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ORIGINAL PAPER

Brief Mindfulness Therapy and Mental Health in People Exposed to a Recent Stressful Event: A Study of Multiple Cases with Follow-Up

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Abstract

Stressful events have important consequences for mental health, among the most frequent are posttraumatic and depressive symptoms. Brief mindfulness-based interventions are currently of great research interest as preventive interventions. In this sense, the objective of this research was to evaluate the effectiveness of a four-sessions mindfulness program in reducing posttraumatic and depressive symptoms, in people that have been exposed to a recent stressful event. A mixed qualitative-quantitative design was used. Qualitatively, a phenomenological method was used. On the other hand, an A-B type intra-subject case study was carried out with pre-intervention, post-intervention and follow-up measurements. Four patients and four therapists participated, semi-structured interviews were used, complemented by measurement scales to evaluate posttraumatic and depressive symptoms, posttraumatic growth and satisfaction with life. A decrease tendency in depressive and posttraumatic symptoms and an increase tendency in posttraumatic growth and life satisfaction were observed. After the intervention, patients said that they felt gratified and better prepared for daily life. They developed a strong therapeutic alliance, and quantitative indicators of positive change were present.

Keywords Posttraumatic symptoms · Depressive symptoms · Subjective wellbeing · Posttraumatic growth · Therapeutic alliance

Introduction

Stressful events are changes in the individual's history of life that require an important adaptation effort (Sutin et al. 2010). Available studies inform that around 82% to 90% of the general population have been exposed to some kind of highly stressful event at some point in their lives (Powers et al. 2010).

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Some of the most frequent consequences for the mental health after a stressful event are the posttraumatic symptoms and the depressive symptoms (Breslau 2002; Creamer et al 2005). Although the evidence shows that some people develop disorders, they are also able to learn and benefit from such experiences. This has been called posttraumatic growth (Tedeschi and Calhoun 1996). The maintenance of personal well-being or the development of posttraumatic growth after a stressful event has been less studied than its psychopathological alternatives. Even more scarce are the studies that have taken these factors as change indicators after psychotherapeutic interventions, since most studies have focused mainly on reducing symptomatology.

In this way, most of the proposed interventions have a corrective or curative objective (i.e. Agorastos et al. 2011), in other words, they are applied when the people affected already show advanced symptomatology or a psychopathological diagnosis. In comparison, preventive interventions are scarce (García and Rincón 2011), which is not a good sign since there is evidence that interventions focused on developing useful resources or skills have a beneficial effect in preventing distress in people exposed to a recent stressful

event. Among these interventions, it is possible to find those derived from mindfulness (Boe and Hagen 2015).

Several studies have found that mindfulness-based programs are effective treatments for depression, stress, anxiety and adaptation disorders, and its implementation costs less than behavioral cognitive therapy, with no significant differences between their efficacies (Kabat-Zinn; 2003; Waszczuk et al. 2015). Furthermore, mindfulness treatments can be better than non-evidence based treatments or active control groups (Hofmann and Gómez 2017),

Even though the original proposals based on mindfulness are medium-term interventions, Demarzo et al. (2017) did not find significant differences between a standard eight-week mindfulness intervention program and a four-week abbreviated protocol, reporting a similar efficacy for a non-clinical population. Thus, in the last years, there has been an important increase in researches that describe abbreviated mindfulness interventions focused on prevention. They vary from single session instructions to training programs lasting up to four weeks (Cerna et al. 2020; Schroeder et al. 2018). This way, mindfulness appears as a promising intervention in mental health and primary care, so is necessary to make further researches and review the constant outcomes of its application (Demarzo et al. 2015a, b).

Abbreviated mindfulness intervention programs have shown the ability to prevent posttraumatic symptoms in different populations (e.g., Brintz et al. 2020; Goldberg et al. 2020). Furthermore, briefer mindfulness protocols have promoted positive effects in reducing depressive symptoms in nonclinical population (Cerna et al. 2020; Demarzo et al. 2015a, b; Demarzo et al. 2017).

