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IMPLEMENTATION OF A MINDFULNESS-BASED PROGRAM IN PATIENTS WITH MENTAL ILLNESS FROM THE PADRE MENNI PSYCHOSOCIAL REHABILITATION CENTER OF TORRELAVEGA

Iciar Martino Becerril
Ibroamerican Universty Foundation (Ethipoia)
iciarmartino@gmail.com

Abstract. Mindfulness-based interventions are increasingly used to intervene in stress, anxiety or depression; however, for severe mental disorder more research is still required. The objective of this study is to verify the effectiveness of a Mindfulness program adapted for mental illness, on anxiety, depression and quality of life of people diagnosed with mental disorder. To verify its efficacy, a sample of 26 users from the Padre Menni Psychosocial Rehabilitation Center in Torrelavega was recruited, divided into 2 groups, 13 in the control group, and 13 in the experimental group. The study was carried out by collecting measurements at two different moments, pre-test and post-test, through the STAI, BDI and WHOQOL-BREF instruments to measure anxiety, depression and quality of life, respectively. It was found that the sample of both groups belonged to the same population, and through the analysis of variance with repeated measures ANOVA, the results showed the lack of statistically significant differences in the pre and post measurement of the variables, thus concluding that the intervention program did not meet the objective of reducing anxiety, depressive, and improving the quality of life of the participants.
Keywords: Mindfulness, anxiety, depression, quality of life, mental disorder.

IMPLEMENTACIÓN DE UN PROGRAMA BASADO EN MINDFULNESS CON PACIENTES CON ENFERMEDAD MENTAL DEL CENTRO DE REHABILITACIÓN PSICOSOCIAL PADRE MENNI DE TORRELAVEGA

Resumen. Las intervenciones basadas en Mindfulness cada vez son más utilizadas para intervenir en estrés, ansiedad o depresión; sin embargo, para trastorno mental grave aún se requiere de más investigación. El objetivo de este estudio es comprobar la eficacia de un programa de Mindfulness adaptado para enfermedad mental, sobre la ansiedad, depresión y calidad de vida de personas diagnosticadas de trastorno mental grave.

Para comprobar su eficacia, se reclutó una muestra de 26 usuarios del Centro de Rehabilitación Psicosocial Padre Menni de Torrelavega, divididos en 2 grupos, 13 en grupo control, y 13 en grupo experimental. Se procedió al estudio recogiendo medidas en dos momentos diferentes, pretest y postest, a través de los instrumentos STAI, BDI y WHOQOL-BREF para medir ansiedad, depresión y calidad de vida, respectivamente. Se comprobó que la muestra de ambos grupos pertenecía a la misma población, y a través del análisis de varianza con medidas repetidas ANOVA, los resultados demostraron pequeñas diferencias estadísticamente significativas en ansiedad/rasgo y depresión, que sin embargo no fue así en la medición pre y post de las variables ansiedad/estado y calidad de vida, concluyendo finalmente que el programa de intervención atendió de manera parcial al objetivo de reducir la sintomatología más común de la enfermedad mental grave.
Palabras clave: Mindfulness, ansiedad, depresión, calidad de vida y trastorno mental grave.

Introduction

Mental illnesses, which are the most frequent cause of illness in Europe, pose a public health problem both in terms of social and health costs generated and the impact they cause on quality of life (Formánek et al., 2019). The World Health Organization infers that at some point in life, 450 million people will suffer from some type of mental problem that causes suffering, in addition to, possible social exclusion. In turn, it estimates that in the year 2030 the leading cause of morbidity in developed countries will be depression (WHO, 2013).

According to data published by the Ministry of Health through a study conducted through a National Health Survey in 2017, 10.8% of the Spanish population reported having been diagnosed with a mental health problem, whose figures increase in the case of women (14.1%) compared to men (7.2%). 6.7% of adults report having depression, 9.2% women, and 4% men; and in the same proportion chronic anxiety is declared (6.7%), 9.1% belonging to women, and 4.3% to men. The prevalence in Cantabria, whose sample was made up of 23,089 people, was as follows: 7.8% of the Cantabrian population has depression, 10.6% being women and 4.88% men; 8.27% suffer from anxiety, 10.95% women and 5.43% men; and 2.45% report having other mental health problems, 1.8% belonging to women and 3.13% to men.

