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## Positive Thinking and Laughter Therapy

### Chapter 1: Introduction

#### **Background**

Chronic diseases are long-term medical conditions that are generally not curable and are managed through treatment and lifestyle changes. It has been found that chronic diseases and cancer are the leading causes of death worldwide, with an estimated 17.9 million deaths attributed to cardiovascular diseases, 9.6 million to cancer, and 3.9 million to chronic respiratory diseases in 2019 alone (World Health Organization, 2021). Moreover, chronic diseases are a significant public health issue in Lebanon. According to the World Bank collection, the cause of death by non-communicable diseases in Lebanon was reported at 88.55 % in 2019. One of the most prominent methods to manage chronic diseases and cancer is medication. However, the cost of medication has been increasing globally, making it more difficult for patients to receive healthcare. The economic crisis in Lebanon has further exacerbated the challenges faced by individuals with chronic diseases. The current Lebanese economic crisis has led to a shortage of medication and an increase in the prices of available drugs, making managing chronic diseases and cancer even more challenging. In this context, there is a need to explore alternative and complementary therapies that can improve the physical and mental health of individuals with chronic diseases, while also being cost-effective. One such therapy that has gained attention is laughter therapy and positive thinking.

## **Significance of the problem**

Laughter therapy and positive thinking have been shown to be promising complementary therapies for individuals with chronic diseases. These therapies have been found to improve mental health, reduce stress, and promote overall well-being. By doing so, they can help individuals better manage their symptoms and stay productive at work. Additionally, laughter therapy and positive thinking have the potential to reduce healthcare costs by reducing the need for medication and medical procedures.

## **Literature review**

An inspiring story that highlights the power of laughter therapy is that of Norman Cousins. In 1964, Cousins was diagnosed with a life-threatening collagen disease that left him in constant pain and with little chance of survival. Laughter therapy can improve both physical and emotional health, as well as lessen pain and hasten the healing process (Cousins, 1979). At the time, he was told he had six months to live, but he refused to accept this prognosis. Instead, Cousins adopted a positive attitude and turned to laughter therapy, which he called "a form of internal jogging". He watched funny movies, read humorous books and laughed as much as possible. Cousins credited laughter therapy with playing a significant role in his recovery, and he went on to live another 26 years, promoting the benefits of laughter therapy until his death in 1990. Cousins documented his experience in his book, Anatomy of an Illness, which helped to popularize laughter therapy and positive thinking as complementary therapies.

To further illustrate, a study published in the national library of medicine found that laughter has had positive effects on our bodies, minds, spirits, relationships, and quality of life. Despite the need for more carefully planned study, it would be appropriate to employ laughter as a complementary or alternative therapy in this era of evidence-based medicine for the prevention and

treatment of diseases (Ripoll, 2010). Thus, strive to start thinking about how laughing is a great approach to improve health, along with eating your vegetables and getting enough sleep (Stearns, 2009).

Moreover, the article titled "Can Laughter Therapy Increase Life Satisfaction?" explores the potential benefits of laughter therapy on life satisfaction. It highlights several studies that suggest laughter therapy can have a positive impact on various aspects of well-being. In a study published in PLOS One in 2019, a group of middle-aged cancer patients in Japan participated in a laughter therapy intervention. The intervention consisted of laughter yoga exercises and watching traditional Japanese verbal comedy performances. After four sessions conducted over a period of seven weeks, the participants who completed both forms of laughter therapy reported improvements in cognitive functioning and a reduction in pain compared to a control group. These findings suggest that laughter therapy may have the potential to alleviate pain and enhance cognitive well-being in cancer patients (Feilding, 2021).

In another study conducted in 2016, researchers in the field of nursing explored the effects of laughter therapy on older adults attending an elderly daycare center. The participants engaged in laughter therapy sessions once a week for a duration of four weeks, which involved stand-up comedy as a form of therapy. The study findings revealed several positive outcomes, including a decrease in systolic blood pressure, heart rate, and symptoms of depression among the participants. Additionally, laughter therapy was associated with increased serotonin concentrations and enhanced sociability in the older adults (Fielding, 2021).