Therefore, the objective of this research was to evaluate the effectiveness of an individual four-session mindfulness brief intervention program, in the reduction of posttraumatic and depressive symptoms in people that have been exposed to a recent stressful event. This evaluation would allow us to identify strengths and limitations of our protocol, and create a better format for a larger further study.

Method

Design

This study follows a qualitative-quantitative mixed design. Regarding the qualitative aspect, a phenomenological method was used in order to get close to the individual perceptions and experiences of therapists and patients (Martínez 2000). Quantitatively, an A-B type intra-subject case study was carried out, with pre-intervention, post-intervention and three-month follow up measurements (Barlow and Hersen 1988).

Participants

A total of four patients between 22 and 28 years old participated. All of them are college students that experienced a stressful event during the last three months, and had not attended to any kind of therapy during this time: Patient 1 (Y1) experienced a Car accident, Patient 2 (Y2) experienced a Break up, Patient 3 (Y3) experienced a Mourning for a loved one, and Patient 4 (Y4) experienced a Break up. Also, none of them were married, and only one of the patients was living in the same house with his/her loved one at the moment this study was carried out.

On the other hand, four psychologists with experience in clinical intervention worked as therapist in this study. As well as the patients, there were three female and one male, in this case, between 33 and 40 years old. They participated in an eight-hour training for the application of the protocol.

Instruments and Data Collection Techniques

Depressive Symptoms

The Center for Epidemiological Studies (CES-D) Depression Scale (CES-D; Radloff 1977; adapted to Spanish by Gempp et al. 2004) was used. It has 20 items, which takes into account the state of the person who answers during the last week. It has a Likert-type answer format that range from 0 (rarely) to 3 (most of the time). In Chilean population exposed to a HSE, it has shown high levels of internal consistency $\alpha = 0.91$ (García et al. 2018).

Posttraumatic Symptoms

The SPRINT-E Scale (Norris et al. 2008; adapted to Spanish by Leiva-Bianchi and Gallardo 2013) was used. It has 12 questions to be answered using a Likert scale from 0 (none) to 3 (much). It shows a suitable psychometric behavior and an internal consistency of $\alpha = 0.92$ in Chilean population exposed to an earthquake (Leiva-Bianchi and Gallardo 2013).

Subjective Wellbeing

It was measured using the Vital Satisfaction Scale (SWLS; Diener et al. 1985; adapted to Spanish by Arias and García 2018). It has five Likert-type items, which range from 1 (totally disagree) to 7 (totally agree). In Spanish-speaking population, Arias and García (2018) found positive validity indicators and an internal consistency of $\alpha = 0.81$.

Posttraumatic Growth

The Posttraumatic Growth Inventory, short form (PTGI-SF; Cann et al. 2010; adapted to Spanish by García and Wlodarczyk 2015) was used. It consists of 10 items, answered using a six-choice Likert scale from 0 (no change) to 5 (a very important change). In García and Wlodarczyk' study (2015), an $\alpha = 0.94$ was obtained.

Therapeutic Alliance

The Session Rating Scale (SRS; Duncan et al. 2003; adapted to Spanish by Elgueta and Fantuzzi 2008) was used. It consist of four items related to different subjects: the bond between patient and therapists; objectives and topics of the therapy; therapist approach; and global impression of the session. The scale has polarized statements about each of these items (e.g., "I didn't feel heard, understood, respected" "I felt heard, understood, respected") located at the ends of an analog horizontal line scored from 1 to 10. The patient makes a mark closer to one of these statements to indicate how he/she evaluates this aspect. It was applied after each session and collected in a sealed envelope, thus, the answer was not biased by the presence of the therapist.

Positive indicators of validity have been observed in Chilean population (Elgueta and Fantuzzi 2008).

Semi-structured Interview

This interview was used to inquire into the patients' and therapists' perceptions in relation to the protocol once the intervention was completed. Patients were subject to an individual interview that included questions, such as: "could you tell me how the first session was?", "how useful was this intervention for you?", "what suggestions can you give us to improve the intervention?" Therapists were subject to a group interview that included questions, such as: "can you describe in your own words hoy did you apply the protocol?", "Which feelings did arise during the application of the protocol?", "What is your opinion about the protocol?".