Severe mental disorder does not have an exact definition that has been agreed between experts. However, the National Institute of Mental Health in the United States proposed in 1987 a description that includes three dimensions, and that is the one that has the greatest approval (National Institute of Mental Health, 1987). These three dimensions are:

- Diagnosis: including both psychotic disorders and personality disorders.
- Chronicity: disease whose duration and treatment exceeds 2 years.
- Functioning: changes in family, social and work functioning, with the presence of moderate / severe disability or dysfunction.

Regardless of the diagnosis, any type of mental illness prolonged over time generates comorbid symptoms of an anxious and depressive type, which prevents the person from having a correct social, personal and work functioning, which triggers a worse subjective perception of their quality of lifetime. The health-related quality of life in a patient expresses the impact that a disease and its treatment have on the person's perception of their well-being. The essence of this notion is to recognize that the patient's perception of their state of mental, physical and social well-being depends on their own beliefs and values, their cultural context and personal history (Rodríguez, Castro, Sanhueza, Valle & Martínez, 2011). The quality of life of people with a diagnosis of severe mental disorder is usually lower than that of the rest of the population (Gómez y Botella, 2007), due to factors such as dependence on aid that is often insufficient, social

isolation, lack of financial means or difficulties in accessing a job. The main request of patients and family members when starting a psychological treatment is that it helps to improve the quality of life (Del Cura Bilbao y Vázquez, 2020).

Among the interventions that are carried out with people with a diagnosis of severe mental disorder, psychosocial rehabilitation seeks as its main objective to improve the functional performance of users/patients, through group activities and individual interventions that ultimately achieve term, better adaptation in society. Studies carried out indicate that programs that combine drug treatment with rehabilitation improve functioning, facilitate social and work integration, and reduce relapses (Rouse, Mutschler, McShane & Habal-Brosek, 2017). However, few studies are still concerned with measuring whether these results also include improvements in quality of life, regardless of those that focus only on patients already discharged after long periods of hospitalization (Colillas-Malet, Prat, Espelt y Juvinyà, 2020).

Until the 80-90s, the treatment per excellence for severe mental disorder was the pharmacological type, due to the success of antipsychotic drugs in the case of positive symptoms in the case of psychosis (delusions, hallucinations, etc.) and stabilizers mood and antidepressants in mood disorders (Park & Park, 2017). However, from the 90s onwards, it was necessary to introduce a psychosocial approach, emphasizing education about the disease in patients, their acceptance of treatment and recognition of symptoms, in addition to, training in social skills and interpersonal therapy. (Crider, 2020; Park y Park, 2017). The psychosocial approach included the application of psychological therapies, which were implemented based on the intervention models and the predominant psychological theories at each historical moment. Traditionally, the most widely used have been behavior modification techniques, and the use of Third Generation therapies is currently on the rise (Coutiño, 2012).

The first generation of therapies, located in the 50s with the classical Behavioral Therapy based on conditioning, caused a revolution in the face of psychoanalysis, establishing a psychological therapy whose scientific bases caused great success in the face of the efficacy of the treatments of anxiety to through the manipulation of behavioral variables, leaving aside cognitive and affective variables (Hayes & Hofmann, 2017). The second generation, situated in the 70s with Cognitive-Behavioral Therapy, leaves aside the predominance only of the environment as did behavioral therapy, and puts its emphasis on cognition (beliefs, thoughts, attributions, etc.) as the main cause of behavioral and emotional problems. In addition, the comparison between the development of psychological treatments and medication is recognized (David, Cristea y Hofmann, 2018). This therapy is a treatment model for numerous mental illnesses, which through various techniques, such as cognitive restructuring, behavioral activation, problem-solving techniques, etc., aims to seek the objective of modifying thoughts, behaviors, and emotions. dysfunctional emotions of people (Hayes y Hofmann, 2018).

