Articles

Psychooncology #s Clinical Interventionin Mexico

Intervenciones clínicas de psicooncología en México

Escudero-Castelán, Ana Y.; Galindo-Vázquez, Oscar

Ana Y. Escudero-Castelán
yare.h2693@gmail.com
Consultorio Privado, México

Oscar Galindo-Vázquez
psiunigalindo@gmail.com
Instituto Nacional de Cancerología, México

Mexican Journal of Medical Research ICSA
Universidad Autónoma del Estado de Hidalgo, México
ISSN-e: 2007-5235
Periodicity: Semestral
vol. 9, no. 17, 10-15, 2021
sitioweb@uaeh.edu.mx

Received: 27 March 2020
Accepted: 06 May 2020
Published: 05 January 2021

URL: http://portal.amelica.org/ameli/journal/587/5872977005/

Corresponding author: yare.h2693@gmail.com

Abstract: Introduction: Cancer is a public health problem in Mexico epidemiologically speaking and it has a for biopsychosocial impact on those who suffer from it. In order to address this problem, in the medical area technological advances have allowed the management of the disease, while psycho-oncology has studied the psychosocial aspects present in the process of said condition and proposes interventions that support the adaptation to the condition, the decrease of psychopathological symptoms and an adequate quality of life. **Objective:** To analyze the characteristics of the clinical interventions made in Mexico in the psychooncology area in patients with active medical treatment. **Materials and Method:** A review of the literature in the PubMed, Redalyc and Science Direct databases was carried out with the keywords "Psychooncology" and "Mexico". Studies were identified in which a psycho-oncological intervention was performed in Mexico and its characteristics were analyzed using the "PICO" strategy. **Results:** Three articles were selected that fulfill the inclusion criteria, 66.6% were randomized controlled clinical trials and 33.3% quasi-experimental, 66.6% of the performed interventions were cognitive-behavioral, and 100% found positive effects on their evaluated variables. **Conclusion:** The information available in Mexico reflects the existing problem in descriptive studies of psychosocial variables related to cancer, however, it is scarce in relation to psycho-oncological interventions and the evidence found demonstrates its effectivenessin variables of anxiety, quality of life, body image, and emotional distress.

Keywords: Psychooncology, intervention, Mexico.

Resumen: Introducción: El cáncer es un problema de salud pública en México epidemiológicamente hablando y por afectarbiopsicosocialmente a quien lo padece. Con el fin de atender dicha problemática, en el área médica los avances tecnológicos han permitido el manejo de la enfermedad, mientras que, la psicooncología ha estudiado los aspectos psicosociales presentes en el proceso de dicha afección y propone intervenciones que apoyen en la adaptación al padecimiento, la disminución de síntomas psicopatológicos y una adecuada calidad de vida. **Objetivo:** Analizar las características de las intervenciones clínicas que se han realizado en México en el área de psicooncología en pacientes con tratamiento médico activo. **Material y Método:** Se llevó a cabo una revisión de la bibliografía en las bases de datos PubMed, Redalyc y Science Direct con las palabras clave "Psychooncology" and "México" en donde se

identificaron estudios en los que se realizó una intervención psicooncológica en México y se desarrolló un análisis de sus características mediante la estrategia "PICO". **Resultados:** Se seleccionaron tres artículos que cumplieron con los criterios de inclusión, el 66.6% fueron estudios clínicos controlados aleatorizados y el 33.3% cuasiexperimentales, el 66.6% de las intervenciones realizadas fueron de corte cognitivo-conductual y el 100% encontraron efectos positivos en sus variables evaluadas. **Conclusión:** La información disponible en México refleja la problemática existente en estudios descriptivos de variables psicosociales relacionadas con cáncer, sin embargo, aún es escasa en relación a intervenciones psicooncológicas, no obstante, la evidencia encontrada demuestra su efectividad en variables de ansiedad, calidad de vida, imagen corporal y malestar emocional.

Palabras clave: Psicooncología, intervención, México.

