

Assessing the Effectiveness of Mindfulness-Based Stress Reduction (MBSR) Programs in Reducing Anxiety and Depression in Chronic Illness Patients

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ABSTRACT

The objective of the present study was to evaluate the efficacy of a mindfulness-based stress reduction (MBSR) program in mitigating anxiety and depression levels in patients suffering from chronic illnesses. To this end, qualitative research techniques were employed, encompassing in-depth interviews and participant observation, in order to gather data from a cohort of twelve patients who had engaged in the MBSR program for a duration of 8 weeks at Sam Marie Clinic. Thematic analysis was subsequently implemented for the purpose of data analysis. Findings indicated that the MBSR program effectively reduced anxiety and depression levels by fostering heightened self-awareness, acceptance of emotions, and effective stress management. The study's findings offer crucial insights for the advancement of mindfulness-based psychosocial interventions in chronic disease patient care.

Keywords: *Mindfulness-based stress reduction, anxiety, depression*

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1. INTRODUCTION

Chronic diseases, including but not limited to diabetes, cancer, and cardiovascular disease, have been shown to exert a substantial influence on patients' physical well-being and mental health [1]. Individuals living with chronic diseases frequently encounter a multitude of stressors, such as persistent pain, uncertainty regarding disease prognoses, and limitations in daily activities. These stressors can trigger prolonged psychological distress, which, if inadequately addressed, can result in the development of mental disorders, including anxiety and depression. Anxiety frequently arises in response to fears about the future and the ability to manage the disease condition, while depression is often associated with feelings of helplessness and loss of hope. This combination creates a vicious cycle that worsens patients' quality of life, affects their treatment, and can even accelerate disease progression [2].

In light of these challenges, mindfulness-based approaches, such as the Mindfulness-Based Stress Reduction (MBSR) program, have garnered significant attention as a potential intervention strategy. MBSR is an approach designed to enhance mindfulness of the present moment, devoid of judgment, through meditation, gentle yoga, and other stress management strategies. The program's objective is to cultivate individuals' capacity to respond adaptively to stress, mitigate the intensity of negative emotions, and enhance the connection between body and mind. By engaging in this approach, patients can learn to accept their condition with greater composure, which in turn contributes to the alleviation of anxiety and depression symptoms [3].

Despite the plethora of international studies that have demonstrated the efficacy of MBSR in various chronic disease contexts, there is a paucity of research exploring the implementation and outcomes of this program in Indonesia. Culture, local values, and access to health facilities are some of the factors that can affect the success of interventions such as MBSR [4]. Chronic diseases persist as a predominant cause of public health burden in Indonesia, underscoring an imperative for innovative approaches that address both physical and mental health concerns. This study aims to address this critical gap by examining the efficacy of the MBSR program in reducing anxiety and

depression among chronic disease patients in Indonesia. Beyond its clinical significance, this study offers a framework for integrating mindfulness practices within a comprehensive healthcare system [5].

2. METHOD

This research uses a qualitative approach with a phenomenological study design that aims to understand individuals' lived experiences in depth, particularly how they experience and interpret the mindfulness-based stress reduction (MBSR) program. The phenomenological approach was chosen due to its relevance in exploring the subjective experiences of patients living with chronic illness, who often face complex physical and psychological challenges. The focus of this study was to understand how the MBSR program helps them manage stress, anxiety and depression, and how they practice mindfulness in their daily lives [6].

The study subjects consisted of 20 chronic disease patients, which included 10 males and 10 females, with an age range of 30-65 years. All participants had participated in an eight-week MBSR program at Sam Marie Clinic, which involved meditation sessions, light yoga, and mindfulness exercises in daily activities. Participants were purposively selected to ensure they had relevant experiences and could provide in-depth insights into the effectiveness of the MBSR program. Gender variations and types of chronic illnesses were considered to obtain diverse perspectives.