However, in recent years, new therapeutic approaches have been developed leaving behind the transcendence of cognitive theory, among which is the third generation therapy "Mindfulness". Third-generation therapies are those that are born due to the need to change the previous two, which have limitations that require essential modifications from time to time for their progress (Pérez-Álvarez, 2012). Mindfulness, defined as “full attention to reality, in the present moment, without judging and with acceptance” (Vásquez-Dextre, 2016), is a practice that although its greatest development is being experienced recently, in reality it is not new. Also called “mindfulness”, it tries to teach to observe one's own experience to accept it as it is, as well as the sensations, thoughts and emotions as they happen (Chadwick, Hughes, Russell, Russell y Dagnan, 2009). It began to be used in the 70s, although it is an ancient oriental technique, which was

dissociated from religious content to be used as a treatment in stress reduction in the United States (Kabat-Zinn, 2011).

Its Buddhist origins dating back about 2,500 years, were transformed as a therapeutic program for the first time at the University of Massachusetts in 1979, where John Kabat-Zinn used it for chronic patients, in order to generate changes in both detection and management of thoughts through a methodical discipline (Kabat-Zinn, 1982). Subsequently, Segal, Williams and Teasdale, in 2002, integrated the technique developed by Kabat-Zinn based explicitly on mindfulness in cognitive treatments, thus creating Mindfulness-Based Cognitive Therapy, better known as MBCT for its acronym in English. (Mindfulness-based cognitive therapy). These authors, experts in the treatment of depression, considered that the approach from cognitive therapy did not offer help to other elements beyond cognitive restructuring, which led them to create this new therapy in response to the high rate of relapses manifested by this disease (Segal et al., 2002; Segal, Williams & Teasdale, 2015). Mindfulness has also been integrated into other third-generation therapies, two of the most widespread being Acceptance and Commitment Therapy and Dialectical Behavioral Therapy. The Acceptance and Commitment Therapy (ACT) by Hayes, Strosahl and Wilson (1999), also aims to educate patients to accept those internal experiences and act according to their values, showing a conscious attitude, as spread by mindfulness (Kashdan y Ciarrochi, 2013). On the other hand, in the dialectical behavioral therapy (DBT) developed by Linehan (1993), carried out especially for patients with borderline personality disorder, awareness and attention to emotions, as well as thoughts, is worked on (Kocovski, Segal y Battista, 2009). These examples show that mindfulness, belonging to third generation therapies, is used from a therapeutic and educational approach, and may also be implicit in other treatments.

Different studies have shown the efficacy of mindfulness in various fields of psychology and medicine, reducing anxiety and depressive symptoms and improving the quality of life in patients with anxiety and/or depressive disorders (Kim et al., 2010; Ma y Teasdale, 2004; Roemer y Orsillo, 2007; Rosenzweig et al., 2010), as well as in patients with fibromyalgia (Grossman, Tiefenthaler-Gilmer, Raysz, y Kesper, 2007). Finally, it not only demonstrates its effectiveness in variables such as anxiety, depression or quality of life, but there are also studies that support changes in brain structures. An example of this is the discovery that affirms that the experience in meditation and its practice compensates for the decrease in cortical thickness produced with age (Lazar et al., 2005). Another example are the findings found through a study conducted with Zen meditators, who, thanks to meditation, prevented the loss of volume of the brain gray matter (Pagnoni y Cekic, 2007).

As seen previously, the study of mindfulness for certain disorders (stress, depression, anxiety, etc.) has grown rapidly since its inception. However, for people with psychosis it has entailed a much slower pace, since at first it was believed that this practice could be counterproductive for these patients, due to the existence of certain aspects that are not recommended, such as staying still and immobile, keep your gaze fixed on an object, etc. Consequently, an adaptation of mindfulness was carried out to be able to incorporate its practice as a therapeutic component in psychosis (Cramer, Lauche, Haller, Langhorst y Dobos, 2016), there is evidence that the treatments carried out through mindfulness in severe mental disorders are therapeutic and safe when adapted and conducted by expert therapists (Jacobsen, Morris, Johns & Hodkinson, 2011). Among the most studied scientific evidence that supports the usefulness of mindfulness practice in mental illness, it is worth highlighting the study carried out by Chadwick's team, who began more than 25 years ago to use it with psychotic patients, intervening with people who listened disturbing voices, diagnosed with paranoia, whose results showed a