INTRODUCTION

According to the World Health Organization (WHO), cancer is a health problem characterized by the rapid and uncontrolled growth of abnormal cells that form tumors or malignancies that originate almost anywhere in the body and can go beyond its limits and even extend to other organs, known as metastasis.[1]

Currently, there are more than one hundred types of cancer, their denomination is in accordance the tissue or organ where it originates.[2] Also, it is classified according to the stage which refers to the extent of the cancer, that is, how big the tumor is and if it has spread. For this purpose, the Tumor, Nodules, Metastasis (TNM) System is the most widely used which is classified is stages. T refers to the size and extent of the main tumor, which is called the primary tumor; N refers to the extent of cancer that has spread to nearby lymph nodes (or nodes); and M refers to metastatic cancer, that is, when the cancer has spread from the primary tumor to other parts of the body.[3]

Generally, cancer takes many years to develop, so the risk of receiving a diagnosis is higher at an older age; however, cancer can affect anyone.[4]

It is a condition that since its diagnosis, it has an impact on all personal spheres (biological, psychological and social) and pathological mechanisms may appear from the beginning of the disease, so it is necessary to provide a comprehensive care to the patient.[5,6]

Besides being a non-communicable disease, the circumstantial consequences and the treatment of the disease itself implies a lifestyle change, which involves the affective, cognitive, social and behavioral skills of the patients.[7]

Therefore, these conditions have an important impact on the well-being and quality of life of those who suffer from them and of the people around them, negatively affecting the self- perception of their state of health, in addition to the psychological adjustment that the individual has to go through upon the diagnosis and treatment received.[8]

Many studies have shown that people with chronic diseases have multiple psychosocial problems, the most common psychiatric disorders are anxiety, depression and adaptation problems. So, symptoms of emotional distress, psychosocial disorders or psychiatric disorders are present in cancer patients in a 30% to 60%.[9,10,11]

Author notes

yare.h2693@gmail.com

To describe the psychosocial impact on people with this condition many investigations have been carried out, highlighting the prevalence of psychological symptoms in oncology patients in different parts of the world. One of these, in which the prevalence of symptoms and its relationship with the quality of life of cancer patients was described, was carried out in Brazil in a sample of 107 patients with colorectal, breast and prostate cancer. They had symptoms like: fatigue, 76.6%, 47.7% insomnia, 42.1% pain, loss of appetite (37.4%), nausea / vomiting 33.6%, 31.8% anxiety and 21.5% depression.

In the analyzed correlations, the symptoms of anxiety ($r = - 0.477$; $p < 0.001$), and depression ($r = -0.504$; $p < 0.001$) with quality of life was negative and with physical symptoms it was positive.[12]

Pitman, Suleman, Hyde and Hodgkiss carried out a research in the United Kingdom about the prevalence of depression and anxiety in cancer patients, where the characteristics of the population were also analyzed. Within the main results, they found that within cancer patients 15% present major depression and 20% minor depression and 10% present anxiety. On the other hand, they found differences according to the type of cancer with major depression, 13% affecting patients with lung cancer, 11% with gynecologic cancer, 9% breast cancer, 7% in colorectal cancer and 6% genitourinary cancers. As for the anxiety, higher levels were reported in lung cancer, gynecologic and hematological cancers. In addition to registering differences between the different prognoses, pain levels and degrees of alteration in body image according to the type of tumor. Another important fact that was reported is that 73% of patients with depression do not receive effective psychiatric treatments and only 5% go to a mental health professional.[13]

Another study carried out at the Specialty Hospital of the National Western Medical Center of the IMSS at Guadalajara, Jalisco, Mexico (Hospital de Especialidades del Centro Médico Nacional de Occidente del Instituto Mexicano del Seguro Social) showed that in a sample of 225 women diagnosed with breast cancer the prevalence of depression was 14.2 % (CI 95%= 10 to 19%) and anxiety 26.5% (CI 95%= 21 to 32%).[14]

Following this line, the cancer patient will present emotional reactions and even psychiatric disorders, adaptation disorders and depression. According to the disease course and its treatment they can present specific symptoms such as fear of recurrence, psychological existential distress or in terminal stage, death denial. In addition, it has been documented that in patients receiving chemotherapy they can present anticipatory nausea or vomiting. Therefore, the attention of mental health specialists should be focused on the management of psychological distress, retaking the study of specialized psychotherapeutic approaches about the care of the patients and their families.[15]

