REPUBLIC OF TURKEY
ÇUKUROVA UNIVERSITY
SOCIAL SCIENCES INSTITUTE
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GUIDANCE AND PSYCHOLOGICAL COUNSELING DOCTORAL PROGRAM

THE EFFECTIVENESS OF THE COGNITIVE-BEHAVIORAL PROGRAM IN THE SENSE OF COHERENCE TO REDUCE POST-TRAUMATIC STRESS DISORDER AS A RESULT OF THE PANDEMIC COVID-19 AMONG INTERNATIONAL STUDENTS IN TURKEY

Enass Mohammed Ahmed ALMUSAWA

PhD. DISSERTATION

ADANA / 2023

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Enass Mohammed Ahmed ALMUSAWA

ÖZET

TÜRKİYE'DE EĞİTİM GÖREN YABANCI ÖĞRENCİLERDE COVİD-19 PANDEMİSİNİN SONUCU OLUŞAN TRAVMA SONRASI STRES BOZUKLUĞUNU AZALTMADA TUTARLILIK DUYGUSUNA YÖNELİK BİLİŞSEL DAVRANIŞSAL PROGRAMININ ETKİLİLİĞİ

Enass Mohammed Ahmed ALMUSAWA

Doktora Tezi, Eğitim Bilimleri Ana Bilim Dalı-Rehberlik ve Psikolojik Danışmanlık Doktora Programı
Danışman: Doç. Dr. Oğuzhan KIRDÖK
Ekim 2023,190 sayfa

Bu araştırmanın amacı; Türkiye'de eğitim gören yabancı öğrencilerde Covid-19 pandemisi sonucunda oluşan travma sonrası stres bozukluğunu azaltmada Tutarlılık Duygularına yönelik Bilişsel-Davranışsal Programının etkililiğini belirlemektir.

Yarı-Deneysel Araştırma Modelerinden "öntest-sontest ve kalıcılık testi kontrol gruplu yarı deneysel model kullanılarak" gerçekleştirilen bu çalışmada, öncelikle ölçme aracı olarak araştırmacı tarafından Travma Sonrası Stres Bozukluğu (TSSB/PTSD) ölçeği geliştirilmiş, ölçeğin geçerlik ve güvenirlik çalışmaları yapılmış, daha sonra, geliştirilen bu ölçek ve Antonovsky tarafından 1987 yılında geliştirilen Tutarlılık Duygusu (TD/SOC) ölçeği de kullanılarak, uygulanan Bilişsel-Davranışsal Programının, deney ve kontrol grubundaki yabancı öğrencilerin son test ve izleme (kalıcılık) testlerinden elde ettikleri puanların ortalamaları arasındaki istatistiksel anlamlılık düzeyleri incelenmiştir.

Ayrıca Antonovsky tarafından 1987 yılında geliştirilmiş olan Tutarlılık Duygusu Ölçeğinin (TD/SOC) de geçerlik ve güvenrlik çalışmaları araştırmacı tarafından bu örneklem için tekrar yapılarak ölçek güncellenmiştir. Diğer taraftan, Deney ve Kontrol gruplarının ön test, son-test ve kalıcılık testi puanlarının analizinde Mann-Whitney U ve Wilcokson-Z testleri kullanılmıştır.

Araştırmada kullanılan ölçeklerin geliştirilmesi ve güncellemesi aşamalarındaki örneklemini, araştırmanın çalışma evreninden kartopu örnekleme tekniği kullanılarak basit tesadüfi örnekleme yöntemiyle değişik illerden ve gönüllü olarak araştırmaya Google Form ile katılan 609 erkek ve kız yabancı öğrenci oluşturmuştur. Araştırmacı tarafından geliştirilen ölçek (TSSB) ile 1987 yılında Antonovsky tarafından geliştirilmiş olan ve araştırmacı tarafından güncellenen ölçeğin (TD) de kullanıldığı deneysel

uygulama aşamasında ise deney ve kontrol grupları, bu 609 öğrenci içinden yansız olmayan örnekleme yöntemlerinden; kolay ulaşılabilirlik boyutu da göz önünde bulundurularak, uygun örnekleme yöntemiyle çoğunluğu Konya ilinden olmak üzere travma sonrası stres seviyesi yüksek çıkan 26 öğrenciden oluşturulmuştur. Yarı- Deneysel araştırma modeli temelinde bu öğrencilerden rastgele seçilen 13 öğrenci "deney grubunu", 13 öğrenci ise de "kontrol grubunu" oluşturmuştur.

Uygulanan ölçekler (TD ve TSSB) temelinde, deney ve kontrol gruplarının son test toplam puanlarının ortalamaları arasında, deney grubunun lehine anlamlı farklar olduğu görülmüş, her iki ölçekte de öğrencilerin son test ve izleme (kalıcılık) testi puanlarının ortalamaları açısından gruplar arasında anlamlı farklar bulunmamıştır.

Sonuç olarak, travma sonrası stres bozukluğunun azaltılması için uygulanan bilişsel-davranışçı terapi temelli müdahale programının, Covid-19 pandemi sürecinde öğrencilerde görülen travma sonrası stres bozukluğu düzeylerini azalttığı ve Tutarlılık duygularını anlamlı düzeyde iyileştirdiği belirlenmiştir.

Anahtar kelimeler: Bilişsel-davranışçı terapi temelli müdahale programı, tutarlılık duygusu, travma sonrası stres bozukluğu, COVİD-19 pandemisi, yabancı öğrenciler.

ABSTRACT

THE EFFECTIVENESS OF THE COGNITIVE-BEHAVIORAL PROGRAM IN THE SENSE OF COHERENCE TO REDUCE POST-TRAUMATIC STRESS DISORDER AS A RESULT OF THE PANDEMIC COVID-19 AMONG INTERNATIONAL STUDENTS IN TURKEY

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The purpose of this research is to determine the effectiveness of the Cognitive-Behavioral Program in Sense of Coherence to reduce post-traumatic stress disorder as a result of the COVID-19 pandemic among international students who are studying in Turkey. In this research, which was carried out using the quasi-experimental model with a pre-test, post-test, and retention test control group, the Post-traumatic Stress Disorder (PTSD) scale was developed by the researcher as a measurement tool. Then, validity and reliability tests of the scale were conducted, and the statistical significance levels between the mean scores of the international students in the experimental and control groups in the post-test and follow-up (retention) tests of the Cognitive-Behavioral Program, which was implemented using this scale and the Sense of Coherence (SOC) scale developed by Antonovsky in 1987, were examined. Also, the researcher found validity and reliability. On the other hand, Mann-Whitney U and Wilcokson-Z tests were used to analyze the pretest, post-test, and retention test scores of the experimental and control groups.

The sample in the scales development and adaptation phase of the research consisted of 609 male and female international students from different countries who voluntarily participated in the research with Google Form by using a simple random sampling method using the snowball sampling technique from the study population of the research. In the experimental application phase, in which this scale (PTSD) developed by the researcher and the scale developed by Antonovsky in 1987 (TD) and adapted by the researcher were also used, 26 students with high post-traumatic stress levels were selected from these 609

students, mostly from Konya city, by the "snowball sample method", taking into account the dimension of easy accessibility. On the basis of the quasi-experimental research model, 13 students randomly selected from these students constituted the "experimental group" and 13 students constituted the "control group".

Based on the scales applied (SOC) and (PTSD), there were significant differences between the mean post-test total scores of the experimental and control groups in favor of the experimental group, and there were no significant differences between the groups in the mean post-test and follow-up (retention) test scores of the students in both scales.

As a result, it was determined that the cognitive-behavioral therapy-based intervention program implemented to reduce post-traumatic stress disorder reduced the levels of post-traumatic stress disorder noted among students during the COVID-19 pandemic process and significantly improved their sense of coherence.

Keywords: Cognitive-behavioral therapy-based intervention program, Sense of coherence, Posttraumatic stress disorder, COVID-19 pandemic, Foreign students.

DEDICATION

Words can't describe what I feel, and I can't express what's on my mind, but I dedicated this effort to whose prayer accompanied me in all stages of my life, to those who gave me strength when I was weak after God.

Mom & Dad

To those who supported and helped me in my study and never left me alone, and to those who helped me complete my education and get my Ph.D., after God.

My family in Turkey

Prof. Dr. Oğuz KUTLU & Prof.Dr. Asim YAPICI

Also, I dedicate this effort to

Yemen and Turkiye

Researcher

Enass. M. ALMUSAWA

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Enass Mohammed Ahmed ALMUSAWA

Adana / 2023

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ABBREVIATIONS

APA : American Psychological Association

CBM : Cognitive behavior modification

CBT : Cognitive-behavioral therapy

CR : Cognitive Restructuring

DSM5 : The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition

EMDR : Eye movement desensitization and reprocessing

PTSD : Post-traumatic stress disorder

REBT : Rational Emotive Behavior Therapy

SIT : Self-instructional training

SIT : Self-instructional training.

SOC : Sense of coherence

TF-CBT : Trauma-Focused Cognitive-Behavioral Therapy

WHO : World Health Organization

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CHAPTER I

INTRODUCTION

1.1. Introduction

During the last two decades, there has been a change in the focus of research in the fields of stress, coping, and health. Soon, research in this area embraced a pathogenic orientation, focusing on the path of events that make life stressful and lead an individual to several negative health outcomes. More recently, various researchers and theorists have adopted a salutogenic trend, exploring the factors that help an individual maintain psychological well-being and physical health in the face of stressors (Antonovsky, 1979; Zhang & Wong, 2011).

The COVID-19 pandemic has presented myriad challenges to the healthcare system, linked with highly infectious and lethal disease outbreaks that are not understood between people, which lead them to be under the impact of continuing acute stressors and fall victim to fear from infection of coronavirus that increased rates of mental disorders, including post-traumatic stress disorder, pursuant to the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5). This type of stressor represents a perceived intense life threat, physical safety, sense of danger, or horror. COVID-19 is a threat to personal integrity, and the fright that it produces is enough to define it as a traumatic event (Restauri & Sheridan, 2020; Tang et al., 2020; APA, 2020).

There has been no research on the psychological influence of the new COVID-19 among the general public. However, according to Duan and Zhu (2020), there will likely be a steady increase in the need for psychological assistance as well as a quick and urgent study on COVID-19's linked psychological consequences. where the majority of studies in the literature now concentrate on posttraumatic growth and the variables that may affect the development of negative thoughts, recurrent nightmares, avoidance of the trauma, self-blame, and dread, among other responses to trauma. A condition called post-traumatic stress disorder can arise as a result of psychological trauma. It is estimated that 6% of men and 10% of women experience PTSD during their lifetime, and a person with PTSD must receive adequate Intervention in order to recover (Bisson, 2015; Xiao et al., 2020; Chen et al., 2021).

Despite little research conducted in the sense of coherence, it is one of the main terms that impact posttraumatic growth (Arya & Davidson, 2015). A sense of coherence

concept provides a complete understanding of how individuals deal positively, resulting in promoted health, increased social adjustment, and improved well-being (Antonovsky, 1993).

One of the main supporters of the salutogenic model is Antonovsky, who president the construct of sense of coherence (SOC), which he described as a 'global orientation, a full feeling of confidence that the events of life that one faces are comprehensible, and that one has the resources to confront the demands of these events, and these requirements are meaningful and worthy of engagement (Antonovsky, 1987).

A sense of coherence is related to posttraumatic outgrowth after critical incidents. Antonovsky noted that people with a strong sense of coherence can manage stress better than individuals with a weak SOC. Individuals with high SOC appear to have a greater understanding of the universe around them, as well as confidence in the availability of resources; thus, they are less anxious as a result of their ability to grasp the event, handle it, and find meaningful meaning in it. Then they appear to be more capable of identifying functional confrontation methods (Du Dek & Koniarek, 2000).

Therefore, the researcher sees great importance in designing Intervention programs that aim to reduce post-traumatic stress disorder in individuals recovering from COVID-19, which significantly affected their mental health.

Cognitive-behavior therapy is an action-oriented Intervention used as a psychological Intervention for psychological and mental disorders. CBT focuses mainly on pathology in information processing methods that consistently produce biased judgments and an accompanying tendency to make cognitive errors in certain types of situations in patients with depression or anxiety, reverse impotence, anti-intolerance, and PTSD. As CBT matures, contributions from behavioral therapy research and studies of cognitive processes in mental disorders have enriched the clinical field (Jesse, 2006; Beck, 2004; Kaplan et al., 1997).

1.2. The Problem of the Research

There is no doubt that the external factors and stressful events in this era have significantly and noticeably affected the psychological structure of the individual because of the rapid and complex changes that have negatively affected some individuals, particularly with the appearance of pandemics, which have become a danger and threat to the individual's life. This was vividly seen during the global Corona pandemic that

began in December 2019 in Wuhan, China. There has been a noticeable decline in an individual's mental health as a result of their fears of infection with the Coronavirus, a lethal pandemic for which no vaccine has been discovered.

The World Health Organization considers it a dangerous and infectious disease, especially since its symptoms are severe in one in every five people who catch the virus, such as shortness of breath, while other individuals recover from the virus by 80% without needing Intervention (WHO, 2020).

Not to mention that the increasing numbers of dead people, seeing pictures on social media, and the spread of misinformation about the virus pushed people to reach the utmost levels of panic and psychological pressure, which some people were unable to resist, which resulted in many psychological problems and disorders among people, including domestic violence, suicide, obsessive compulsions, depression, anxiety, alcohol and drug addiction, and post-traumatic stress disorder. Some of these symptoms appear in individuals soon after hearing the news of a close death or the high number of cases (Luo et al., 2020).

Brooks et all. 2020, a recent review reported that quarantine is associated with increased psychological distress, diagnostic symptoms of post-traumatic stress disorder, depression, and in general greater levels of stress. However, there are individuals who live in the same circumstance and events, which were less traumatic for them, so their ability allows them to perceive stressful situations and deal with them as temporary and not permanent, and to view them as an opportunity to grow and test their ability to withstand and deal with those circumstances with some challenge, and to transform suffering into positive energy with the goal of controlling and managing these pressures and maintaining an appropriate level of mental health after they have gone through these crises, they can benefit from their psychological resources in a positive way to make them less likely to suffer from physical diseases or mental disorders.

