

Buddhist Psychology and Mindfulness Interventions for Psychosis

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Abstract: Mental illnesses are not the outcome of modern lifestyle; it has been present since time immemorial. In this paper, we present a case study from Buddha's lifetime, the story of Patacara, her mental illness and her recovery from it after following Buddha's mindfulness meditation. We further compare the information available through the modern neuroscientific methods, specifically the DSM criteria for the diagnosis of schizophrenia spectrum and other psychotic disorders. Finally, we reviewed the clinical trials focussed on the intervention of psychosis/schizophrenia using mindful meditations.

I. Introduction

Mental illnesses are not new, throughout history there are references to this condition. Archaeologists have found prehistoric skulls and cave arts, going back upto 6500 BC with surgical drilling of holes in skulls to treat head injuries, epilepsy or evil spirits (Restak, 2000). Throughout historical references, there were three general theories of the etiology of Psychosis: supernatural, somatogenic and psychogenic. Modern science has been able to provide us with better understanding of the brain, with new diagnostic tools like magnetic resonance imaging (MRI) and electroencephalogram (EEG) it is now possible to quantify and diagnose many mental diseases. For example, it has been found that schizophrenia- a mental illness where patients have difficulty in separating illusion from reality - causes structural brain abnormalities. The neuroscientific MRI findings include: ventricular enlargement and involvement of medial temporal lobe, STG, parietal lobe, and subcortical brain region (Shenton, 2001). However, causes of psychosis are still largely unknown, and a lot of research is going on in finding its treatment.

In the last two decades, a lot of research work has focussed in the management of psychosis using mindfulness - a meditation technique initially taught by Buddha. In this paper, we explore ancient Buddhist texts for reference for the use of mindfulness for the treatment of mental illness. And perform a systematic review of the recent clinical trials exploring the effect of mindfulness on psychosis.

The paper is organized as follows. We start with the concept of mindfulness as per the canonical Buddhist text, specifically Satipatthana Sutta and its commentaries. In section III, we extend our understanding of psychosis and schizophrenia. Section IV explores the life of Patacara, a Buddhist nun, and analyses if her symptoms can be considered as psychosis and how Buddha's teachings helped her. Section V includes the review of the clinical trials exploring the effect of mindfulness on psychosis. In the last section, section VI, we conclude and outline future scope.

II. Mindfulness

In the 1981 reprint of the book, *The way of mindfulness* (Thera, 1941), Bhikkhu Bodhi introduces the reader to the concept of mindfulness by these words:

“The practice of Satipatthana meditation centers on the methodical cultivation of one simple mental faculty readily available to all of us at any moment. This is the faculty of mindfulness, the capacity for attending to the content of our experience as it becomes manifest in the immediate present. What the Buddha shows in the sutta is the tremendous, but generally hidden, power inherent in this simple mental function, a power that can unfold all the mind's potentials culminating in final deliverance from suffering.”

The key to mindfulness are the three words in the above paragraph: attention, experience and present. Mindfulness means the mind, the experiencer, gives their full attention to the experience taking place in the present. There is no part of mind thinking about the past, or making dreams of the future. For instance, when two close friends meet after a long time, they are fully attentive (**attention**) to the conversation (**experience**) happening between them at that moment (**present**). While most of us have experienced such moments in our lives, where we are fully attentive to the experience in the present, most of our lives we live with divided attention between past, present and future.

The technique of mindfulness can be cultivated with practice, and Sattipathana sutta provides steps on how to cultivate mindfulness practice. In Majjhima Nikāya (MN i 55), Buddha tells how the mindfulness can be cultivated, translated by Horner (Horner 1954), it reads:

“There is this one way, monks, for the purification of beings, for the overcoming of sorrows and griefs, for the going down of sufferings and miseries, for winning the right path, for realising Nibbāna, that is to say, the four applications of mindfulness. What are the four? Herein, monks, a monk fares along contemplating the body in the body, ardent, clearly conscious (of it), mindful (of it) so as to control the covetousness and dejection in the world; he fares along contemplating the feelings in the feelings, ... he fares along contemplating the mind in the mind, ... he fares along contemplating the mental objects in the mental objects, ...”