## **Research questions**

This research explored some of the challenges experienced by the patients mentally, physically and economically, specifically in Lebanon. The questions raised in this research are:

- Can positive thinking and laughter therapy serve as effective complementary treatments for Lebanese individuals with chronic diseases?
- If so, what is the impact of these therapies on their psychological and financial welfare?

This study aims to explore the potential benefits of laughter therapy and positive thinking as complementary therapies for individuals with chronic diseases in Lebanon, particularly in the context of the ongoing economic crisis. The study will examine the effects of these therapies on mental health, overall well-being, and healthcare costs, with the aim of identifying effective intervention programs that can be integrated into standard medical care.

## **Methodology**

This study employs a qualitative methodology to delve deeply into the different experiences and perspectives of individuals. Interviews will be conducted in-person or virtually, depending on the participants' preference. Two participants will be selected for the study: a medical doctor and a clinical psychologist who have experience in treating patients. Moderately structured interviews will be conducted with the participants. These will allow flexibility in exploring topics while maintaining a focus on the research question. Moreover, a case study will be conducted involving Mrs. Lobna Nazzal, a Lebanese woman with a ruptured disk, to explore the benefits of these therapies.

## **Thesis**

Laughter therapy and positive thinking can serve as cost-effective complementary treatments for individuals with chronic diseases, potentially improving their psychological well-being and reducing healthcare costs, particularly in the context of the ongoing economic crisis in Lebanon.

## **Conclusion**

In conclusion, laughter therapy and optimistic thinking are viable options for helping people in Lebanon and other places that have chronic illnesses. These treatments may aid people in better managing their symptoms and maintaining productivity at work by enhancing mental health and general wellbeing. Additionally, these therapies are especially pertinent in light of the prevailing economic crisis in Lebanon due to their potential economic benefits. We can better comprehend their potential and open new doors for enhancing the lives of people with chronic conditions by continuing to investigate and develop these coping mechanisms.

## Chapter 2: The Methodology

### **Introduction**

The topic of positive thinking and laughter therapy as a complementary treatment for chronic diseases is controversial, as it challenges the traditional biomedical model of healthcare. The biomedical model focuses on the diagnosis and treatment of diseases using medical interventions such as medication and surgery. In contrast, positive thinking and laughter therapy emphasize the importance of psychological and emotional factors in health and well-being. Some healthcare providers may be skeptical of these approaches, viewing them as unproven or even unscientific. Additionally, there may be cultural and societal barriers to the acceptance of these approaches, particularly in contexts such as Lebanon, where traditional attitudes towards health and illness may be deeply ingrained. Despite these challenges, there is growing evidence to suggest that positive thinking and laughter therapy can have a significant impact on chronic disease management and overall quality of life. As such, it is essential to explore these approaches further and understand their potential benefits and limitations. The aim of this research is to identify the effect of positive thinking and laughter therapy as a complementary therapy that uses laughter and healthy mindset to promote physical and emotional healing for chronic diseases.

This chapter aims to provide a comprehensive overview of the research design, data collection, and analysis methods employed in the study. Moreover, it serves as a foundation for understanding how the study was conducted and provides a framework for evaluating the robustness of the results obtained.

### **Research Strategy**

This study follows a qualitative research design, which is appropriate for exploring how these types of complementary therapies could help individuals with chronic diseases better manage their symptoms and stay productive. They could also play a vital role in reducing the healthcare costs by reducing the need of medication and medical procedures considering the Lebanese tough economic crisis. Qualitative research is critical in the area of education because it answers "how" and "why" research questions and allows for a more in-depth knowledge of experiences, phenomena, and contexts. To comprehend human experience, qualitative research allows the researcher to pose questions that cannot be easily answered numerically (Cleland, 2017). As a part of our qualitative methodology, we conducted two semi-structured interviews and a case study, which were a helpful tool to gather information about the experiences of the participants.