From this standpoint, researchers began looking for those reasons that made some people maintain their mental health despite going through crises, different from those who stumbled psychologically and physically, and they found that it was positively associated with what I called the concept of a sense of coherence, this term which is related Despite the little amount of research conducted, a sense of coherence is one of the main topics in terms of the extent of its impact on posttraumatic growth (Arya & Davidson, 2015). SOC contributes to reducing the effects of stress by modifying the perception of the situation and reducing the negative impact of stressors through cognitive

assessment and coping strategies. These personality traits are highly desirable for health maintenance (Unver & Ersu, 2022). People with a healthy SOC have a general orientation to conclude that the world is comprehensible, that challenges are manageable, and that it is meaningful for them to engage in these challenges (Antonovsky, 1986).

Antonovsky (1987), argued that SOC does not remove stress but can contribute to reducing the probability of tension evolving into stress. On this basis, individuals with a strong SOC will strive for health-promoting behaviors, unlike individuals with a weak SOC. Individuals with a strong SOC are viewed as more competent regarding health choices and the identification and use of them, which contributes to understanding situations as comprehensible, manageable, and meaningful, and have greater opportunities for coping, which further impacts health (Valle, 2018).

As people are living with the current situation, which requires them to be alert and careful, however, the researcher found that after the passage of the first wave of the virus and with the synchronization of entering with the second wave, the apparent effects of post-traumatic stress disorder resulting from the virus were noticed among individuals when using public transportation, where it was clear for some individuals to panic when seeing a person who does not wear masks, coughs, sneezes, or touches him, or using the elevator, during shopping at the supermarket, etc... This led the researcher to desire to research this issue and find out why some people have reached this stage of fear while we see others deal with the situation normally and what makes them live in this state of balance and live their lives flexibly.

Therefore, the research hypotheses can be formulated in this form:

1.3. Hypotheses of the Research

1. There are statistically significant differences between the scores of the experimental group and the control group among international students on the dimensions of the SOC scale and its overall score in the post-test.
2. There are statistically significant differences between the scores of the experimental group and the control group among international students on the dimensions of the PTSD scale and their total score in the post-test.
3. There are statistically significant differences in the mean score of the experimental group among the international students on the dimensions of the SOC scale and their total score in the pre and post-tests.

4. There are statistically significant differences in the mean score of the experimental group among the international students on the dimensions of the PTSD scale and their total score in the pre and post-tests.
5. There are no statistically significant differences in the mean score of the experimental group among the international students on the dimensions of the SOC scale and their overall score at post and follow-up tests.
6. There are no statistically significant differences in the mean score of the experimental group among the international students on the dimensions of the PTSD scale and their overall score in the post and follow-up tests.

1.4. Significance of the Research

Research studies a modern concept in positive targets, where the world has been suffering for a year from the effects of the coronavirus, which has affected some people psychologically, because man is by nature a social being who cannot live in isolation from others. Therefore, those who have isolated themselves at home or have been injured during isolation may exhibit symptoms of PTSD.

In this category of university adolescents, we have hope that nations will advance and achieve their goals to improve the positive energy for the prosperity of our society, and it is imperative to pay attention and care for them, especially from the psychological side (Almansor, 2017). Also (Dadaczynski et al., 2021) study mentioned that based on the findings, public health response to the pandemic and university health promotion should therefore consider student mental health as an important goal within their policy and action framework.

Many conferences and research have emphasized the importance of developing and designing Intervention programs aimed at treating mental disorders of all kinds, especially traumatic disorders, which are called "the hidden wound" because they occur without apparent physical signs. However, this hidden disorder, whose symptoms appear at a late stage, must be treated psychologically so that the matter does not develop in the individual and lead to impairment of his abilities.

Given the importance of this issue, the World Health Organization's Global Program of Action for Mental Health was launched in 2008 to expand the scope of care for people with mental disorders. And neuroticism, the conferences also emphasized the importance of Intervention and the development of Intervention programs for it,

including the first conference on "dialectical behavior therapy", "post-traumatic stress disorder" in 2014 and the first conference on mental health in the Middle East and North Africa in 2014. Also (Xueyan Li & Miao Zu,2021) suggests the severity of the psychological impact of COVID -19. Mental health services that reduce PTSD should be provided. Students who have lost a loved one and suffered financial losses in the family should be given special care.

The COVID -19 epidemic negatively impacts mental health. However, to date, prospective studies examining these effects are lacking. In addition, it is important to examine the factors that address stress from the pandemic. At this point, a sense of coherence has emerged as a particularly influential resilience factor.

Also, new guidelines introduced in WOH (2020) aim to enable primary care workers to provide the necessary psychosocial support to people suffering from PTSD, acute stress, and the loss of a loved one (Ruiz-Frutos et al.,2020). The study recommends that it is important for professionals, staff, and volunteers involved in COVID -19 to receive psychological support.

1.5. Applied Significance of the Research

- Providing the library with a scale for PTSD that incorporates the characteristics of different societies and cultures adds something new to the science and knowledge and appropriate to the characteristics of the sample.
- Develop a cognitive-behavioral therapy-based intervention program to the reduction of PTSD that allows for follow-up with people at risk of experiencing trauma.

1.6. The Limitations of the Research

1. The cognitive-behavioral therapy-based intervention program in terms of coherence to reduce PTSD as a result of Covid -19 was applied to participants by the researcher over 12 sessions.
2. Data from the research were obtained using a sense of coherence scale and a PTSD scale.
3. The research is limited to the academic year 2021-2022.
4. The results of this quasi-experimental research can only be generalized for people suffering from PTSD as a result of covid-19.

5. The experimental and control groups of the research are composed of male and female international students studying in Turkish universities and speaking Arabic.

1.7. Definition of Concepts

1.7.1. Cognitive-Behavioral Therapy

Cognitive-behavioral therapy is a form of psychological intervention that has been shown to be effective for a variety of problems, including depression, anxiety disorders, drug and alcohol addiction, marital problems, eating disorders, and serious mental illness (Cohen & Mannarino, 2008).

1.7.2. Sense of Coherence

Antonovsky defines a sense of coherence as a global orientation that expresses the extent to which one has a pervasive, persistent, albeit dynamic, sense of confidence that (1) the stimuli emanating from the internal and external environment throughout life are structured, predictable, and explainable (understandability); (2) resources are available to meet the demands created by these stimuli (manageability); and (3) they are concerns that require investment and participation (meaningfulness), (Antonovsky, 1987).

1.7.3. Post-Traumatic Stress Disorder

A traumatic experience is an excessive traumatic event. It means that one has personally experienced the event directly and in a serious way, whereby death, serious injury, or other threat to bodily integrity has occurred, witnessed an event in which injury or death has occurred, the safety of one's body has been threatened, knowledge of an unexpected death has occurred, or the use of force or a serious injury that may touch a family member or close friend (American Psychiatric Association, 1994).

1.7.4. COVID-19

Coronaviruses are a group of viruses in the Coronaviridae family that infect both animals and humans. Human coronaviruses can cause mild illnesses similar to the common cold, while others cause more severe illnesses such as MERS - Middle East Respiratory Syndrome and SARS – Severe Acute Respiratory Syndrome (World Health Organization, 2020).

CHAPTER II

THEORETICAL EXPLANATIONS AND PREVIOUS STUDIES

This chapter reviews the theoretical framework of the research, which includes a sense of coherence, post-traumatic stress disorder, cognitive-behavioral therapy, theories and Intervention techniques, and the covid-19. Also, Previous studies.

2.1. A sense of Coherence

2.1.1. The Salutogenic Model and Define The Concept of The Sense of Coherence

After the 1950's, a new trend emerges in psychology concerned with individuals' physical health, as a new motion appeared for psychologists directed to study the effect of psychological variables on the case of health, find out the factors that evolve and maintain human health, and focusing on an image away from the passive consequences of mental and bodily disorders and diseases (Seligman & Csikszentmihalyi, 2000).

Antonovsky spent more than 30 years on the SMH, the first 15 years resulted in the publication of his book (Health, Stress, and Coping) in 1979. Subsequently, Antonovsky in the following 15 years built and improved this model and its consists. The publication of his 1987 book "Unravelling the Mystery of Health" was regarded as a great change in his career life. where the aim of this publishing was originally to be a revised edition of the book (health, stress, and Coping), but it turned into a new full book, explaining and introducing firstly the idea and the meaning of a sense of coherence, also, response the salutogenic issue. This book earned great success and was presented in several tongues (Barry, 2017).

The concept of a sense of coherence was first introduced by Antonovsky (1979), as cited in (Frenz, Carey, & Jorgensen, 1993) it is the essential concept of the Salutogenic model and is represented to be a determinant of health. Antonovsky created this conceptual frame to understand why some people succeed in the face of distress, whereas others give up on it (Hanssonm, et al., 2022).

As a reaction to the one-sided attention on pathogenesis in health research and answer this question Why do some people stay healthy despite so many possible adverse health effects? How can they obtain recovery from illness? What are the characteristics of those individuals who do not get sick in spite of experiencing adversity? (Langeland,

2016).

In the theory of salutogenesis, the term “building health” was created under the name “salotogenisy,” and it developed up to the level of theory in health and psychological flexibility. The concept consists of two words: salutogenic, which comes from the Latin word "salus, and health, which come from the Greek word genesis," which gives a general understanding of how coexistence as a sense of coherence may have been created and focuses on pathways that command successful coping and health.

A sense of coherence is believed to be established in an individual’s historical and sociocultural experiences. This means that an individual will develop a solid sense of coherence over time, conditional on the fact that resistance resources are refound, consistent, and orderly (Rothmann, Jackson, & Kruger, 2003). Experiences that increase, uncontrollable liability, and doubt produce a weak sense of coherence (Rothmann et al., 2003). A strong sense of coherence positively impacts how we see the world and enables us to deal successfully with the many stressors that we are exposed to in the path of living (Antonovsky, 1993).

Health was not seen as a binary variable but rather as a continuum, with an effort to understand what causes a person to progress towards the healthy end of that continuum in order to improve a feeling of coherence and coping. Instead of focusing on the diagnosis, it tells the individual's story. The constant, load-balanced, and individual choice-making experiences that people have, as per Antonovsky's SOC theory, "promote a person's SOC and enable them to adapt and cope when facing life adversities." People will succeed in life if they can cope with the pressures, difficulties, and relapses they experience; if they choose not to, they will fail on a biological, psychological, and social level.

The salutogenic model is independent of two fundamental assumptions: Antonovsky, The first assumption is that individuals are constantly under the attack of diverse stimuli, which leads to an imbalance (heterostasis). The second assumption is that unless we are able to deal with these stimuli, they will lead to a movement toward trouble and disease (entropy) because of the way they view their lives and their essence of existence (Antonovsky, 1979; Korotkov, 1998; Langeland, 2007; Hochwälder, 2019).

According to Antonovsky, this concept is an inner resource for the enjoyment of health and it is an important item for the successful conformity of health in times of crisis. A sense of coherence can affect several organ systems (such as the central nervous system, the immune system, the hierarchical system, etc.), as they do not only affect the

face of stressful situations, but they work directly against stress.

It is a psychological trait or a shared trait among those who have kept their health through trying circumstances. People who experience feelings and emotions are more likely to be able to adopt developmentally and behaviorally healthy habits, such as taking care of one's health early doctor's appointments and routine checkups. Additionally, they steer clear of negative thought habits.

According to Antonovsky (1979), a sense of coherence is a kindness in life that shows how urgent, persistent, and dynamic an individual feels while also having confidence in predicting a just experience. There is a great likelihood that the possibilities that people meet in life will acquire a level of rationality in the manner that the individual expects. Furthermore, the theoretical concept of a feeling of coherence has drawn the attention of many psychologists and health experts since it assumes that health arises from an individual's personality framework for life. As well as situational factors such as the personal perception of environmental pressures and the individual's perception of social support that supports them in stressful situations, there is no doubt that a sense of coherence is an important component of successful compatibility, and since successful compatibility is a complex process, a sense of coherence interacts with many different aspects of personality, such as the five factors of personality, spiritual transcendence, cognitive abilities, and motivation to benefit from it (Antonovsky, 1979; Öztekin, 2008; Youssefi, 2017).

Antonovsky steers criticism towards the biopsychosocial medicine path, claiming that it is influenced by biomedicine. He stated that despite the fact that biopsychosocial medicine examines the person from a psychological and social perspective, because it is individual and Intervention -focused, it is unable to provide continuous rehabilitation. Following this criticism, in 1979, he explained a salutogenic model that focuses on improving health instead of struggling with disease (Unver & Ersu, 2021). Some definitions of a sense of coherence differ according to the viewpoint of the searchers. A sense of coherence is a theoretical construct, described by Antonovsky as a disposition rather than a personal trait. His research led him to formulate the concept of SOC.

According to Antonovsky, a sense of coherence is a theoretical concept rather than a character flaw. As defined by Antonovsky (1987), a sense of coherence is a general orientation that explains how much one is confident that (1) the stimuli arising from one's internal and external environments in the course of living are structured, interpretable, and predictable (comprehensibility); (2) the resources are available to one to face the

demands posed by these stimuli (manageability); and (3) these desires are challenges, worthy of exploitation and engagement (meaningfulness).

Consoli (1993), mentioned that a sense of coherence is a general trend of thinking centered around a static and dynamic feeling of self-confidence that allows a person to understand and control stimuli coming from external or internal environments to confront stressful situations (Erikson, 2017).

Robert et al. (2006), refer to the sense of coherence as representing an important dimension in the classic models of psychological health that search for the factors that allow a person to enjoy good psychological and physical health under stress and not the factors that make an individual weak.

Kaor (2010), indicates that it is a concept founded on the theory of health origin and that it interprets the ability of people to maintain their health in stressful events. as well as their ability to move forward, grow, succeed, and prosper in terms of their ability to deal with pressures or maintain their health.

Randler, Luffer, and Miller define a sense of coherence as a key factor in determining a person's capacity to manage stress and maintain mental health (Zand, 2013).

Manor-Binyamini & Nator (2016), define the sense of coherence as a positive attitude across the environment that surrounds the individual, which reflects the continuing confidence that things are going in a logical and meaningful way (Moftah, 2010). Yousefi defines it as a sense of coherence, as the tendency to be optimistic toward pressure and confident in the face of it (Yousefi, 2019).