significant improvement in psychological well-being after group practice in mindfulness (Hughes, Russell, Russell & Dagnan, 2009). As a result, Chadwick proposes various adaptations for these patients, among which is a shorter duration of guided meditation, less presence of prolonged silences (as this could increase voices in the case of patients with auditory hallucinations), and not excluding ideas nor strange experiences in meditation, in order to normalize the other perceived sensations (Chadwick, 2014). Mindfulness-based interventions, therefore, allow patients to observe their symptoms and consequent reactions to them, thus reducing their conviction and minimizing negative effects on their mood. On the other hand, there are several comparisons with the usual treatments that propose this alternative as an intervention with better cost-benefit, due to the reduction of sessions that it entails compared to those recommended for other treatments (Thomas et al., 2014).

Recent research confirms the benefits discussed so far and demonstrates the potential of mindfulness as a treatment for severe schizophrenia through intervention in hallucinations and delusions (Sheng, Yan, Yang, Yuan y Cui, 2019), proving that mindfulness also it is shown to be effective in severe mental illness applied in a hospital setting and reducing the risk of short-term readmission in discharged patients (Jacobsen, Peter, Robinson & Chadwick, 2020). Finally, there are also several current systematic reviews that conclude that mindfulness-based interventions in psychotic symptoms can be recommended as additional treatment for patients with psychosis (Cramer, Lauche, Haller, Langhorst & Dobos, 2016; Hodann-Caudevilla, Díaz-Silveira, Burgos-Julián y Santed, 2020).

In short, the literature review carried out shows that there is an improvement in people with severe mental disorder when the practice of mindfulness is daily (becoming a habit), which allows acquiring a series of skills that can have positive effects on functioning normal patient (Moscoso, 2019).

This leads to defining the main objective of the study, which is to assess the efficacy of a group training program based on mindfulness with patients with severe mental illness.

The specific objectives that are proposed are the following:

- Reduce the characteristic symptoms of depression
- Reduce the characteristic symptoms of anxiety
- Improve subjective well-being

Method

Participants

The study is aimed at people who suffer from a chronic mental disorder that negatively affects both their cognitive abilities and personal and functional aspects of their life. The sample consisted of users of the Padre Menni Psychosocial Rehabilitation Center in Torrelavega, which has a total of 50 users between 18 and 65 years old, who have lost psychosocial functioning skills that are intended to be rehabilitated through specific stimulation programs cognitive, health education, social skills or therapeutic leisure, as well as through individual and group therapy. An initial sample of 28 people was recruited, two of whom finally refused to participate in the study due to their distrust of the anonymous use of personal data. Therefore, the final sample consisted of 26 subjects, randomly assigned to the control and experimental groups (13 in each group).

The inclusion criteria included: having an age between 18 and 65 years and being a user diagnosed with a serious mental disorder. On the other hand, the only exclusion criterion was to present a severe cognitive impairment, which would make it impossible

to practice mindfulness. Due to the capacity restrictions caused by COVID-19, the CRPS had already divided users into 4 groups taking into account their cognitive functioning, so that 3 groups have medium or high cognitive abilities and a fourth group has low cognitive abilities. This division was established through the cognitive scores of the Barcelona test, so the program was carried out in the 3 groups with high or medium cognitive abilities.

Users were informed with a previous talk about the objectives of the research, as well as a brief explanation of the study and signing of the informed consent, which has the approval of the ethics committee of the European University of the Atlantic. In addition, it was mentioned that there was no economic retribution for participation in the study, as well as the possible abandonment of the study if desired, without this having any type of consequence for their treatment.

Instruments

The variables analyzed in this study are: anxiety, depression and quality of life, measured at two different times, before and after treatment, and compared between two different groups, the experimental group and the control group. The instruments used to measure each of these variables are set out below.