## **Interviews**

As a part of the methodology for this study, two semi-structured interviews were conducted with a medical doctor and a psychologist to gain insights into the effectiveness of positive thinking and laughter therapy as a complementary treatment for chronic diseases in the context of the economic crisis in Lebanon. The first interview was with a medical doctor, Dr. Georges El Hachem, an experienced medical oncologist in Belgium and Lebanon. He has completed two diplomas and training in medical oncology at top universities. Dr. El Hachem is currently a full-time Hematologist and Medical Oncologist at Saint George Hospital University Medical Center in Lebanon and a member of numerous scientific organizations with a focus on breast cancer and cancer care. This interview took about ten minutes to complete. The interview explored Dr. Hachem's perspective on the use of positive thinking and laughter therapy in chronic disease management, especially in cancer, including any challenges or limitations they may face.

The second interview was with a health psychologist, Dr. Samer Balech. Dr. Samer Balech is a clinical and health psychologist and a psychotherapist who graduated from the University of Bordeaux. He is also a certified hypnotherapist by the National Guild of Hypnotists (NGH) and has several clinics in Zahle. This interview took about seventeen minutes to be completed. However, this interview focused on the psychologist's experiences of using positive thinking and laughter therapy in his practice and the potential benefits and limitations of these approaches. Both interviews were conducted in a semi-structured format, allowing for flexibility and adaptability to the participants' responses. Moreover, the interviews were audio-recorded and precisely transcribed, ensuring that all data was accurately captured and available for study.

Some of the questions are:

1. In your opinion, should laughter therapy be included as a complementary treatment for cancer and other chronic diseases patients, and why?
2. How effective do you think positive thinking and laughter therapy are in treating cancer and other chronic diseases?
3. Have you had any patients who have used laughter therapy as a complementary treatment for cancer or other diseases? If yes, what were the results?
4. To what extent would this type of therapy benefit Lebanese people financially?
5. Do you think we can abandon medical treatments in favor of laughter therapy and positive thinking?

## **The Case Study**



As a part of the methodology for this study, a case study was conducted on Mrs. Lobna Nazzal, a 42-year-old Lebanese woman who had been suffering from a ruptured disk and was in constant pain for a few weeks. The case study was conducted by noticing that Mrs. Nazzal experienced pain relief while sitting with some friends, to clarify, jokes and laughter were the key to her temporary relief. Mrs. Nazzal had been struggling with chronic pain for a relatively short period of time and had tried various conventional treatments without much success. To ensure the validity of the findings, the patient in the case study was observed several times and asked some follow up questions based on our observations.

Some of the questions:

1. While laughing, did you feel any pain?
2. How long did you feel this temporary relief?
3. Did you feel that laughing often improved your condition?

### **Data Analysis**

The data acquired from the interviews and the case study are analyzed using thematic analysis. According to Caulfield (2019), thematic analysis is a helpful method for conducting research when you want to learn something about people's ideas, opinions, knowledge, experiences, or values from a collection of qualitative data, such as interview transcripts. Thematic analysis is a widely used method for identifying patterns and themes in qualitative data. The analysis involves several stages, including familiarization with the data, generating initial codes, identifying themes, reviewing and refining themes, and producing a final report.

### **Ethical Considerations**

Throughout the study, ethical considerations were carefully addressed to ensure the protection of participants' rights and privacy. Informed consent was obtained from all participants prior to their participation in the study. Moreover, they were provided with information about the study, including its purpose. Aside from this, participants were not harmed or abused, both physically and psychologically, during the research process. The researcher, on the other hand, strove to develop and maintain a comfortable environment.

**Research Limitation**

As with every study, this research had limitations. Some of these limitations were the relatively small sample – only three participants – and the limited time to finish this study. A bigger sample and more time would probably enhance the trustworthiness of the dissertation.

### Chapter 3: The results

The aim of this study was to address the research question: Can positive thinking and laughter therapy serve as effective complementary treatments for Lebanese individuals with chronic diseases, and if so, what is the impact of these therapies on their psychological and financial welfare?

To achieve this goal, we conducted a qualitative study that included two semi-structured interviews with a medical doctor and a psychologist, as well as a case study of a Lebanese woman suffering from a ruptured disk.