Bachein & Maercker 2018, define the sense of coherence as being aware of negative life experiences, rebalancing situations after evaluating them, having optimism and acceptance of life, and seeing the world as expected. A sense of coherence develops during childhood and adolescence in general to maintain stability during the remainder of life (Almansor, 2017).

Johnson (2004), defines a sense of coherence as an orientation toward one's life that indicates one's confidence, self-esteem, and monitoring in dealing with life events as challenging and functionally engaging internal resources to cope with difficulties.

A sense of coherence is the capacity to control and manage life regardless of what happens. In other words, it is one's attitude toward life. It is a person-thinking strategy that makes the individual understand existence, take action, believe in himself, and determine and use the resources (Çam & Demirkol, 2019).

Rothmann (2003), holds a similar view and defines a sense of coherence as a coping mechanism that tends to moderate life stress by influencing one's cognitive and emotional stimuli.

2.1.2. Dimensions of Sense of Coherence

Comprehensibility, manageability, and meaningfulness are fundamental concepts in exploring the sense of coherence. Because these concepts reveal the degree of the individual's capacity to cope, their cognitive and emotional force, and a positive approach to environmental stimuli. As it helps individuals understand the events, cope with them, and find meaning in life. The individual who begins to perceive life as more comprehensive and manageable also attempts to make life more meaningful because the sense of coherence is structured upon these three concepts. Antonovsky developed the sense of coherence concept as the axis of his theory (Antonovsky, 1979; Van der Merwe et al., 2019).

1- Comprehensibility

The cognitive component, "Comprehensibility," is the essence of the SOC. It mentions how an individual perceives the stimuli they are faced with, whether they are in the internal or external environment. This could be perceived as coherent, arranged, structured, and evident, or the opposite intelligibility could be perceived as messy, disordered, random, and inexplicable. On the basis of this, the individual anticipates future stimuli to be "regulatable, interpretable, and predictable".

SOC is a way of seeing individuals' generic resistance resources, which helps people cope with complex adversities confronted in their lives. It is also a way of noting individuals' ability to identify these resources, which is a necessity in the development of SOC. On the other hand, it was suggested that closely attached contexts in which individuals' lives take place play an important part in the development of SOC. It is a tool to offer how people view life and interpret events, the capacity to respond to stressful situations, and explain why some people break down and fall ill under stress and some people are fine.

SOC contributes to realizing life as comprehensive, manageable, and meaningful and reduces tension. Also, an individual's strength in perceiving interior and external information in a good way and coherently helps people to affect perspective, bringing a sense of confidence and the capacity to control one's environment, which helps one to

understand their own situation and role in it. Internal and external resources can be within the individual's close and faraway environment, which is helpful in dealing with stressors, resolving tension, and enhancing SOC. For example, is the individual in the family or in the workplace? The prerequisite for being able to handle a stressful situation is to be able to understand it to some extent (Eriksson, 2017; Antonovsky, 1993; Geyer, 1997; Bergman et al., 2012; Souminen & Lindström, 2008).

2- Manageability

The behavioral component, defined as the extent to which one feels that there are resources at a person's disposal that can be used to face the requirements of life, implies the extent to which an individual feels that they can depend on resources to help them confront the demands of the external and internal. Individuals who are exposed to the stresses of life believe that they can confront them; whatever the life-imposing demands, they are able to cope with them. This is linked to resources available, either controlled by yourself or available through others who have the power to resolve matters that relate to the individual, for example, family, the circle of friends, colleagues, and significant others; in other words, people who are trusted and who can be relied on in difficult situations. Coping also requires that one be motivated to solve the problems that cause stress, is willing to invest energy to solve the problem, and finds meaning in being able to manage the situation (Strümpfer,1990; Antonovsky, 1997; Calhoun & Tedeschi, 2006).

3- Meaningfulness

The motivational component refers to the extent to which one feels that life has emotional meaning and that one possesses the motivation and desire to cope with any stimuli encountered. Whether the individual perceives the stimulus as valuable and must commit and invest or not. and this is built on the basis of resistance resources, optimism, and proactivity, which represent how individuals realize the sense and meaning of their unique situation. Some of the problems confronted in life worth commitment and devotion, and whether the individual can perceive life's difficulties as challenges that are the value of an investment of energy and engagement rather than a load that the individual prefers to avoid. The person needs to have a clear desire to resolve distress, and a willingness to invest energy to cross experiences of stress that have the possibility to cause distress; therefore, the individual plays an important role by perceiving daily experiences as challenges, and the individual welcomes and perceives them as making emotional sense and is encouraged and motivated to engage in and invest in them. Hence, the individual shapes and paints their daily experiences, future, and destiny.

The individuals try to find meaning and success in experiences that achieve a transformation in their attitudes. The individual can help themselves and others if they can begin to search for meaning by integrating with others. and help others find meaning in life, which contributes to a better life and integrity. This is the reason why people who were traumatized are eager to help others, especially those who experienced similar traumas (Antonovsky, 1993; Nahlén & Saboonchi, 2010; Kielnan, 2019; Almansor, 2017; Rothmann, 2003; Geyer, 1997; Frank, 2014; Yalom, 1999).

2.1.3. A sense of Coherence and Related Concepts

Antonovsky dedicated a chapter in his 1987 book to the convergences, discrepancies, and disagreements of the research of Suzanne Kobasa, Thomas Boyce, Rudolf Moos, Emmy Werner, and David Reiss and demonstrated once more how his ideas and theories develop in interaction with the theories of other scholars (Mittelmark, Sagy, Eriksson, Bauer, Pelikan, Lindström & Espnes, 2016), so the researcher wants to review some concepts that relate to SOC.

2.1.3.1. Psychological Hardness

Similar to Antonovsky, Kobasa asked the existential question of why some people who were exposed to stressful situations stayed well and others fell sick. Some people seem to be harder than others when it comes to dealing with stress. Hardiness helps people turn stressful circumstances into opportunities. It is the capacity for enduring or sustaining hardship, privation, etc.; the capability of surviving under unfavorable conditions. It is a buffer against aging (Tantry & Singh, 2016).

According to the Oxford Dictionary, "hardiness is the capacity to endure difficult conditions". While "The English Collins Dictionary" defines hardiness as "the condition or quality of being hardy, robust, or bold".

Bartone (2006), Psychological hardiness is a blend of adaptive personality traits that enable one to overcome stressful life events. Psychological hardiness is considered a psychological hardiness is considered a construct from three components that make people able to change stressful situations into potential growth opportunities (Kalantar et al., 2013).

Kobasa 1979, defined psychological hardiness as a composition of three basic factors rooted in the beliefs of a person in themselves and the world: commitment, control, and challenge (Tantry & Singh, 2016).

Kobasa has also identified three aspects of psychological toughness that work in concert and are linked to a person's great capacity for confronting challenges in life. The psychological combustion of the individual is characterized as the absence of one of these attributes.

A - Commitment: it has a protective function in resisting stimuli, and it is a type of psychological contract that the individual makes with himself, his goals, and those around him, in which the individual views difficult conditions as something that has significance and welcomes enjoyment.

B - Control: The individual’s belief in his ability to control the events that he faces and his ability to accept responsibility for his actions, which includes the capacity to make the best decisions and choose the best alternatives.

C- Challenge: The individual’s belief that what is happening in their life from changes that take place is natural and inevitable and that they consider it necessary for growth rather than a threat to their security. This characteristic enables people to cope with stress more quickly and increases optimism while accepting new situations (Tuffaha, 2009; Al-Abdali, 2012; Kaur, 2017).

The hardiness term, derived from the existential theory of personality, uses various terms but relates to the same dimensions of SOC: control (manageability), commitment (meaningfulness), and challenge (comprehensibility and meaningfulness) (Eriksson, 2021).

2.1.3.2. Resilience Psychology

Resilience psychology is a relatively recent concept that researchers have been interested in as a development of positive psychology studies, and it is a way of explaining how people can manage life and live well in spite of adverse situations. As a scientific concept, it was first developed for children and young people and has later been expanded into adulthood (Werner & Smith, 1982).

It has been at the forefront of risk research, and it is described as a positive variable that can be developed when everyone has enough power to know it, protect themselves, and manage adversity in times of crisis and difficulty. It is also focused on the positive strengths of the individual, acquiring the skill to deal with risk factors and stressful life situations in a way that reduces stress or excludes it directly or permanently, helps people regain their energy, and encourages people to perform well despite the pressures and circumstances (Al-Buhairi, 2011; A Caair Report, 2013).

The American Psychological Association (APA) defines resilience as “the process of adapting well in the face of adversity, trauma, tragedy, threats, or significant sources of stress" or “bouncing back” from difficult experiences (Windle, 2010).

2.1.3.3. Psychological Immunity

Psychological immunity is a term coined by Bredács in 2016 and defined as “a system of adaptive resources and positive personality characteristics that acts as psychological antibodies at the time of stress.” It includes diverse positive characteristics such as positive thinking, a sense of coherence, a sense of control, emotional regulation, goal orientation, positive self-efficacy, and problem-solving skills (Bredács, 2016), and inserts under the term psychological immunity three types:

1. Natural psychological immunity: It is immunity against crisis and anxiety and exists in the human believer like the psychological composition, which grows with individuals through their interaction with the environment.
2. Naturally acquired psychological immunity: immunity against crisis and anxiety, acquired by human knowledge, skills, and experience when faced with crises and difficulties.
3. Effective psychological immunity is acquired, similar to the physical immunity acquired by the individual when the body is infected by a deliberately bacterial pathogenic disease, to reduce the risk so that immunity remains for a long time, like a vaccine for COVID-19.

According to the researchers, psychological immunity is defined as the individual's resistance to all situations and life events to which they are exposed, as well as the individual's ability to stand and deal with its difficulties with high flexibility,

allowing the individual to adapt to the current situation. As physical immunity protects individuals from different diseases and infections of the environment, psychological immunity also acts as a barrier against environmental stressors, conflict day-to-day, and negative emotions (Radi, 2008; Khanfar, 2014; Osman, 2009; Gupta & Nebhinani, 2020).

2.1.3.4. Psychological Flexibility

Hayes et al. 2006, define psychological flexibility as a construct that captures the overarching evaluation extent to which an individual exhibits psychological flexibility, meaning the ability to fully contact the present moment and the thoughts and feelings it contains without needless defense and, depending upon what the situation affords, persisting in or changing behavior in the pursuit of goals and values (Ciarrochi & Bilich, 2010).

Also, Kashdan and Rottenberg, (2010), define psychological flexibility as the ability to "recognize and adapt to various situational demands; shift mindsets or behavioral repertoires when these strategies compromise personal or social functioning; maintain balance among important life domains; and be aware, open, and committed to behaviors that are congruent with deeply held values".

Coping flexibility refers to the fact that adaptation to an ever-changing environment requires a flexible response system characterized by a broad repertoire of responses for handling diverse situational demands (Graham, 2016). Here are six core skills that ACT uses to help people develop psychological flexibility:

1. Diffusion: the ability to observe language, recognize the transient nature of our thoughts and emotions, and ‘de-fuse’ from them.
2. Flexible attention to the present moment: being fully aware of and receptive to our here-and-now experience (often known as being mindful).
3. Committed action taking action to set goals (guided by our values) and working towards achieving them.
4. Acceptance: the ability to allow unpleasant feelings to come and go without struggling with them.
5. Self-as-context: a sense of our consciousness as being non-identical to the thoughts and emotions experienced, of oneself as able to observe our

cognition; values: identifying what is most important to us (Lamb, a.n.d; Whiting at al., 2015).

2.2. Post-Traumatic Stress Disorder

2.2.1. History and Definition of PTSD

The term "PTSD" did not exist in the psychiatric dictionary until 1980 (Murad, 2015), and the first name of this term was in the book (DSM-5). Serious research on PTSD began after the Vietnam War due to profound psychological problems by war veterans, both men and women, to describe and diagnose those conditions resulting from railroad events or other terrible disasters that threaten the individual's life, such as PTSD symptoms, which are observed in all veterans. Population, including both the world wars and the Korean conflict, in UN peacekeepers deployed to other war zones, as well as the Gulf War and the war in Iraq (Bateman, 2013; Stork, 2008).

After World War I, most war psychiatrists dealt with the psychological effects of battle trauma and returned to civilian life. Psychiatrists realized these civilian patients, who were victims of disturbances or accidents, displayed symptoms similar to those seen on the battlefield (Merskey, 2007). Regrettably, there was little backing for psychiatrists' view of this war, that there was "common trauma syndrome". These terms represent a mix of symptoms that make soldiers incompetent for military combat (Victor et all., 2006).

Then, after this period of time, came the work of Freud and Charcot. They considered this traumatic neurosis to be hysteria or monasticism, and its main symptoms were nightmares and sleep disturbances. suggested that the best Intervention is to "signoreit" and "not talk about it". However, no definitive classification of traumatic mental disorders has been developed (Al-Akhal, 2014). Then the concept of traumatic neurosis developed until it was almost transformed into a single specialty in disaster psychology and psychiatry (Al-Nabulsi, 1991).

The inclusion of PTSD in "the Diagnostic and Statistical Manual of Mental Disorders-III" led to legal recognition of this psychiatric disorder, though many argue that it was just a renaming of what had previously been described as chance trauma, war neurosis, traumatic neurosis, combat trauma, or fighting fatigue”. In 1980, PTSD not only appeared automatically in" DSM-III," but progressively gained ground and trust with each new release. Also, in the first edition of the DSM, which was published in 1952,

"Stress Response Syndrome" was registered under the title “Grave Stress Reactions.” In 1968, in its second edition, TDD was imagined as merely one example of a disturbing event.

Finally, at the insistence of legitimate psychiatrists, the DSM-III, published in 1980, included PTSD as a subcategory of anxiety disorders. that therefore has been forcibly debated whether PTSD is a schizoaffective disorder or anxiety. The most streamlined version of the "DSM-IV", which was published in 1994, was with one accord and classified by the Advisory Commission on PTSD according to a new category of stress response. There are six standards related to PTSD. The first describes the traumatic situation, but the next three describe the trauma symptoms, and the last two describe the impact of the symptoms and duration on a person's private life and work (Flannery, Raymond, 1992; Healy, 1993; Gersons & Carler, 1992).