Intervention

A weekly, four-session mindfulness protocol was designed. Each session was sixty minutes long and the protocol was individually applied. This protocol was created based on the Mindfulness Based Stress Reduction (MBSR; Kabat-Zinn 1982, 2003), which traditionally has eight sessions. Hence, this study was based on an adaptation similar to abbreviated mindfulness interventions used in other researches and that have shown efficacy in decreasing stress (Pigeon et al. 2015). A complete format of the protocol can be accessed with the corresponding author of this study.

Procedure

To create the intervention protocol, a thorough review of the available literature was done to examine brief preventive mindfulness interventions that had aimed to the reduction of posttraumatic and depressive symptoms in population exposed to some stressful event (Bruna et al. 2019). From this review, interventions were taken and organized to be included in the mindfulness four-session individual treatment protocol.

Therapists with previous training in mindfulness, were trained in the application of this protocol, which also included the personal practice of yoga and mindfulness exercises.

The selection of patients was done through convenience sampling (Martín-Crespo and Salamanca 2007) and they were referred from university psychological assistance centers. Therapists conducting the study did not have contact with participants prior to the study commencing.

Measurement instruments were applied one week before, one week after and three months after the intervention. Interviews were carried out within the first week after the end of interventions.

Patients were interviewed individually, while the four therapists were interviewed in a single meeting. Interviews were audio-recorded. There were four individual interviews, whose average duration was 27 min and a group interview of 67 min. The guide used was from a semi-structured interview, which was organized by themes that allowed the introduction of additional questions to precise concepts or obtain further information about certain desired topics (Hernández et al. 2003).

Afterwards, the respective interviews were transcribed in order to carry out the thematic analysis process.

Data Analysis

Qualitative data were analyzed through the thematic analysis technique, which mainly consisted of splitting the texts in units of meaning (González and Cano 2010), which were subsequently grouped according to the analogy principle. This analysis process was organized in the following steps: (1) identification of analysis units in the discourse, (2) creation of emerging categories, (3) elaboration of a codification scheme, (4) identification of dimensions and patterns in the discourse of interviewed patients and therapists, (5) text analysis of group and individual interviews. For carrying out this analysis, the QSR International Nvivo 12 Qualitative Data Analysis Software (QSR International 2018) was used.

For the quantitative data, a descriptive analysis was done, identifying the means and standard deviation of the variables. For the therapeutic alliance scale, a simple addition of the scores obtained for each item was done and in total

for all the sessions. To do that, the statistics program SPSS 21.0 (IBM Corp 2011) was used. No inferential analyses were carried out due to the size of the sample.

Results

Qualitative Analysis

The identified themes that recurrently appeared were grouped in the five categories (listed from 1 to 5). Representative extracts/fragments from the interviews that illustrate the meaning of the emerged themes can be accessed with the corresponding author of this study.

Patients and Therapists Experiences in Relation to Intervention Sessions

Despite the little to none knowledge about "mindfulness" in the beginning, patients stated that their participation was gratifying, rewarding and allowed them to find a sense in situations they were experiencing. In general, they remarked that the intervention allowed them to visualize new perspectives and new meanings of the stressful event that they had lived, allowing them to recover from this event.

In therapist case, some of them considered that the protocol activities were “strange” for a standard individual psychological intervention, because the approach was not similar to those they were used to apply in other contexts, but in the end, they thanked the usefulness of every content being presented in a coherent and measured manner.

Patients and Therapists Perceptions Regarding the Usefulness of the Intervention

Intervention Activities Patients indicated as main utility, the possibility to perform these activities or exercises in their daily lives. According to that, the utility of conscious breathing and thought analysis exercises was remarked, because it made patients focus their attention on the present, allowing them to be aware that negative memories belong to the past, thus reducing anxiety. Patients and therapists also remarked the utility of mindfulness principles, such as the non-judgment and the beginner’s mind, which allowed them to address the present experiences differently and open to other new ones.

