Chapter 6

Body-Mind Connectedness: Integrative Body-Mind-Spirit Group Work for Depressed Persons with Salient Somatic Disturbances

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Additional information is available at the end of the chapter

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Abstract

Globally, depression frequently comorbid with a variety of physical illnesses, which exert substantial mental and somatic distresses on patients. Sleep disturbance is one of the common conditions reported by individuals with either, mental or physical illnesses. Complex interaction among depression, sleep and physical illnesses highlighted the essential mind-body connection in the planning of integrative care and other clinical services. A number of eastern mind-body practices, such as Qigong, acupuncture and meditation, have been frequently studied indicating the efficacy of mind-body connection in complementary therapies. This chapter will introduce the integrative body-mind-spirit (I-BMS) group work, which has been found effective in addressing comorbid depressed mood and somatic afflictions, especially sleep disturbances among Hong Kong Chinese adults.

Keywords: depression, somatic symptoms, sleep disturbances, mind-body connection, integrative body-mind-spirit (I-BMS)

1. Introduction

Depression is one of the most common mental illnesses across the world. Individuals with depression may also present a number of bodily symptoms, such as insomnia, pain, fatigue, vitality loss as well as unpleasant sensations of loss of appetite, weight, bodily and emotional tension or heaviness [1]. There are gender differences in the expression of somatic symptoms among depressive patients. Depressed women tended to show decreased eating/sleeping symptoms and reduced or increased appetite/weight and hypersomnia; however, men with depression can express melancholic retardation and agitated depression based on psychomotor activities [2].

Depression, together with somatic disturbances, is largely responsible for psychosocial impediments of clinical patients. Somatic disturbances and depressive mood seem to be reciprocally correlated. The somatic symptoms, such as sleep disturbance, are certainly associated with onset and development of depression [3]. Moreover, depression has been found to increase the risk development and severity of chronic illness in longitudinal studies [4]. In both literature and practice, the interplay between depression and somatic syndromes is not well understood. Hence, more works are required to better understand how this close association between depression and somatic/physical distresses can further inform existing models of depression.

A great deal of studies has consistently found that insomnia can predict the onset of depression and might perpetuate the residual depression symptoms among patients in remission [5]. Some studies indicated a bidirectional relation between insomnia and depression [5]. Some other studies only found a unidirectional relationship between sleep problems at baseline and incident of depression later, but not vice versa [6]. Buysse and associates conducted a 20-year study to understand comorbidity of insomnia and depression, and found that either insomnia occurred with or without depression, it is highly stable over time if not treated [7]. More importantly, it is the comorbid syndrome rather than standalone insomnia or depression tended to longitudinally relate to future diagnosis. Thus, it seems essential to consider these two conditions under an integrative framework.

With a holistic perspective, integrative body-mind-spirit model is an approach derived from Eastern philosophies and therapeutic techniques to create positive and transformative changes in individuals and families [8]. Randomized clinical trials have been conducted to examine the effectiveness of this approach in treatments of depression, anxiety, posttraumatic stress disorders, prolonged grief and so forth [9–11]. The IBMS intervention was usually delivered in the group modality on a weekly basis. In a mixed study of effectiveness of I-BMS for clinical depression, researchers delivered thematic psycho-education and breathing exercises, and guided imaginary hand massage, one-second techniques, etc., for patients with clinical diagnosis of depression [12]. After intervention, participants were able to accept their depression and the physical, emotional and spiritual changes caused by depression, more importantly, learn to appreciate and practice body-mind connection in therapeutic context and in their daily routines. Similar designs have found positive outcomes of I-BMS across different cultural contexts [13].

This chapter will introduce the significance of the body-mind connectedness in the health-promoting practices for patients with depressive symptoms. Furthermore, this chapter will also present the integrative body-mind-spirit model and its effectiveness in reducing the depressive symptoms and enhancing the overall quality of life for people with comorbid depressive symptoms and sleep problems.

2. Behavioral medicine for depression: mind-body bridging

A reciprocal relationship between mental and physical health highlighted the significant role of mind-body connection in health service. An online survey on depressed patients and professionals even suggested that discussing mind-body connection could help to improve diagnosis and management of depression [14]. Lots of mind-body techniques had been

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adopted to promote mental and physical health, including physical exercises, Qigong, yoga, acupuncture and mindful meditation.

a) Physical exercises

Regular physical activities can arguably benefit both physical and mental health as showed by studies in medicine and social sciences. Exercises have been viewed as an imperative dimension on lifestyle modifications in prevention, management and recovery of chronic illness, including depression [15]. In fact, physical exercises may be more applicable for those with mild and moderate depression who are more motivated and capable to engage in physical activities than those under severe conditions [16]. According to a meta-analysis, physical exercises can significantly reduce depression symptoms and improve the treatment responses. However, the efficacy of physical exercises in the treatment of depression was influenced by age and baseline depression severity [17].

