

Effectiveness of a Pilot Mindfulness Program in Volunteers of a Breast Cancer Association

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Abstract

It has been usually observed that medical and health personnel, volunteers, and social workers who work with cancer and chronic patients may have higher rates of compassion fatigue and symptoms of anxiety and depression. The purpose of this study was to examine the benefits of a pilot *mindfulness* program in a sample of 7 volunteers of a foundation that supports women with breast cancer. The variables analyzed were depression, anxiety, compassion fatigue, work stress, and negative and positive affect. The results showed that the *mindfulness* program had a positive impact, reducing the symptoms of anxiety and depression and increasing emotional well-being. Participants also reported that the program helped them be more relaxed, identify their emotions, enjoy their time and environment better, increasing the value of life, and facilitate communication among the volunteers. The program produced positive changes in participants, powering personal areas and increasing emotional well-being.

Keywords

mindfulness, anxiety, depression, breast cancer, caregivers

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For the past 2 decades the practice of *mindfulness* has become a psychological tool of third-generation therapies and is being taken in addition to the treatment of various disorders, such as depression and anxiety, substance abuse, and personality disorder.¹⁻⁵

Mindfulness is not only associated with stress reduction but also helps reduce negative emotions such as fault, anger, and aggression. The study by Kiken and Shook⁶ found that the participants in the experimental group had more positive aspects, greater optimism, and better self-control than participants in the control group.⁶ Other studies showed similar results.⁷⁻⁹

Mindfulness is an English word used to translate *sati*, a term in Pali language that means awareness, attention, and memory.¹⁰

Kabat-Zinn¹¹ describes *mindfulness* as the awareness that appears deliberately paying attention in the present moment and without judgment. This kind of attention or consciousness allows us to learn to interact directly with what is happening in our life, in the present moment.

The practice of *mindfulness* is not only used to treat patients but has also served to help reduce stress in medical staff, volunteers, and caregivers.¹²⁻¹⁴

It has been observed that workers who have direct or indirect contact with the problems of the patients have an increased vulnerability to present compassion fatigue, negative emotional response of exposure to working with those suffering, and emotional exhaustion caused by excessive and prolonged stress.¹⁵

Stress, emotional distress, and compassion fatigue can have a negative effect on work and the way that the health personnel interact with the patients. In this sense, there have been investigations where the effectiveness of *mindfulness* programs were positive in medical personnel and volunteers, reducing symptoms of anxiety and depression, compassion fatigue, and increased emotional well-being.¹⁶⁻²¹

Fortney et al²² applied a treatment program based on *mindfulness* in health personnel and observed a reduction of compassion fatigue and decreased symptoms of depression, anxiety, and general stress.

Manotas and colleagues²³ conducted a study on caregivers, with a 4-week *mindfulness* program, having significant results in reduction of anxiety, depression, somatization, and stress, and also an increase in the levels of some *mindfulness* factors, such as observation and nonjudgment.

Taking that information into account, it is important to consider stress, compassion fatigue, symptoms of anxiety and depression, and negative aspects as factors that affect

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productivity at work and emotional well-being of health workers and volunteers.

The aim of this research is to evaluate the effectiveness of a program based on *mindfulness*. In this research, we used the program of Kabat-Zinn's Mindfulness-Based Stress Reduction, which was applied to volunteers of a foundation that supports women with breast cancer in order to determine the effects on the reduction of stress, emotional distress, and compassion fatigue, as well as the benefits this program can bring to everyday life.

Methods

Participants

The sample size in this study was 7 women whose average age was 46.7 years; all of them were volunteers of an association that supports women with breast cancer. The average volunteering years in the association that helps women with breast cancer is 3.14. They did not have meditation before.

Measures

First we developed a questionnaire to gather sociodemographic data of the participants and their main concerns.

To evaluate the positive and negative aspects, we used PANAS (Positive and Negative Affect Schedule),²⁴ which consists of 20 items, comprising 2 subscales of 10 items each, one for positive aspects and the other for negative aspects, and 5 alternative answers ranging from 1 ("little or nothing") to 5 ("extremely"), based on a Likert-type scale.

The scale we used to evaluate emotional well-being was Hospital Anxiety and Depression Scale,²⁵ which consists of 14 items, comprising 2 subscales of 7 items each, one for anxiety (odd items) and one for depression (even items).

The last questionnaire we used was ProQOL, to evaluate job satisfaction (Professional Quality of Life),²⁶ which consists of 30 items, comprising three 10-item subscales: compassion satisfaction, burnout, and posttraumatic stress.

Procedure

The program lasted 8 weeks, with a weekly session of 2.5 hours with the therapist. Every week, apart from the session with the therapist, the participants had to repeat what they had learned in the session 5 times a week. Besides, tasks specified in each session were given to be done at home.