Intervention Homework Patients indicated that mindfulness techniques included in the homework provided session by session, were useful tools, easy to incorporate in daily routine, which allowed them reducing daily stress and anxiety. This improved and extended the effect of the weekly interventions. Therapists also shared this opinion.

Perception of Facilitating Elements During the Sessions

Therapeutic Alliance Patients mentioned that achieving a good connection with their therapist made the exercises performed during the sessions a lot easier. Patients also stated that therapists efforts motivated them, which made easier to do the exercises at home.

Innovations by Therapists Some therapists decided to make yoga exercises together with their patient, which strengthen the bond and raised the confidence, according to both parts involved. Therapists also innovate adding time for feedback in regards to the exercises and/or to talk about other issues.

Perception of Barriers During the Sessions

Activities During the first session, some patients experienced difficulties to perform the exercises because they were unable to fully concentrate on therapist instructions, instead of rambling in thoughts external to the activity. Also, in one case, there was a problem during a raisins-eating exercise because one patient didn’t like raisin. On their part, therapists had difficulties to correctly explain the yoga exercises to their patient, and some of them considered that the times assigned were not enough to completely finish some activities.

Homework Between Sessions According to patients, main difficulties to finish their homework were the lack of time, and the loss of concentration due to different factors, including the thought that came to their mind during the exercises. Also, a lack of clarity in the instruction provided to patients could have interfered in the right development of the tasks.

Structure A common observation made by therapists was that some sessions incorporated too many activities. They also stated that, in general, patients wanted to comment the lived experience after the exercise, but since this instruction, known as “inquiry” in mindfulness protocols, was not literally indicated in the protocol, they tended to cut these efforts.

Place Characteristics The presence of room noise during the sessions impeded and/or made difficult for the patients to properly concentrate on the exercises.

Patients and Therapists Suggestions to Improve the Intervention Protocol

Intervention Sessions Many patients expected that the intervention addressed the stressful event they had lived.

Therapists suggested to incorporate moments to reflect and/or talk about the exercises or to monitor the experience of the patient.

Activities Patients suggest that therapists should do the exercises together with them to exemplify the correct execution as well as to increase patient confidence.

Homework Patients and therapists stated that it would be a good idea to have printed material including the specifications of mindfulness principles, as well as the instructions for each homework, as a way to reinforce what is learned during the sessions.

Quantitative Analysis

An evaluation of the four dependent variables of the study, before and after the intervention, and in the follow-up three months later, was carried out. The results are shown in Table 1.

For raw data, reduction in depressive and posttraumatic symptoms is observed, as well as an increase in posttraumatic growth and satisfaction with life between pre and post evaluation. Then a new decrease is observed in the scores of depressive and posttraumatic symptoms in the follow up. Whereas, posttraumatic growth and satisfaction with life decrease in the follow up, although at higher values than the pre-intervention value.

In the evaluation of therapeutic alliance, the SRS scores obtained a mean of 9.64 per session ($SD = 0.16$; range = 1 to 10).

Discussion

As much as we know, this study is the first to explore the experience of patients and therapists during the application of an abbreviated and individual mindfulness intervention protocol, to treat stressful-event associated symptomatology. Although at the beginning some participants were skeptical about the intervention model, at the end of the process they felt and improvement in their mental state, favored by the emotional bond established with their therapist. This bond is of critical importance for the compliance of the objectives of a mindfulness based intervention (Araya-Veliz and Porter 2017), and the high SRS scores obtained reaffirm this conclusion.

The verbalization of positive changes at the end of the process is complemented with quantitative data that indicate a decrease tendency posttraumatic and depressive symptoms, which is pertinent considering that these are the two most frequent mental health problems after living a stressful event (Bonanno 2004; Van der Kolk 2003). On the other hand, the increase in posttraumatic growth and satisfaction with life, is explainable by the learning of techniques that are useful in daily life, which is essential to maintain a good mental health in the face of a stressful event (Boe and Hagen 2015).