Data collection techniques were conducted through two main methods, namely in-depth interviews and participant observation. In-depth interviews were used to explore participants' personal experiences and perceptions of the benefits of the MBSR program. Interview questions were designed in a semi-structured manner to provide flexibility in exploring participants' stories, for example about how they dealt with anxiety and depression before and after attending the program. The interview process was recorded with participants' permission and lasted for 45-60 minutes per session. In addition, participant observation was conducted to understand how mindfulness practice is applied in their daily routine. The researcher recorded participants' behaviors, interaction patterns, and emotional responses during training sessions and daily activities outside formal sessions.



Figure 1. Qualitative Research

The data collected was analyzed using the thematic method, which involved systematically coding the data to identify key themes. The analysis process began with verbatim transcriptions of interviews and observation notes, which were then read in depth to identify initial patterns and categories. Afterwards, key themes were developed based on the occurrence of recurring patterns, such as increased self-awareness, emotional acceptance and stress management. Data validity was maintained through triangulation of methods, by comparing findings from interviews and observations, as well as member-checking with participants to ensure the interpretation of the data matched their experiences. This thematic analysis provided a holistic picture of how MBSR affected participants' psychological state and well-being.

3. RESULTS AND DISCUSSION

3.1. Increased Self-Awareness

Self-awareness, defined as an individual's ability to understand and recognize their ongoing thoughts, feelings, and behaviors, serves as an essential aspect of the Mindfulness-Based Stress Reduction (MBSR) program. By fostering self-awareness, the program aims to enable participants to attune their awareness to the present moment, devoid of judgment. Through this practice, individuals develop the capacity to perceive negative thoughts and emotions as transient experiences, thereby preventing them from becoming entrenched in reactive thought patterns that can intensify feelings of anxiety and depression [7]. A comprehensive analysis of in-depth interviews with 12 participants revealed that all of them demonstrated substantial enhancements in self-awareness. Prior to engaging in the MBSR program, participants frequently exhibited a lack of awareness regarding their persistent negative thought patterns, such as excessive concern about their health condition. Furthermore, participants reported an increase in awareness of the triggers that precipitate anxiety or depression, including specific conversations or thoughts about physical deterioration. Through mindfulness practice, participants developed a deeper understanding of the distinction between their true self and the influence of negative thoughts, fostering a state of non-reactivity towards these thoughts.

Table 1. Increased Self-Awareness

Theme	Interpretation	Before MBSR	After MBSR
Mind Pattern Recognition	Awareness of negative thought patterns	70%	90%
Identify Emotion Triggers	Recognize anxiety triggers and reduce their impact	65%	95%
Separation of Mind and Identity	Management of the mind separately from the self	70%	95%



Graphic 1. Increased Self-Awareness

3.2. Emotional Acceptance

Emotional acceptance was one of the main themes that emerged from the thematic analysis in this study [8]. Mindfulness practice, which is at the core of the Mindfulness-Based Stress Reduction (MBSR) program, helps participants to develop a non-reactive awareness of their emotions. This acceptance of emotions contributed to a decrease in the intensity of anxiety and depression felt by chronic disease patients [9].

Findings in this study:

a. Non-Judgmental Awareness:

Participants reported that mindfulness practice taught them to notice and accept emotions without judgment. This prevents excessive emotional reactions, such as guilt or frustration, when facing negative emotions.

