Effectiveness of Cognitive Behavioural Therapy for Major Depression in Stage II Pancreatic Cancer Patients from the *Clínica General del Norte* in Barranquilla, Colombia

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Depression is a disorder with specific symptoms that include prolonged periods of sadness. Oncologic (cancer) patients usually present depressive symptoms due to the effects of cancer and the aggressive treatments that can take a toll on their health. Additionally, pancreatic cancer can induce a significant amount of psychological distress in its patients. For this reason, this qualitative content analysis study aims to determine if cognitive behavioural therapy is the most effective treatment for major depression, characterized by at least two weeks of low-mood, in stage II pancreatic cancer patients. Cognitive behavioural therapy focuses on making patients understand that their thoughts can influence their emotions, which then ends up influencing behaviour and affecting relations. The responses to 16 semi-structured post-treatment interviews are assessed in order to determine the effectiveness of the therapy. Cognitive behavioural therapy was able to address main issues in oncologic patients, such as fostering new optimistic perspectives (81.25%), providing empathetic listening (75.00%), and helping patients feel calmed (68.75%). These results suggest that cognitive behavioural therapy is effective for treating major depression in stage II pancreatic cancer patients.

Keywords: Cognitive behavioural therapy, major depression, stage II pancreatic cancer, Colombia

Introduction

Cancer is a chronic disease that affects countless people worldwide. This disease consists of the abnormal and uncontrolled division of cells in the body, invading different tissues and organs. Different types of cancer can aggressively affect patients and decrease their lifespan exponentially by forming masses of tissues called tumours in functional organs, disrupting the organs' optimal functioning (National Cancer Institute). Therefore, doctors have to provide patients with treatments to reduce the pain this disease may inflict. However, cancer can deteriorate the mental health of patients by inducing psychological distress, leading to a variety of disorders, including major depression (National Cancer Institute, 2017).

Depression is a medical illness that negatively affects thoughts, emotions, and behaviour as it is characterized by prolonged periods of sadness, loss of interest in activities once enjoyed, and feelings of guilt or worthlessness (American Psychiatric Association, 2017). For every ten patients diagnosed with cancer, two of them become depressed (National Cancer Institute, 2017). This occurs when patients learn they have cancer, feel unmanageable pain, are physically weakened by the disease, view themselves as a burden to others, or take cancer medicines that have been correlated to depression, such as amphotericin B, procarbazine, interferon alfa, l-asparaginase, corti-

costeroids, and interleukin-2 to treat this malady (National Cancer Institute, 2017). Consequently, it is of utmost importance that doctors treat depression for oncologic patients to maintain a healthy immune system, prevent suicide attempts, and reduce depressive symptomatology.

In Colombia, studies there are a few studies that depict effective treatments for depression in cancer patients. For instance, Rodriguez, Amboage, Blazquez, Torres, and Gaviria (2015) describes the effectiveness mindfulness, relaxation, and visualization techniques for treating major depression in cancer patients (Rodriguez et al., 2015). In addition, one of the most prominent studies conducted in Colombia by psychiatrists Mauricio Murillo and Ariel Alarcón, provide the steps doctors should take for effectively treating depression in oncologic patients by advising them to use different psychotherapy interventions (Murillo & Alarcón, 2006). However, none of these studies in Colombia has addressed the effectiveness of a specific type of therapy in a single type of cancer. After all, there are about 45 influential schools of thought in psychology, and each one has their way of managing mental disorders like depression through the techniques and interventions advised by the researchers in the studies mentioned previously. Additionally, both of these studies do not take into account the various type of cancer but instead base on the assumption that the treatments for major depression are as equally effective for all types of cancer. This study aims to specify the knowledge in the field by focusing on the effectiveness of a single type of therapy, cognitive behavioural therapy, and one of the most aggressive types of cancer, pancreatic cancer, as 33-55% of its patients face depression (Massie, 2004).

The general purpose of this research study is to analyze the effectiveness of cognitive behavioural therapy for treating stage II pancreatic cancer patients in the *Clínica General del Norte* in Barranquilla, Colombia. The *Clínica General del Norte* is the site for this study as it is one of the largest hospitals in Colombia treating gastroenterological diseases and pancreatic cancer. A content analysis and interview method are used to evaluate the content of the responses to 16 semi-structured post-treatment interviews on stage II pancreatic patients to determine the effectiveness of the therapy. For this study, a sample of pancreatic cancer patients in stage II is collected due to the advice of the staff at the hospital because there are not as many patients in further stages in conditions to speak entirely for an interview.