The reduction in depressive symptoms coincides with literature in regard to the significant effect of mindfulness in depression and relapses (Piet and Hougaard 2011; Hofmann et al. 2010), probably due to its contribution to modify erroneous cognitive processes and improve emotional processing (Compare et al. 2014; Paul et al. 2013). This effect has also been observed in mindfulness brief intervention protocols (Demarzo et al. 2017).

Regarding posttraumatic symptoms, our results agree with what is established in literature about the usefulness of brief mindfulness for the reduction and prevention of stress (Possemato et al. 2016; Pigeon et al. 2015). It's probable that mindfulness facilitate a conscious reevaluation of a stressful experience, allowing to give it a new meaning and properly regulate emotions and thoughts, like a type of metacognition (Tedeschi and Blevins 2015).

Furthermore, patients and therapists considered that the most useful aspects of the protocol were the possibility to apply the exercises in daily life, as well as knowing the principles of mindfulness and a proper therapeutic alliance. It has been evidenced that the most useful exercises for the patients are those encouraging the informal practice of mindfulness, making it a habit. This constant practice is what will maintain the efficacy over time (Kabat-Zinn 2003).

In regard to the difficulties experienced by patients and therapists, they are mainly based on problems to properly perform the exercises proposed in the protocol, and a lack of personal time to finish homework. Anyways, in a brief protocol, it is possible to re-structure the homework and leave out

Table 1 Descriptive statistics of the variables for each stage evaluated

Variables	Pre-intervention		Post-intervention		Follow up	
	M	*SD*	*M*	*SD*	*M*	*SD*
Posttraumatic symptoms	19.50	5.00	16.75	8.54	12.25	13.18
Depressive symptoms	31.75	12.73	24.50	19.98	23.00	20.98
Posttraumatic growth	24.25	10.94	27.50	9.40	26.75	15.37
Satisfaction with life	19.75	5.32	23.50	7.51	21.00	8.29

some exercises during sessions, as some authors has done (Demarzo et al. 2017).

It is also necessary to include spaces for discussion and exploration of the experience after each exercise (known as "inquiry" or "dialogue") and written instructions that patients can take home to perform the homework. It also seems necessary to include more conversation spaces to explore particular aspects of the stressful event, which seems essential not only as a form of emotional ventilation, but also to consolidate an adequate therapeutic relationship, which would be a element to be included in future protocols, similar as how is done in Cognitive Therapy Based on Mindfulness (Hofmann and Gómez 2017).

About the limitations, we can mention the type of study and the small size of the sample, which led to a limited number of patients and therapists appraisals and comments. There was no control group that allowed the comparison of results. For these reasons, quantitative data do not allow conclusions to be drawn about the effectiveness of the protocol. Another limitation is that at least two of the participants have faced stressful rather than traumatic events, so the use of terms such as posttraumatic symptoms or posttraumatic growth can be misleading, since what they present is rather distress or post-stress growth. Although we choose to keep the variable measured by the respective instruments as name, its scope must be interpreted with care. The aim of this study was to evaluate the acceptability of the protocol to allow its application in a bigger group in a future experimental study. In that sense, despite the limitations, this study reached its objective.

In conclusion, we can say that our protocol generated positive appraisals in patients and therapists, allowing the development of a suitable therapeutic alliance, with quantitative indicators of positive change. Specifically, a decrease tendency in depressive and posttraumatic symptoms and an increase tendency in posttraumatic growth and satisfaction with life were observed. Furthermore, it was possible to determine some changes in the protocol, and once modified, we believe it would be ready to be applied in future controlled studies.

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical Approval The study was approved by the Scientific Ethics Committee of the Universidad Santo Tomás, Chile, Resolution No. 30/2018.

Informed Consent Informed consent was obtained from all participants.

References

Agorastos, A., Marmar, C., & Otte, C. (2011). Immediate and early behavioral interventions for the prevention of acute and posttraumatic stress disorder. *Current Opinion in Psychiatry, 24*(6), 526–532. https://doi.org/10.1097/YCO.0b013e32834cdde2.

Araya-Véliz, C., & Porter, B. (2017). Habilidades del terapeuta y mindfulness [Therapeutic skills and mindfulness]. *Revista Argentina de Clínica Psicológica, 26*(2), 232–240. https://doi.org/10.24205/03276716.2017.1014.

