MEDITATION AND DEPRESSION: A NOVEL SOLUTION TO THE BURDEN OF MENTAL ILLNESS IN INDIA?

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Summary

Treatment paradigms for mental illness tend to be developed in affluent countries, particularly in the United States and countries in Europe. These paradigms are based upon a certain level of resource accessibility as well as western cultural norms, which focus on the individual. India, with a population over 1 billion, has fewer resources per person than many countries in North America or Europe. As a result, many impoverished or illiterate Indians lack the knowledge or means for medical treatment of mental illness. This article explores a possible solution to this problem: one that is not resource-intensive and can be provided to groups, thus maintaining cultural relevance to India. The relative merits of Meditation or Mindfulness-based Cognitive Therapy (MBCT) are considered. The literature indicates that MBCT has been validated in scientific trials, and can be part of an effective treatment for depression or anxiety. In practical terms, it requires only an initial training investment to learn MBCT, after which the practitioner has free reign. MBCT is group-oriented, allowing the mentally ill to form social networks that their illness would otherwise prevent. Furthermore, mindfulness-based meditative practices may increase an individual's resilience, an important factor in combating depression. It is suggested that meditation has many of its roots in India, where it is commonly practiced widely in the general population. Due to its economic viability, effectiveness in forming social groups, mental health benefits, and cultural appropriateness, meditation may be a "novel" and yet old solution to the burden of mental illness, specifically depression in India.

Introduction

According to the World Health Organization (WHO) data-base, 13 per cent of the population in India suffers from severe or extreme depression, while nearly 50 per cent of the population harbors some feelings of sadness or depression. The impoverished or illiterate in India suffer from depression more than the affluent or educated, and have fewer resources to seek treatment (WHO). It is therefore necessary to develop a treatment

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paradigm for depression that considers the resources available to the population as well as cultural appropriateness. The purpose of this article is to explore the possibility of proposing meditation, more specifically mindfulness-based cognitive therapy (MBCT) as a viable course of treatment.

MBCT has been shown to improve generalized anxiety disorder and depression (Evans et al.). MBCT is a group-oriented practice, which allows those who participate to form social networks that can have a salutary effect on an individual’s mental health (Kawachi and Berkman). Meditation has deep roots in India, with texts on the subject dating back nearly four millennia. Furthermore, meditation has been consistently practiced in the Hindu and Buddhist traditions, of which over 80 per cent of Indians adhere to. Meditative practices are often taught at temples which can be found in most cities and many villages (Brown and Gerbarg). Personal interest in meditation and its economic feasibility instigated this investigation. It is hypothesized that its potential for building social networks and thereby generating social capital, which in turn may bring health benefits, may make MBCT a novel component to a more effective treatment paradigm that can reduce the alarming rates of depression in India.

Method

Primary epidemiological data was obtained directly from the World Health Organization’s web site. In addition, literature searches were carried out using PubMed and Google scholar, as well as Tufts University’s Tisch Library Catalogue during the course of a seminar class on social capital and mental health including discussion and peer review of an earlier version of this article. Insights into the medical aspects of
mental illness were gained from primary literature and discussions with researchers at Harvard Medical School’s Osher Institute.

**What is Depression?**

What constitutes depression? While there is much debate on the precise definition, a classic study of its social origins indicated that the core characteristics of depression include: feelings of worthlessness, the outer world lacking meaning, and a hopeless future (Brown and Harris). These authors provided a new paradigm that helped medical practitioners understand the connection between the bio-physical aspects of mental health and the economic, social, and cultural context in which health in general and mental health in particular is embedded. The social and the biological aspects are inter-connected as people afflicted by depression often exhibit changes in mood, experiencing high levels of guilt or sadness. These cognitive difficulties may also be accompanied by a host of physiological and behavioral symptoms, such as, for example, depressed immune function (Coyne and Palmer).