#### **The Results of the interviews:**

During our study, we conducted two semi-structured interviews with healthcare professionals to gain insight into the effectiveness of positive thinking and laughter therapy as complementary treatments for individuals with chronic diseases. Participant 1, Dr. Georges El Hachem, is a medical doctor and experienced medical oncologist in Belgium and Lebanon. Dr. El Hachem has completed two diplomas and training in medical oncology at top universities and is currently a full-time Hematologist and Medical Oncologist at Saint George Hospital University Medical Center in Lebanon. As a member of numerous scientific organizations with a focus on breast cancer and cancer care, Dr. El Hachem provided valuable insight into the potential benefits of laughter therapy and positive thinking for cancer patients. Participant 2, Dr. Samer Balech, is a clinical and health psychologist and psychotherapist who graduated from the University of Bordeaux. He is also a certified hypnotherapist by the National Guild of Hypnotists (NGH) and has several clinics in Zahle. As an expert in psychology and mental health, Dr. Balech provided

valuable insights into the psychological benefits of positive thinking and laughter therapy for individuals with chronic diseases.

The results of the interview are listed in Tables 1, 2, 3, 4, 5 as follows:

	In your opinion, should laughter therapy be included as a complementary treatment for cancer and other chronic diseases patients, and why?
Participant 1	Cancer is a disease that can affect anyone, and it is often associated with fear and death. Patients and their loved ones may be afraid of the disease itself, as well as the potential side effects of treatment, such as nausea and discomfort. However, it is important for doctors to provide patients with hope and support, especially in the beginning stages when patients may still be in denial. Family members can also play a significant role in supporting patients' spirits and facilitating their treatment
Participant 2	Scientifically speaking, we have two classes of chronic diseases, psychosomatic disorders that have a psychological base, they are caused by stress, like psoriasis. So, in this case the only remedies are laughter therapy, hypnotherapy, or even psychoanalytic inspiration to reduce the symptoms. In addition, the second class of chronic diseases have a biological base. So, medication will play the most effective role.

*Table 1*

How effective do you think positive thinking and laughter therapy are in treating cancer and other chronic diseases?	
Participant 1	It is important to note that medication and medical treatment are essential in treating cancer and chronic diseases. Laughter therapy and positive thinking can be used as complementary treatments to improve the overall well-being of the patient and enhance the effectiveness of the medical treatment. Therefore, it is crucial to address the emotional and psychological needs of cancer patients to ensure that they receive the best possible care.
Participant 2	In psychosomatic disorders, medication can play an effective role in decreasing pain only but will not lead to a full recovery because they have a psychological base. So, the regulation of mental health will decrease the appearance of psychosomatic disorders. However, in biological base chronic diseases, medications play the most effective role with the help of some psychotherapies.

*Table 2*

	Do you think we can abandon medical treatments in favor of laughter therapy and positive thinking?
Participant 1	This is never the case; positive thinking alone cannot cure cancer; it can only help to alleviate the side effects of treatment.
Participant 2	We cannot generalize that every chronic disease can be treated by psychotherapy. Example: lower back pain can be treated by sophrology (respiration exercises), and the Crohn's malady can also be treated by excellent psychotherapy work, but the most important part is the medication and the new lifestyle via nutritional diet.

*Table 3*

	Have you had any patients who have used laughter therapy as a complementary treatment for cancer or other diseases? If yes, what were the results?
Participant 2	I have done health psychology. I have been with cancer patients in internships and in life. There are so many people that have gone beyond the disease with psychological and medical follow-up, they continued their lives normally. There are some cases that have Chronic disease managed to go beyond it with psychiatric treatment. There are patients that know they are coming to a psychologist to help them, other times, patients come just to meet the requests of their family members saying that they know they are going to die and they need to be prepared for that and then it change that when they think positively.