Arias, P., & García, F. (2018). Propiedades psicométricas de la Escala de Satisfacción con la Vida en población ecuatoriana adulta [Psychometric properties of the satisfaction with life scale in the adult ecuadorian population]. *Pensamiento Psicológico, 16*(2), 21–29. https://doi.org/10.11144/Javerianacali.PPSI16-2.ppes.

Barlow, D., & Hersen, M. (1988). *Diseños experimentales de caso único [Single-case experimental designs]*. Barcelona: Martínez Roca.

Boe, O., & Hagen, K. (2015). Using mindfulness to reduce the perception of stress during an acute stressful situation. *Procedia: Social and Behavioral Sciences, 197,* 858–868. https://doi.org/10.1016/j.sbspro.2015.07.262.

Bonanno, G. (2004). Loss, Trauma and Human Resilience: Have we underestimated the human capacity of thrive after extremely aversive events? *American Psychologist, 59*(1), 20–28. https://doi.org/10.1037/0003-066X.59.1.20.

Breslau, N. (2002). Epidemiologic studies of trauma, posttraumatic stress disorder, and other psychiatric disorders. *Canadian Journal of Psychiatry, 47,* 923–929. https://doi.org/10.1177/070674370204701003.

Brintz, C. E., Roth, I., Faurot, K., Rao, S., & Gaylord, S. A. (2020). Feasibility and acceptability of an abbreviated, four-week mindfulness program for chronic pain management. *Pain Medicine*. https://doi.org/10.1093/pm/pnaa208.

Bruna, B., García, F., Rincón, P., Aravena, V., & Rivera, C. (2019). Intervenciones breves basadas en mindfulness para el tratamiento preventivo del estrés: Una revisión sistemática [Mindfulness-based brief interventions for preventive treatment of stress: A systematic review]. *Revista Argentina de Clínica Psicológica, 28*(5), 832–842. https://doi.org/10.24205/03276716.2019.1112.

Cann, A., Calhoun, L., Tedeschi, R., Taku, K., Vishnevsky, T., Triplett, K., & Danhauer, S. (2010). A short form of the Posttraumatic Growth Inventory. *Anxiety, Stress, & Coping, 23*(2), 127–137. https://doi.org/10.1080/10615800903094273.

Cerna, C., García, F., & Tellez, A. (2020). Brief Mindfulness, mental health, and cognitive processes: A randomized controlled trial. *PsyCh Journal., 9*(3), 359–369. https://doi.org/10.1002/pchj.325.

Compare, A., Zarbo, C., Shonin, E., Van Gordon, W., & Marconi, C. (2014). Emotional regulation and depression: A potential mediator between heart and mind. *Cardiovascular Psychiatry and Neurology*. https://doi.org/10.1155/2014/324374.

Creamer, M., McFarlane, A. C., & Burgess, P. (2005). Psychopathology following trauma: The role of subjective experience. *Journal of Anxiety Disorders, 86,* 175–182. https://doi.org/10.1016/j.jad.2005.01.015.

Demarzo, M., Cebolla, A., & García-Campayo, J. (2015a). The implementation of mindfulness in healthcare systems: A theoretical analysis. *General Hospital Psychiatry, 37*(2), 166–171. https://doi.org/10.1016/j.genhosppsych.2014.11.013.

Demarzo, M., Montero-Marin, J., Cuijpers, P., Zabaleta-del-Olmo, E., Mahtani, K. R., Vellinga, A., & García-Campayo, J. (2015b). The efficacy of Mindfulness-Based Interventions in primary care: A meta analytic review. *Annals of Family Medicine, 13*(6), 575–582. https://doi.org/10.1370/afm.1863.

Demarzo, M., Montero-Marin, J., Puebla-Guedea, M., Navarro-Gil, M., Herrera-Mercadal, P., Moreno-González, S., & García-Campayo, J. (2017). Efficacy of 8 and 4 session Mindfulness-Based Interventions in a non-clinical population: A controlled study. *Frontiers in Psychology, 8,* 1–12. https://doi.org/10.3389/fpsyg.2017.01343.