Literature Review

When it comes to identifying a type of cancer, staging is used to describe the cancer size and how far it has grown, providing essential information to develop a plan for treatment. For pancreatic cancer, the stages range from stages I (1) through IV (4) and the higher the stage, the more advanced the cancer is (American Cancer Society, 2017). In stage I the tumour is confined to the pancreas and is smaller than two centimeters; in stage II cancer might have spread to three or less nearby lymph nodes (small swellings throughout the body's lymphatic system that aid in immune responses); in stage III cancer can reach a size of over four centimeters and may have spread to four or more lymph nodes; and in stage IV cancer can be any size and has spread to distant sites, such as the peritoneum (lining of the abdominal cavity), liver, lungs, or bones (American Cancer Society, 2017). As cancer in the pancreas advances, several problems begin to present and these include, but are not limited to, jaundice (yellowing of the skin and eyes), pain in the abdomen and back, nausea and vomiting, gallbladder and liver enlargement, blood clots, and diabetes (American Cancer Society, 2016).

At the Johns Hopkins Oncology Center, Clark, Loscalzo, Trask, Zabora, and Philip (2010) investigated the psychological distress experienced by patients diagnosed and treated with pancreatic cancer, the fourth major cause of cancer deaths in the United States. These researchers determined that pancreatic cancer patients usually demonstrate elevated levels of distress when compared to other types of cancer due to the physical symptoms that become present (Clark et al., 2010). In fact, while depression is seen in 20% of cancer patients in general (National Cancer Institute, 2017), this percentage elevates to 33-55% when it comes to pancreatic cancer patients (Massie, 2004). Although there is no current data regarding depression rates for pancreatic cancer in Colombia, this percentage remains in 17% and 28.8% when it comes to other Spanish speaking countries like Spain and Ec-

uador (Rodríguez et al., 2015; González et al., 2015).

Pancreatic cancer patients who suffer from depression deal with certain difficulties in their daily lives. Specifically, psychologists from Edinburgh pinpointed five main troubles cancer patients with major depression face: concern for other people's well-being (65%), difficulties in interpersonal relations (61%), loss of interest in activities (56%), low mood (55%), and fears of cancer recurrence (54%) (Kleiboer, 2011). Consequently, current psychotherapies should address these issues that cancer patients experience.

Today, there is a variety of treatments for depression in oncologic patients in Colombia. Colombian psychiatrists Mauricio Murillo and Ariel Alarcón in their article, "Psychosomatic Medicine Treatments in Cancer" provide a current guideline for Colombian psychiatrists to effectively treat depression in oncologic patients. They summarize the process of psychological treatment for oncologic patients, which includes: a psychoeducative group, an initial psychological diagnosis, common psychological follow-ups, group psychotherapy (focusing mostly on psychodynamic therapy), individual psychotherapy (focusing more on expressive and supportive psychotherapy), family intervention, and "unspecified" interventions (Murillo & Alarcón, 2006). Rodriguez et al. (2015) also explicitly state the usefulness of using mindfulness, relaxation, and visualization interventions for treating major depression in cancer patients after reviewing the premise of each one of them and how in theory it can help reduce depressive symptomatology (Rodríguez et al., 2015). Although many types of interventions are recommended and used to treat depression in oncologic patients in Colombia (Murillo & Alarcón, 2006; Rodríguez et al., 2015) no studies indicate which treatments are the most effective for treating depression in patients with aggressive cancers, such as pancreatic, or focus on a specific type of therapy.

At present, the most common types of psychotherapies include cognitive behavioural therapy, supportive-expressive group therapy, problem solving therapy, cognitive-existential group therapy, supportive therapy, and mindfulness-based stress reduction. However, cognitive behavioural psychotherapy is the main psychological intervention performed on patients with pancreatic cancer at the *Clínica General del Norte* in Barranquilla due to the hospital's positive experience with this treatment over the past years. Barrera and Spiegel (2014) define this treatment as a therapeutic modality that focuses on making patients understand that their thoughts can influence their emotions, which then ends up influencing behaviour and affecting relations (Barrera & Spiegel, 2014). This type of therapy includes psychoeducation, which is one of the key aspects in psychotherapies in Colombia as described by Mauricio Murillo and Ariel Alarcón (2006) in "Psychosomatic Medicine Treatments in Cancer." Although there is a variety of cognitive therapies, all of them follow the same assertion: a person's negative reasoning most likely will lead to illogical thinking and, therefore, dysfunctional behaviour (American Psychological Association).