Recently, PTSD has come forward in psychological considerations as the survivors of the New York City, Washington, September 11, 2001, terrorist attacks. Also, similar events lead to the same PTSD symptoms; survivors of the 2004 tsunami in Southeast Asia and eastern India, survivors of the 2005 earthquake in Pakistan, and cyclones in the southeastern United States will certainly suffer from PTSD as well (Beall, 1997).

The American Association notes, “A traumatic experience is an exposure to excessive traumatic events, implied by having direct, severe personal experience of the event involving actual or threatened death, severe injury, or any other threat to physical safety, witnessing an event involving injury or death, or a threat to the safety of a person's body, or knowing of an unexpected death, or as a result of the use of violence or serious harm, which may be touching a family member or some close friend” (American Psychiatric Association, 1994). Also, PTSD is an anxiety disorder that can occur following the experience or witnessing of a traumatic event (Nasar, 2014).

Moreover, it is a mental disorder that may develop after exposure to exceptionally threatening or horrifying events (Bisson et al., 2015). In addition, it is a well-characterized serious psychological and behavioral abnormality that occurs after exposure to one or more acute or severe stressful events, resulting in deep psychological trauma (Wimalawansa, 2014).

The definition of posttraumatic stress disorder is a severe public health problem that is often caused by traumatic events. PTSD is a persistent disorder that occurs when an individual experiences the death of others, is threatened with death, is severely injured,

or has the integrity of his or her body threatened (Huang et al., 2020).

Posttraumatic stress disorder is a condition that presents after a severe shock or injury has occurred from external forces, causes extreme or repetitive stress related to the results or recollections of the experience(s) or event(s) in the present, and has met the criteria of a disorder that allows one to be treated by medical professionals and to be assisted with resources as needed (Whitewolf, 2020).

PTSD is a mental disorder that may develop after exposure to exceptionally threatening or horrifying events. Many people show remarkable resilience and capacity to recover following exposure to trauma. PTSD can occur after a single traumatic event or from prolonged exposure to trauma, such as sexual abuse in childhood (Bisson, Lewis, & Roberts 2015).

Posttraumatic stress disorder is a common reaction to traumatic events such as assault, disaster, or severe accidents. The symptoms include repeated and unwanted re-experiencing of the event, hyperarousal, emotional numbing, and avoidance of stimuli, (including thoughts), which could serve as reminders for the event. Many people experience at least some of these symptoms in the immediate aftermath of a traumatic event (Ehlers & Clark, 2000).

2.2.2. Symptoms of PTSD

Whereas PTSD symptoms may appear shortly after a stressful event, PTSD is not diagnosed unless the symptoms endure for at least one month and create difficulty with work or family life or considerable discomfort. To be diagnosed with PTSD, a person must exhibit three types of symptoms: avoidance and numbing, re-experiencing, and hyperarousal (American Psychiatric Association, 2000).

First: Re-Experience Trauma

A person remembers a traumatic incident in at least one or more of the following ways:

Painful recollections about the event in a compulsive and repetitive manner, feeling that the event will happen again, recurring agony over the event, or tragic dreams Psychological tension occurs when an individual is exposed to signs reflecting the traumatic experience.

Second: Avoidance and Sedation

That refers to a state of constant avoidance of the stimulus linked to trauma and at least three of the following symptoms:

Making efforts to avoid feelings, thoughts, or conversations linked to trauma, making an effort to avoid places, activities, people, etc that lead to active memories of trauma, reduced interest in or participation in significant activities, an inability to recover an important side of trauma, and a feeling of detachment or isolation from others.

The third: Excitement

Refer to the emergence of persistent symptoms of extreme excitability, at least two of the following symptoms: irritability and tantrums, an exaggerated fear response, difficulty falling asleep and staying asleep, and excessive alertness (Idsoe& Dyregrov, 2012; Ford & Courtois, 2020; Galovski,Norman & Hamblen, 2016).

2.2.3. Diagnostic of Posttraumatic Stress Disorder

A. Exposure to real or threatened death, confirmed injury, or sexual violence in one of the following ways (or more):

1. Directly Exposure to the traumatic event.
2. Seeing, in person, the event as it takes place to others.
3. knowing that the traumatic event happened to a close family organ or close friend. In the actual or threatened death of a friend or family member, the event must be accidental or violent.
4. Exposuring repeated or extreme details of the traumatic event.

B. Existence of one or more of the following intervention symptoms related to the traumatic event, starting after the traumatic event occurred:

1. Repeated, involuntary, and intrusive painful memories of the traumatic event
2. Dissociative reactions, in which the person acts or feels as if the traumatic event were repeated.
3. Repeated distressing dreams in which the text and effect of the dream are linked to the traumatic event.

4. Intense or prolonged psychological adversities arise from exposure to internal or external indications that symbolize or resemble a side of the traumatic event.
5. noted physiological reactions to external or internal cues that symbolize the same side of the traumatic event.

C. Continue avoidance of stimuli related to the traumatic event, starting after the traumatic event occurred, as evidenced by both of the following:

1. Avoidance of or works hard to avoid distressing thoughts, memories, or feelings about or closely linked with the traumatic event.
2. Avoidance of or seeking to avoid external memories (people, places, situations, conversations, activities, and objects) that arouse distressing thoughts, memories, or feelings about or closely related to the traumatic event.

D. Negative alterations in mood or cognitions associated with the traumatic event, starting or worsening after the traumatic event happened, as evidenced by two or more of the following:

1. Disability to remember an essential side of the traumatic event. (usually due to dissociative amnesia, not other factors like head injury, drugs, or alcohol).
2. Continue and exaggerate negative expectations or beliefs about oneself, others, or the world (e.g., “No one can be trusted,” "I am bad,” or “The world is perilous”).
3. Continued, distorted cognitions about the reasons or consequences of the traumatic event led the person to blame himself or herself or others.
4. Continue the negative emotional cases (e.g., fear, anger, horror, guilt, or shame).
5. Notedly diminished interest or participation in important activities.
6. Feelings of isolation or estrangement from others.
7. Continuing the inability to experience a positive sense.

E. Noted alterations in excitement and reactivity related to the traumatic event, starting, or worsening after the traumatic event happened, as evidenced by two or more of the following:

1. Irascible behavior and angry outbursts (with little or no provocation) are typically expressed as verbal or physical aggression toward people or objects.
2. Problems with concentration.
3. Exaggerated startle response.
4. Hypervigilance.
5. Self-destructive behavior or recklessness.
6. Sleep disturbance (such as difficulty falling or staying asleep or restless sleep).

F. The period of the disturbance (Criteria B, C, D, and E) is more than one month.
G. The disturbance causes clinical distress or impairment in occupational, social, or other important areas of functioning.
H. The disturbance does not refer to the physiological effects of a substance (like medication, alcohol, or another medical condition) (APA, 2013).

2.2.4. Theoretical Reasons for Explaining PTSD

There are many theoretical models that explain the nature of the disorder, such as psychological analysis, cognitive theory, behavioral theory, and biological theory.

2.2.4.1. Psychoanalytic Theory

This theory is concerned with the painful experiences and previous sad memories that an individual has had during his childhood as a strong motivation for his suffering when he grows up and is exposed to experiences or memories similar to what he suffered from in his childhood. At the beginning of post-traumatic stress disorder, which appears months or years after the individual's exposure to a traumatic event, Freud considered the trauma of childbirth and the feeling of suffocation for the newborn as the first experience of anxiety in a person's life (Freud, a.n.d.).

Karen Horney believes that inappropriate actual experiences and the child's feeling of lack of love within his family make him feel helpless, isolated, and sometimes

aggressive, which may weaken the ego and make the individual feel very anxious, as there is great interaction and a strong connection between negative early childhood experiences and current events and situations that he is going through. He carries similar negative experiences because he will return to the past, connect it with the present, and live in a similar tragedy, and this is one of the most important symptoms of post-traumatic stress disorder (Freud, 2000).

2.2.4.2. Biological Theory

Both Kolb and McBough (1987-1990) consider the effect of exposure to stress on the central nervous system, which may cause damage or a change in the nerve pathway. The acute stimuli that a person learns about in a traumatic event may cause destruction or a change in the nerve pathway. McGough also supports that in 1990, much other research suggests that the idea of trauma leads to chemical neuronal alteration as a contributor to symptoms of PTSD (Susanna, 2019).

The biology is based on the assumption that there are hereditary factors that lead to PTSD. This conclusion has been verified by conducting several studies on twins, as these studies have shown that identical twins have a higher incidence of PTSD than fraternal twins (Tilly et al., 2010).

2.2.4.3. Behavioral Theory

The behavioral theory interpreted human behavior as an innate reflex and linked the stimulus with an automatic response, regardless of the nature of the stimulus or consideration of the individual's feelings and psychological state, though one stimulus may lead to different responses from different people from time to time (Melhem, 2001).

Behavioral theory emphasizes that both normal and abnormal behavior patterns are acquired through learning, and that behavior is determined by the environment in which the person lives and acquires from it certain behavioral characteristics. Disordered behavior arises from two basic learning processes: classical conditioning and operant conditioning.

Behavioral theory focuses on the explanation of disturbing behavior and how this behavior was learned, not the cause (Fayed, 2004). However, the behavioral theory explains PTSD behavioral disorders according to the following:

1. Behavioral disorder is the result of negative learning and therefore should not be considered a disease.
2. Focus on the individual's experiences and history.
3. When dealing with a behavioral disorder, it recommends Intervention through reeducation and re-learning.
4. It is assumed that the behavioral disorder is caused by environmental factors, and as a result, the behaviorally disturbed person is not responsible for this disorder (Al-Rimawi, 2004).

2.2.4.4. Cognitive Theory

The cognitive theory posits that PTSD is due to the way an individual perceives and explains the event through their experiences and thoughts, whereas the disorder is merely a pattern of erroneous or irrational thoughts that cause non-adaptive behavioral responses. This theory assumes that the presence of disorders in the individual is linked to the appearance of biases and errors in processing information, and it also assumes the existence of latent cognitive structures (schemas) incapable of adaptation and controls the patient through automatic internal thoughts that relate to the disorder and help its continuation.

Therefore, humans have an active role in creating reality. In his vision of what is around him, a person depends on his information-processing system, through which he chooses, changes, and explains the stimuli that encounter him. The personal (subjective) meanings given to what an individual will intercept from accidents play an important role in his ability to adapt. He may respond with behavioral or emotional responses that are not adaptive if he misinterprets what is happening around him. The cognitive theory assumes that it is possible to recognize and derive ideas, but this does not mean that all ideas remain under the individual's control, as automatic thoughts escape from his control and disturb him. It is possible to train him to monitor these ideas and then get rid of them or neutralize their negative effect on him. Finally, the cognitive theory assumes that it is possible to bring about emotional, behavioral, and physical changes by bringing about changes in the thoughts and beliefs of the patient (Abd-al-Qawi, 1995; Brewin& Holmes, 2003).

2.2.5. PTSD Intervention

2.2.5.1. The Medical Therapy

Descriptions were developed for both SER and PE Intervention s. Each description was divided into three sections: Background information, Intervention procedures, and Intervention side effects. Despite both SSRI medications being viable Intervention options for chronic PTSD, we know very little about what factors influence clients' choice of Intervention ith the use of pharmacotherapy (Zoellnerm et al., 2003).

2.2.5.2-Trauma-Focused Cognitive-Behavioral Therapy (TF-CBT)

According to Cohen Mannarino, Berliner, and Deblinger (2000), cognitive-behavioral therapy with a trauma focus is specifically created to address children's psychological issues like depression, post-traumatic anxiety, and other behavioral issues brought on by the child's exposure to psychological trauma of all kinds, making the intervention program less suitable and effective for use.

Regarding the need to use the techniques and tests that are used to treat children who suffer from psychological issues brought on by exposure to different types of psychological trauma, such as wars, terrorism, and armed conflict, according to (Rachamim et al.; 2009 & the National Child Traumatic Stress Network ,2008; and King et al., 2010). Cole made numerous recommendations in this regard in 2005. For many components of cognitive-traumatic Traumatic therapy, the word "practice" serves as a symbol.

1. Psychoeducation and raising awareness of parenting skills.
2. Relaxation skills and exercises.
3. Affective modulation skills.
4. Cognitive coping skills.
5. Telling the story of psychological trauma (trauma narrative) Reconsider and treat the traumatic event.
6. In vivo mastery of trauma reminders.
7. Junction child-parent session.
8. Enhancing Safety and Future Developmental Trajectory (Arellano et al., 2014; Nasarm, 2014).

2.2.5.3. Eye Movement Desensitization and Reprocessing

Eye Movement Desensitization and Reprocessing (EMDR) is a form of exposure therapy that includes cognitive restructuring and visual immersion. Francine Shapiro 2001, developed this therapeutic procedure from a wide range of behavioral interventions designed to assist people in dealing with posttraumatic stress disorders (Corey, 2009). EMDR comprises eight stages and a three-axis methodology to identify and process trauma:

(1) Memories of past life experiences that include present problems,
(2) Actual situations that excite disturbance,
(3) Necessary skills that will extend positive memory templates to lead the client's future behavior.

PTSD During EMDR, the client is asked to think about the traumatic event and, for brief periods, track the therapist's fingers (that are moved from side to side) with their eyes.

Bilateral brain energizing as a result is thought to boost the brain's information processing pathway and capacity for more flexible association-making. This aims to convert traumatic experiences into long-term memories over time. and that discovered individuals grow desensitized to the trauma, allowing their symptoms to alter, which improves how well they function in daily life (Shapiro & Solomon, 2010; Every-Palmer et al., 2019).

2.3. Cognitive-Behavioral Therapy

2.3.1. History and Definition of CBT

In 1979, "Time magazine" reported that there were about 200 different types of psychotherapy among the many therapies available, and cognitive-behavioral therapy (CBT), considered rich and complex psychotherapy, includes several techniques that help individuals recover. It has been demonstrated to be effective for a range of problems that have been applied to a vast range of physical problems and mental health disorders, including depression, anxiety disorders, alcohol and drug use problems, marital problems, eating disorders, and severe mental illness, because CBT integrates cognitive and behavioral therapies and has strong empirical backing for treating mood and anxiety

disorders.