The weekly sessions with the therapist were structured as follows.

In the first contact with the participants, the therapist explained the topic, duration of each session, and the activities that would be presented in each session. Next, participants were given the aforementioned questionnaires, and informed consent was obtained prior to volunteers participating in the study.

In the first and second sessions of the program, body scan and sitting meditation were developed. A homework activity of paying attention to what was being done for 10 minutes was also assigned.

The third and fourth sessions of the program consisted of body scan and introduction to yoga exercises. The homework was to perceive some pleasant event during the week.

Yoga exercises and sitting meditation were applied in the fifth and sixth sessions. The homework was to perceive some unpleasant event during the week.

In the seventh and eighth sessions, participants were introduced to mountain meditation and also goodness and forgiveness meditation, followed by some yoga exercises. At the eighth session the aforementioned questionnaires were handed back to participants.

Additionally, it is important to mention that at the end of each session we applied the wheel of experiences, so that participants could share their questions, concerns, or benefits they got from the session.

Finally, we created a database followed by statistical analysis using SPSS.

Results

Main Concerns

The main concerns participants reported having were the following: 42.8% of the sample said it was the economic limitations they had in the association; 14.3% said that the distance from the association to the medical center was their main concern, as it is an extra expenditure of time and money for patients; 14.3% felt volunteering was energetically consuming and that worried them; to another 14.3% of the participants the main concern was their own family care, especially if they were sick; and finally the remaining 14.3% was concerned about the lack of time as they felt they could not give more in volunteering.

Variables Related to Positive Affect and Negative

Positive affect, as measured by the PANAS, positively correlated with years of volunteering ($r = .951$, with a significance level of .01). Hence, the longer the volunteering time, the more positive affect in the participants.

The negative affect, also measured by the PANAS, is positively related to the level of overload ($r = .800$, with a significance level of .05) and anxiety scale and full depression ($r = .783$, a level of significance of .05).

On the other hand, significant and negative relations were observed between the negative affection and compassion measured by the ProQoL ($r = -.788$, a significance level of .05).

Mindfulness Program Effectiveness

After the program, we observed that the mindfulness program to reduce discomfort in this sample of voluntaries was effective. We found significant differences in the anxiety variable (with a significance of .027 in the Wilcoxon test) and scores on the anxiety scale and full depression (with a significance of .043 in the Wilcoxon test), both with bilateral significance of .05.

However, we did not find statistically significant differences in the variables of burnout, compassion, and trauma measures in ProQoL and neither positive nor negative affect as measured by the PANAS.

Qualitative Assessment of Voluntary Regarding Program Effectiveness

The *mindfulness* program was effective in several aspects: in 71% of the cases it helped them to relax; 57% to recognize their own emotions; 43% to enjoy the present moment and be more aware of their own body and the environment; 14% to value life more; and in another 14% it facilitated communication with colleagues.

Discussion

As discussed before, health workers and volunteers who help the chronically ill, such as cancer patients, could reach high levels of anxiety and depression, compassion fatigue, and a greater negative affect.¹⁵ Several studies have implemented stress-reduction programs based on *mindfulness* in order to reduce emotional distress presenting in this population, with positive and encouraging results with regard to reduced levels of anxiety and depression and compassion fatigue.¹⁶⁻²¹

In our research we applied a program of mindfulness-based stress reduction from Kabat-Zinn with a duration of 8 weeks to volunteers of an association that supports women with breast cancer. In our results we could see that negative affect is related to overload, symptoms of anxiety and depression, and compassion fatigue.

Regarding the effectiveness of the program, we observed that it had a positive effect by improving the emotional well-being, and it was effective in reducing symptoms of anxiety and depression. These results confirm the effectiveness of the practice of mindfulness in this population, as seen in scientific literature on this issue.¹⁶⁻²³

Besides, our intervention program had a positive effect on various aspects such as increasing levels of relaxation, emotion recognition, enjoyableness of the present moment, and facilitated communication among volunteers.

Finally, as a limitation of our study we highlight the size of the sample. Since this was a pilot study, the program was used by only 7 participants. For future research we plan to implement this program in a sample of larger size and see its effectiveness over time, not only during the program time itself. Also, it is important that the need be complemented with other types of methods in order for the results to be more valid and significant, such as phenomenological and qualitative study.

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Author Contributions

Both the authors conceived the study and wrote the article.

Declaration of Conflicting Interests

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Ethical Approval

This study was approved by a college board from the Department of Psychology at the Universidad de las Americas Puebla (UDLAP) that examines and decides on the ethical and scientific feasibility of this type of study.

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