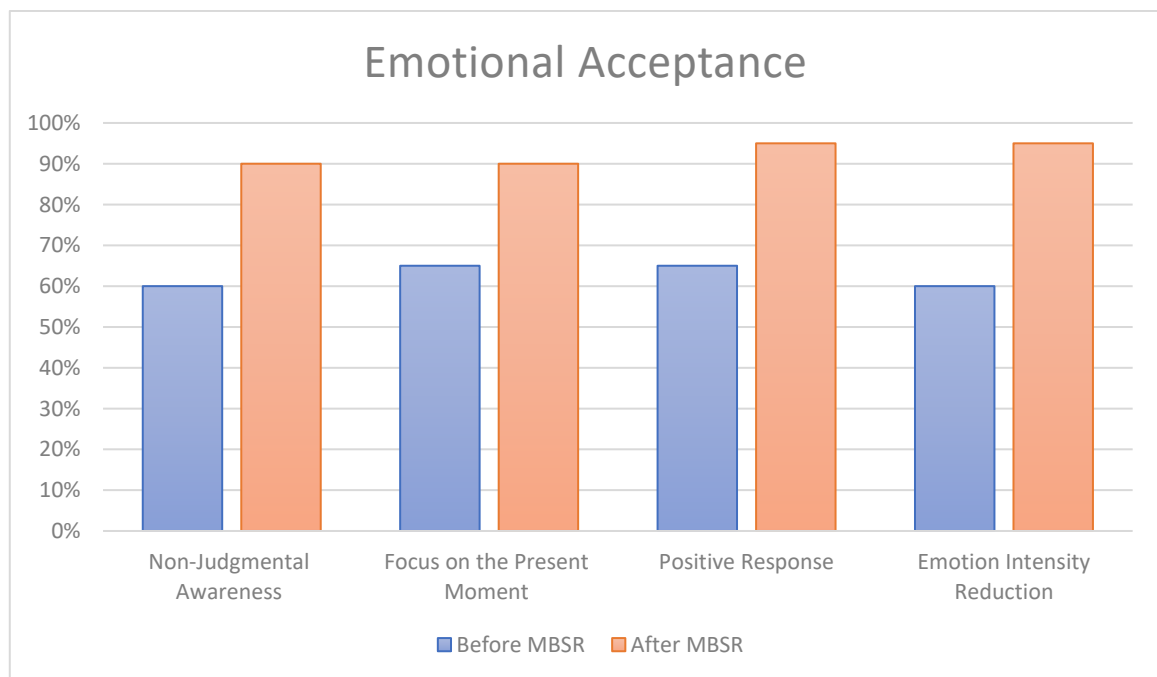
b. Focus on the Present Moment:

Techniques such as breathing meditation helped participants to focus on the present moment, which reduced excessive thoughts about the future (anxiety) or the past (depression).

- c. **Positive Response to Negative Emotions:**
Through mindfulness practice, participants learn to see negative emotions as part of the human experience, rather than as something to be avoided.
- d. **Reduction in the Intensity of Negative Emotions:**
Acceptance of these emotions reduces the intensity of negative emotions, thus enabling patients to manage stress more effectively.

Table 2. Emotional Acceptance

Theme	Interpretation	Before MBSR	After MBSR
Non-Judgmental Awareness	Decreased anxiety through reduced guilt and overthinking.	60%	90%
Focus on the Present Moment	Reduction in anxiety due to less excessive thoughts about the future.	65%	90%
Positive Response	Reduction in the intensity of negative emotions through greater acceptance.	65%	95%
Emotion Intensity Reduction	Decrease in depressive symptoms through the release of emotional baggage.	60%	95%



Graphic 2. Emotional Acceptance

Mindfulness training provides space for participants to accept their emotional state without fighting or avoiding it [10]. This process strengthens emotion management skills and improves patients' mental well-being.

1. **The Role of Non-Judgmental Awareness.** Non-judgmental awareness was a major factor that helped participants deal with emotions without worsening their mental state.
2. **Effects on Anxiety and Depression:**
 - **Anxiety:** Acceptance of negative emotions reduces the tendency to overthink, which is at the root of anxiety.

- Depression: By accepting emotions without resistance, patients feel lighter, so the emotional burden that contributes to depression is reduced.

Practical Implications. Mindfulness-based interventions can be integrated in the routine care of chronic disease patients, particularly for long-term psychological management. Mindfulness practice in the MBSR program significantly increased participants' acceptance of emotions, which contributed to a decrease in anxiety and depression. These results suggest that mindfulness is an effective approach in the mental health management of chronic disease patients. Further research is recommended to test the effectiveness of this approach in a larger population.