Recent studies support the effectiveness of cognitive behavioural therapy for treating depression in cancer patients. At Comprehensive Cancer Center at the Ohio State University, Brothers, Yang, Strunk, and Andersen (2011), found that 61% of 36 cancer patients had significant clinical changes after receiving cognitive behavioural therapy for treating major depression after being diagnosed with cancer, deeming the treatment effective (Brothers et al., 2011). Additionally, in another study at the Imam Reza hospital in Birjand, Khodai, Dastgerdi, Haghighi, Sadatjoo, and Keramati (2011) concluded that cognitive behavioural therapy is essential for decreasing depression in patients with cancer. They claimed the treatment worked because it fostered positive thoughts as in a sample of 24 patients receiving the therapy there was a statistically significant decrease in depression, while no change in the control group (Khodai et al., 2011).

Arguments regarding the effectiveness of psychotherapies versus antidepressants have emerged over time. The American Psychiatric Association Practice Guidelines (APAPG) claim that cognitive behavioural therapy and interpersonal psychotherapy are the most adequate treatments for major depression as their effectiveness compares to that of antidepressants (Horne & Watson, 2011). Additionally, in some cases psychotherapies are preferred over antidepressants as in the Brown University Child & Adolescent Psychopharmacology Update it is stated that the FDA urged manufacturers to include warning statements and recommendations in antidepressant containers, which are correlated to an increase in certain depressive symptoms and suicidality ("FDA Cautions Use of Antidepressants; APA Responds," 2004).

Determining the usefulness of a treatment for depression in patients suffering from a specific type of cancer is of utmost importance to improve the patient's mental and physical health. In fact, at the University of Malaya, Chan, Ahmad, Yusof, Ho, and Krupat (2014) found that depressed cancer patients are 4.31 times more susceptible to death than those who don't suffer from depression (Chan et al., 2014). Hence, this study attempts to determine if cognitive behavioural therapy is effective for treating major depression in patients suffering from stage II pancreatic cancer, filling the gap in the field by addressing a specific type of cancer and therapy.

Methods

Overview

For this study, a content analysis and interview method are used in which inferences are made by interpreting and coding material, in this case, interviews. The cohort consisted of adult patients suffering from stage II pancreatic cancer and depression at the *Clínica General del Norte* in Barranquilla, Colombia, who received five sessions of cognitive behavioural therapy. The interviews evaluate the efficacy of this treatment by providing insight into its advantages and disadvantages. This methodology is adapted from Orengo-Aguayo and Segre (2010), in their study, "Depression treatment delivered at the point-of-care: a qualitative assessment of the views of low-income US mothers." Orengo-Aguayo and Segre (2010) evaluate the views of low-income US mothers facing depression on a psychological intervention called "Listening Visits" through content analysis and interview method with participants' responses to a post-treatment semi-structured interview assessing their views of the intervention (Orengo-Aguayo & Segre, 2010). Therefore, these researchers were able to determine the strengths and weaknesses of the psychological intervention provided to the patients, and the possibility of making it available for a larger population. For this reason, the content analysis and interview methods are applicable for this research study as they would elucidate the views of stage II pancreatic cancer

patients facing depression regarding the effectiveness of the cognitive behavioural therapy delivered at the *Clínica General del Norte*.