In the above text, Buddha tells his disciples that mindfulness is of four types - Body-Mindfulness, Feelings-Mindfulness, Mind-Mindfulness and Phenomena-Mindfulness. For each of the mindfulness, the keys to the mindfulness are: ardent: keenly interested in it, conscious: fully aware of it, mindful: fully attentive to the experience in present.

III. Psychosis and Schizophrenia

The word psychosis is of Greek origin, it comes from *psukhōsis* (animation), which originates from *psukhoō* (I give life to), which has its root in *psukhē* (‘soul, mind’). Oxford Dictionary defines psychosis as:

“A severe mental disorder in which thought and emotions are so impaired that contact is lost with external reality.”

Psychosis refers to the mental state in which an individual experiences false sensations. It may include auditory or visual hallucinations, delusions, or abnormalities in behaviour. The word is very often used in conjunction with schizophrenia- a large class of mental disorders or diseases, including complex thinking, perception, emotional and social behavior disorders, the cause of which is not yet clear (Gillespie, 2017). To be specific psychosis is a symptom while schizophrenia is an illness diagnosis. Patients diagnosed with schizophrenia can have symptoms of psychosis but not everyone with psychosis will be diagnosed with schizophrenia. Diagnostic and statistical manual of mental disorders (Edition, 2013), provide the following characteristic symptoms for the diagnosis of schizophrenia/psychosis, presence of two or more of these symptoms is definitive criteria for schizophrenia/psychosis:

- *Delusions*
- *Hallucinations*
- *Disorganized Speech*
- *Disorganized Behaviour*
- *Negative symptoms.*

Schizophrenia is a serious neurological brain disorder. So far, no society or culture independent of schizophrenia has been found anywhere in the world, and there is evidence that this confusing disease constitutes to be a serious public health problem. The disease usually starts in adolescence or early adulthood and often becomes chronic and disabling. The overall direct and indirect costs of the disease are huge (Jin, 2017). According to one estimate, the overall United States cost of Schizophrenia was estimated to be \$62.7 billion excluding indirect costs, close to 0.5% of the gross national product for that year. The burden of the patient's family is heavy, and the patient and his relatives often suffer from disease-related stigmatization, usually for several generations. Therefore, schizophrenia is an important public health problem. The World Health Organization has paid special attention to schizophrenia and has organized a series of studies to improve the understanding of schizophrenia and find ways to cope with it, this includes launching Mental Health Gap Action Programme (mhGAP) in 2008; WHO QualityRights Project and the Mental Health Action plan 2013-2020 (WHO fact sheets, schizophrenia).

IV. Patacara- A case study from Buddha's time

Patacara was the daughter of a wealthy merchant of Savatthi. When she was of the age of marriage, her parents found a suitable groom for her. However, Patacara was in love with one of their servants, and instead she eloped with him. They went to a far-off village and led a life of hard work. As the time passed by she became pregnant, as was the tradition in those times she wanted to go to her parent's house for delivery. The husband however, in fear, that parents may punish him- tried to convince her to not go. She did not listen to him and left alone for her parents house. The husband followed, trying to persuade her to go back. During the journey itself, she went into labour and

delivered a baby boy. Seeing no reason to continue the journey they came back to their home (Somasundaram, 2018).

Few years later, she again became pregnant, and like before insisted on going to her parent's home. This time too, the husband followed her, trying to convince her to go back. On the path, they met with heavy rainfall and a storm, and like earlier she went into labour. The husband decided to build a shelter, as he was chopping the wood to build shelter- a poisonous snake bit him- he died instantly. Meanwhile, she gave birth to another son. On realizing that husband is dead, she was filled with great grief, but decided to continue the journey to her parent's home. On the way, there was a river, since she was weak due to delivery and grief, she thought she would carry her sons one by one across the river. Thus, leaving the elder son behind, she first carried the newborn son to the other bank of the river. As she was returning on the other side to carry elder son, she saw an eagle swoop down on her newborn son and take him away. Seeing this, she started yelling in sorrow- which the elder son mistook as a sign that she is asking him to come to her. The son could not handle the heavy flow of the river and was swept away by the current. Devastated by the loss of her entire family, she still continued on her way. When she was about to reach Savathi, she met a person from her town. The person told her that her parents' house collapsed in the heavy rains and her whole family died under it.