CBT has grown to be one of the outstanding models of psychotherapy. and it is exceedingly distributed and used around the world. The first approach to CBT to obtain widespread recognition for rational emotive therapy originated with Albert Ellis in the mid-1950s. Ellis developed his approach as a reaction to his hatred of the passive nature of psychoanalysis.

During the early 1960s and 1970s, Aaron Beck developed a similar approach he called cognitive therapy, and this revolutionary intervention has been established to be effective in more than 2000 clinical trials for a vast range of mental disorders, medical conditions with psychological problems (Beck, 2011; Cohe, Mannarin & Deblinge, 2006; Beck & Fleming, 2021; Newman, LaFreniere, & Shin, 2017).

The initial independent advance of cognitive therapy in the 1960s gradually melded with the prevalent behavioral perspective, until CBT integration approaches grew dominant in the 1980s and beyond. At present, a new generation of cognitive-behavioral techniques is surfacing a set of perspectives that involve mindfulness, integrated Intervention s, and more behaviorally concentrated techniques (Rice, 2015).

CBT found that sentiments are difficult to change, so CBT targets emotions through changing thoughts and attitudes that contribute to the distressing sense. CBT is grounded on the fundamental premise that emotional disorders are remained by cognitive factors, and psychological intervention leads to modification of these factors by cognitive means such as cognitive restructuring and behavioral means such as exposure, behavioral experiments, social skills training, and relaxation training (Beck & Emery, 2005; Cully & Teten, 2008).

Many research studies suggest that cognitive-behavioral therapy leads to significant improvements in functioning and quality of life. Where CBT has been advantageous and more effective than psychiatric medications or other forms of psychological therapy, (American Psychological Association, n.d.; Cohen & Mannarino, 2008). Because it is a path that targets reducing psychological distress by exploring and treating how the integration of clients' thoughts, feelings, and behaviors is contributing to the problem (Teater, 2013). Also, it aims to reduce distress by assisting patients to develop more fit cognitions and behaviors. It is the most widely researched and experimentally supported psychotherapy method. Which reflected strong evidence in clinical guidelines that recommend it as a therapy for many common mental health disorders (Rajput, 2013), where the way of thinking profoundly influences the track of the individual sense. As a

result, changing one's way of thinking helps one change the way they feel and behave (Kuehlwein & Rosen, 1993).

There are various definitions of cognitive-behavioral therapy that vary depending on the point of view, including:

CBT is grounded on the basic premise that emotional disorders are maintained by cognitive factors and that psychological intervention leads to changes in these factors through cognitive (e.g., cognitive restructuring) and behavioral (e.g., exposure, behavioral experiments, relaxation training, social skills training) techniques (Beck & Emery, 2005).

Accordingly, cognitive-behavioral therapy (CBT) is the merging of behavioral and cognitive therapies that mostly focuses on working with the client in the present. (Rice, 2015). CBT is a popular form of psychotherapy. It is a structured, time-limited, present-focused approach that is a well-known and widely used means of helping people overcome problems such as depression, anxiety, and anger (Nehra, Sharma, & Kumar, 2013).

CBT is a method that aims to reduce psychological distress and dysfunction by exploring and addressing how the integration of service users' thoughts, feelings, and behaviors is contributing to the presenting problem. Three assumptions form the foundation of CBT: (1) Thinking (cognition) mediates emotions and behaviors; (2) Faulty cognitions lead to psychological distress and dysfunction; (3) Psychological distress and dysfunction are reduced or alleviated through modifications in the faulty cognitions and behaviors (Teater, 2016).

CBT is an intensive, short-term (six to 20 sessions) problem-oriented approach. It was designed to be quick, practical, and goal-oriented and to provide people with long-term skills to keep them healthy. The focus of CBT is on the here and now and the problems that come up in a person's day-to-day life (Rector, a.n.d.).

2.3.2. Principles of Cognitive-Behavioral Therapy

There are a few principles that are important to understand when using CBT.

1. CBT emphasizes the present moment. The most crucial tenet of CBT is that instead of concentrating on the root of the issue, Intervention should help the patient deal with the symptoms they are currently experiencing. This includes a strong emphasis on current issues that are painful and a realistic assessment

of distressing situations because working to resolve them will reduce symptoms.

2. The value of homework is emphasized, whether a client is receiving CBT from a qualified therapist or independently. where individuals are assisted by CBT approaches in learning and practicing new skills that they can then use in their daily lives. views the between-session practice as a vital task (for people to put what they have learned into practice). Initial trials of new behavior have taken place in critical circumstances.
3. It is primarily regarded as an educational method, with the goal of teaching clients to be their own therapists by assisting clients in understanding their current way of thinking and behaving as well as giving them the correct way to modify their erroneous thought patterns.
4. It is a brief and time-limited Intervention; non-comorbid depression or anxiety can typically be addressed within 6 to 14 sessions, but mental disorders, such as personality disorders or intellectual disabilities, need to extend the Intervention period because these disorders have slowly changed, as has been observed with CBT.
5. Reducing the problem: CBT is goal-oriented and problem-focused, with the therapist and client agreeing on what problems need to be treated and being aware of the objective of Intervention. Intervention plan, and time frame. The patient must set precise goals during the initial sessions because they are required to assess and respond to ideas that interfere with goals, and doing so enables the client to quickly distinguish and stop harmful thoughts.
6. Learn to learn: The therapist should teach the patient problem-solving techniques rather than fix their problems for them. Effective communication and teamwork increase the patient's desire to participate in their care and make decisions with the therapist.

7. Building trust: a therapeutic relationship requires a collaborative effort between the therapist of the CBT practitioner and the client who is seeking therapeutic. The therapist must be able to supply care, empathy, warmth, and competence. Also, the therapist works to give the patient the confidence to speak freely to express their thoughts and begins to change irrational thoughts to rational thoughts that assist the client in achieving success and overcoming the disorders.
8. Emotional sharing: CBT relies on the non-specific items of the therapeutic relationship, such as genuineness, rapport, genuineness, empathy, and understanding (Bakiri, 2012; Shebani & Alakah, 2020; Riebel, 2016; Beck, 2011; McGillivray & Evert, 2014; Fenn & Byrnem, 2013).

2.3.3. Cognitive-Behavioral Therapy Techniques

CBT includes a set of skills that helps an individual to be aware of emotions and thoughts; how thoughts, behaviors, and situations influence emotions; and it also enables individuals to improve their feelings by changing irrational thoughts, behaviors, beliefs, and assumptions related to emotional and behavioral reactions to certain kinds of situations by monitoring and recording irrational thoughts during situations that lead to emotional upset, where learning the way of thinking can contribute to solving psychological disorders such as depression and anxiety.

The therapist seeks a variety of ways to produce a cognitive change to modify the patient's thinking and create an enduring change in emotion and behavior where people learn how to evaluate their thinking in a more realistic and logical way that is clear in their emotional state and behaviors. So, cognitive therapists work to make the level of awareness deeper in patients' fundamental beliefs about themselves, the world, and other people around them. Where the modification of their underlying dysfunctional beliefs produces a constant change in their thinking and behavior (Cully & Teten, 2008; Beck, 2011; Nile, 2010).

- Emotional techniques: These are the techniques that uncover the client's emotions, feelings, and reactions towards different situations, stimuli, and experiences, especially about their problems.

- Cognitive techniques: These are the techniques that help the clients change their irrational thoughts and ways of thinking and replace them with rational ideas, a rational way of thinking, and a logical one.
- Behavioral techniques: These are the techniques that help the client remove or modify the unwanted behavior and change it into a desirable behavior while learning it (Zahran, 2004). where CBT shares three core fundamental propositions:
    1. Cognitive activity affects behavior.
    2. Cognitive activity may be monitored and changed.
    3. Desired behavior can change by modifying cognitive processes (Dobson & Dozois, 2019).

Cognitive-Behavioral Therapy depends on several cognitive and behavioral techniques that work to modify the participant's thoughts and, thus, his behavior. The researcher used several therapeutic techniques and various activities that varied among the techniques of psychological education represented in lectures, discussions, homework, videos, cultural and sports activities, and workgroups. Furthermore, included therapeutic techniques (lifeline, cognitive restructuring (CR) brainstorming, modeling, symbolic stories, alternatives choosing, exceptional questions, demolition of stories and negative thoughts, rethinking, problem-solving skill, relaxation training, Socratic question, exposure technique, Discussion of the Events of Emotive Experiences, self-monitoring, cognitive map, positive messages, self-talk, exploratory questions, smart goal, and SWOT technique).

Behavioral activation**,** is a common strategy in the cognitive-behavioral intervention of depression. It aims to increase clients' engagement in their lives by encouraging them to do things that give them a sense of joy, pleasure, accomplishment, and/or meaning. It is anticipated that by more actively engaging in these sorts of activities in their lives (Dimidjian et al., 2006).

Exposure**,** is a central technique in the cognitive-behavioral intervention of the condition. There are many types of exposure, including (a) in vivo exposure, or contact with a "real-life" feared situation or stimulus; (b) imaginal exposure, or the facing of upsetting images, memories, or intrusive thoughts; (c) virtual reality exposure, or the use of technology to facilitate simulated contact with a feared situation or stimulus; and (d) interoceptive exposure, or participation in an activity that provokes feared bodily

sensations associated with the experience of fear and anxiety themselves. When cognitive-behavioral therapists facilitate exposure, they usually work with their clients to develop a fear hierarchy, or an ordered sequence of feared stimuli and situations ranging from those that are least to most anxiety-provoking. The fear hierarchy serves as a guide for the selection of exposures both in and out of session.

Face situations that they dread or of which they are fearful in “real-time.” At the same time, they equally achieve the important aims of cognitive restructuring because they provide “real-life” data to reshape their negative predictions (Hope et al., 1995; Craske et al., 2008; Chairet et al., 2017).

Lifeline**,** it is one of the Intervention strategies for post-traumatic stress disorder that has recently gained popularity and falls under the umbrella of cognitive-behavioral therapy. This therapeutic method was developed by (Maggie Scheuer, Frank Neuner, and Thomas Elbert from the University of Konstanz), where the most important therapeutic techniques that have proven effective in the intervention of PTSD were collected.

After summarizing the patient's traumatic experiences and pleasant and unpleasant experiences, the psychotherapy sessions, which typically last between eight and twelve sessions and last between an hour and a half and two hours each, move on to a detailed account of these experiences. During these sessions, the patient is exposed to those feelings. In addition to acknowledging the shame, anger, and guilt the patient felt as a result of his PTSD in the past, he is encouraged to relive these experiences while recounting them without losing his connection to the present in order to achieve a state of habitualness, i.e., connecting hot and cold memories and storing them in the hippocampus instead of keeping the fear network activated under the control of the amygdala, which places it in the basket of life-threatening events. It symbolizes the lifeline with a rope wrapped at the end, the shocking or disturbing experiences with stones, and the pleasant ones with flowers, in addition to candles that symbolize a state of loss or mourning (Neuner et al., 2018; Schauer, Neuner, Elbert, 2011& Dix, 2021).

Cognitive Restructuring (CR) was developed by psychologist Albert Ellis in the mid-1950s based on the earlier work of others, and it's a core component in cognitive behavioral therapy (CBT. CBT can be used to manage and change negative thoughts, which are sometimes associated with harmful behaviors. It is a valuable strategy for comprehending unpleasant feelings and moods, as well as questioning the sometimes incorrect "automatic beliefs" that can underpin them. As a result, you can utilize it to reframe the unneeded negative thinking that we all have from time to time. Bad moods

are unpleasant; they can impair your performance and damage your relationships with others. Cognitive restructuring assists you in changing the negative or erroneous thinking that frequently underpins these moods. As a result, it allows you to approach events in a more optimistic manner (Larsson et al., 2016; Hayes et all., 2012).

Modeling or the Behavior Modeling approach to training, has drawn much attention since the mid-1970's. This approach is based on the social learning theory of Bandura (1971-1977). His theory stresses three classes of personal expectations that are critically related to behavior change. First, individuals engage in a behavior if they expect it to lead to a desired outcome (outcome expectations). Secondly, differing values for any particular outcome (valence) exists for individuals. Third, if an outcome is highly valued (high positive valence), it provides a stronger incentive to act than one of low value. Although outcome expectations and values are important determinants of behavior, they alone will not lead to a behavioral change. The components of behavior modeling training were established by Goldstein and Sorcher in 1974 using the social learning theory process. They identified four main learning activities that make up their strategy.

1. Where participants watch a film or videotape display of a person (the model) performing the specific skill behaviors effectively.
2. Role-playing, providing the trainee with the opportunity to practice the behaviors demonstrated by the model.
3. Social reinforcement, providing the trainee with praise and constructive feedback from the researcher and other trainees.
4. Transfer of training, implementing these processes in a way that encourages trainees to apply their learning in "a stable and consistent manner on the job " symbolic stories (Grissom, 1996; Ersal., et al., 2014; Goldstein, 1974).

Alternatives Choosing is one of the most effective techniques for countering misconceptions and supporting or not supporting the idea with the available evidence, even if there are some other interpretations that are more suitable for this evidence. The process not only includes testing the evidence but also considers the source of that information and the validity of using the customer's opinions, as well as whether the customer has overlooked some of the available information. Many clients start with a final judgment like "I'm not a good person", and then choose events that support their point of view. Zarb states that this technique is used in order to help clients discover the wrong logic behind their distorted interpretations and beliefs through a column dedicated

to it (Zarb, 1992).

Exceptional questions are based on the notion that there were times in clients' lives when the problems they identified were not problematic. These times are called exceptions and represent news of differences. Solution-focused therapists ask for exceptions questions to direct clients to times when the problem did not exist or when the problem was not as intense. Exceptions are those past experiences in a client's life when it would be reasonable to have expected the problem to occur, but somehow it did not. By helping clients identify and examine these exceptions, the chances are increased that they will work toward solutions such as: Are there times when you have been able to express your anger without hurting someone, and if so, what did it look like? When have you been able to manage your son's behavior without hitting him? What happened one time when you overcame feelings of depression, anger, or sadness? (Guterman, 2006; Henson, 2013; Corey, 2009).