Diener, E., Emmps, R., Larsen, R., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*(1), 71–75. https://doi.org/10.1207/s15327752jpa4901_13.

Duncan, B., Miller, S., Sparks, J., Claud, D., Reynolds, L., Brown, J., & Johnson, L. (2003). The Session Rating Scale: Preliminary psychometric properties of a "working" alliance measure. *Journal of Brief Therapy, 3*(1), 3–12.

Elgueta, P. & Fantuzzi, F. (2008). *Traducción y validación chilena de la encuesta de sesión (SRS) [Chilean translation and validation of the session rating scale (SRS).* (Master thesis). Universidad Gabriela Mistral, Santiago, Chile.

García, F., & Rincón, P. P. (2011). Prevención de sintomatología posttraumática en mujeres con cáncer de mama: Un modelo de intervención narrativo [Prevention of posttraumatic symptomatology in women with breast cancer: A narrative intervention model]. *Terapia Psicológica, 29*(2), 175–183. https://doi.org/10.4067/S0718-48082011000200004.

García, F., & Wlodarczyk, A. (2015). Psychometric properties of the Posttraumatic Growth Inventory: Short Form among Chilean adults. *Journal of Loss and Trauma, 21*(4), 303–314. https://doi.org/10.1080/15325024.2015.1108788.

García, F., Cova, F., Páez, D., & Miranda, F. (2018). Brooding as moderator of depressive symptoms after a work accident: A longitudinal study. *Scandinavian Journal of Psychology, 59*(2), 236–242. https://doi.org/10.1111/sjop.12433.

Gempp, R., Avendaño, C., & Muñoz, C. (2004). Normas y punto de corte para la Escala de Depresión del Centro para Estudios Epidemiológicos (CES-D) en población juvenil chilena [Norms and cutoff point for The Center for Epidemiologic Studies Depression Scale (CES-D) in Chilean youthful population]. *Terapia Psicológica, 22*(2), 145–156.

Goldberg, S. B., Riordan, K. M., Sun, S., Kearney, D. J., & Simpson, T. L. (2020). Efficacy and acceptability of mindfulness-based interventions for military veterans: A systematic review and meta-analysis. *Journal of Psychosomatic Research, 138,* 1–10. https://doi.org/10.1016/j.jpsychores.2020.110232.

González, T., & Cano, A. (2010). Introducción al análisis de datos en investigación cualitativa: Tipos de análisis y proceso de codificación (II) [Introduction to data analysis in qualitative research: Types of analysis and coding process]. *Nure Investigación, 45*(1), 1–10.

Hernández, R., Fernández, C., & Baptista, P. (2003). *Metodología de la Investigación [Research Methodology]*. México: Mc Graw Hill.

Hofmann, S., Sawyer, A., Witt, A., & Oh, D. (2010). The effect of mindfulness-based therapy on anxiety and depression: A meta-analytic review. *Journal of Consulting and Clinical Psychology, 78*(2), 169–183. https://doi.org/10.1037/a0018555.

Hofmann, S. G., & Gómez, A. F. (2017). Mindfulness-based interventions for anxiety and depression. *Psychiatric Clinics of North America, 40*(4), 739–749. https://doi.org/10.1016/j.psc.2017.08.008.

IBM Corp. (2011). *IBM SPSS Statistics for Windows, Version 21.0*. Armonk, NY: IBM corp.

Kabat-Zinn, J. (1982). An outpatient program in behavioral medicine for chronic pain patients based on the practice of mindfulness meditation: Theoretical considerations and preliminary results. *General Hospital Psychiatry, 4*(1), 33–47. https://doi.org/10.1016/0163-8343(82)90026-3.

Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice, 10,* 144–156. https://doi.org/10.1093/clipsy/bpg016.

Leiva-Bianchi, M., & Gallardo, I. (2013). Validation of the short posttraumatic stress disorder rating interview (SPRINT-E) in a sample of people affected by F-27 Chilean earthquake and tsunami. *Anales de Psicología, 29*(2), 328–334. https://doi.org/10.6018/analesps.29.2.130681.