State-Trait Anxiety Questionnaire (STAI)

Its authors are Speilberg, Gorsuch and Lushene (1970), and it is a self-administered questionnaire that evaluates two independent concepts of anxiety: the level of anxiety, transitory emotional condition (state anxiety, "right now, at this moment") and the predisposition of the person to respond to relatively stable anxiety (trait anxiety, "in general, in most cases"). Each subscale is made up of a total of 20 items with a 4-point Likert-type response system (0 = almost never / not at all; 1 = somewhat / sometimes; 2 = quite / often; 3 = a lot / almost always) , whose total score ranges in each of the subscales between 0 and 60 points. Its adaptation to Spanish was carried out in 1986 by Buela-Casal, Guillén-Riquelme and Seisdedos Cubero, and in terms of its psychometric properties, it has an internal consistency of 0.94 in state anxiety, and 0.90 in trait anxiety (Riquelme y Casal, 2011).

Beck Depression Inventory (BDI)

Its authors are Beck, Rush, Shaw and Emery (1978), and it is a questionnaire also self-administered that consists of 21 items with four response alternatives, ordered in increasing order in terms of severity of symptoms, of 4 numbered points of 0 to 3, with 0 being the absence of symptoms, and 3 being the maximum intensity of the symptoms. A total score less than 9 would indicate absence of depression, between 10-16 mild depression, moderate depression if the scores are between 17-29 and from 30-63, it would indicate severe depression. Regarding its adaptation to Spanish, it was translated in 1994 by Bas and Andrés, with an internal consistency of 0.83 (Vázquez y Sanz, 1997).

WHO Brief Quality of Life Assessment Instrument (WHOQOL-BREF)

Created in 1993 by WHOQOL Group, it is an instrument consisting of 26 items, generating a quality of life profile that is divided into four dimensions: health physical, psychological health, social relationships and environment. The WHOQOLBREF focuses on degrees of satisfaction that the person has in various daily situations, where each question has 5 possible answers that score between 1 and 5.

Its completion is also self-administered, interpreting the higher the score, the better the subjective quality of life. Its Spanish version was created by Lucas Carrasco in 1998, obtaining an internal consistency of between 0.69 and 0.90 between the various areas (Lucas-Carrasco, 1998).

Procedure

This work presents a pilot study in which an experimental design has been used, with random assignment of the sample subjects to the control and experimental groups (each with n = 13), and with a comparative analysis between pre-test and post-test scores for checking the differences between the two moments.

First, a meeting was held with the team of professionals from the CRPS of Torrelavega, in order to explain the research project and objectives, determining, together with one of the expert professionals in mindfulness, the user profile that could benefit the most of a workshop of these characteristics.

The agenda of both groups (control and experimental) was organized, and it was concluded that for 4 Fridays of each week, the mindfulness workshop would be carried out at the relaxation time established by the center for the experimental group. On the other hand, the control group continued with the usual treatment established by the center, which included the following programs: psychoeducation, cognitive stimulation, health education, personal development and social skills. Therefore, the control group followed the TAU procedure (treatment as usual), the only difference between both groups being that the patients in the experimental group received mindfulness training in addition to the groups mentioned for the control subjects. Prior to the application of the mindfulness program, all the necessary tests for the pre-test measurements of the research were passed to both groups, repeating the evaluation 4 weeks later after the training was finished.

At the workshop presentation, users were informed about the nature of the research, where a study of the mindfulness technique applied to mental illness was going to be carried out, emphasizing the issue of confidentiality. After resolving doubts, the participants were given four documents to be completed: an informed consent for participation in the study, and the 3 instruments previously discussed: STAI, BDI and WHOQOL-BREF. The documents were administered in the presence of the author, in order to resolve possible doubts that might arise from the participants. At all times there was knowledge and consent for the use of data for research purposes. During the implementation of the program, a short explanation about what mindfulness was offered before each practice, and at the end of each session, personal experiences during the practice were asked.

The objective pursued in adapting the program was both to reduce the anxiety and depression of CRPS users and to improve their quality of life. The idea was to create 4 workshops, where each session presented the same structure, composed of: an analytical meditation part, where the theoretical part of meditation is explained; another practical part, where short mindfulness practices are developed; a space for the inquiry or sharing of the experiences lived during the practices and work proposals for home. This structure was devised based on the Dalai Lama's The Art of Compassion book (Dalai Lama, 1999) and the mindfulness-based stress reduction program (Stahl, Goldstein, Kabat-Zinn & Santorelli, 2010). The change in routine of the usual programs established in the CRPS, as well as the constant demand of the program to carry out individual daily practices at home, led to the solution of reducing the program from 8 to 4 weeks, in order to observe if after a small approach to mindfulness, which did not exhaust users, showed improvements in the variables.