Problem-solving skill Psychologists have described the problem-solving process in terms of a cycle. The cycle consists of the following stages, in which the problem solver must:

1. Stage of recognizing the existence of an issue: the individual recognizes that he has a problem. It is critical to pay attention to his feelings when he is stressed, restless, aroused, and so on.
2. Reducing arousal: By stopping automatic thinking (stop and think before you act), self-control breaks the cycle of excessive excitement, and hyper-arousal can provoke unwanted behaviors because it can interrupt the sequence of problem-solving.
3. Formulating the issue: By focusing on what needs to be done rather than the source of the issue, measuring the amount of information available, and then presenting the issue in a manner that can lead to a solution, we identify the goal.
4. Alternative solution thinking refers to the mental behavior that produces many alternative solutions to a single problem to choose from.
5. Thinking about the consequences: If the individual thinks of the consequences of the action he will take, whether it is on himself, others, or the things surrounding him, he will stop this act.
6. The skill of scientific thinking: in which answers to questions are provided, like why? How is it possible?, etc. This is a skill.

7. Evaluating the results: by looking at the cause and effect and the relationships between them, learning from the results and whether you made a good choice or not, learning from mistakes, avoiding self-blame for trying to change weak and useless thinking, and learning the strategic value of solving problems (Davıdson & Sternberg, 2003; Dostál, 2015; Toharudin, 2015).

Socratic Question: A method of discovery of cognitive-behavioral therapy (CBT) is a collaborative, empirical process in which the therapist and client establish the objectives of the therapy, the agenda for each session, and structured evidence-gathering to support or refute the client's beliefs in a manner similar to the scientific method of hypothesis testing. These assumptions are examined using Socratic questions by the therapist rather than directly challenging the client's thoughts and beliefs, along with other cognitive-behavioral techniques. In the first method of this technique, the therapist presents the alternative viewpoint directly to the client. For example, he indicates inconsistency and errors in thinking and asks the customer about his agreement and understanding of that. In the second method, the aim of the Socratic questions is to direct the client to examine aspects of his situation outside the scope of examination and scrutiny, to help him discover options and solutions that he did not consider before, and finally to accustom the client to slow down, think, and ask questions (to himself) in exchange for a spontaneous rush and empower him. Thus, he started to objectively evaluate his different beliefs and ideas (Farmer et al., 2017; Dattlo, 2000).

Relaxation Training refers to a variety of methods created to aid individuals in freely releasing tension and relaxing their bodies and minds. People learn to manage their fear and anxiety, as well as their tension and pain, through the use of techniques such as deep breathing, biofeedback, progressive muscle relaxation, and visualization (Segal & Felicıan, 2017).

Discussion of the Events of Emotive Experiences: In this method, the patient is asked to remember the most recent incident or situation related to his emotional subject, provided that it is one of the accidents or situations that he remembers well. So that the patient describes the incident in some detail, and the therapist tries to make the patient remember the thoughts associated with the emergence and continuation of the emotional reaction by using questions such as (What was the worst that you expected to happen when you were very anxious? What came to your mind at that time? Did you imagine something at that moment? (Almuhareb, 2000).

Self-Monitoring in cognitive-behavioral therapy means that the patient observes and records what he is doing in a diary or on pre-prepared forms from the therapist according to the nature of the patient's problem.

The therapist is keen to start using self-monitoring as soon as possible, during the evaluation process, in order to be able to identify the patient's problem in a way that allows him to formulate the patient's problem and continue to use it. In addition, self-monitoring often leads to a decrease in the frequency of undesirable behaviors in the patient and provides evidence that limits the tendency of the patient to remember his failures rather than his successes (Al-Mohareb, 2000). The therapist asks the patient to fill out this form by recording the time and source of the situations that cause anxiety and fear, as well as the physical symptoms and thoughts that accompanied them. It is also possible for him to evaluate his anxiety on a scale of (0–10) to describe how he faces the situation, and we put this information as a basis for recording the frequency of episodes of stress or any other physical symptoms and help the therapist to know the sources and manifestations of anxiety in the patient, and self-monitoring helps the patient to see his troubles differently, encourages him to try and to be objective with himself, which helps him to identify his problem in an educated cognitive-behavioral manner, and then use the information from the self-monitoring lists in the next session as a basis for discussion. This is a perfectly acceptable method, with desirable behaviors increasing and unacceptable behaviors decreasing when they are monitored (Tanaka-Matsum et al., 2002; Corey, 2009).

Self-Talk or self-dialogue, is about the basic ideas in cognitive theory. A person behaves according to what he thinks, and in the field of Self-intervention , part of the role of the therapist is to train people to adjust the level of their thoughts, which raises anxiety, depression, and mistrust. Dialogue with oneself at any particular activity would alert the individual to the impact of his negative thoughts on his behavior, and one's talk to himself and the impressions and expectations contained in him about the situations facing him are the reason for his turbulent interaction. That is why the cognitive-behavioral therapist depends on trying to determine the content of such talk and working on modifying it as an essential step in helping the individual overcome his disorder, especially in situations that provoke anxiety and depression (Spiegler, 2008; Linnér, 2010).

Cognitive Map in psychology, "cognitive map" is a term developed by Tolman in 1948 to describe an individual's internal mental representation of the concepts and relations among concepts. This internal mental representation is used to understand the

environment and make decisions accordingly. Cognitive maps are regarded as “internally represented schemas or mental models for particular problem-solving domains that are earned and encoded as a result of an individual’s interaction with their environment.” Therefore, cognitive maps provide a presentation of what is known and believed and exhibit the reasoning behind purposeful actions (Siou & Tan, 2017; Sammut-Bonnici & McGee, 2014).

Demolition of Stories and Negative Thoughts, Alternative stories and reauthoring and constructing new stories go hand in hand with deconstruction for openings to new stories. People can continually and actively reauthor their lives,” defined as events that are not predicted by the problem-saturated story. The therapist asks for openings: “Have you ever been able to escape the influence of the problem?” The therapist listens for clues to competence amid a problematic story and builds a story of competence around it. A turning point comes when clients choose whether to continue to live by a problem-saturated story or create an alternative story (Corey, 2009).

2.3.4. Model in Cognitive- Behavioral Therapy

Psychological Intervention s differ according to the theoretical frameworks to which they belong, but they share the same basic goal of helping clients overcome their suffering. The most important of these theories are analytical therapy, behavioral therapy, cognitive therapy, and cognitive-behavioral therapy. Cognitive-behavioral therapies are considered one of the most substantial and prominent psychological Intervention s that arose in 1960 as a result of integration between the behavioral field of 1920 and its pioneers (Ivan Pavlov, Skinner, and Wolpe) and the cognitive current of 1950 and its most important pioneers (Beck & Ellis).

2.3.4.1. Rational Emotive Behavior Therapy (REBT)

Rational emotional behavior therapy was generated and developed by Albert Ellis, an American psychotherapist and psychologist. It was first called rational therapy, then rational emotive therapy. Then it was added to "behavioral" to become rational emotive behavioral therapy. REBT is considered the first creation of cognitive-behavioral therapies, and it remains a major cognitive-behavioral approach. It has a great deal in common with other therapies that are oriented to cognitive and behavioral issues; it also stresses thinking, deciding, analyzing, and working.

Albert Ellis (1954) began his emotional approach when he noted that early neurotic experiences continue without being extinguished, despite not being reinforced neuroticism found that this result related to self-indoctrination, where clients refused the Intervention by speaking to themselves, so they resorted to teaching patients how to change their thinking to agree with the mental approach, which seeks to problem-solve. He found that 90% of those treated in this way made notable progress in about ten sessions. where the basic assumption of REBT is that people contribute to creating their psychological problems by interpreting events and situations irrationally.

Ellis developed his method through a series of articles and in his book “Mind and Emotion in Psychotherapy,” and he also presented the book “Status on Psycho-Emotional Intervention Method” (Patterson, 1992; Mansor, 2000; Bianchi et all., 2018).

A- Foundations of Rational Emotive Behavior Therapy

1. Thinking and emotion are two aspects of one angle, and both accompany the other in influencing and being affected.
2. Individuals are rational or irrational at times, and when they think and act rationally, will be happy, but when they think and behave irrationally, will be in a disorder.
3. Th psychological disorders are caused by irrational thinking. because the thoughts and emotions are not separate from one another.
4. Irrational thinking arises early in childhood, and the family with its intellectual system and its irrational beliefs, is responsible for that irrational thinking.
5. It is necessary to attack the wrong ideas and beliefs that lead to psychological disturbances, by restructuring the individual's thinking,
6. The person’s emotional disturbances persist as long as his irrational thinking continues.
7. Individuals usually perform many processes, (perception - thinking - behavior) which interact with each other, so the individual does not act until thinks and does not think until realized, so it's important to know the cause of the behavior to control it (Froggatt, 2005; Sri, 2000; Rajeswarı, 2014; Al Fahal., 2009).

B - Irrational Thoughts

Ellis cited eleven irrational ideas that underlie disordered and neurotic behavior:

1. The idea that an individual must be loved by others in what he does rather than focusing on his self-respect is where true behavior gets others to value it to obtain the same love.
2. The irrational idea is that a person must be fully competent and accomplished to obtain the value to be realized. This is not true, because perfection is for God alone, and the rational idea is that a rational person tries to offer the utmost to achieve his goals without an exhausting race with others.
3. The irrational idea: Some people are evil and criminals, and they should be punished. There is no absolute standard to judge right or wrong, and the corresponding rational idea is that everyone does wrong, and that punishing people does not lead to improving behavior but rather results in more disorder. Some people's behavior is wrong and inappropriate, and it is often the result of gnorance or emotional disturbance. and it would be better to assist them change.
4. The irrational idea: If things go badly for the individual, it is a destructive disaster. The correct rational idea is that the person must be realistic in getting what he wants, and it is better to try to control or change the circumstances, and it is better to accept it, if that is not possible, temporarily.
5. The irrational idea: the disturbances and problems come from external factors and circumstances over which the individual cannot control, but the individual brings the external factors and conditions with his thinking and reactions. Also, internal factors have an effective influence, and one must control them before blaming external factors.
6. The irrational idea: There are dangerous things that make individuals feel fear, and individuals should feel upset and anxious. We do not deny the possibility of the risk occurring, but we do not consider it a disaster, and we must confront it. Anxiety and tension do not solve the problem but impede thinking.
7. The irrational idea It is easier to avoid confronting life's difficulties and problems. The correct idea is that we must face the problems that make us confused because escape is more dangerous in the future, and a rational

person must find pleasure when he faces challenges and problems because it gives individual opportunities for growth.

8. The irrational idea is that the person must depend on others who are stronger than him rather than on themselves. where dependence on others leads to a loss of freedom and self-realization. People must work hard and act less dependent.
9. The irrational idea is that experiences and events in the past are the basic determinants of present behavior, but the past is important, and we can learn to form our past experiences, and the present can change it by analyzing past influences.
10. The irrational idea is that a person must share in other people's problems. and must try to help others in solving their problems, but if an individual cannot find the solution with them, it is better to leave them alone, as it is not permissible for a person to blame themselves.
11. The irrational idea: There is a perfect and complete solution to every problem. But there is no complete solution to every problem, and a rational person tries to find alternative solutions so that he arrives at the best possible solution for it (Abdel-Hadi et all., 1999; Patterson, 1992; Sufyan, 2000; Zahran, 1997).

C. A-B-C-(DE) Model

REBT follows the A-B-C model of emotional episodes to explain the relation between actions, beliefs about events, and consequences that occur due to their beliefs. This model presents that A, activating event, is a situation, person, or occurrence a person encounters. B is the belief that leads to behavioral, emotional, and cognitive consequences, and the stimulating experience is perceived according to the individual's belief system, which is either rational or irrational. This belief leads to a consequence. C. The person can be adaptive or disturbed. Some experiences lead to disturbed beliefs, "irrational beliefs," and the result is sadness, tension, and anxiety. "Rational beliefs lead to adaptation and health, and the result is comfort and satisfaction."D. (restructure) that makes assimilating more efficient. Then E facilitates responses of functional, adaptive behavioral, emotional, and cognitive (Spencer, 2005; David, Lynn, Ellis, 2010).

Here is an example of an emotional episode experienced by a person prone to depression who tends to misinterpret the actions of other people: A 1. Activating event

what happened: A friend passed me in the street without acknowledging me.

A 2. Inferences about what happened: He's ignoring me. He doesn't like me. B. Beliefs about A: I'm unacceptable as a friend, so I must be worthless as a person. (Evaluation) C. Reaction: Emotions: depressed. Behaviors: Avoiding people generally notes that 'A' alone does not cause 'C'; 'A' triggers off 'B', and 'B' then causes 'C'. Also, ABC episodes do not stand alone; they run in chains, with a 'C' often becoming the 'A' of another episode we observe our own emotions and behaviors and react to them (Froggatt, 2005).

2.3.4.2. Aaron Beck's Cognitive Model

Aaron Beck developed a form of psychotherapy in the early 1960s that he primarily termed "cognitive therapy." It is now used equivalently with "cognitive behavior therapy" in several fields.

Beck devised a structured, short-term, present-oriented psychotherapy for depression directed toward solving current problems and modifying dysfunctional (inaccurate or unhelpful) thinking and behavior, and in 1961, he developed "the Beck Depression Inventory", which is one of the most widely applied and referenced scales of depression. Then, in the early 1970s, a term known as the "cognitive revolution" occurred in psychology. After that, Beck was invited to give lectures on his research in cognitive therapy in Pennsylvania and New York. Thereafter, behavioral modification and cognitive therapy techniques were integrated, which led to the rise of cognitive behavioral therapy. Beck worked to expand his idea to include anxiety and other psychiatric disorders (Corey, 2009; Beck, 2008; Keegan and Holas, 2009).

1. Beck's Cognitive Triad

Beck 1979 developed a widely accepted and empirically supported theory that explains the development and maintenance of depression. The cognitive model of depression evolved from systematic clinical observations and experimental testing.

The cognitive model considered the symptoms of depression as consequences of the foundation of the negative cognitive path. According to the model, there are three essential components for understanding the psychological causes of depression: a) Cognitive Bias; b) Negative Self-Schemas; and c) The Negative

Triad.

a) Cognitive Bias

Beck noticed that depressed people are more likely to focus on a situation's bad aspects while ignoring its favorable aspects. They also tend to depart from the truth and perceive information incorrectly - a process known as "cognitive bias". that is coming from:-

a) Negative self-perception (depressed people think they are flawed, inadequate, and worthless).
b) Negative worldview (those who are depressed, unhappy with their existing circumstances, and feel that the world places unfair demands on them).
c) A bleak outlook on the future (depressed people doubt their capacity to realize their goals).

b) Negative Self-Schemas.