The data used in the present study was gathered from Colombian patients who underwent cognitive behavioural therapy. At the *Clínica General del Norte*, 16 patients were enrolled to receive the psychological therapy in 2018. The Institutional Review Board (IRB) approved the procedure for this study, and all patients signed an informed consent form. In general, patients were screened by a psychologist at the hospital for depression using the Hospital Anxiety and Depression Scale (HADS), a fourteen-item scale that yields data related to levels of anxiety and depression (Snaith, 2003). Those pancreatic cancer patients scoring ≥ 11 were flagged as having reported major depressive symptoms (Snaith, 2003), and their doctors, with the permission of the participants, kept the patients' medical information in a designated folder at the hospital to take them into account for the study. The HADS scores were reviewed once again by the psychologist and interviews were conducted to verify that patients who did not meet the criteria were excluded from the study (criteria for exclusion includes current alcohol or substance abuse, psychotic symptoms, history of depression, or any other type of chronic disease). Since all patients met the criteria for participating in the study, the patients were enrolled by asking them to sign an informed consent form that described the purpose of the study. The patients received five cognitive behavioural therapy sessions within a three-week timeframe. Following advised practices from Mayo Clinic, due to the fact that it is a top-rated institution in the United States, the number of cognitive behavioural therapy sessions at the *Clínica General del Norte* usually varies between five to twenty, depending on whether the treatment is short, medium, or long-term; the level of depression, gravity of symptoms, speed of progress, and amount of stress; and the extent of support from relatives (Mayo Clinic, 2017). The choice of five sessions was feasible for the Colombian-based trials at the *Clínica General del Norte* as the study was to be conducted in three weeks. For cognitive behavioural therapy at the hospital, there is no stipulated protocol for the number of sessions, but all participants completed five sessions initially. Patients at the hospital usually receive the therapy for as long as they are

hospitalized and after the study was completed with the initial five sessions, the patients who remained hospitalized continued to receive the treatment. For research assessments, patients completed two interviews. The hospital's psychologist conducted the first one to diagnose major depression in the patients. The second and final interview was conducted at the end of the three-week time frame for the assessment of the treatment.

Participants

The patients in this study underwent cognitive behavioural therapy sessions. In the sample of 16 participants, the average age was 63 years-old; most people are diagnosed with pancreatic cancer are within this range (45 years-old and above) (American Cancer Society, 2016). All of these patients suffered from major depression and stage II pancreatic cancer. Additionally, they all were undergoing chemotherapy. All of the patients were Colombian.

Procedure

Of the 16 participants, all of them agreed to be interviewed to share their views regarding cognitive behavioural therapy, and the qualitative assessment was completed after these interviews. For the interviews, the participants' responses were recorded in the form of notes. All the interviews were recorded in Spanish, Colombia's official language, and then transcribed into English. Afterward, the notes were passed into an electronic document and organized in tables for further extraction and analysis. The interviews were not audio-recorded because this population of patients in critical situations might be reluctant to participate if they were audio-recorded. Instead, it was decided to safeguard the environment of trust in the study by making an effort to record the patients' responses verbatim in written form. In the interviews, the patients were encouraged to share their honest opinion about cognitive behavioural therapy and were told how valuable their feedback was for the improvement of the service.

Measures

In the interviews, patients were asked three open-ended questions that can be used to assess the participants' views about the treatment for major depression around three main domains: participant impression (*Q1: When your healthcare provider first told you that he or she wanted to do this treatment with you, what did you think about this idea?*), treatment success (*Q2a: What do you think about the treatment in terms of its helpfulness? and Q2b: Can you describe for me a specific example of how the treatment was helpful to you?*), and suggested improvements (*Q3: What would you change about the treatment?*) (Orengo-Aguayo and Segre, 2010).

Data Analysis

Using qualitative content analysis, the themes that surfaced from the patient's responses to the questions were recorded and defined. This analytic approach is optimal to identify the themes that appear in the data and classify them systematically by using codes, thus emphasizing the patients' perspectives on a given topic. This method included a two-step basic approach, congruous with a "goal-free" evaluation (Scriven, 1991) where the patients' views about the helpfulness of cognitive behavioural therapy were assessed. In the first step, a coding manual was developed to code the interviews. All responses to each question were read to generate themes that arose from the data. The themes were then transformed into a group of clear codes for each question. Moreover, each code was defined by including important characteristics of what to include if seen in the responses. The objective was to create an understandable manual where the codes for the questions express the themes that were seen in the responses. In the second step, the responses were coded. The object of analysis was the response provided by a patient to a question coded. The responses to the three questions were coded independently. Finally, the analysis of the data analysis was expressed through a quantitative abridgment of the patients' coded responses that reflect how many of the participants favoured a code (Table 1). Additionally, paraphrased responses are presented for illustrative purposes and, each one contains the patient's number in the study.

Results

The data is organized in Table 1 in such way that the themes in the responses to the three questions are shown. For each of the items, the percentage of participants endorsing each thematic code is presented along with the number of times the theme was recurrent in the responses of the 16 patients.