The sessions were designed to last the 50 minutes corresponding to each regular program session held at the center, where users, in addition to receiving the content of the workshop, had time and space to dialogue, resolve doubts, and share their own experiences. The final number of face-to-face sessions was 4, however, during the week the users had to put into practice what they had learned in the program individually at home.

The two practices that took place in the first workshop were the raisin meditation (taken from the first MBSR session) (Stahl et al., 2010), and a 5-minute guided meditation. The raisin meditation consists of giving each user two raisins, of which the first is asked to eat as the person normally performs this action, and the second raisin is eaten with full attention. In this way, the sensations that it generates in the five senses are explored. For example, the touch of the raisin in the hand, the smell, the sound it generates when it is pressed lightly, the sight when seeing the raisin against the light, and finally the taste, the sensation when the raisin is put in the mouth conscientiously chewing and swallowing, etc. At the end of this practice, the group discussed their experiences and this simple activity was extrapolated to daily life .

As for the second meditation, it was guided by the author of this study. A state of relaxation was generated, the mind and body calmed down, and the user was mentally transported to a safe mental place of peace and tranquility. This served as an introduction to the meditative practice, which lasted around 5 minutes. The homework was twofold: perform informal meditation every day, that is, pay attention and awareness to at least one daily activity (for example, showering, eating, walking, etc.), and establishing a meditative state formal by closing the eyes and transporting to the mental state of peace and tranquility generated during the second practice (Bowen et al., 2018).

In the following sessions, the structure of a part of analytical (theoretical) meditation was followed by another practical part, sharing and work proposals for home. In the last 3 sessions, special emphasis was placed on the importance of performing a daily body scan at home, this being a type of meditation that focuses attention on the journey of the different parts of the body, making a review of it, giving an account of what happens at a specific moment, in a specific area of the body. This allows us to consider the body as a key place to teach us to relate differently to experience. The objectives pursued by each session and each internship proposal for home were, in the first place, to make the users aware of the characteristics of the autopilot, this being a problem when it becomes a constant way of working, thus preventing disconnecting it in moments that require all of our focused attention.

If thoughts rule the mind, it creates a vicious circle flooded with self-criticism anchored in the past, which does not allow us to move forward into the future, thus attracting feelings of anguish and depression. Second, learn to be present in the experience and make sense of it, since staying in the moment promotes progress, as well as improving the ability to concentrate, keeping distractions away.

Likewise, it was also intended to achieve a more effective management of thoughts and emotions, since mindfulness helps to improve self-awareness, and therefore, self-knowledge, thus increasing the recognition of both one's own and others' emotions, resulting in a progression of inter and intrapersonal relationships. In short, enhance emotional intelligence, with the intention that it results in preventing symptoms of anxiety, depression and a better subjective view of quality of life. Finally, practicing mindfulness in each session and individually, helps to combat stress and anxiety, since it invites to be in a state of serenity, calm and mental clarity that reduces and helps to detect the responses of anxiety and stress in its early stages.

Analysis of data

To know the characteristics of the sample, the following descriptive statistics were used: frequencies for qualitative variables (gender and main diagnosis) and mean and standard deviation for quantitative variables (age and pretreatment clinical variables). Chi square was used to assess whether there were differences between the experimental and control groups in the variables gender and main diagnosis. Possible differences in age and clinical variables were analyzed with Student's t test for independent samples.

On the other hand, to know if there were significant differences related to the application of the mindfulness program in the variables evaluated, the analysis of variance with repeated measures (ANOVA) with an intra-subject factor (pre- and post-treatment measures) and a factor between subjects (experimental vs control groups).

Statistical analysis was performed with the JASP program.