*Table 4*

	To what extent would type of therapy would benefit Lebanese people financially?
Participant 2	<p>Let's take the example of cancer and how medication is the only route to achieve full recovery, but positive mental health can play a crucial role as well, especially since this type of disease can proliferate rapidly and form metastases. While psychotherapies may not benefit the financial part of the patient during an economic crisis, they can certainly affect the mental part, which is just as important.</p> <p>For example, during my internship at the Institute Bergonié in Bordeaux, one of the most important cancer centers in the world, we conducted a study on the psychological aspect and how it affects the patient's state during treatment. We found that some patients can continue to fight the disease because of their attachment to life, while others give up. This highlights the importance of positive thinking and how it can help in such cases.</p> <p>Additionally, while psychotherapy is typically the only treatment for psychosomatic disorders, it can also lead to some financial benefits by decreasing the need for medication but important sessions with psychologists or psychiatrists, with the same results. However, when it comes to normal chronic diseases, a combination of medication and mental health support from a psychotherapist can be essential to fight the disease.</p> <p>In summary, building a strong mental health can be critical for patients to overcome inconvenient situations like cancer.</p>

*Table 5***The results of the case study:**

The results of this study also include a case study conducted on Mrs. Lobna Nazzal, a 42-year-old Lebanese woman, suffering from chronic pain due to a ruptured disk. The case study was conducted to observe the effects of laughter therapy and positive thinking on her pain relief. Mrs. Nazzal had tried various conventional treatments without much success, but after the laughter therapy, she experienced temporary relief from pain while sitting and laughing with friends. To

ensure the validity of the findings, as mentioned before, the patient in the case study was observed several times and asked some follow up questions based on our observations.

The answers to the questions are represented in a table as follows:

Question 1: While laughing did you feel any pain?
No, while I was laughing with my friends, I was completely distracted from my pain and did not even think about it. So, I did not feel any pain during that time.
Question 2: How much time did you feel this temporary relief?
It lasted for one to two hours before the pain returned. During that time, I was able to enjoy myself and forget about my pain, which was a much-needed break from the constant discomfort I had been experiencing. Although the relief was only temporary, it provided me with some respite and a moment of joy, which I believe had a positive impact on my overall well-being.
Question 3: Did you feel that repeating this session improved your condition?
The laughter and jokes during the session really lifted my spirits and made me feel more positive. This cheerful outlook helped me feel less pain for a while. After the session, I did still experience pain again eventually, but I felt more equipped to manage it.

*Table 6*



We fed this raw data obtained from the interviews and the case study into the Speak AI software to check patterns. We found that treatments that do not involve medicine are of higher frequency. This shows that complementary therapies such as laughter therapy and positive thinking are gaining recognition and being used more frequently than traditional medicine.