This was the last straw, on hearing this, all logic and reason was gone. She tore her clothes and started wandering aimlessly and naked in the town. People thinking to be mad, would pelt stones on her.

If we analyze her behaviour now in line with the DSM characteristic symptoms for the diagnosis of psychosis/schizophrenia, we can see from the above description that she definitely exhibited two: disorganized behaviour and negative emotions.

Investigating her story further, the texts proclaim that, one day Buddha came to Jetavana, and wandering Patacara also wandered there. Buddha's disciple on seeing her naked, tried to stop her, but Buddha instructed them to allow her to come to him. The story says that in Buddha's presence, listening to his words - she regained her right mind and became one of the foremost disciples of Buddha (Hecker 1982). Once well, she proclaimed her experience in the following verse:

*“Having washed my feet,
Then I watched that water,
Noticing the foot-water
Flowing from high to low
With that the mind was calmed.
Just as a noble, thoroughbred horse.”*

The verse indicates that Patacara, through the practice of mindfulness, calmed her mind (Singh 2016, Singh 2017), and came out of the psychotic state of mind. The practice helped her to overcome her grief and the attachment. She was able to manage her negative emotions and organize her behaviour and was able to make sense of the true nature of things.

V. Mindfulness Interventions for Psychosis- Review

Mindfulness based interventions are now recommended by the National Institute for Health and Clinical Excellence (Nice 2010) for prevention in depression, psychosis and schizophrenia. Scientific studies have shown that mindfulness practice helps in alleviating distress associated with psychosis. For the purpose of this paper we reviewed the clinical trials in the last five years. There were 4190 papers in the said duration exploring the effect of mindfulness. Out of these we selected papers with 10 or more citations, and considered papers which were dealing with psychosis/schizophrenia in general. We excluded the papers which were specific to a group of people, like smokers, obese, diabetic etc. These criterias led us to fives clinical trial studies, table below summarizes our findings:

Table 1: Summary of review of reported clinical trials from 2015 onwards, involving the use of mindfulness on patients suffering from psychosis.

Study	#Cited	Sample Size	Effect of Mindfulness
Moritz 2015	40	90	Decline in depressive and obsessive-compulsive symptoms No changes for the Paranoia Checklist
López-Navarro 2015	49	44	Enhance psychological quality of life in people with severe mental illness Impact frequency and intensity of negative symptoms
Chadwick 2016	86	108	Lower levels of depression Meaningful behaviour changes Lasting effects on mood
Gaudiano 2015	33	13	Improved outcomes compared to medications alone Improvements in depression, psychosocial functioning, and experiential avoidance
Segal 2020	17	460	Reduction in residual depressive symptom severity Management of anxiety symptoms Improved functional status

From the table we can see that in all the above studies mindfulness helps in reduction of depression, it helps the patients to better manage their negative emotions and help in improving social behaviour. Overall mindfulness improves their quality of life.

VI. Conclusion and Future Scope

Schizophrenia is a severe neurological disorder with high cost not just to individuals but to society. While we do not know the exact cause of the disease, it has been found that early detection and early treatment can make living with schizophrenia manageable. Mindfulness meditation, first taught by Buddha in Mahāsatipaṭṭhāna Sutta, has been found to give positive results in the management of schizophrenia. It has been found that mindfulness meditation can influence brain pathways and probably help in brain network integration. These changes may help in reducing hallucinations, delusions and, in general, psychosis. Thus, the findings convey that there are potential benefits of mindfulness-based intervention in the holistic management of schizophrenia. Hence, there is a need to investigate further the potential benefits of mindfulness as a therapy for schizophrenia.

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