulness interventions on clinical practice in contrast to using mindfulness on a general population or non-medical fields as well as the general clinical psychotherapy. The first thing that needs to be clear is that the patient you are facing is a person with mental illness, not a general client. The implication is that you will play more as a role of director or a professor in the intervention, not merely serving the function of consultation.

The main method of mindfulness interventions is "meditation" (the term, meditation, is derived from the Greek meditari, meaning to reflect and mediate). Combined with modern psychology, the rising mindfulness mediation is different from the Buddhist meditation and other transcendental meditation. Four basic conditions should be fulfilled to proceed with mindfulness meditation: (a) a quiet place with minimal interference; (b) maintain a comfortable (self-feeling) posture; (c) a focal point that we could put our attention

on (breathing, a target, a proverb or mantra); (d) an open mind that our thoughts could flow freely without judgment. [24]

The preparation before the systematic mindfulness training: A relatively detailed discussion regarding the mindfulness interventions should be carried out before the implementation of the mindfulness interventions. The discussion should include the explanation of the mindfulness concept and the language of modern psychology should be used to expound and introduce. Mystification and religion-related misunderstandings should be avoided.

Testing patients for their interest and motivation could help with guiding and adjusting each person's program of practice. More importantly, a lot of misconception and unrealistic thoughts such as the excessive pursuit of treatment results and self-changes, and the expectation of some fascinating things happening to them could be eliminated. Table 2 provides some examples for explaining mindfulness. The most important thing is that such communication could let the physicians understand the level of the patients' interest and motivation. Table 3 provides some examples of the evaluation of the patients' interest and motivation.

After starting the treatment, the physicians need to encourage the patients to cultivate a habit of continuous daily mindfulness practice for there will be numerous obstacles to the daily practice such as selection of the time of practice and psychological resistance. If the patient could spare a specific time for the mindfulness practice every day, he or she will yield a favorable treatment effect. A common suggestion for better treatment results is to arrange the practice to be the first thing to do after waking in the morning or the last thing to do before bed How to encourage patients

Table 2. An example of the explanation of mindfulness and meditation to the patients

- (a) Mindfulness is the awareness of the current feeling, thoughts, and emotions that is not evaluated
- (b) "Autopilot" state of mind is relative to mindfulness awareness. This state of mind occurs when paying attention to the thoughts of the past and future accompanied by a feeling of the cognition and emotion being taken away. We are at the "autopilot" state of mind most of the time.
- (c) "Autopilot" state of mind will lead to problems because we do not only fall into our own thoughts and emotions, but our thoughts sometimes make us feel bad. For instance, if we begin to think how bad it is when we feel pain, the pain will last longer and aggravate our suffering.
- (d) During self mindfulness awareness, we can avoid our thoughts and feelings. We can regard them as short phenomena just like the clouds floating in the sky. This could have the effect of alleviating our thoughts and feelings and give us a chance to further see things clearly.
- (e) Meditation involves focusing on something such as the feeling of paying attention to breathing. During meditation, awareness at every moment is focused on feelings, thoughts, and emotions.

Table 3. An example of the evaluation of interest and motivation to the mindfulness intervention therapy

- (a) Do you think that the concept of mindfulness is meaningful to you?
- (b) Are you interested in learning how to perform mindfulness meditation?
- (c) Are you willing to participate in an eight-week mindfulness course, two hours each week?
- (d) In the eight-week course, are you willing to practice on your own to mindfulness mediate in the remaining six days after taking out the day of the class?

to practice consistently is also an important aspect for learning the mindfulness skills among the clinicians.

4.1 The core skill set of the clinical mindfulness practice includes 4 aspects^[25-26]

- (a) Concentration: concentration is not giving close attention to or having constant thinking on something, or dedicating to the analysis and application on something. Yet, concentration is about being aware of and accepting the present feeling and experience from the heart; learning to pay attention and accept your own feelings (such as the skin temperature, the location of the limbs, etc), but not obsessively pursuing the feeling of achievement, or changing suddenly.
- (b) The practice training of mindfulness itself (open monitoring): switching on self-monitoring, starting to notice the present self-feeling, conducting body scanning, realizing and accepting self-perception, come and go freely. This part is the core of the training. Some issues such as distraction, abstraction, fatigue, sleep, and so forth will be discussed in the practice. There could be different understandings due to different cultural customs. For instance, going seriously awry and qigong could be discussed under the Chinese cultural background
- (c) Full of self-compassion, care, and kindness: using the attitude of acceptance and non-judgmental to face all that one encounters could help with reducing

the existence of pessimistic ideas and emotions. However, the positive attitude still requires some instructive practices such as self-encouragement during meditation, caring for their own, concentrate on feeling kindness, feeling delightful mood right here right now, and so forth. Patients are encouraged to develop guiding cues that are suitable for themselves. For instance, "I could be.....", "I can be.....", "I am quiet", "I am safe", and so forth.