What is it that causes these feelings of futility and sadness? The etiology of depression is not a simple one. Some patients are afflicted by an “endogenous depression” – one that manifests autonomously due to chemical changes in the brain (Chen et al.). Others have a “neurotic depression,” which results from more environmental influence and behavioral features (Brown and Harris). Mindfulness-based practices induce changes in both behavioral and endogenous depression (Brown and Gerbarg). Another important variable in the manifestation of depression is the social network that surrounds an individual. Both clinical and epidemiological studies have
shown that social factors can foster or prevent depression. Sociologists have demonstrated that it is not only the presence or lack of friends that influences an individual’s depression, but rather how that individual perceives and emotionally responds to those friends (Irwin et al.).

Diagnosis of depression is based on a patient's self-reported experiences. These are assessed through checklists such as the Beck Depression Inventory or Hamilton Depression Rating Scale. While there are no laboratory tests to diagnose depression, the disease has been correlated with altered brain chemistry (Chen et al.).

Current depression therapy consists of a two-pronged approach: pharmaceuticals and psychotherapy. Pharmaceutical drugs address various physiological or biochemical factors in depression such as low levels of norepinephrine, serotonin, or dopamine (Chen et al.). Psychotherapy or counseling address deeper psychological factors, including trauma or abuse (Burke).

According to the United States National Co-morbidity Survey, 51 per cent of patients that suffer from depression also suffer from generalized anxiety disorder. Anxiety disorder is characterized by feelings of uneasiness, fear, or worry. Victims of trauma often suffer from both (Semple et al.). Social and cultural context is critical in distinguishing “normal” responses to traumatic events and/or experiences from the symptoms of debilitating illness requiring medical attention. Diagnosis of mental illness is particularly open to cultural bias and social consequences such as stigma. It is often found to be the case that fear of being stigmatized may inhibit the mentally ill from seeking treatment. Lack of access to healthcare services may also be widespread, even if stigma does not concern those who are already marginalized and rendered “untouchable.”
Healthcare Accessibility in India

While healthcare accessibility has improved due to a series of government initiatives in the early 1990's, a large portion of India's population fail to receive sufficient care ("Country Cooperation Strategy: India, 2006-2011"). The most recent compilation of World Health Organization (WHO) general and financial data concerning India was completed in 2008. WHO statistics demonstrate that India still has less than 1 health worker per 10,000 people. Furthermore, as of 2005, 94 per cent of health expenses are paid out-of-pocket by patients. Considering that 26.1 per cent of the population was below the poverty line in 2004 ("World Health Organization Statistical Information System"), it is no surprise that rural or impoverished people have trouble obtaining adequate healthcare.

While the Indian government has made major strides in improving healthcare, India remains ranked 127 out of 177 countries in the World Health Organization's Human Development Index. The Indian National Family Health Survey II conducted in 2007 showed that the 4 major diseases that Indians struggle with today are asthma, tuberculosis, jaundice, and malaria. The prevalence of these diseases, in conjunction with a large degree of communicable diseases (38 per cent of total disease), make it difficult for the Indian government to focus on mental health issues. Currently, non-governmental organizations and government initiatives are attempting to reduce mortality due to communicable diseases and improve measures such as Under 5 Mortality, which remains at 85 per 1000 live births ("Country Cooperation Strategy: India, 2006-2011").
Depression in India