The schema is a ‘pack’ of knowledge that keeps information, ideas, and things about ourselves and the world. These schemas are created during childhood, and depressed individuals possess negative self-schemas that may come from negative experiments. A person with a negative self-schema is probable to interpret information around themselves in the worst way, which leads to cognitive biases.

c) The Negative Triad.

Beck alleged that cognitive biases and negative self-schemas preserve the cognitive triad, a negative and irrational view about ourselves, the future, and the world for individuals who suffer from depression thoughts that occur automatically and as symptomatic of depressed individuals. According to Beck, absolutistic, nodal beliefs expose a person to disorders and get into depression when a matching life event happens.

Beck proposed the concept “Negative Cognitive Triad” due to his observation of the triple nature of the negative perception of depression in people related to the self, world, and future (Beck, 1967).

His triad included three major cognitive paths that encourage the patient to regard himself and his future by Using Beck’s words (1979), a psychologist may orient the client to notice his negative view, and that tends to attribute unpleasant experiences to a psychological, moral, or physical defect in himself. The patient believes that because of his defects, he is undesirable and worthless, and he lacks the essential attributes to attain

happiness and contentment. The trend to interpret his experiences negatively leads him to see the world as dark (Lita, 2018; Back, 1979; Patterson, 1992).

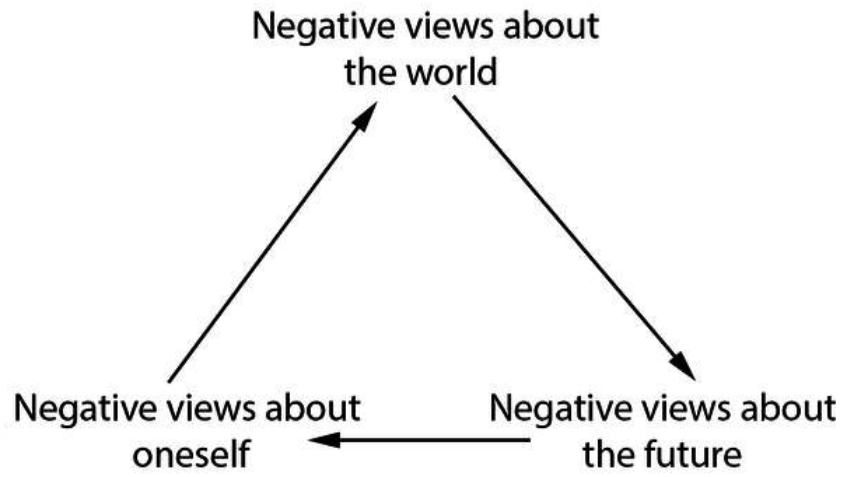

Figure 1. Explains Beck's cognitive triad

2. **Beck believes that interpretations are often distorted and irrational, and the result of wrong information processing includes:**

   a) Selective abstraction (centering on a detail out of context),
   b) Arbitrary inference (extraction conclusions in the absence of supporting proof),
   c) Overgeneralization (applying conclusions too broadly),
   d) Absolutistic or dichotomous thinking (the tendency to think in conclusive black or white terms) (Hajrasm, 2009).

2.3.4.3. Meichenbaum's Cognitive Behavior Modification Model

Donald Meichenbaum is one of the main creators of cognitive behavior modification, which was created by combining behavior therapy and cognitive therapy. It is a behavioral and cognitive learning intervention that combines behavioral and cognitive learning principles to generate and support desired behaviors. Although cognitive therapy and behavior therapy are based on different theories, they both confirm a decrease in symptoms and a focus on the present in order to improve a course of Intervention. In CBM, the client is taught to recognize destructive or harmful thinking types or behaviors and to replace them with useful or constructive ideas and behaviors.

Meichenbaum introduced CBM as an integrative, biopsychosocial approach that depended on several different orientations, containing constructive or narrative confirmations of clients' stories, their cultural conditions, their strengths, and their resources. Behaviors are viewed as the results of our self-talk. and changing the self-talk of individuals can change their behavior. The aim of the self-talk (verbalization) process is to change external behavior. That means self-talk seeks to alter cognitive processing by providing new strategies that will enhance behavioral functioning.

In 1974 Meichenbaum and Cameron introduced the idea of self-instructional training (SIT), and they explained that schizophrenics could be trained to alter dysfunctional self-talk to more convenient self-talk, thus improving their cognitive and thinking skills right away. STI refers to phrases individuals make to themselves, internally or aloud, and has been explained as an "internal dialogue". That person interprets feelings and perceptions, sets and changes evaluations, realizes and gives instructions, and then enhances themselves.

Researchers distinguish between two dimensions of STI: positive and negative ST. Negative ST was described as phrases involving self-preoccupation and criticism. whereas positive ST was described as self-addressed phrases involving encouragement and praise.

Meichenbaum was training schizophrenics to observe themselves, describe their behaviors, and direct themselves if the behavior was inappropriate. He was asking them to reformulate the task, gave them instructions to think slowly before doing the task, and encouraged them to use their imagination to investigate the goal, give them words of praise and enhancement, and teach them how they put Probabilities that explain the reasons for the occurrence of the unpleasant behavior and to say a phrase or sentence to adapt to the failure, and another phrase that encourages them to overcome the problem by making a new attempt and an alternative and appropriate response, such as be objective, judge, think, and do your duty while he does not clarify what he says and try again.

The verbal instructions they gave themselves included:

1. Reframe the demands of the assignment or homework.
2. Instructions to perform the task slowly, and to think before acting.
3. A cognitive method using conception and searching for a solution.
4. Expressions of self-esteem.

5. An example of a weak or false response and follows the reason why it's not appropriate.
6. A phrase describing how to deal with failure and how to obtain an appropriate response (Wyatt & Seid, 2009; Heflin & Simpson, 1998; Meichenbaumm, 1977; Meichenbaum ,2007; Theodorakis & Hatzigeorgiadis & Chroni, 2008; Kaplan, et all ,1979; Meichenbaumm ,2009; Lotfia et all., 2011).

2.4. COVID-19

In December 2019, the World Health Organization in China reported cases of unknown pneumonia in Hubei Province, Wuhan City. On January 7, 2020, the factor was identified as a new coronavirus (2019-nCoV) that was not previously exposed to humans. Then, this illness (2019-nCoV) was named COVID-19. This infection has spread and reached more than 81,553 cases in China and rising cases (>1,400,000) worldwide, leading the World Health Organization (WHO) to announce a public health emergency in January 2020, declaring it a pandemic (Health, 2020; Sohrabi et all., 2021).

2.4.1. COVID-19 Disease

Coronavirus disease is a fast-contagious respiratory illness that usually starts with the major symptoms of severe upper respiratory infections like cough, sore throat, fever, increasing fatigue, weakness, and shortness of breath, which generally turn into pneumonia (Özceylan & Kolcu, 2020).

Coronaviruses are a set of viruses related to the family Coronaviridae that infect both humans and animals. Human coronaviruses may cause a mild illness similar to a common cold, while others cause more acute diseases such as Middle East Respiratory Syndrome and SARS-MERS- Severe Acute Respiratory Syndrome (WHO, a.n.d.).

2.4.2. Principal Means of Spread

The World Health Organization announced the pandemic clinical features of COVID-19 are several, ranging from cases of asymptomatic to severe respiratory adversity syndrome and multi-organ dysfunction. The transmission occurs from human to human through common routes like contact, direct transmission, and air transmission: coughing, inhalation of droplets, sneezing, and contact with the mucous membranes of the mouth, eyes, and nose are the common method of spread (Cielo & Ulberg &

Giacomo, 2021). This spray can be transmitted over a distance of one to two meters. A virus can survive on surfaces for days under suitable environmental conditions, but it can die in less than a minute by ordinary disinfectants, such as hydrogen peroxide and sodium hypochlorite (Ozdemir, 2020).

2.4.3. COVID-19 and Mental Health

The COVID-19 outbreak has not influenced just physical health but, affected mental health also. Covid-19 has altered life drastically. When it spread in China in the last of 2019, the covid-19 has rapidly outbreak across the globe. This pandemic forced governments to insert unprecedented restrictions on human private and working lives, so that is effects of the pandemic on individual psychological health and life quality have been of great regard right from the beginning of the pandemic spread (Schmidtke, 2021).

The COVID-19 pandemic has had an acute impact on the well-being of people and mental health around the world, while most people have adopted others who experienced mental health issues, in some cases as a result of COVID-19 infection 3–7. The pandemic also continues to disturb access to psychological health services and has raised concerns about increases in suicidal behavior (WHO, 2022).

Several experts across the universe anticipated that COVID-19 would influence the population's health in psychological, neuroscientific, and social dimensions. The pandemic led the common population to experience a rise in mental health disorders like depression, acute stress, post-traumatic stress, irritability, anxiety, decreased attention, and insomnia. and these symptoms were most common in individuals with pandemic-related experiences (Holmes, 2020; Villani et al., 2021).

Therefore, psychiatrists and psychologists worldwide across the world must be conscious of these manifestations and also be willing for what is called the "post-pandemic wave", which represents the consequences of COVID-19 on mental health. In this case, mental health refers to all services that integrate care in the promotion, Intervention, prevention, and rehabilitation of mental troubles and disorders, including outpatient consultation and psychiatric hospitalization (Suárez et al., 2021).

It should be noted that a high prevalence of PTSD has been found (89.21%) after six months after the first local outbreak of COVİD-19, among workers in the field of Health care in the central hospital in Wuhan, linked with high levels of disease with

physical and Psychological., insomnia, and the potential of developing PTSD. (Zhang et al., 2020; Kleinberg, Vent, and Mozes, 2020).

According to what has been mentioned, the researcher sees through his review of the theoretical literature and previous studies and through his experience of the pandemic that the spread of COVID-19 led to various psychological problems, which resulted in contracting the virus or waiting to be infected, and it also led to a decrease in individuals' sense of psychological security. As a result of many problems, such as losing work, losing social contact, and not receiving education in its normal form, fear of meeting others, weak social fabric, and economic collapse for many families, some individuals were subjected to bullying by others, quarantine, sanitary isolation, an increase in the working hours of doctors and nurses, the teacher's inability to do his duty as it should, and the inability to make a positive impact on people's lives.

As the virus has escaped the disorderly system, people are no longer able to move around as freely as before. This, combined with the fear of dying and the lack of adequate coping mechanisms, has caused the world to become unstable and tense, especially when people are waiting.

Psychological trauma can continue for a very long time as a result of injury, infection anxiety, or seeing the death of a relative or other people who have been exposed to the virus.

2.5. Review of Related Studies

The study of Hellack, & Al. Shoubaki, (2019) aimed to identify the effectiveness of a group cognitive behavioral counseling program to reduce symptoms of depression and post-traumatic stress disorder in a sample of Libyan war wounded. The researcher used the quasi-experimental and descriptive-analytical methods the study population consisted of 2 Libyan wounded. The sample consisted of 34 wounded who received the highest score on the Zung scale to evaluate depression; the Mississippi scale for post-traumatic stress disorder. The results of the study showed statistically significant differences between the experimental and control groups on the total and sub-score of the Zung scale of depression and the Mississippi scale of post-traumatic stress disorder for the experimental group. There were no statistically significant differences in the level of depression and the level of PTSD in the injured due to any variables (social status, type of injury, educational level).

The study of Bianchi et all., 2018 aimed to know the effectiveness of cognitive-behavioral therapy for post-disaster stress (CBT-PD) in symptoms of posttraumatic stress disorder (PTSD) has been tested outside the United States of America. Design: Quasi-experiment with three groups. In the quasi-control group, complete CBT-PD was applied even though its members did not have PTSD; in quasi-experimental conditions, participants received complete Intervention because they had this diagnosis; and in the third group, participants with PTSD received an abbreviated Intervention (double sessions) due to organizational requirements. Participants: A total of 13 of the 91 people diagnosed with PTSD participated. In addition, 16 people without diagnosis voluntarily participated. The Intervention was completed by 29 participants. There were no dropouts. Only 1 of the 9 participants in the quasi-experimental group did not respond to Intervention. Measurements: Short Posttraumatic Stress Disorder Rating Interview (SPRINT-E) was used to measure PTSD symptoms before and after Intervention. Results: The group that received the complete Intervention and was diagnosed with PTSD showed a significant decrease in the total symptoms to below dangerous levels (IGAAB: 31.556; $p < 0.01$; 95%CI: 0.21-2.01; 2 = 0.709).

The study of Carlos Ruiz-Frutos et all., 2020 The aim of study is knowing to assess the effects of COVID-19 on the physical and mental health of non-health workers. Design: Observational descriptive cross-sectional study. Data sources: 1089 questionnaires have been analyzed. Engagement (UWES-9), sense of coherence (SOC-13), mental health (Goldberg GHQ-12), demographic data, perception of health and stress, and work environment were assessed. Results: At low levels of engagement, the percentage of distress is higher (77.9%). Low levels of sense of coherence correspond to the highest percentages of distress (86.3%). 94.1% believe professionals and volunteers involved in COVID-19 must receive psychological support. Low comprehensibility is mediated by the perception of stress; if the perception is low, comprehensibility is modulated by the level of significance; if it is low, it generates 95.9% of distress.

The study of DU Dek & Koniarek, 2000 aimed to find an answer to the question of what are the relationships between the level of PTSD symptoms and the sense of coherence (and its three dimensions). In all, 464 firemen were interviewed. PTSD Interview developed by Watson et al. was used to assess the level of PTSD symptoms and the presence-absence of PTSD. The higher level of PTSD symptoms was associated with a lower level of sense of coherence. A small group (3.9%) of subjects who

experienced traumatic events met DSM IV diagnostic criteria for PTSD. The sense of coherence of these people was significantly lower than that of others.