b) Exercise Qigong

Qigong is an ancient Chinese mind-body practice, originated from ancient thoughts of inner healing and informed traditional Chinese medicine practices. It is designed to cultivate life force (*Qi*), a vital energy that sustains holistic well-being. Nowadays, Qigong has developed into different schools, but most forms of exercise Qigong comprise a series of orchestrated practices including body postures such as standing or sitting, the performance of a range of simple movements, breathing techniques and meditation to attain a deeply focused state of easiness that were addressed along the history. Besides health maintenance, exercise Qigong has been found effective in fostering patients' recovery from cancer and noncancer diseases. A randomized trial control study found that medical exercise Qigong could improve cancer patient's overall quality of life and mood status and simultaneously reduced side effects of cancer treatments [18]. Exercise Qigong has also been applied to improve neurologic, immune and respiratory functions, which possibly associated with better health and mental health [19, 20]. In terms of depression, the effectiveness of exercise Qigong in treatment of depression has found to be positive in Chinese context [21].

c) Acupuncture

Acupuncture is the insertion and stimulation of needles at specific points on the body to relieve pain and facilitate restoration of health. It is a traditional medicine intervention practiced in China and other Asian countries for thousands of years. Randomized trial studies have demonstrated that acupuncture is beneficial to reducing symptoms of depression [22], posttraumatic stress disorders [23], postpartum stresses [24] as well as other psychosocial-emotional problems. However, the placebo of acupuncture required further researches as indicated by a randomized study that showed that placebo acupuncture significantly predicted higher overall pregnancy rate through reducing stress and anxiety levels in comparison with real acupuncture [25].

d) Mindful meditation

Mindful meditation is derived from Buddhist practices. Comparing to "pure" meditation, the mindfulness-centered program has its most powerful effect on reducing stress and improving psychological health [26]. Thus, mindful meditation is a research-based form of meditation designed to achieve moment-to-moment attentions to flow of experiences, a modern psychological term defined as "the awareness that emerges through paying atten-

tion on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment" [27]. The main goal of mindful meditation is to develop skills of paying attention to our inner and outer experiences with acceptance, patience and self-compassion. As a complementary approach, mindful-based stress reduction and mindful-based cognitive therapy had demonstrated antidepressant and antianxiety effects among patients with chronic illnesses, patients with mental disorders as well as healthy populations [28]. In particular, self-compassion is an important therapeutic element in mindful-based intervention and can predict improved emotional well-being of practitioners over a long term [29].

3. I-BMS practice: valuing and integrating the body, mind and spiritual connection

The integrative body-mind-spirit (I-BMS) model is an integrative approach derived from traditional Chinese medicine, Confucianism and Daoism [30]. Core beliefs of the I-BMS model include (a) the interconnectedness of body, mind and soul (spirit), (b) the importance of spirituality as a domain of human existence, (c) the need to reach beyond symptom reduction to attain growth and transformative changes and (d) the multiple goals of healing, empowerment, love and forgiveness as well as capacity building [31]. Besides Eastern philosophical teachings, integrative body-mind-spirit model is inspired to derive wisdom from Western medicine, counseling and psychotherapy.

With a holistic perspective, I-BMS acknowledged and utilized the power of the body, mind, spirit and the universe. By so doing, one can reach beyond physical and psychological symptoms reduction to the attainment of emotional and spiritual transformation. Therefore, positive and transformative changes could happen in the physical, cognition, emotional and social domains, core values and meanings, as well as the religious connection with the higher being and their inner self. Core principles of mind-body medicine have been applied in the I-BMS model to promote responsible health care.

The core principles of mind-body medicine [32]

- Mind-body medicine is a way of perceiving and practicing medicine that mirrors and integrates every facet of life.
- Mind-body medicine weaves together the central components that contribute to an individual's experience, and in so doing honors that weaving as a sum greater than its individual parts.
- The practice of mind-body medicine makes it incumbent upon physicians to develop life skills so as to promote understanding, respect and value for others.
- Mind-body medicine emphasizes the concept of healing as much as it does curing.

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Integrative body-mind-spirit model conceived depression as a manifestation of body-mind-spirit unbalance, and thus, the ultimate therapeutic goal is not only to enhance moods of depressed patients, but also to facilitate participants to realize, define and reconstruct unbalanced experiences by coordinating bodily, emotional and spiritual domains [33]. In addition to counseling, indigenous mind-body techniques, including relaxation techniques, grass roots yoga, breathing exercises, Qigong, Tai chi exercises and body scan, were used to treat patients with depressed mood and improve the psychosocial well-being of cancer patients, bereaved persons, divorced individuals and women with infertility using the I-BMS model [9–11]. These mind-body techniques have been proven beneficial in reducing depression and anxiety symptoms among mental illness patients [34].