The World Health Organization published a report titled “Health Performance Assessment” in 2003 containing a significant section on affective disorders in India. This is the most recent thorough exploration of mental health in India. Surveys conducted with nearly ten thousand subjects showed that 48 per cent of respondents had some feelings of depression, anxiety, or sadness in the last 30 days. Roughly 13 per cent were afflicted by “severe” or “extreme” feelings of sadness or depression. A slightly higher portion, ~15 per cent, felt “severe” or “extreme” levels of worry and anxiety. While this is a disturbing prevalence of depression, a closer look at social and economic factors shows a slightly different picture. Those of old age are afflicted by depression more, with 32.1 per cent of subjects over 80 scoring “severe” or “extreme”, as opposed to only 13.2 per cent of subjects 30-44. This correlation between age and depression has been found other cases as well (Oxman et al.). Examining education demonstrates another disparity. Those without any formal education were twice as likely to feel very depressed as those with a standard education (10 years). The trend in education is mirrored by household income; the incidence of “severe” or “extreme” depression is over twice as common in poor or illiterate households as it is in wealthy ones (22.2 per cent vs. 9.0 per cent). It is also interesting to note that women are more likely to be affected by worry, anxiety, and sadness than men (~15 per cent vs. ~11 per cent, respectively), which has also been demonstrated elsewhere (Kawachi and Berkman). This disparity, while significant, is less of a difference than that caused by socioeconomic considerations.

The World Health Organization’s report in 2003 demonstrates that depression is a serious concern in India. Beyond that, it highlights that this problem is not one
dimensional in its effect on the populace. Depression afflicts people who are poor, illiterate, or elderly worse than it does for those who have the knowledge and means to seek help. In a situation such as India, where the number of people at risk is high, a novel solution is required that is effective at providing relief without excessive burdens.

**Social Capital and Mental Health**

The number and quality of social relationships have ties to mental health of an individual. People with a low level of social support or few close relationships have a higher tendency for depressive symptoms. On a similar note, strong relationships and social ties have been shown to enhance psychological well-being and mental health (Thoits). A greater understanding of the complex relationship between social capital and mental health can be gained by examining the Main Effect Model, which examines the mechanisms of interaction between the two. The Main Effect Model considers three things which social networks affect: social influence, positive affective states, and neuroendocrine responses. These can either directly improve mental health, or can illicit general health promoting behaviors, which can have a secondary effect on mental health. Being a part of a social network can produce a positive psychological state, such as providing a sense of worth or belonging (Cohen, Underwood, and Gottlieb). This positive psychological state may alter the neuroendocrine response to stress as well as enhancing general health behaviors. Finally, an important aspect of maintaining good mental health is seeking help when one needs it. Social networks can provide improved access (or desire to access) to therapy or mental health treatment. A simple “shoulder to cry on”
could prevent the exacerbation of depressive symptoms (Cohen, Underwood, and Gottlieb).

Social capital is an important variable in the equation of overcoming depression in India. The state of poor financial independence coupled with a large population create a different arena for combating depression. Luckily, exploring social capital's role in mental health in impoverished populations demonstrates that a strong support group is enough to reduce symptoms of depression. One study conducted on 155 homeless people with poor access to monetary and human capital found that religious social capital, group participation, social trust, and bridging social capital are all significant in combating depressive symptoms (Irwin et al.).

The Main Effect Model and current research show the importance of social capital on mental health. Forming a social network allows people to gain support to deal with psychological difficulties. Incorporating social capital into a treatment paradigm specific to India is key, as forming social groups can improve mental health while not excessively taxing resources.

**Using Meditation to Treat Depression**

Recent exploration in the medical field has yielded novel therapies to treat various ailments. One of the therapies used to treat depression is meditation. While there are many different kinds of meditation, most share certain characteristics such as mindfulness (Ospina et al.). Mindfulness is a moment-to-moment awareness which by nature, is observatory rather than judgmental. Worry and anxiety tend to be future oriented which allows techniques that focus on the present to reduce worry and anxiety. One such
technique has been shown to reduce depression is mindfulness based stress reduction (MBSR), which is an adaptation of mindfulness based cognitive therapy (Teasdale et al.). More specifically, a trial study involving mindfulness based cognitive therapy (a treatment program that incorporates MBSR) to treat generalized anxiety disorder produced very convincing results. Subjects using MBCT for 8 weeks experienced a significant reduction in tension, anxiety, worry, and depressive symptoms. Those subjects that had problems with clinical depression or anxiety disorders exhibited lower levels of symptoms after the 8 week course.