Initial Views

The patients' initial impressions of cognitive behavioural therapy are expressed in the four main themes that came up from the data (Table 1). The majority of the patients (75.00%) endorsed cognitive behavioural therapy.[1] Some of the patients (12.50%) expressed some uncertainty about cognitive behavioural therapy but were open or curious to receive the interven-

Table 1.
Themes: Patients' Responses in Interviews (N = 16)

Initial Views About Cognitive Behavioural Therapy	Number (percentage)
Endorsed	12 (75.00)
Uncertain Positive	2 (12.50)
Uncertain Negative	1 (6.25)
Negative	1 (6.25)
Examples of How Cognitive Behavioural Therapy Was Helpful	Number (percentage)
Fostered a new perspective (positive thoughts)	13 (81.25)
Supplied empathy and a space to talk	12 (75.00)
Were calming or relaxing	11 (68.75)
Turned to faith	9 (56.25)
Gave advice and were helpful in problem-solving	9 (56.25)
Improved communication in interpersonal relationships	7 (43.75)
Helped patient feel less isolated	6 (37.50)
Medical information was provided	3 (18.75)
Participant did not find cognitive behavioural therapy helpful	1 (6.25)
Suggested Changes to Cognitive Behavioural Therapy	Number (percentage)
No change	9 (56.25)
Longer sessions/more sessions	6 (37.50)
Medication	1 (6.25)

* Note: Patients could address several themes, therefore, percentages can exceed 100%

tion.[2] One patient (6.25%) was skeptical of receiving cognitive behavioural therapy because she didn't feel comfortable talking about something so personal but decided to go forward with it. [3] Additionally, one patient (6.25%) had a negative view regarding the treatment as he denied the usefulness of psychological therapies but did not care about having to receive the treatment.[4]

Examples of How Cognitive Behavioural Therapy Was Helpful

In the sample, one patient (6.25%) claimed that cognitive behavioural therapy wasn't useful. However, the majority (81.25%) of participants in the study indicated that cognitive behavioural therapy helped them view their situation with a new positive perspective (Table 1).[5]

The second most frequently disclosed helpful aspect of cognitive behavioural therapy, noted by 75.00% of participants, was that the intervention provided empathy (the empathy displayed by the psychologist) and a space to talk. Additionally, most patients felt calmed after the sessions (68.75%), reducing their feelings of anxiety. Turning to the Catholic faith (56.25%) and reduced

feelings of loneliness (37.50%) were mentioned as well.[6] Some patients thought that the therapy was useful in terms of providing advice and solving problems they might face (56.25%); it improved their relations with their relatives (43.75%), especially communication; and that they received medical information in case they had questions about their health situation (18.75%).[7]

Suggested Changes

When the patients were asked if they would change anything about the treatment they received, about half (56.25%) said that they would not change anything.[8] Of the patients who did suggest any changes, 37.50% stated that they would have liked more or longer sessions.[9] One patient (6.25%), who did not believe that cognitive behavioural therapy helped him, suggested he be prescribed antidepressant medication to help him neurobiologically.[10]

Discussion

Stage II pancreatic cancer patients received cognitive behavioural therapy as a possible intervention to

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1 Yes, I accepted this treatment because I knew I needed to face my problems in order to move on, and even more when I have four children waiting for me to come home. (Patient 2)

2 I was apprehensive of receiving the treatment at first because I wasn't really sure what it was, but decided to go for it because I wasn't feeling well internally. (Patient 6)

3 I was doubting if I should receive the treatment at first because I didn't feel comfortable talking about this difficult situation with other people. In the end, the doctor was able to convince me to go forward with it. (Patient 10)

4 Initially, I was confused about receiving a psychological treatment because I've never gone to a psychologist in my life. I didn't care, but I knew I wasn't crazy and that God would give me strength to move forward. (Patient 12)

5 I felt that I was treated well. It was helpful in every aspect, especially because I was now seeing life in a beautiful way. I realized that I want to enjoy the rest of my time with family. (Patient 11)

6 The sessions helped keep a positive attitude. I always believed that God would take me out of this dark hole. As time passed, I began feeling less anxiety and more open to talk, especially because of the empathy I received from the psychologist. I finally understood I wasn't alone in this situation. (Patient 6)

7 I felt that I wasn't alone and that I was being heard and understood by the psychologist. Initially, I was extremely anxious and worried, but I received clear and pertinent information about my disease. The doctor advised me to turn to family for support as well. (Patient 8)