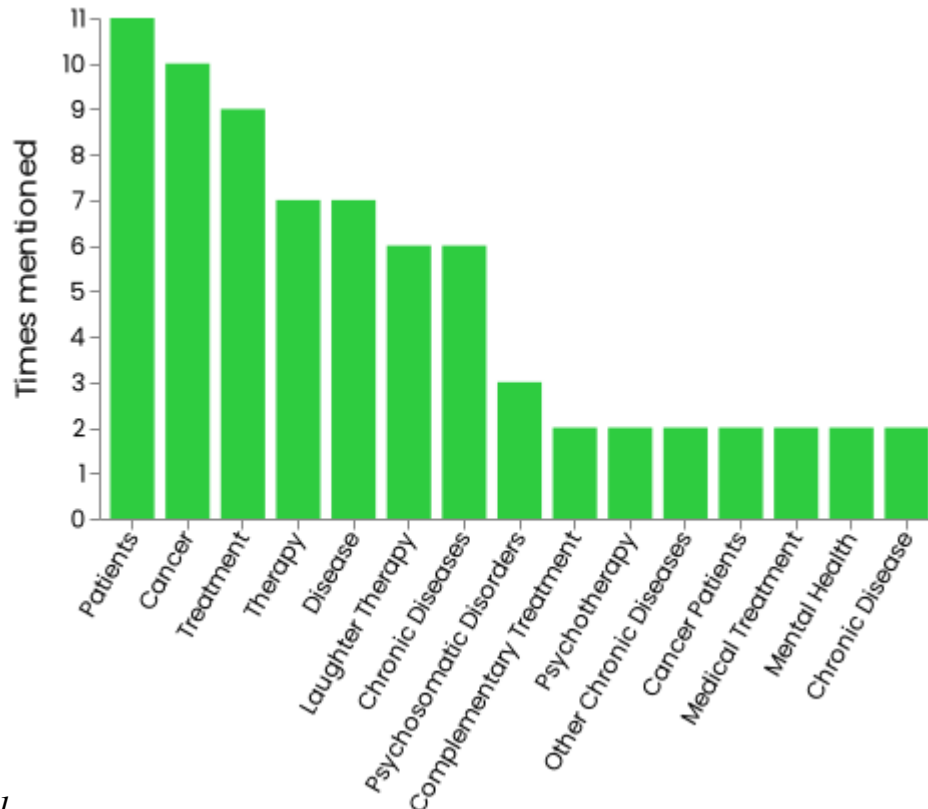


Figure 1

## The Findings

### 1. Psychological impact:

Patients with chronic diseases often experience physical symptoms that disrupt their daily lives, leading to a loss of control and increased stress. Moreover, they may face social isolation and stigma related to their condition, which further contributes to negative emotions. In such situations, positive thinking and laughter therapy can provide valuable support and hope, particularly during the early stages of treatment when denial may still be present. However,

these therapeutic approaches help patients cope with the psychological stress associated with chronic illnesses, reduce anxiety and depression. By fostering positive emotions and incorporating laughter, these therapies empower patients to regain control, boost self-esteem, and improve their overall quality of life. This can be confirmed by Field as she mentioned in her article “The Health Benefits of Humor and Laughter,” that “laughing can alleviate the stress and anxiety we experience during difficult or challenging times.” As a result, positive thinking and laughter therapy have a profound psychological impact on individuals with chronic diseases, promoting emotional well-being and effectively managing the challenges they face.

## **2. Physical impact:**

Physically, positive thinking and laughter therapy can have a significant impact on a patient's overall well-being, particularly when dealing with chronic diseases such as cancer. While medication and medical treatment are essential in treating these diseases, laughter therapy and positive thinking can be used as complementary treatments to alleviate stress, reduce pain, and enhance the effectiveness of medical treatment. However, it is important to note that positive thinking and laughter therapy cannot replace medication in treating chronic diseases. In cases where the disease has a biological base, medications play the most effective role in treatment, and in such cases, psychotherapy can be used as a supportive measure. However, in psychosomatic disorders, such as anxiety or depression, medication can only provide temporary relief, and long-term recovery can be achieved only through psychotherapy. Add to that, according to Ripoll (2010), laughter may not be a universal remedy, there is enough evidence to support its positive effects on certain aspects of health. Therefore, positive thinking and laughter therapy can be complementary

to medication but cannot replace it, and only in psychosomatic disorders can we rely solely on such therapies.

### **3. Economic impact:**

It was found that, during times of economic crisis, psychotherapies may not supply any direct financial benefit to the patient, but they can undoubtedly have a positive impact on their mental health, which is equally important. While medication can be essential in treating chronic diseases, psychotherapy can complement it by addressing the underlying emotional and psychological issues that may be contributing to the disease. Psychotherapy is particularly effective in treating psychosomatic disorders, where the physical symptoms are related to psychological factors. Although psychotherapy sessions with psychologists or psychiatrists can be costly, they can decrease the need for medication, which can ultimately lead to some financial benefits in the long run. In normal chronic diseases, a combination of medication and psychotherapy can be crucial in fighting the disease and improving the overall quality of life for the patient. While psychotherapy may not directly affect the patient's financial situation, its positive impact on mental health can lead to better coping skills and a more optimistic outlook, which can help the patient navigate through the economic crisis.

### **Conclusion:**

In conclusion, the study presented different points of view from the medical doctor and the health psychologist, both of whom have experience. Furthermore, the case study provided valuable insight into the effectiveness of laughter therapy and its potential role as a complementary therapy for chronic pain management. These results were the key to proceeding with an accurate

conclusion regarding the importance of an integrative approach to healthcare, where conventional treatments are combined with complementary therapies to optimize the health outcomes of patients.