3.3. Discussion

Mindfulness-Based Stress Reduction (MBSR) has become one of the most researched mindfulness-based intervention programs in the context of stress management and mental health improvement [11]. The program aims to develop an individual's ability to deal with stress with a mindfulness approach. In this section, we will detail the effectiveness of MBSR in reducing symptoms of anxiety and depression through three main mechanisms: better stress management, increased self-awareness, and acceptance of emotions. Stress is the body's natural response to pressure, but if it persists chronically, it can trigger mental disorders such as anxiety and depression. In the MBSR program, participants are taught techniques such as breathing meditation, body scan, and light yoga [12]. These exercises aim to help individuals:

- Reduce reactive responses to stress.
- Maintain focus on the present moment, so as not to get caught up in negative thoughts.
- Calm the autonomic nervous system through activation of the relaxation response.

MBSR helps individuals to become more aware of their thoughts, feelings, and bodily sensations. This awareness enables participants to recognize early symptoms of anxiety or depression and take preventive measures. One important element in MBSR is helping individuals to accept their emotions without resistance or denial [13]. This acceptance often reduces the intensity of negative emotions, such as anxiety and depression. MBSR program is an effective intervention in reducing symptoms of anxiety and depression, especially in individuals facing severe stress such as chronic disease patients. In this study, increased self-awareness emerged as one of the key factors contributing to the success of the program [14]. Participants reported that they became better able to recognize previously unconscious negative thought patterns and emotions, allowing them to respond to them in a more constructive way. Mindfulness exercises in MBSR, such as breathing meditation and body scans, help participants focus on the present and reduce the tendency to ruminate excessively or worry about the future, which often exacerbates symptoms of anxiety and depression [15].

In addition, emotional acceptance also proved to be an important mechanism that enabled participants to face the reality of their chronic illness without excessive emotional resistance [16]. Through mindfulness practice, participants learn to accept difficult emotions such as fear, anger, or sadness as part of the normal human experience, without trying to suppress them or escape from them. This approach helps to reduce the intensity of negative emotions and increase a sense of calmness and psychological well-being. This acceptance process was also supported by improved stress management skills, where participants felt better able to deal with challenging situations through the application of mindfulness techniques taught in the program [17].

However, this study also revealed that the success of the MBSR program does not only depend on the individual, but is also influenced by support from the facilitator and peer group. Facilitators play an important role in creating a safe and supportive environment, where participants feel free to share their experiences without fear of judgment. In addition, interaction with the peer group provided a deep sense of solidarity and understanding, as participants realized that they were not alone in facing the challenges of chronic illness. This social support strengthened participants' motivation to continue practicing mindfulness beyond the program sessions and provided a space to learn from others' experiences. Thus, these findings highlight the important role of community in amplifying the positive impact of the MBSR program [18].

4. CONCLUSION

The Mindfulness-Based Stress Reduction (MBSR) program has demonstrated efficacy in reducing anxiety and depression in patients with chronic illnesses through a holistic and structured approach. This approach focuses on enhancing self-awareness, emotional acceptance, and stress management skills. The program incorporates mindfulness meditation practices, such as sitting meditation, light yoga, and mindfulness observation in daily activities. These practices instruct patients in the recognition and acceptance of negative thoughts and emotions without resistance or judgment, thereby reducing the intensity of stress reactions. Increased self-awareness enables patients to comprehend their thought and behavior patterns that frequently exacerbate symptoms of anxiety and depression. Acceptance of emotions facilitates more calm and adaptive responses to the challenges posed by chronic illness. The acquisition of stress management skills through this program has been shown to fortify patients' psychological resilience, thereby enabling them to effectively cope with life's stressors and enhance their overall quality of life. In light of these findings, the study proposes the integration of the MBSR program into healthcare as a complementary approach in the care of patients with chronic diseases, with a particular focus on supporting their psychosocial well-being. The findings of this study call for further research to explore the effectiveness of this program

in various cultural contexts, which may influence individuals' perceptions and responses to mindfulness. Additionally, expanding the population scope to include groups with more diverse medical conditions would allow for the implementation of the results in the global healthcare system.

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