- (d) The attitude of equanimity when facing situations: this is sort of a mentality of feeling peace and calm and a balanced state of one's life. Mindfulness intervention is about paying attention to the current moment. Simplicity, single-mindedness, and the training of working on one thing at a time are beneficial to the cultivation of this kind of attitude. If pausing and slowing down are learned in MBCT, it would be beneficial for ceasing automatic thinking and transforming a new angle.

4.2 Potential risks and key points of prevention

Intervention training could bring about irritability, anxiety and discomfort, and even short confusion. A lot of therapists see these changes as normal phenomena in the treatment process and as the critical point of the occurrence of change. Nevertheless, there were some reports regarding the adverse effects of mindfulness interventions in recent years.^[27] The commonly seen adverse effects include triggering traumatic experiences

by mindfulness interventions, getting caught in traumatic experience and not being able to extricate, and lowered tolerance such as the reduction of tolerance to pain, easily feeling fatigued, declination of the efficiency of work, and so forth. There were researchers claiming that mindfulness interventions could lead to slower response and at the same time increase the emission of cortisone in blood.^[28] The reason for the cause of the adverse effect is not quite known. Some researchers believed that the trainees overly obstinate in the self-change causing cognitive exhaustion could be the reason. More therapists believed that it is related to the improper training and the error of the interpretation on mindfulness.^[29]

Therefore, a few points below should often be paid attention to in clinical interventions:

- (a) Patience: Changes are gradual. Do not dream about feeling changes overnight. Sometimes the more eager one wants to feel the change, the more he feels puzzled and frustrated. There were always patients who gave up practice due to not able to feel the change.
- (b) Accumulation effect: the acquired feelings will be accumulated and the help to oneself is also accumulated. The phenomenon of the shift from quantitative change to qualitative change will occur.
- (c) Being lenient to yourself. Giving your thinking, emotion, and body experience a space for freely soaring. Do not blame yourself for being distracted. Instead, you could utilize breathing or a focal point to bring yourself back to the present moment.
- (d) Do not compare with others and the ideal state, especially the feelings after training described by some books or articles. We have found that a lot of people often doubt themselves or even thought that they were losers because the described feelings did not occur on them.
- (e) Noticing (concerning) your frustration feeling that might engender now. This feeling of frustration could possibly be the crux and beginning of the change. There is no need to be nervous.
- (f) Training on breathing: breathing is the metronome of the mindfulness intervention training. It is the anchor of the ship, controlling the direction and rhythm. Paying attention to your breathing at any time is an important part of the intervention training; is the anchor of mindfulness and the concern of ideality (Jon Kabat-Zinn).

5. Application in clinical psychiatry

The application of the mindfulness intervention therapy on the field of mental health is the most extensive and the impact is the most significant. There were clinical psychologists^[30] claiming mindfulness and its related treatments as the third wave of cognitive psychotherapy (following behavioral therapy and cognitive behavioral therapy). A large number of empirical research

shows that mindfulness intervention could improve the emotional response and adjust the mindset and autonomous behavior.

5.1 Depression

MBCT has been proven to be able to reduce the recurrence of depression. A large number of random experiment revealed that MBCT could reduce the recurrence of depression by more than 50%^[1] compared with the conventional medical treatment. The empirical research in recent years showed that mindfulness interventions could not only reduce the recurrence of depression, but they could also alleviate the depressive symptoms directly during the onset of depression^[1]. Its therapeutic effect is equivalent to the clinically recognized drug therapy and cognitive therapy.^[31] Madhav Goyal^[32] and the other fellows had moderated evidence from the meta-analysis of 47 researches, which include 3320 test subjects, to support that mindfulness therapy could improve depression

5.2 Anxiety

A large number of meta-analyses indicate that mindfulness intervention therapy can significantly alleviate anxiety symptoms. The meta-analysis effect value obtained by people such as Vollestad^[33] in mindfulness therapy focusing on anxiety disorder treatment is $g=0.85-1.08$ ($n=491$ across 19 studies). This finding is consistent with the conclusion by Hofmann and colleagues,^[34] who has reported the effect value of mindfulness therapy focusing on anxiety disorder treatment is $g=0.95-0.97$ ($n=1140$ across 39 studies). The research from Madhav Goyal and colleagues shows that there is moderate evidence to support that mindfulness therapy can alleviate anxiety (the eighth week: ES 0.38 (CI 0.12 to 0.64); the third to sixth month: ES 0.22 (0.02 to 0.43)). Although mindfulness intervention therapy has gained recognition on reducing anxiety, there is controversy over the benefits and drawbacks compared with cognitive behavior therapy.^[35] Some research believes MBSR is more effective on patients with moderate anxiety whereas CBT is more suitable for patients with mild anxiety.^[36]