8 I wouldn't change anything. As it is, it is excellent. Everyone was so professional and it was oriented to what I needed. It helped me get out of a crisis. (Patient 2)

9 I would like to have more sessions because they really helped me a lot, and I believe there is more work to do in order to feel even better. (Patient 8)

10 If you wanted to treat my depression, why not just give me medication. Everything is in the brain and works through chemicals. I didn't need the therapy. (Patient 12)

treat major depression. This study assessed their views toward this type of therapy, delivered by a psychologist from the hospital where they were admitted. To condense the results, three main findings were observed. First, when the doctor first discussed therapy with the patients, the majority (75.00%) had supportive views of the therapy. Second, the patients indicated that the most helpful component of cognitive behavioural therapy was that it provided them with a new perspective on their situation, allowing them to think positively. Third, a little more than half of the patients would not change anything about the delivery of the treatment, and 37.50% would have liked longer or more sessions.

After reviewing patient responses, the high percentage of positive views most patients had when introduced to cognitive behavioural therapy could be attributed to the fact that the patients were able to internalize that they were not themselves anymore and that their diagnosis completely changed their mentality. For instance, both patients 3 and 5 voiced their concerns of had similar responses as both addressed their concern of not feeling mentally well, mentioning that they knew they "needed the support from a psychologist" because they knew they were "in a bad mental state" (Patient 3) and were not "feeling like [themselves] anymore" (Patient 5). Moreover, some patients mentioned their endorsement towards the treatment because they had hopes of going back to their families and enjoying the time they had left with them. Patients 1 mentioned that he had "the encouragement to move forward for [his] family" (Patient 1) and patient 2 claimed that she realized she had to face her problems and "even more when [she has] four children waiting for [her] to come home" (Patient 2). The most common views of hope and cancer seen in the media express that patients with cancer only have the hope of a cure (Duggleby et al., 2010). However, the sample expressed hope for improving their quality of life, which encouraged them to receive psychotherapy. These findings are in agreement with European psychologists who found that oncologic patients' meaning of hope focused on comfort, maintaining relationships, and peace (Duggleby et al., 2010). Furthermore, there was only one patient in the data that presented negative views regarding the treatment. This outlier could be attributed to the patient's lack of understanding of the treatment and high religious value as he stated that he had never gone to a psychologist before and believed that God would help him move forward, especially after mentioned that he "wasn't crazy and that God would give [him] the strength to move forward" (Patient 12). This patient didn't believe the treatment helped him and wanted antidepressant medication instead by stating that "everything is in the brain and works through chemicals" (Patient 12).

After receiving cognitive behavioural therapy, 81.25% of the patients in the study noted that the most helpful aspect of the therapy was that they were encouraged to adopt a new perspective of their situation, especially one that is generally positive. This majority showcases that the therapy implemented served its purpose as it focuses on the importance of the patient understanding how obstructive thought patterns as a consequence of an adverse situation can affect their behaviour (Barrera & Spiegel, 2014). Therefore, since the treatment helped the patients generate new positive thoughts about their situation, it means that their cognition was transformed to think and, therefore, act in a healthy way to cope with their disease, following the premise of cognitive behavioural therapy. For example, one of the patients mentioned that the therapy was "helpful in every aspect, especially because [she] was now seeing life in a beautiful way" and "realized that [she] wanted to enjoy the rest of [her] time with family" (Patient 11). Additionally, 75% of the patients claimed that the intervention supplied empathy and a space to talk. Most of these patients deal with high levels of stress, especially because pancreatic cancer has the highest rate of psychological distress when compared to other cancer groups (Clark et al., 2010). Hence, they might need to vent their concerns during the sessions. In effect, the *Handbook of Psychotherapy in Cancer Care: The International Psycho-oncology Society's Training Guide* indicates that in the first step of cognitive behavioural therapy, patients should have the opportunity to talk for "simple ventilation of emotions," as it allows to build trust between the patient and psychologist and to clearly establish that the patient feels the need to change their coping mechanisms (Horne & Watson, 2011, p. 45). As most patients felt they had an ample opportunity to talk and share their story with the psychologist, building trust for further effective sessions. Patients also mentioned feeling extreme pain, which made them feel stressed and anxious most of the times. Both chronic and acute pain can generate elevated amounts of stress in onco-