## Chapter 4: Discussion

### Introduction

Chronic diseases pose significant challenges to patients, both physically and psychologically, requiring comprehensive and multidimensional approaches to management. While medical treatments and medications play a crucial role in addressing the physiological aspects of these conditions, the psychosocial well-being of patients is often overlooked. Positive thinking and laughter therapy offer promising avenues for supporting individuals with chronic diseases in their journey towards better health and well-being. This chapter aims to synthesize the results obtained from the semi-structured interviews with healthcare professionals and the case study conducted on a Lebanese woman with a chronic condition. By thoroughly examining the findings of this research, the discussion chapter adds valuable knowledge to the healthcare field and offers useful perspectives for future studies and practical applications within the framework of this topic.

### Summary of the Study

The study focuses on investigating the effectiveness of positive thinking and laughter therapy as complementary treatments for individuals with chronic diseases especially in Lebanon and considering the economic situation. To do so, we presented many studies that discussed this topic and its related fields. Laughter therapy has gained recognition as a powerful complementary treatment with inspiring success stories like Norman Cousins' experience. Cousins used laughter as part of his journey toward recovery from a collagen disease that threatened his life. He chronicled his story in Anatomy of An Illness, which helped bring awareness to this treatment option along with positive thinking. Scientific research also supports the potential benefits of

laughter therapy for physical and emotional health improvements along with pain relief and cognitive function enhancements. A study published by PLOS One exhibited how middle-aged cancer patients experienced better cognitive functioning levels combined with reduced pains due to laughing therapies implemented in their care plan while another study noted how older adults saw marked improvements including reduced blood pressure levels amidst other positive changes such as increased serotonin concentrations due to use of such therapies (Cousins, 1979; Ripoll, 2010; Streat, 2009; Feilding, 2021).

To answer the crucial question: “Can positive thinking and laughter therapy serve as effective complementary treatments for Lebanese individuals with chronic diseases? If so, what is the impact of these therapies on their psychological and financial welfare?” we interviewed healthcare professionals, Dr. George El Hachem and Dr. Samer Ballach, and conducted a case study of a Lebanese woman with a ruptured disk. The results obtained shed light on several important aspects.

The interviews conducted in the study revealed several key findings. Firstly, positive thinking and laughter therapy were recognized as effective complementary treatments for individuals with chronic diseases, providing benefits for both physical and psychological well-being. Participants emphasized the importance of incorporating these therapies into the treatment plan to enhance overall patient care. However, it was also acknowledged that these therapies cannot replace medical treatments and should be used in conjunction with traditional interventions.

Moreover, the findings of the case study revealed that the integration of laughter therapy significantly reduced Mrs. Lobna pain levels and contributed to physical health improvement. Furthermore, the therapy sessions also led to increased relaxation and reduced anxiety, positively affecting her psychological well-being.

## **Discussion of the findings**

Research question: “Can positive thinking and laughter therapy serve as effective complementary treatments for Lebanese individuals with chronic diseases? If so, what is the impact of these therapies on their psychological and financial welfare?”

The results of the interviews and case study conducted provided valuable insights into the potential benefits of laughter therapy and positive thinking as complementary treatments for individuals with chronic diseases, particularly in the context of the ongoing economic crisis in Lebanon.

### **1. Physical impact:**

First and foremost, the findings suggested that laughter therapy and positive thinking could play a significant role in improving the physiological well-being of individuals with chronic diseases. The interviews with the medical doctor and psychologist revealed their perspectives on the effectiveness of these therapies in managing symptoms and enhancing overall well-being. Participant 1 emphasized that laughter therapy had a notable impact on symptom management and patient well-being, “... Laughter therapy and positive thinking can be used as complementary treatments to improve the overall well-being of the patient and enhance the effectiveness of the medical treatment. Therefore, it is crucial to address the emotional and psychological needs of cancer patients to ensure that they receive the best possible care,” (Table 2). Moreover, Participant 2 believes that laughter therapy and positive thinking not only influence the psychological well-being of the patients but also have a ripple effect on their physical health. He said: “... the regulation of mental health will decrease the appearance of psychosomatic disorders. However, in biological base chronic diseases, medications play the most effective role with the help of some

psychotherapies,” (Table 2). The case study of participant 3 further supported these findings, as she experienced temporary pain relief and improved condition through laughter and humor. These results indicated that laughter therapy and positive thinking had the potential to positively impact the health of individuals with chronic diseases.