Results

The total sample of the study consisted of 26 users of the Torrelavega Psychosocial Rehabilitation Center, 13 in each group (experimental group and control group). Most of the subjects were women (61.5%), with a mean age of 43.8 years, and whose most frequent main diagnosis was schizophrenia (57.7%). The sociodemographic and clinical characteristics of each group, as well as the comparison between the two, are detailed in Table 1. As can be seen in the table, there were no statistically significant differences in any of the variables evaluated.

The results of the repeated measures ANOVA showed that there was a significant group * time interaction both in the depression variable [F (1) = 7.60, p = 0.01, ηp. 2 = 0.24], as in the anxiety / trait variable [F (1) = 5.41, p = 0.02, ηp. 2 = 0.24]. The more detailed analysis of the scores, both of the BDI and the STAI (trait), reflected that in the experimental group there was a decrease between the pre- and post-treatment scores, while the opposite trend was observed in the control group. No main effect was observed in any of these variables, neither for the group factor nor for the time factor. In the rest of the variables: anxiety-state and quality of life, no significant difference was obtained as a function of the group, time factors or in the group * time interaction. Results are shown in table 2.

Table 1
Sociodemographic and clinical characteristics of the users.

Characteristics	**Control group (n = 13)**	**Experimental group (n = 13)**	**Statistical**
Age	42.69 ± 10.53	44.77 ± 11.01	$t = 0.49$*
Gender			
Woman	9 (69.23%)	7 (53.85%)	$X^2 = 0.65$*
Men	4 (30.77%)	6 (46.15%)	
Principal diagnostic			
Unspecified schizophrenia	7 (53.8%)	8 (61.5%)	$X^2 = 6.40$*
Paranoid schizophrenia	2 (15.4%)	0 (0%)	
Schizoaffective disorder	0 (0%)	2 (15.4%)	
Borderline personality disorder	1 (7.7%)	2 (15.4%)	
Bipolar disorder	2 (15.4%)	0 (0%)	
Major depressive disorder	1 (7.7%)	1 (7.7%)	
Clinical variables			*t*
Anxiety-State	56.85 ± 33.50	69.77 ± 28.30	0.29*
Anxiety-Trait	59.77 ± 33.42	72.69 ± 30.72	0.31*
Depression	11.92 ± 10.35	19.62 ± 14.18	0.13*

Quality of life	2.96 ± 0.74	2.57 ± 0.64	0.17*

Note: * $p > 0.05$

Table 2
Results of repeated measures ANOVA for clinical variables.

Variables[1]	**Control group**	**Experimental group**	**Group factor**	**Time factor**	**Time * Group**
Anxiety					
Condition	68.54 ± 26.79	60 ± 30.61	$F = 0.28$	$F = 2.25$	$F = 2.25$
Feature	71 ± 29.30	69.77 ± 31.79	$F = 0.04$	$F = 0.18$	$F = 5.41$*
Depression	14.31 ± 11.28	15.69 ± 13.43	$F = 0.92$	$F = 0.45$	$F = 7.60$*
Quality of life	2.96 ± 0.87	2.79 ± 0.59	$F = 1.05$	$F = 3.16$	$F = 2.74$

Note: [1] Post-treatment scores for each of the variables
* $p < 0.05$

Discussion and Conclusions

The objective of this study was to verify the effectiveness of a Mindfulness program adapted for mental illness, which had the purpose of improving the levels of anxiety, depression and quality of life, of the users of the Torrelavega Rehabilitation Center.

The results show the effectiveness of the Mindfulness program to reduce the symptoms of depression, since the experimental group reduces its score to 15.69, equivalent to the results reported by other studies that used a similar intervention. On the other hand, the control group increased its score in the post-test measure in this variable, which, like the experimental group, was in a situation of mild depression. A meta-analysis carried out in 2012, which studied 39 investigations, confirmed like this pilot study, that interventions based on mindfulness are effective in alleviating depressive symptoms in adults with mental disorders (Klainin-Yobas, Cho y Creedy, 2012). The increase in scores of the control group in the post-test measure, which places it in a worse category than the one obtained at the initial moment, could be due to the situation caused by COVID-19, which generated great discomfort in users, thus as feelings of hopelessness, linked to the lack of tools compared to the experimental group, in this case of mindfulness techniques.