logic patients, and these events, as well as knowing the diagnosis, can lead to extreme levels of disquietude or demoralization; but cognitive behavioural therapy can be useful in managing pain (which is associated to uncertainty, death, and disease progression) by helping patients to not view the pain as a sign that the disease is advancing, helping reduce worrisome feelings (Horne & Watson, 2011, p. 44). The results show that the sessions of this psychological therapy helped the patients feel more calmed and relaxed, making their levels of anxiety decrease. Patient 4 was one of the 68.75% of the patients who mentioned that the treatment helped reduce feelings of anxiety or worry: "In the beginning, I felt full of angst, but [the psychologist's] words calmed me down… Also, there were a lot of resources to understand more my condition, which I usually wanted to know about when I felt pain around my stomach as I began to worry" (Patient 4). This depicts how the therapy reduced patient's levels of stress through effective communication with the psychologist and calmed the patient by providing useful information about his or her medical condition.

Recent studies in the Comprehensive Cancer Center at the Ohio State University and the Imam Reza hospital in Birjand have shown that cognitive behavioural therapy has been effective in significantly reducing depressive symptomatology in cancer patients with depression by enabling them to have a more optimistic regarding their situation (Brothers et al., 2011; Khodai et al., 2011). Considering that patients with cancer and depression face certain troubles and concerns in their daily lives, this study might also suggest that cognitive behavioural therapy is effective in diminishing these issues. Some of the main problems faced by depressed cancer patients are "concerns about other people's well-being," "problems in interpersonal relations," "loss of interest," "low mood," and "cancer recurrence" (Kleiboer et al., 2011). However, cancer recurrence does not apply to this study as the patients have not yet recovered from cancer. The results show how that 43.75% of the patients addressed interpersonal relations issues, indicating that they were able to improve their communication with their family members or friends. Further, 56.25% of the patients claimed that the therapy was useful in problem-solving and in giving advice. Patient 15 mentioned that, in the treatment, she received advice on how to deal with knowing that her family is suffering due to her

cancer diagnosis. Thus, concerns about other people's well-being are addressed. Also, feelings of concern for family members can also lead to feelings of isolation or loss of interest. Patient 16, for instance, mentioned that the therapy helped change how she isolated herself from her family: "She [the psychologist] helped me solve problems I had with my family by making me realize that I shouldn't just hide away from them to not make them suffer" (Patient 16). In turn, the data shows that 37.50% of the sample felt that the therapy was vital in reducing their feelings of isolation, which can improve mood or diminish the loss of interest due to new optimistic perspectives and better bonds with family members or friends (Ge et al., 2017).

Furthermore, the data indicate that more than half of the patients (56.25%) strengthened their religious faith after receiving therapy. Most patients, who identified as Catholic, mentioned that they knew that God would help them overcome their current situation. In fact, patient 13 claimed that she prayed with the psychologist: "We also prayed together, and God gave me a lot of hope in this situation" (Patient 13). None of the studies regarding cognitive behavioural therapy mention religious faith as a possible aspect to treat depression or even an outcome after receiving cognitive behavioural therapy. This theme might have emerged due to cultural factors; approximately 80% of the Colombian population is Catholic (U.S. Department of State, 2009). A prevailing trend, which emerged from the data, is the role of religion as a coping mechanism; the cohort expressed belief in a God that has and continues to help alleviate their depression and cancer. Generally, there is a strong positive correlation between hope and spiritual well-being in cancer patients at any stage, and this relationship increased in the fourth (last) stage of cancer (Liaquat et al., 2013). Patients tended to increase their focus on their relationship with God as they experienced pain, giving them hope to cope with cancer and major depression. Henceforth faith can become a key aspect of cognitive behavioural therapy as in several patients it had the potential to change negative thought patterns to ones full of optimism and hope: " I always kept my faith and knew that in one way or another, God would get me out of this situation" (Patient 5). In less religious contexts with medical practitioners or patients who are disinclined to invoke this avenue of therapeutic conversation, it is also possible to solely focus on

optimism regarding their current situation, which is the core of the treatment (Horne & Watson, 2011).