In this sense, research development as well as technological advancement in the oncological field have allowed an evolution in the clinical management and control of neoplastic disease, while, in the area of psychology a subspecialty has emerged to deal with the adjustment, the patient's psychosocial understanding of the disease and its consequences during its course, called psycho-oncology.[16]

Psycho-oncology is defined by Malca as a specialty of psychology that aims to contribute to the management of the changes that exist in the health-disease process of cancer, providing support to cancer patients, their relatives, and the health care professionals, depending on the evolution of the disease.[17]

Psycho-oncology has different functions and levels of intervention, such as teaching, research and clinical assistance (prevention, evaluation and psychological treatment). One of the areas of application of psycho-oncology is clinical assistance to the patient and their relatives, whose main objective is to improve adaptation to the condition and quality of life throughout the disease process (diagnosis, medical treatment, follow-up, palliative care, and bereavement).[18]

Continuing with these application areas, the psychological interventions research is of utmost importance, which is why it is required to determine their effectiveness, with specific objectives.[10] So the development of psychological interventions in cancer patients has been documented in different parts of the world.

For example, according to a meta-analysis carried out in 2003 by Rehse and Pukrop, where they analyzed the characteristics of 37 studies, a total of 3,120 cancer patients, determining that psychosocial interventions

in adult cancer patients are useful to increase their quality of life; even with situations to consider such as the type of diagnosis, age or duration of the intervention.[19]

Another meta-analysis carried out in 2013 by Faller and collaborators, included 198 studies in which a psychological intervention was carried out to measure the effect on emotional distress and quality of life in adult cancer patients. Involving a total of 22,238 patients from different countries of the world, the majority were in the United States. The results showed significant small to medium effects, finding differences in effectiveness and follow-up, according to the duration of the intervention. However, the authors report that the quality of the report of the results obtained in some of the articles could interfere with obtaining low to medium effects in the meta- analysis.[20]

Another example is a study conducted in Italy at the Pancreas Institute of the University of Verona (AOUI), in which 400 patients with pancreatic cancer who were scheduled to receive general anesthesia for major pancreatic surgery participated. They were randomly assigned to an experimental group (n = 200) in which a psychological intervention with emotional containment and mindfulness strategies was performed with the objective of treating anxiety symptoms, and a control group (n = 200) which received usual care. The experimental group compared to the control group after the intervention, showed a significant increase in the mean scores of self-efficacy perception in the management of preoperative anxiety (7.1 vs 8.3; t=3.4, p <0.01). Furthermore, the intervention showed an effect on the significant decrease in the anxiety state of the patients (experimental group) (43.4 vs 28.2; t=7.5, p <0.01), which significantly correlated with the increase in perceived self-efficacy (r = 0.51, p <0.01).[21]

On the other hand, Quintero and Finck carried out a study with the objective of identifying evidence on psychological interventions carried out in women with breast cancer between 2006 and 2016 in Latin America and Spain. Finding 17 papers, most of them were about cognitive-behavioral therapy, psychosocial, and positive psychology, information that is consistent with the existing evidence in other parts of the world regarding the efficacy of this theoretical model. It was identified that the interventions were addressed to people's emotional states, intervening in psychological aspects and general well- being, in addition to identifying limitations in the study methodology that allows generalizing the information obtained.[22]

Returning to these advances in the integral vision of the oncological patient, which considers the psychological factor as a relevant aspect in the phenomenon of such pathology[16,17] and the documentation that the majority of patients with cancer have the presence of symptoms or psychological disorders, which of course require specific attention.[15] As well as the background located in other countries in psycho-oncological care; considering that according to Cruzado[18] the evidence of psychological treatments in cancer is still insufficient, the research question arises: Which psychooncological's clinical interventions have been carried out in Mexico?

MATERIALS AND METHOD

A review of the bibliography was carried out in the electronic databases PubMed, Redalyc and Science Direct with the objective of describing the characteristics of the clinical interventions that have been carried out in the psycho-oncology area in Mexico.

To carry out the search for the articles, the keywords "Psycho- oncology" and "Mexico" and in Spanish "Psicooncología" and "México" were used.