5.3 Somatization disorder

As mindfulness interventions are receiving more confirmation and approval for treating depression and anxiety, they are also used on somatic disorder treatment. The meta-analysis for mindfulness intervention therapy on somatization disorder treatment by Shaheen E. Lakhan^[37] and colleagues indicates that there is moderate evidence to support that mindfulness interventions could alleviate the pain related to the somatization disorder (SMD= 20.21, 95% CI: 20.37, 20.03; p , 0.05), the severity of the symptoms (SMD= 20.40, 95% CI: 20.54, 20.26; p , 0.001), depression (SMD= 20.23, 95% CI: 20.40, 20.07, p , 0.01),

and anxiety (SMD 20.20, 95% CI: 20.42-0.02, $p=0.07$) as well as promote the living quality of the patients with somatization disorder. At the same time, the research indicates MBCT and MBSR have the best treatment effect to the somatization disorder among all the mindfulness intervention therapies.

5.4 Addictive behavior

MBRP is created specifically for substance abuse. Research has shown that MBRP can reduce substance abuse and the relapse rate. Witkiewitz^[38] and colleagues discovered in their research that MBRP reduces the length of time of drug use and the occurrence rate of related legal matters compared with a standard project of relapse prevention. A twelve-month research, which has 286 substance abuse patients, of Bowen^[38] and colleagues shows that both the MBRP and cognitive behavioral relapse prevention therapy can reduce the relapse rate. The length of time in slowing down the first relapse is longer in the cognitive behavioral relapse prevention therapy than it is in MBRP. However, MBRP can reduce the sum of time of drug usage.

5.5 Psychosomatic disease

MBSR is the earliest method of mindfulness interventions. It has become clinically known and promoted because of its effectiveness in chronic pain treatment. Currently, the clinicians think that mindfulness interventions could increase self-awareness, promote relaxation, advance self-management of stress and the coping skills resulting in the promotion of physical health and the reduction of the risk of disease attack.^[40-41] Mindfulness interventions are effective in the adjunctive treatments of the majority of psychosomatic diseases such as chronic pain, diabetes, cardiovascular disease, and cancer. For instance, the meta-analysis, ran by Hofmann,^[34] of the improvement of the patients' emotions by the mindfulness intervention therapy indicates the effect value g (0.59 – 0.63) has a moderate strength. There are reports of the direct treatment effect of the somatic disease itself by mindfulness therapy other than the emotional state of the patients with somatic diseases. As the research shows, mindfulness intervention can enhance the immune function of the human body,^[42] lower blood pressure^[43], and improve sleep,^[44] and so forth.

5.6 Increasing patient's ability of interpersonal communication; improving the doctor-patient relationship

Mindfulness interventions promote relationships between people, reduces interpersonal relationship stress^[45], improves personal empathy and sense of kindness, improves pro-social behavior such as charity, the occurrence of philanthropy actions,^[46] makes the relationship of interpersonal communication more

harmonious. At the same time, there is research reviewing that 8 weeks of mindfulness interventions could reduce the loneliness of the elderly,^[47] improve the satisfaction rate between husband and wife. Sibinga and colleagues commented on the well-known medical journal, JAMA, that mindfulness training could improve the satisfaction rate of the services to patients, which is beneficial for the doctor-patient relationship^[48]. This kind of skill set of changing the difficult state of the doctor-patient relationship is through the improvement of the following abilities in the mindfulness training: the ability of empathy between doctors and patients; the multi-angle and integral care to the patients; and the improvement of the sense of happiness of self. In the United States, many medical schools' curricula and the training programs of the resident doctors in the hospital have requested for the mindfulness intervention training in order to facilitate the clinicians to improve their interpersonal communication skills and be able to better build up communication and collaboration with the patients.

6. Prospect for the future

The theoretical basis of mindfulness intervention related therapy roots itself in the Eastern culture of the Chinese. It cannot be separated from the method of the Buddhist mindfulness meditation whether the patient or the clinicians easily understand and accept these theories and methods. After the west has practiced modern psychology for 30 years, the scientific nature of mindfulness interventions has gained a broad recognition as mentioned previously. It is predictable that the usage of mindfulness interventions on the field of Chinese clinical mental health could receive positive response and support of clinical psychiatrists. The patients would easily accept, comprehend, and receive benefits from within.