After asking the patients if they would suggest any changes, the majority (56.25%) answered that they would not change anything as their treatment was successful. Furthermore, six patients (37.50%) mentioned that if they were to change anything, they would want longer or more sessions. Cognitive behavioural therapy is known to be a short-term psychological therapy, adjusting to the need of the patient. However, it might be possible that five sessions of cognitive behavioural therapy were not sufficient as in some instances patients might need more sessions to improve their mental health (Mayo Clinic, 2017). Additionally, the hospital would not, in some cases, have the patients hospitalized for more than a month, limiting the psychologists' access to the patient for follow-ups or more sessions. For this reason, it might be ideal to implement programs, such as internet-delivered cognitive behavioural therapy (ICBT). In fact, Swedish psychologists from the University of Gothenburg concluded that ICBT, which can last up to 12 months, was as effective as cognitive behavioural therapy after the first six months (Erikson et al., 2017). ICBT sessions would be more feasible for patients and psychologists as such sessions would consist of seven online modules with activities to be completed and weekly therapist e-mail or telephone support.

Limitations

There are limitations to this study that may have hindered the accuracy of the results. First of all, the sample size of the study was too small. This can be attributed to the rareness and severity of stage II pancreatic cancer. In a study at the Memorial Sloan Kettering Cancer Center in the United States, the researchers were able to collect a sample of 467 patients in 15 years, averaging around 31 patients per year (Argüello, 2006). However, since pancreatic cancer in the United States is two times more common than in Colombia (Argüello, 2006), an appropriate sample for Colombia is approximately 15 patients a year. Also, the severity of pancreatic cancer can take a toll on the patients' health in unpredictable ways, giving

them only a few months left to live. Most patients do not fully recover, and have less than six months to live, while those who do undergo a successful surgical procedure (only 20%) have less than 15 months, which is still significantly low (Argüello, 2006). This might be another significant factor to explain the small sample size. Consequently, having a small sample size raises the question if this study can be generalized to Colombia, therefore, further investigation with a larger and diverse sample size is required to be able to generalize this study to a population beyond this cohort. Moreover, the interviews were not audio recorded. Although the participants' answers were recorded as notes, it was not possible to verify that their exact words were transcribed for verbatim, especially after translating responses from Spanish into English. However, the main idea of what the patients were saying should not have changed much. Another limitation was the fact that hospitals could not usually hold patients for more than a month, making it hard to calculate results based on only five sessions, which probably made the results slightly skewed. For further research, it would be advisable to increase the number of therapies to determine if the results are the same. Additionally, having a control group or an alternate version of the therapy to compare in this study might generate a more accurate analysis of the situation now that the passage of time or an alternative treatment might be as effective as cognitive behavioural therapy. Furthermore, two main biases might have affected the honest response of the patients. First, the patients were told that their feedback was valuable for the improvement of the delivery of the therapy, possibly pressuring them to respond with positive examples of how the therapy worked. The second bias might have arisen from the location of the interviews. Since the interviews were performed in the hospital, it might have influenced patients to endorse the therapy and provide positive feedback regarding the delivery of the treatment as it is possible that they don't feel comfortable answering the contrary while in the hospital that is providing them healthcare.

Conclusion and Future Directions

In this study, the majority of stage II pancreatic cancer patients suffering from depression indicated that they valued cognitive behavioural therapy as an approach to treat depression. Although cognitive behavioural therapy has proven to be successful in treating major depression in cancer patients in recent studies conducted at the Comprehensive Cancer Center at the Ohio State University and the Imam Reza hospital in Birjand (Brothers et al., 2011; Khodai et al., 2011), the significance of these findings are that they present a pioneer study in Colombia; this study suggests that cognitive behavioural therapy as a plausible effective therapy for major depression in pancreatic cancer patients specifically. Studies like the ones conducted by Murillo and Alarcón (2006) and Rodríguez et al. (2015) on therapies for depression in oncologic patients don't address the course of treatment for specific types of cancer (Murillo & Alarcón, 2016; Rodríguez et al., 2015), and the way therapies for depression might differ for patients who suffer from different cancer types. Therefore, further research should examine the views of a large sample of oncologic patients who are treated with cognitive behavioural therapy but suffer from other types of cancer in order to see if there is any variation. This would elucidate the relationship between cancer types and cognitive behavioural therapy by depicting for which type of cancer patients suffering from depression the treatment might work better. Finally, the implementation of cognitive behavioural therapy in other hospitals in Barranquilla as a standard treatment for major depression in pancreatic cancer patients may help to significantly reduce depressive symptomatology and improve quality of life in this type of patients, but further investigation is required.

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