## **2. Psychological impact:**

After interviewing the medical doctor and a psychologist it became clear that both agreed on the positive impact these therapies have on improving the patients’ psychological state. They both found laughter therapy particularly noteworthy in its ability to improve mood, decrease stress levels and reduce pain perception with retaining the medications as they said “... There are so many people that have gone beyond the disease with psychological and medical follow-up, they continued their lives normally... (participant 2, table 4),” and “...positive thinking alone cannot cure cancer; it can only help to alleviate the side effects of treatment...(participant 1, table 3 ).” To further illustrate, the case study highlights that the experience of laughter and humor not only provided participant 3 with a momentary distraction from her chronic pain but also created a positive emotional state that helped alleviate her psychological distress. This psychological impact demonstrates the potential of laughter therapy to enhance the well-being of individuals with chronic diseases by offering a non-pharmacological approach to pain management and improving their overall psychological state.

## **3. Economic Impact**

The research highlighted the potential economic benefits of these therapies. In the context of the economic crisis in Lebanon, where the cost of medication and healthcare are increasing, laughter therapy and positive thinking provide a cost-effective alternative or complementary



treatment. By reducing the need for medication and medical procedures, these therapies may have contributed to a reduction in healthcare costs. However, the results emphasize that fostering strong mental health is critical for patients facing challenging situations like cancer. While psychotherapies may not directly alleviate financial burdens, they significantly contribute to patients' mental well-being, which can have indirect positive effects on their overall quality of life and potentially reduce medication dependency and the need for extensive psychological support (Participant 2).

### **Implications**

The implications of this study underscore the potential advantages of incorporating laughter therapy and positive thinking as complementary treatments for individuals with chronic diseases in Lebanon. By integrating these therapies into healthcare practices, healthcare providers could enhance the overall well-being of patients, addressing not only their physical symptoms but also their psychological and emotional needs. Individuals living with chronic conditions might benefit greatly from this holistic approach related to healthcare. Furthermore, it is crucial to continue researching and developing effective strategies to maximize the benefits of laughter therapy and positive thinking in improving the lives of individuals with chronic diseases, especially in Lebanon.

### **Limitations**

However, it is important to note that this research had some limitations. The sample size was relatively small, consisting of only three participants, which may limit the generalizability of the findings. Additionally, the study was conducted within a specific cultural and societal context in

Lebanon, which may have influenced the acceptance and effectiveness of these therapies. Further research with a larger and more diverse sample would provide a more comprehensive understanding of the impact of laughter therapy and positive thinking on individuals with chronic diseases.

### **Recommendations**

Based on the imprecise findings, it is proposed that more research should be conducted to investigate the long-term impact of laughing therapy and positive thinking on persons who suffer from chronic diseases. Furthermore, more research should be conducted to investigate the processes through which these therapies exert their effects, as well as the best intervention programs that may be integrated into conventional medical care.

### **Conclusion**

“During times when we are barraged with economic, social, political, and health problems, we can turn to this not-so-obvious way to protect ourselves...” (Field, 2024). In conclusion, this research provided evidence supporting the potential benefits of laughter therapy and positive thinking as complementary treatments for individuals with chronic diseases, particularly in the context of the economic crisis in Lebanon. These therapies showed promising results in improving psychological well-being, reducing pain, and potentially reducing healthcare costs. The findings of this study extended the existing knowledge in the field and emphasized the need for further research and the development of effective intervention programs. Ultimately, the integration of laughter therapy and positive thinking into standard medical care may enhance the lives of individuals with chronic diseases, both in Lebanon and in other contexts.

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