On the other hand, regarding the anxiety variable, there are two different results if the measures of anxiety / state are compared on the one hand, and anxiety / trait on the other. As for the state anxiety variable, there are no statistically significant differences, which varies if we talk about the trait anxiety variable. However, the table reflects that the improvement in the experimental group is minimal, and that the worsening of the control group is important in terms of the pre-post measure, these falling considerably in the second measurement, which warns that the significance after statistical analysis corresponds to this second assessment. On the other hand, despite the fact that there were no notable improvements on the part of the experimental group, it did not worsen either, which could be explained because mindfulness seems to be able to at least contain the increase in anxiety in the experimental group at a time of pandemic such as is the current

one. However, the control group, having the lack of tools provided by the program for anxiety management, was able to increase its levels due to this pandemic situation generated by COVID-19 in the center with the strictest changes generated in the dates of the investigation, after a calmer summer.

Reviewing the studies studied prior to the creation of this program, it is found that in most cases, mindfulness shows improvements in people with anxiety symptoms (Hodann-Caudevilla y Serrano-Pintado, 2016). However, despite the fact that this study does not support these results, it supports those who recommend the need to practice mindfulness to control anxiety in times of a COVID-19 pandemic (Sánchez y Águila, 2020), as they confirm that learning to Having regular meditation helps to accept fears, circumstances and thoughts in this period of life, which, like others, has shown a constant change that will also pass (Behan, 2020).

Finally, the results show that there were no significant changes in the quality of life variable either. The experimental group obtained similar scores in both measures, 2.6 in pre-test and 2.8 in post-test; that is to say, that subjectivity in terms of quality of life is simply raised very slightly. In the interpretation of the test, it is found that a score of 2 to 3 means little satisfied with their quality of life, reaching a maximum score that would be 5. In short, both in the first and in the second measurement, the users were Not very satisfied with their quality of life, not having shown significant changes in this variable after the mindfulness intervention, in the same way as the control group.

These results are not congruent with the findings found in other investigations, which confirm the improvement in the quality of life after practicing mindfulness (Roemer y Orsillo, 2007). However, it should be noted that having shortened the program to 4 weeks may have had its consequences in terms of finding significant changes.

In conclusion, based on the results obtained in this study, it is concluded that the program adapted for mental illness based on Mindfulness for users of the Padre Menni Psychosocial Rehabilitation Center in Torrelavega, has only had significant effects on the depression variable, not this being the case in the anxiety and quality of life variables after making a statistical comparison in the pre-test and post-test measurements.

Regarding its application, it is worth highlighting the limitations of the research, since the sample was small and the program was developed in a short time (4 weeks). It can be deduced that it would have probably been more effective if it had been carried out as Kabat-Zinn, its author, proposes, with a duration of 8 sessions, instead of 4, and 3 hours per week with an intensive day during the week 6 and 7.

On the other hand, there is the variability of the sample, since the users have different main disorders, and there may be comorbidity and influence with the measures of anxiety, depression and quality of life .

Regarding the monitoring of daily practice, the participants mentioned in each session their completion of tasks proposed for home, where only a few handed in the registration sheets that were provided, with which it can be deduced that a large percentage of users he did not exercise what he had learned in the different sessions of the program.

As future lines of research, in the first place, it is important to highlight the importance of expanding the sample and not cutting the program in terms of the time in which it is developed.

In addition, after the results found in terms of the variables state anxiety and trait anxiety, it would be important to have a greater impact on intervening the anxiety of the "right now", while still giving importance in turn to "general" anxiety. On the other hand, it would have been interesting to study the real reason why the changes for the worse in the anxiety and depression variables of the control group in the post-test measurement, as

well as to find an explanation for why these changes have not affected their subjective quality of life.

Therefore, after results it is affirmed that the mindfulness-based intervention program has not met the needs raised as the main objective of the research, which would improve the levels of anxiety, depression and quality of life of the participating users after the program.

In the face of new research on this line, it would be essential to influence the verification of the daily practice of mindfulness, since it is essential to train the brain, thus looking for existing differences in longitudinal designs, studying the effectiveness once more than several months have passed, having already acquired a habit of practice.

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