The inclusion criteria for the selection of the studies were: 1) investigations in which an experimental and quasi-experimental psychological intervention was performed in cancer patients 2) that the participants were in active medical treatment and 3) studies carried out in Mexico. Papers that did not meet these requirements were excluded.

For the analysis of the characteristics of the selected studies, the "PICO" strategy was used, identifying in this case, the patient and health problem, the psychological intervention used, as well as the point of comparison and finally the results obtained according to the evaluated variables.[23]

RESULTS

When carrying out the procedure a total of 100 articles were found by searching with the keywords in the aforementioned search engines. Initially, a general exploration was made in each of the papers in the title and the abstract to identify their main characteristics. If the abstract did not mention the characteristics of the study that were in accordance with the inclusion criteria a general review of the material and method was carried out.

After this, four were selected in which it was determined that a psychological intervention was carried out and the all paper was reviewed. It identified the characteristics proposed in the inclusion criteria, according to the strategy to be used. One of these was eliminated because it was a study that lacked a control group (point of comparison) and only three met the criteria described for integrating the study into this literature review.

The rest of the articles had as a quality having been carried out in another country, in cancer survivors and / or being descriptive or correlational studies of factors associated with the disease.

Following up on the selected studies, their analysis was carried out using the aforementioned strategy.

TABLE 1
Describes the characteristics that were identified for this purpose

Study's name	Patients and health problem	Psychological intervention	Comparison (Control)	Results
Cognitive Behavioral Stress Management intervention in Mexican colorectal cancer patients: Pilot Study.[24]	94 cancer patients with diagnosis of colorectal cancer, stage I to III, age range from 25 to 75 years and 3 to 5 weeks post-surgery. Assigned to two groups (experimental group and control group). 22 participants completed the sessions (11 each group).	Cognitive Behavioral Stress Management [CBSM] intervention for 5 sessions of 2 hrs. (experimental group). The components of the intervention were cognitive techniques for stress, automatic thoughts, cognitive distortions, cognitive restructuring, coping, anger management, and assertive communication. And relaxation techniques.	The patient himself in pre-post comparison. A psychoeducation intervention (PE) of 5 weekly 1-hour group sessions was performed. (control group). In which they were provided information about colon cancer with the topics of: frequently questions after diagnosis, types of treatment, management of treatment side effects, healthy lifestyles and quality of life after diagnosis.	The effect of the two types of intervention (experimental group and control group) on the variables of post-traumatic stress, emotional distress, optimism and quality of life was compared. In the experimental group, significant effects were found in the optimism variable and in the subscale of quality of life symptoms, as well as interaction between the groups and significant effects in avoidance and hyperactivation.
La musicoterapia para disminuir la ansiedad. Su empleo en pacientes pediátricos con cáncer.[25]	22 patients aged 8 to 16 years, with diagnoses non-Hodgkin lymphoma (31.8%), acute lymphoblastic leukemia (27.3%), acute myeloid leukemia (9.1%), Hodking's disease (9.1%) who attended outpatient intravenous chemotherapy.	An individual music therapy intervention of one session of more than 20 min was performed. The objective to decrease the level of anxiety.	The individual was their own control (pre-post) and a group was compared between groups: without intervention and with intervention.	The baseline anxiety of the patients was moderate to intense, a statistically significant decrease in anxiety levels was found after chemotherapy in both groups, however, this decrease was greater in the intervention group (mild anxiety levels: 27 % without intervention, 95% with intervention).
Randomized controlled trial of mindfulness program to enhance body image in patients with breast cancer.[26]	29 women aged from 31 to 66 years with breast cancer's diagnosis in active adjuvant treatment participated. Assigned to two groups (experimental n = 15 and control n = 14).	An intervention based on the Mindfulness Based Stress Reduction (MBSR) program was carried out for two months, with a total of 8 sessions (experimental group)	In the control group, five sessions were performed, one per week of "personal image counselling".	The analysis was performed pre post and compared between the experimental group and the control group on body image. The mindfulness intervention showed significant results ($p < .01$) in the decrease of negative thoughts and emotions related to body image and the dissociation and increase in positive thoughts and body awareness, in addition significant differences were found ($p < .01$) between the control and the experimental group in body image.