In order to reduce depressive symptoms and improve holistic well-being for people with sleep problems, a randomized, waiting list control trial has been conducted during 2013–2015. A total of 1002 adults with self-reporting sleep problems from community show their participatory intentions for I-BMS intervention. All interested participants are invited complete online questionnaires, consisting of Center for Epidemiologic Studies Depression Scale (CESD), Somatic Symptom Index (SSI), Pittsburgh Sleep Quality Index (PSQI) and other psychosocial measures. Based on calculated sample size, this study randomly selected 200 individuals who reported mild-to-moderate depression ($34 \geq \text{CESD} \geq 10$) and sleep disturbances with self-reported insomnia (PSQI >5) based on a computer-generated number list. Followed by random control trial protocol, 185 eligible participants were randomly selected assigned into either an I-BMS intervention group ($n = 92$) or a waiting list control group ($n = 93$), except 15 participants without valid consent form in the pool. The I-BMS group intervention is delivered on weekly base with eight sessions, themed by culturally specific mind-body exercise, mindful meditation, self-reflection and group sharing [35, 36]. This I-BMS intervention for individuals with comorbid depressive and sleep disturbances integrated the mind-body techniques:

- Acupressure
- Breathing meditation
- Body scans
- Qigong exercises
- Hand massage exercises
- Loving-kindness meditation
- Guided imaginary
- Gratitude, forgiveness and appreciation exercises
- Group discussions

4. Effectiveness of I-BMS group intervention for current sleep and mood disturbances

It is found that the I-BMS intervention can effectively improve participants' sleep quality and depressive mood immediately after treatment, and the effect was maintained at the 3-month follow-up with large within-group effect size (ES: 0.74–1.08). The remission rate of clinically significant depressive symptoms (CESD ≥ 16) was significantly greater in the I-BMS group than that of the control group at both posttreatment and follow-up. Specifically, half of individuals with significant depressive symptoms had a remission after I-BMS treatment in comparison with only less than quarter remission in WLC group. More importantly, the I-BMS also successfully reduces expression of inflammatory cytokines, interleukin 6, in comparison with control groups [37]. These findings lend further support for study of mind-body connection in depressive disorders, and the holistic effects yield of I-BMS group intervention on human subjects. Moreover, a bi-directional relation was found between change in sleep quality and improvement in depressive mood at the 3-month follow-up that highlighted the interactions between the mind and the body in the context of a holistic intervention [38, 39]. In addition to sleep disturbances, many other somatic distresses are also found decreased following the I-BMS treatment by fixed-effect linear model. Study flow and detailed information on participants can be found in aforementioned articles. In fact, there are significant time × group interaction effects on somatic subscale of somatic symptom inventory (SSI) [$F(2, 411) = 4.68$, $p = 0.01$)], bodily irritability measured by holistic well-being scale [$F(2, 411)$ 3.12, $p = 0.045$)] and general vitality, also measured by holistic well-being scale [$F(2, 411)$ 10.24, $p < 0.001$)] favoring I-BMS group. Forward analysis would be required to understand the associations between changes in mood and that in somatic disturbances other than sleep, such as fatigue, headache and lack of vitality.

5. Conclusion

Somatic symptoms play a vital role in diagnosis, prevention and management of depression, either comorbid with or without other medical conditions. The physical and mental needs of depressive individuals required the catered psychosocial supports and interventions emphasizing on the body-mind connection. In this chapter, we try to examine and explain the values of Integrative body-mind-spirit model in reducing the comorbid depressive and somatic symptoms. After I-BMS intervention conducted in Hong Kong, a randomized control trial study found the positive changes in sleep quality, immediate and long-term depressive mood. Moreover, the I-BMS also successfully reduces expression of inflammatory cytokines, interleukin 6, in comparison with control groups. The improvement in psychical biomarkers and psychometric index may suggest the effectiveness of body-mind techniques conducted in I-BMS. All these exciting findings emphasize on promoting mind-body connection in the development of I-BMS and other psychosocial caring models for individuals with depression, especially comorbid with varied medical conditions. Forward analysis

would be encouraged to understand the associations between changes in mood and that in somatic disturbances other than sleep, such as fatigue, headache and lack of vitality. In practice, more integrative and innovative therapeutic modalities helping bridging mind-body are warranted to optimize treatments for individuals with depressive symptoms and other medical conditions.

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