Martín-Crespo, M., & Salamanca, A. (2007). El muestreo en la investigación cualitativa [Qualitative research sampling]. *Nure investigación, 27*(4), 1–4.

Martínez, M. (2000). *La Investigación Cualitativa Etnográfica en Educación. Manual teórico-práctico [Ethnographic Qualitative Research in Education: Theoretical-Practical Handbook]*. México: Trillas.

Norris, F., Hamblen, J., Brown, L., & Schinka, J. (2008). Validation of the Short Posttraumatic Stress Disorder Rating Interview (expanded version, Sprint-E) as a measure of postdisaster distress and treatment need. *American Journal of Disaster Medicine, 3,* 201–212.

Paul, N., Stanton, S., Greeson, J., Smoski, M., & Wang, L. (2013). Psychological and neural mechanisms of trait Mindfulness in reducing depression vulnerability. *Social Cognitive and Affective Neuroscience, 8,* 56–64. https://doi.org/10.1093/scan/nss070.

Piet, J., & Hougaard, E. (2011). The effect of mindfulness-based cognitive therapy for prevention of relapse in recurrent major depressive disorder: A systematic review and meta-analysis. *Clinical Psychology Review, 31,* 1032–1040. https://doi.org/10.1016/j.cpr.2011.05.002.

Pigeon, W., Allen, C., Possemato, K., Bergen-Cico, D., & Treatman, S. (2015). Feasibility and acceptability of a brief mindfulness program for veterans in primary care with posttraumatic stress disorder. *Mindfulness, 6*(5), 986–995. https://doi.org/10.1007/s12671-014-0340-0.

Possemato, K., Bergen-Cico, D., Treatman, S., Allen, C., Wade, M., & Pigeon, W. (2016). A randomized clinical trial of primary care brief mindfulness training for veterans with PTSD. *Journal of Clinical Psychology, 72*(3), 179–193. https://doi.org/10.1002/jclp.22241.

Powers, M. B., Halpern, J. M., Ferenschak, M. P., Gillihan, S. J., & Foa, E. B. (2010). A meta analytic review of prolonged exposure for posttraumatic stress disorder. *Clinical Psychology Review, 30,* 635–641. https://doi.org/10.1016/j.cpr.2010.04.007.

QSR International. (2018). *Nvivo 12 qualitative data analysis software*. Melbourne: QSR International.

Radloff, L. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*(3), 385–401. https://doi.org/10.1177/014662167700100306.

Schroeder, D. A., Stephens, E., Colgan, D., Hunsinger, M., Rubin, D., & Christopher, M. S. (2018). A brief mindfulness-based intervention for primary care physicians: A pilot randomized controlled trial. *American Journal of Lifestyle Medicine, 12*(1), 83–91. https://doi.org/10.1177/1559827616629121.

Sutin, A., Costa, P., Wethington, E., & Eaton, W. W. (2010). Perceptions of stressful life events as turning points are associated with self-rated health and psychological distress. *Anxiety, Stress and Coping, 23*(5), 479–492. https://doi.org/10.1080/10615800903552015.

Tedeschi, R., & Blevins, C. (2015). From Mindfulness to meaning: Implications for the theory of posttraumatic growth. *Psychological Inquiry, 26*(4), 373–376. https://doi.org/10.1080/1047840X.2015.1075354.

Tedeschi, R., & Calhoun, L. (1996). The Posttraumatic Growth Inventory: Measuring the positive legacy of trauma. *Journal of*

Traumatic Stress, 9(3), 455–471. https://doi.org/10.1002/jts.24900 90305.

Van der Kolk, B. A. (2003). *Psychological trauma*. Washington, DC: American Psychiatric Pub.

Waszczuk, M. A., Zavos, H., Antonova, E., Haworth, C. M., Plomin, R., & Eley, T. C. (2015). A multivariate twin study of trait mindfulness, depressive symptoms, and anxiety sensitivity. *Depression and Anxiety, 32,* 254–261. https://doi.org/10.1002/da.22326.