Source: Own elaboration.

Based on this analysis, it was identified that 66.6% studies were pre-post randomized clinical trials with the control group and 33.3% were pre-post quasi-experimental studies with the control group.

All studies were carried out in patients with different cancer types diagnoses, with breast cancer, with colorectal cancer and pediatric cancer (which grouped different types of leukemia and lymphomas).

100% of the studies had the same patient (pre-post) and a control group as the benchmark for which the evaluated intervention was not provided.

The expected results were evaluated according to specific variables, such as anxiety, body image, quality of life, stress, and emotional distress. Obtaining positive results in the comparison of the same patient, as well as in the comparison with the control group.

The most used intervention type in these studies was 66% a Behavioral Cognitive Focus and 33.3% was music therapy.

One of the limitations found in 50% of the studies is the decrease in the sample throughout the intervention and the lack of heterogeneity in the sample, since they had different sociodemographic and medical characteristics.

DISCUSSION

This review allows us to observe that the work carried out for the scientific development of psycho-oncology is from describing and analyzing psychological needs, describing variables related to symptoms such as depression, anxiety, emotional distress, fatigue, among others, as well as aspects of well-being and quality of life in people suffering from this condition, however, according to the search carried out, the number of investigations found in the field of evidence development in the psychological treatment of cancer patients in Mexico was scarce.

The complexity of the disease permeates the need for psychological support during medical treatment to take care of the person's biopsychosocial needs.[27]

According to the analysis, the information from research work in the area of psycho-oncology in Mexico is still deficient, which coincides with the study carried out by Galindo-Vázquez and collaborators who carried out a review of literature on the effects of Cognitive Behavioral Therapy in the oncological patients reported in the MEDLINE, PsycINFO, CINAHL, Psychology and Behavioral Sciences Collection databases during the period from 2005 to 2010, identifying 25 original studies with the consistency of the favorable effects of cognitive behavioral therapy; however, they did not find any variables carried out in Mexico.[28]

The Cognitive Behavioral Therapeutic (CBT) approach has shown consistent efficacy in the treatment of cancer patients.[28]Showing full agreement on the results integrated in a guide to effective psychological treatment in psycho-oncology, in which CBT is ahead of other procedures therapeutics in variables such as anxiety, depression, post-traumatic stress, cognitive disturbances, fatigue, sleep disturbances and sexual function.[29] As well as with an analysis of international evidence on the efficacy of CBT, which highlights the efficacy in the treatment of psychological disorders, reduction of symptoms and improvement of the quality of life of the patient, it is of short duration and well structured; on the other hand there is evidence regarding the care of health personnel.[30] Most of the analyzed studies were carried out under this therapeutic model. Which focuses on a specific line framed in Evidence-Based Psychology.

Likewise, it is important to highlight the importance of providing interdisciplinary care to the user of health services.. In addition to medical treatment, psychological intervention, together with the objective of reducing psychopathological symptoms, provides tools for adaptation to the disease process, well-being and quality of life, the main objective of psycho- oncology.[10]

As described in a study carried out by García-Prieto in which he describes from the patient's perspective the need to attend to the psychosocial situation in the course of the disease. Being limited from the beginning of the cancer to being in stage IV of the same. Therefore, it emphasizes the demand for recognition of psycho-oncological care as a central part in the treatment of this pathology.[31]

According to the main objective of cancer treatment stipulated by the WHO, which is to cure the disease or extend the life of the patient to the extent possible, in addition to improve their quality of life,[32] there is the need to provide psycho-oncology services in the Health System.

An important aspect in the development of psycho-oncology, as mentioned in a study carried out in Korea, in which they analyze the perspectives in the progress of this discipline, is to overcome the barriers and stigmata of cancer and mental illness, in order to be recognized as an essential part of care, of course,

incorporating the service into the health care model.[33] That, although sociocultural conditions are different between countries, this aspect manifests itself in a similar way.