MBCT is a strong candidate for pilot programs that seek to treat depression with meditative techniques. It seems strongly suited to India in particular, as it does not require any expensive equipment, only an initial amount of training. Another of a MBCT program’s strengths lies in its group oriented approach. Practicing MBSR by itself can alleviate depressive symptoms, but practicing in a group also strengthens social ties which further ameliorate depressive symptoms. MBCT may be an integral component to improving mental health in India.

**Meditation's Impact on Resilience**

Ancient texts of Hindu and Buddhist traditions suggest that meditation can help one buffer difficult events in life while maintaining a solid sense of identity (Brown and Gerbarg). Research into mindfulness based meditative techniques has shown that these practices are effective at helping individuals dealing with trauma or other aspects of mental health.

Mindfulness practices were taught to a group of 180 survivors following the 2004 Asian Tsunami. Symptoms of PTSD were significantly reduced according to the PTSD
Checklist-Civilian and the Beck Depression Inventory indexes. These improvements in PTSD survivors were sustained through 6 month post-study follow up (Brown and Gerbag).

As mental health issues vary amongst age groups, it is important to draw attention to child specific and old age research that explores mindfulness based research. Children between the ages of 9-13 were taught a variant of MBCT, specifically designed for children. There were significant improvements in attention problems, behavioral problems, and anxiety symptoms. These results, too, were maintained during the course of followups. Finally, children who reported clinically elevated levels of anxiety before the study gained the most benefit from the practice (Semple et al.).

Mindfulness practices have also been shown to help the elderly adapt to age-related physical and psychological changes. Reduced physical capacity and the development of chronic ailments can cause significant psychological stress. Mindfulness practices can ameliorate that stress by providing an individual with a strong sense of self, enhancing resilience (Davis et al.).

Furthermore, spiritually-focused practices such as meditation appear to act as a buffer against the stress response. They allow people, including children, to be less reactive to traumatic stress. Mindfulness practices modulate physiological stress reactions, improving the capacity to deal with psychological problems and health-risk behaviors (Burke).

While there is significant evidence that mindfulness or meditative practices enhance an individuals ability to deal with psychological stress, it remains to be seen whether MBCT is consistently effective at dealing with significant trauma. Considering
the commonalities between various mindfulness-based practices, it would be reasonable
to expect that such research may prove to be a powerful tool in validating a potentially
effective treatment for trauma-induced disorders such as PTSD.

Treatment paradigms tend to be developed in affluent countries, particularly in the
United States and countries in Europe. These paradigms are based upon a certain level of
resource accessibility as well as western cultural norms. Therefore, applying treatments
developed under these conditions can be difficult in countries with different beliefs and
resources. India, with a population over 1 billion, has fewer resources per person than
many countries in North America or Europe. As a result, many impoverished or illiterate
Indians lack the knowledge or means for proper mental healthcare. To address these
complications, a solution needs to be found that is not resource intensive and can be done
in groups, while maintaining cultural sensitivity. These criteria make meditation (MBCT)
the perfect candidate. Only an initial training investment is required to learn MBCT, after
which the practitioner has free reign. MBCT is also group oriented, which allows many
mentally ill to form social networks that their illness prevent. MBCT has been validated
in scientific trials, and can be part of an effective treatment for depression or anxiety.

In conclusion, mindfulness-based meditative practices may increase an
individual's sense of self worth and resilience, an important variable in combating
depression. As meditation has many of its roots in India, where the general population is
familiar with the practice, it would be relatively easy to integrate with medical practice,
particularly focused on outreach. The religious ties that most meditative practices have
may make local temples, which are common in villages, a staging ground for promoting
MBCT. Effective delivery mechanisms will require in-depth analysis and exploration.
Due to its economic viability, effectiveness at forming social groups, medical potency, and cultural sensitivity, meditation can be a novel component to the solution to health burden of widespread depression in India. More research is needed to determine the effectiveness of MBCT in treating different levels of severity and duration of depressive disorders.

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