The application of the first generation of mindfulness interventions is mainly in the adult and medical venues. MIs have widely been used in different places (work place, school, prison, etc) in the past 10 years. The method and theory of mindfulness method research targeted different age groups (adolescents, the elderly) and special groups (pregnancy, senior white-collar workers, disability, etc.) is a hot key point.^[1]

Our application and research of mindfulness application and research are both at the early stage. MI in application should catch up with the contemporary research and application hot spots, combining the Chinese cultural background and walking fewer detours. Be aware of the combination of practical clinical work, pay attention to the combination of applied principle and flexibility such as the length of the time for intervention and the application of dynamic and static combination. As the information and Internet techniques develop in recent years, there is research on the internet-guided mindfulness intervention and reports about the development of specialized mindfulness intervention APP.^[49] Mindfulness

interventions would become a very useful means of treatment in clinical psychiatry as China deepens the understanding of MIs including the clinical practice and the grasp of the skills among the clinical psychiatrists.

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Conflict of interest

The authors declare no conflict of interest related to this manuscript.

Author contributions

Zou Tao was in charge of the overall writing, data collection, classification, clinical practice, and the direct writing of the portion of guideline.

Wu Chenghan was in charge of the arrangement of the literature, basic principle, and the writing of the model.

Fan Xiaodou was in charge of the grasp, modification, and instruction of the entire article and provided clinical practice experience.

正念干预的临床应用价值、原理及基本实践技巧

邹涛, 吴城瀚, 范晓舵

概述: 正念干预是基于佛教修行的冥想, 结合当代心理学理论和方法所发展的一种心理疗法。近年来的实证研究表明正念干预在降低抑郁复发, 缓解抑郁、焦虑症状, 减少物质滥用, 减轻疼痛, 血压管理, 提高免疫力, 改善睡眠等方面的应用均产生了良好的效果。

当前, 正念疗法在欧美心理治疗界中已成为心理治疗的主流。近几年我国心理学界和心理治疗领域也开始对正念治疗进行介绍, 但在临床精神健康领域却缺乏相关的实践和研究。本文将对正念的概念, 干预的基本机制, 临床实践中的基本技能和指导原则简要介绍。

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Appendix

Introduction of the eight-week mindfulness cognitive-behavioral therapy (MBCT)

MBCT is an eight-week group training. The majority of the training time is the mindfulness meditation practice in group form. Appendix 1^[7] provides the training overview. Except the topics listed in the appendix, all the class periods include the group form of meditation practice. Other than the first item, the rest of the class periods include review and discussion homework. Appendix 2^[7] describes the mindfulness meditation practice taught in MBCT.

Appendix 1. The course overview of the eight-week mindfulness cognition therapy	
Class hours	Key topics
Week 1	“Autopilot” state of mind and “mindfulness” First experience of mindfulness: Raisin practice Mindfulness practice: body scanning
Week 2	The relationship of the mind set and emotion The awareness of pleasant events Mindfulness practice: meditation
Week 3	Mindfulness practice: three minutes of mindfulness breathing Mindfulness practice: mindfulness stretching and mindfulness walking The awareness of negative events
Week 4	Automatic thinking can cause emotional discomfort A review of the previous studies of meditation techniques
Week 5	Meditation concerning the conditions of difficulty or stress
Week 6	Thoughts are not facts Three minutes of mindfulness breathing under pressure
Week 7	The relationship between daily activities and depression Draw a list of regarding happiness and activities control Recognition of recurrence
Week 8	Course review Insist on long term meditation practice

Appendix 2. Practice methods of the mindfulness cognition therapy		
Name of the method	Method description	Goals
Raisin practice	Participants ingest a raisin slowly and pay attention to the feelings of this process	The first experience of mindfulness
Body scanning	Participants focus on a particular body part (for example, left leg), and shift the focus to another part	To learn the application of the mindfulness practice on the basis of the mindfulness knowledge
Meditation	Pay the attention to breathing, bodying feeling, or the thinking and emotion	Learning the mindfulness practice and persist on practicing
Mindfulness walking in mindfulness stretching	Pay the attention to the movement feeling and breathing	The application practice for deepening the mindfulness knowledge
Three minute mindfulness breathing	When the individual is aware of the current situation, think about what has happened. How are my thoughts and feelings? Then focus on breathing and hold for a minute. Shift the focus to the feeling of the body for another minute.	When the individual experience negative emotions or pressure, apply the short meditation of mindfulness. The goal is to transform the “autopilot” state of mind into the mindfulness state.