Also, the results found in the research that constitute evidence around the comprehensive care of the cancer patient, highlight the importance of paying attention to the psychosocial aspects of the person, taking into account that they can influence the results of the treatment. This implies the sensitivity of health personnel and their concern for the patient's well-being and quality of life, as well as involving the user in decision making regarding their treatment.[34]

Finally, emphasizing the interventions characteristics carried out in the studies that were analyzed they were adaptations of programs already established and carried out in another context. The contextualization of therapeutic procedures, as well as the results of original studies, may provide the necessary tools for increasing evidence in clinical psycho-oncological interventions which strengthen research and are the basis for the incorporation of this type of treatment for cancer patients in health care services.

CONCLUSION

This bibliography's review allowed to identify the development of psycho-oncology in Mexico. The problem is described in numerous studies demonstrating the psychosocial difficulties that cancer patients face in which the description of psychological symptoms or psychological disorder.

On the other hand, according to the objective of this research in the area of therapeutic interventions was found that there is still a lack of information; however, it is essential to highlight that the analyzed studies demonstrate the efficacy in psychosocial variables such as stress, emotional distress, optimism, quality of life, anxiety and body image and the support they provide in the treatment of these patients.

Therefore, an opportunity area is opened for conducting research that provides consistency in the efficacy of psycho- oncology treatment based on evidence. Returning to the recommendations of the study authors, where the heterogeneity in the population and generating greater adherence to treatment will allow generating evidence with methodological rigor for the generation of knowledge.

REFERENCES

1. World Health Organization. Cancer. Available in: https://www.who.int/news-room/fact-sheets/detail/cancer [Accessed 20 Feb 2020].
2. Instituto Nacional de Cáncer (NCI). ¿Qué es el cáncer? Available in: https://www.cancer.gov/espanol/cancer/naturaleza/que-es [Accessed 20 Feb 2020].
3. Instituto Nacional de Cáncer (NCI). Estadificación del cáncer. Available in: https://www.cancer.gov/espanol/cancer/diagnostico- estadificacion/estadificacion [Accessed 20 Feb 2020].
4. American Cancer Society. Sobre el Cáncer. Hoja informativa. Available in: https://www.cancer.org/es/cancer.html [Accessed 20 Feb 2020].
5. Correa Sánchez D, Salazar Torres IC. Aspectos psicológicos del cáncer y su afrontamiento. In: Arrivillaga Quintero M, Correa Sánchez D, Salazar Torres IC, editors. Psicología de la salud. Abordaje integral de la enfermedad crónica. Colombia: Manual Moderno; 2007: 3-23.
6. Granados García M, Alcalá Prieto F. Cáncer. In: Granados García M, Arrieta Rodríguez O, Cantú de León D, editors. Oncología y cirugía. Bases y principios. México, D.F.: Manual Moderno; 2013: 1-6.
7. Robles R. Manejo de enfermedades crónicas y terminales. In: Oblitas LA, Editor. Psicología de la salud y calidad de vida. México, D.F.: Cengage Learning Editores; 2010: 249-75.
8. Sharif K, Amital H. Exercise in the management of chronic diseases: An underfilled prescription. Isr. Med. Assoc. J. 2018;20(1):51-2.

9. Raspe H. Chronic diseases. Definition and basic concept. Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz. 2011;54(1):4-8.

10. Sperner-Unterweger B. Psycho-oncology-Psychosocial Oncology: integration in a concept of oncological treatment. Nervenarzt. 2011;82(3):371-8.

11. Gregurek R, Bras M, Dordević V, Ratković AS, Brajković L. Psychological problems of patients with cancer. Psychiatr. Danub. 2010;22(2):227-30.

12. Salvetti MG, Machado CSP, Donato SCT, Silva AMD. Prevalence of symptoms and quality of life of cancer patients. Rev. Bras. Enferm. 2020;73(2):e20180287.

13. Pitman A, Suleman S, Hyde N, Hodgkiss A. Depression and anxiety in patients with cancer. BMJ. 2018;361:k1415.

14. Morales-Chávez M, Robles-García R, Jiménez-Pérez M, Morales- Romero J. Mexican women with breast cancer show a high prevalence of depression and anxiety. Salud Publica Mex. 2007;49(4):247-8.

15. Akechi T. Essential psychological care un palliative medicine. Seishin Shinkeigaku Zasshi. 2010;112(10):1029 -36.

16. Robert V, Álvarez C, Valdivieso F. Psicooncología: un modelo de intervención y apoyo psicosocial. Rev. Med. Clin. Condes. 2013;24(4):677-84.

17. Malca B. Psicooncología: Abordaje emocional en oncología. P & B. 2005;9(2):64-7.

18. Cruzado JA. Formación y competencias del psicooncólogo. En: Rojas C, Gutiérrez Y, editores. Psicooncología. Aportes a la comprensión y la terapéutica. Talca, Chile: Nueva Miranda Ediciones; 2016: 65-82.

19. Rehse B, Pukrop R. Effects of psychosocial intervention on quality of life in adult cancer patients: meta -analysis of 37 published controlled outcome studies. Patient. Educ. Couns. 2003;50(2):179- 86.

20. Faller H, Schuler M, Richard M, Heckl U, Weis J, Küffner R. Effects of psycho-oncologic interventions on emotional distress and quality of life in adult patients with cancer: systematic review and meta- analysis. J. Clin. Oncol. 2013;31(6):782-93.

21. Marinelli V, Danzi OP, Mazzi MA, Secchettin E, Tuveri M, Bonamini D, Rimondini M, Salvia R, Bassi C, Del Piccolo L. Prepare: preoperative anxiety reduction. One-year feasibility RCT on a brief psychological intervention for pancreatic cancer patients prior to major surgery. Front. Psychol. 2020;11:362.

22. Quintero MF, Finc C. Intervenciones psicológicas eficaces en pacientes con cáncer de mama en Latinoamérica y España: una revisión sistemática. Psonc. 2018;15(1):49-64.

23. Da Costa Santos CM, de Mattos Pimenta CA, Nobre MR. The PICO strategy for the research question construction and evidence search. Rev. Lat. Am. Enfermagem. 2007;15(3):508-11.

24. Acevedo-Ibarra JN, Juárez-García DM, Espinoza-Velazco A, Buenaventura-Cisneros S. Cognitive Behavioral Stress Management intervention in Mexican colorrectal cancer patients: Pilot study. Psychooncology. 2019;28(7):1445-52.

25. Sepúlveda-Vildósola AC, Herrera-Zaragoza OR, Jaramillo- Villanueva L, Anaya-Segura A. Music as an adjuvant tratment for anxiety in pediatric oncology patients. Rev. Med. Inst. Mex. Seguro Soc. 2014;52(Suppl2):S50-4.

26. Pintado S, Andrade S. Randomized controlled trial of mindfulness program to enhance body image in patients with breast cancer. EuJIM. 2017;12:147-52.

27. Cabrera Macias Y, López González EJ, López Cabrera E, Arredondo Aldama BC. La psicología y la oncología: en una unidad imprescindible. Rev. Finlay. 2017;7(2):115-27.

28. Galindo-Vázquez O, Pérez-Barrientos H, Alvarado-Aguilar S, Rojas-Castillo E, Álvarez-Avitia MA, Aguilar-Ponce JL. Efectos de la terapia cognitivo conductual en el paciente oncológico: una revisión. GAMO. 2013;12(2):108-15.

29. Cruzado JA. Guía de tratamientos psicológicos eficaces en psicooncología. Alteraciones psicológicas y físicas. Psonc. 2016;13(1):179-80.

30. Vizin G, Farkas K. Possibilities of cognitive behavioral therapy in the oncological care. Magy. Onkol. 2020;64(1):62.69.

31. García-Prieto P. Psycho-oncology: A patient's view. Recent Results Cancer Res. 2018;210:57-66.

32. Organización Mundial de la Salud. Tratamiento del cáncer. EUA: Who.int. Available in: https://www.who.int/cancer/treatment/es/ [Accessed 29 Feb 2020].

33. Lee HJ, Lee KM, Jung D, Shim EJ, Hanm BJ, Kim JH. Psycho- oncology in Korea: past, present and future. Biopsychosoc. Med. 2017;11:12.

34. Holland JC. Psycho-oncology: overview, obstacles and opportunities. Psychooncology. 2018;27(5):1364-76.