The study of Glück et al., (2015), aims to know the influence of a sense of coherence and mindfulness on PTSD symptoms and posttraumatic cognitions in a sample of elderly Austrian survivors of World War II(Glück et all., 2015) Methods: Elderly Austrians (N = 97) filled in questionnaires on traumatic life experiences and posttraumatic symptoms (ETI), posttraumatic cognitions (PTCI), SOC (SOC-13) and mindfulness (FFMQ). We expected the influence of SOC scores on posttraumatic symptoms and cognitions to be on one hand influenced by mindfulness. On the other hand, we expected that both aspects would uniquely explain fewer posttraumatic symptoms and cognitions. Results: Participants reported various lifetime traumas (M = 2.42), including experiences during World War II (WWII) as children and adolescents. Mindfulness partially mediated the association of SOC scores with posttraumatic cognitions, but not with posttraumatic symptoms. However, in a two-stage mediation model, mindfulness significantly predicted posttraumatic symptoms via its effects on posttraumatic cognitions.

The study of Salgado et all., (2020), aims to describe the levels of psychological distress and SOC of healthcare professionals during the crisis caused by COVID-19, the relationship between both variables and their health status. A cross-sectional descriptive study with a sample of 1459 currently active healthcare workers was developed. The results showed that 80.6% of healthcare professionals had psychological distress, and the mean score on the SOC-13 scale was 62.8 points (SD = 12.02). Both psychological distress and SOC were related to the presence of COVID-19 symptoms, as well as contact history. Professionals with psychological distress showed a lower SOC. Taking care of the mental health of healthcare professionals is essential to effectively cope with the COVID-19 pandemic.

The study of Jibril & Mohammad, (2013), aimed to examine the effect of a intervention program in reducing symptoms of post-traumatic stress disorder among a sample of battered women in Jordan. The study sample consisted of (18) women chosen intentionally. The control group consisted of (9) battered women from CARE international organization, and the experimental group, consisted of (9) women from the Al-Amal Foundation. For the study two scales were used: The family violence scale to select the sample of battered women and an Arabic version of the PTSD Questionnaire for Trauma survivors by Williams (2000). A intervention program based on behavioral-cognitive theory consisting of 23 sessions, 50 minutes each, was conducted on the

individuals of the experimental group. Results show a statistically significant difference between the experimental and control group. PTSD symptom levels were less compared to the control group. The study concluded that the intervention program based on cognitive therapy for trauma was effective in reducing the symptoms of PTSD for battered women.

The study of Barni, et al., (2020), aimed at assessing the role of SOC in moderating the link between illness experiences (in terms of knowing persons diagnosed with COVID-19 and fear of contracting COVID-19) and psychological well-being. 2,784 participants, taken from a large sample of the Italian population (65.4% females) and aged between 18 and 85 years, filled in an anonymous online survey during the 3rd week of the lockdown. Findings supported the moderating role of SOC in shaping the link between illness experiences and psychological well-being. Specifically, participants who knew at least one person diagnosed with COVID-19 showed lower levels of psychological well-being at low levels of SOC. The negative relation between participants' fear of contracting COVID-19 and psychological well-being was stronger for those who showed higher levels of SOC. This study discusses the implications of these results for interventions aimed at reducing the pandemic's detrimental effects and promoting resilience.

The study of Schäfera et all., (2020), aimed to assess the impact of the COVID-19 outbreak on mental health and to investigate the ability of pre-outbreak SOC levels to predict changes in psychopathological symptoms with sample (n = 1,591). Bivariate latent change score (BLCS) modeling was used to analyze pre- to post-outbreak changes in psychopathological symptoms and the ability of SOC to predict symptom changes. Results: Overall, there was no change in psychopathological symptoms. However, on an individual-respondent level, 10% experienced a clinically significant increase in psychopathological symptoms and 15% met cut-off criteria for COVID-19-related traumatic distress. Using BLCS modeling, we identified a high-stress group experiencing an increase in psychopathological symptoms and a decrease in SOC and a low-stress group showing the reversed pattern. Changes in SOC and psycho-pathological symptoms were predicted by pre-outbreak SOC and psychopathological symptom levels.

The study of Dadaczynski et all., (2021) aimed to explore the relationship between a sense of coherence (SOC), future worries, and mental health outcomes among German university students during the early phase of the pandemic. A cross-sectional online survey with n ¼ 14 916 participants was carried out by inviting all private and public

universities in Germany. Findings indicate low and very low well-being for 38% of university students. Moreover, 29% reported being affected by at least two health complaints more than once a week. Both health outcomes follow a social gradient and could be more frequently observed for respondents with lower subjective social status and female students. Regression analysis revealed a significant association between the SoC dimensions and well-being (OR: 1.22.03) as well as health complaints (OR: 1.581.71). A high level of future worries was associated with low/very low well-being (OR: 2.83) and multiple health complaints (OR: 2.84). Based on the results, the public health response to the pandemic and university health promotion should therefore consider student mental health as an important target within their policy and action frameworks.

The study of Ragger et all., (2019) hypothesized that a Sense of Coherence (SOC) might play an important role as an underlying feature in enabling growth after stressful experiences in Austrian ambulance personnel. Methods: In this study, voluntary and full-time ambulance personnel (n = 266) of the Austrian Red Cross ambulance service completed an online survey including the Sense of Coherence Scale (SOC-29), the Post-traumatic Growth Inventory (PTGI) and the Impact of Event Scale-Revised (IES-R) for the assessment of PTSS. In line with theoretical considerations, a two-step cluster a Results: Four clusters were confirmed and labeled PTSS-low/PTG-low, PTSS-low/PTG-high, PTSS-high/PTG-high, and PTSS-high/PTG-low. Further ANOVAs revealed substantial cluster differences in SOC, with higher SOC-levels in PTSShigh/PTG-high than in PTSS-high/PTG-low ($p < .01$), in PTSS-low/PTG-high than in PTSS-low/PTG-low ($p < .01$) and in PTSS-low/PTG-high than in PTSS-high/PTG-low ($p < .01$).

The study of Caballero et al., (2021) aimed to analyze the impact of the COVID-19 pandemic on EMS professionals in terms of their mental health. For this purpose, we present a descriptive cross-sectional study with survey methodology. A total of 317 EMS workers (doctors, nurses, and emergency medical technicians) were recruited voluntarily. Psychological distress, post-traumatic stress disorder, and insomnia were assessed. The instruments were the General Health Questionnaire-12 (GHQ-12), the Davidson Trauma Scale (DTS-8), and the Athens Insomnia Scale (AIS-8). We found that 36% of respondents had psychological distress, 30.9% potentially had PTSD, and 60.9% experienced insomnia. Years of work experience were found to be positively correlated, albeit with low effect, with the PTSD score ($r = 0.133$). Finally, it can be stated that the COVID-19 pandemic has been a traumatic event for EMS workers. The number of

professionals presenting psychological distress, possible PTSD, or insomnia increased dramatically during the early phases of the pandemic. This study highlights the need for mental health disorder prevention programs for EMS workers in the face of a pandemic.

The study of Xueyan Li & Miao Zhu, (2021) aimed to explore influencing factors for the psychological impact of COVID-19 on Wuhan college students, post-traumatic stress symptoms in particular, to inform evidence-based strategy development to ameliorate such adverse impacts. An online survey was conducted from 26 to 29 April 2020, and 4355 students enrolled in Wuhan universities and colleges participated. Post-Traumatic Stress Disorder via the Impact of Event-Scale-Revised was assessed. COVID-19 disproportionately affected older male Master's and doctoral students living in Wuhan. The overall prevalence of PTSD was 16.3%. The three-level socio-interpersonal model of PTSD was empirically validated, and college students faced individual-level risks such as infection with COVID-19, close relationship-level risks such as family support (infection suspicion of family members, the loss of loved ones, and the family income decrease), and online course difficulties (little interaction, disturbing learning environment, and difficulty in adaption), and distant level risks such as an excessive collection of personal information, the estrangement of family relatives, and harassment and insult from strangers. The findings suggest the severity of the psychological impact of COVID-19. Mental health services reducing PTSD should be provided. Students who have lost loved ones and suffered family financial loss should be given particular care.

The study of Kira et al., (2021), aimed to investigate the impact of COVID-19 as traumatic stress on mental health after controlling for individuals' previous stressors and traumas. We utilized a sample of (N = 1374) adults from seven Arab countries. study used an anonymous online questionnaire that included measures for COVID-19 traumatic stress, posttraumatic stress disorder, anxiety, depression, and cumulative stressors and traumas. We conducted hierarchical multiple regression, with posttraumatic stress disorder, depression, and anxiety as dependent variables. In the first step, at each analysis, entered the country, gender, age, religion, education, and income as independent variables. Results indicated that COVID-19 traumatic stressors, and each of its three subtypes, were unique predictors of PTSD, anxiety, and depression. Thus, COVID-19 is a new type of traumatic stress that has serious mental health effects.

The study of Chiara et all., (2021) aimed at assessing the level of psychological distress and factors associated with high distress among foreign university students in Korea during the COVID-19 pandemic. A cross-sectional study was carried out using an

online self-administered questionnaire. Participants responded to questions regarding sociodemographic information and the 10-item Kessler Psychological Distress Scale (K10). Results: A total of 261 students from 63 universities in South Korea participated in this study. The mean ± standard deviation of the participant's age was 26.21 ± 4.85. Most respondents were males (52.49%), and most were on scholarship (86.59%). Most of the students were studying for a master's degree (56.7%). Internal reliability was satisfactory with a Cronbach's alpha of 0.89. In this study, 70.5% of foreign students reported experiencing low psychological distress while 29.5% reported experiencing high psychological distress. Factors that were associated with high psychological distress levels were; students younger than 25 years (P = 0.017), females (P = 0.008), students on part-time studies (P = 0.015), self-sponsored students (P = 0.026), those from the Asian (P < 0.001) and American regions (P = 0.005).

The study of Chen et all., (2021) aimed to investigate the mental health of hospitalized patients diagnosed with COVID-19. The PTSD checklist for DSM-5 (PCL-5), Patient Health Questionnaire (PHQ-9), Generalized Anxiety Disorder Scale (GAD-7), Trauma Exposure Scale, an abbreviated version of the Connor–Davidson Resilience Scale (CD-RISC-10),Perceived Social Support Scale (PSSS) and Demographic questionnaire were used to examine post-traumatic stress disorder (PTSD), depression, anxiety, trauma exposure, resilience, and perceived social support among 898 patients who were hospitalized after being diagnosed with COVID-19 in China. The data were analyzed with t-tests, one-way. ANOVA and multivariable logistic regression analysis.Results: The results showed that the prevalence of PTSD, depression, and anxiety was 13.2, 21.0 and 16.4%, respectively. Hospitalized patients who were more impacted by negative news reports, had greater exposure to traumatic experiences and had lower levels of perceived social support reported higher PTSD, depression, and anxiety.

Discussion Studies

The study of Hellack & Al. Shoubaki, 2019 agreed with the study of (Jibril and Mohammad, 2013) and study (Bianchi et al., 2018) to reduce Levels of Symptoms of Post-Traumatic Stress Disorder by using a CBT program, this research agrees with this study in using CBT program to reduce PTSD. The other studies were different from this research aim, where the study of (Ruiz-Frutos et all., 2020) is known to assess the effects of COVID-19 on the physical and mental health of non-health workers, the study of (DU Dek& Koniarek,2000) study aimed to find an answer to the question of what are the

relationships between the level of PTSD symptoms and the sense of coherence (and its three dimensions), study of (Glück et all., 2015). This study aims to know the influence of a sense of coherence and mindfulness on PTSD symptoms and posttraumatic cognitions in a sample of elderly Austrian survivors of World War I. study of (Gómez-Salgado et all.,2020)This study aims to describe the levels of psychological distress and SOC of healthcare professionals during the crisis caused by COVID-19, the relationship between both variables and their health status, the study of (Barni, et al., 2020). This study aimed at assessing the role of SOC in moderating the link between illness experiences (in terms of knowing persons diagnosed with COVID-19 and fear of contracting (COVID-19) and psychological well-being. Therefore, the study of (Schäfera et al, 2020) aims to know the Impact of COVID-19 on Public Mental Health and the Buffering Effect of a Sense of Coherence, too, the study of (Dadaczynski et all, 2021) aims to know about university students' sense of coherence, future worries, and mental health: findings from the German COVID-HL-survey. and in the study of (Ragger, et all, 2019) aimed to Sense of Coherence (SOC) might play an important role as an underlying feature in enabling growth after stressful experiences in Austrian ambulance personnel. also, the study of (Caballero et all., 2021) aims to analyze the impact of the COVID-19 pandemic on EMS professionals in terms of their mental health. While in the study of (Xueyan Li&M iao Zhu, 2021) aimed to explore influencing factors for the psychological impact of COVID-19 on Wuhan college students, post-traumatic stress symptoms in particular, in the study of (Kira et al, 2021) aimed to investigate the impact of COVID-19 as traumatic stress on mental health after controlling for individuals' previous stressors and traumas. While the study of (Chiara et al, 2021) aimed to study at assessing the level of psychological distress and factors associated with high distress among foreign university students in Korea during the COVID-19 pandemic. A study by (Chen et all, 2021) aimed to investigate the mental health of hospitalized patients diagnosed with COVID-19.

According method, The study of (Hellack & Al. Shoubaki, 2019) agreed with the study of (Jibril and Mohammad, 2013) and (Bianchi et al, 2018) to use the quasi-experimental method. This research agrees with this study in using the quasi-experimental method and the study of (Ruiz-Frutos et al, 2020) and the study of (DU Dek & Koniarek, 2000) and the study of (Glück et al, 2015) and study of (Gómez- Salgado et al., 2020) and the study of Barni, et al, 2020), and (Caballero et al,2021) agreed with use the descriptive method. The study of (Ragger, et all, 2019) agreed with the study of (Dadaczynski et al, 2021) and study of (Xueyan Li&Miao Zhu,2021) and study of

(Kira et al, 2021) and study of (Chiara et al, 2021) and study where used a descriptive method online survey.

According sample, the studies had different samples and don't have similarities among there in the study of (Hellack & Al. Shoubaki, 2019) the sample was a sample of Libyan war wounded. ın study by (Jibril and Mohammad, 2013) among a sample of battered women in Jordan, the study by (Ruiz-Frutos at all, 2020) sample was among non-health workers, and the study by (Du Dek & Koniarek, 2000) the sample was among firemen with the study of (Glück et all, 2015)sample of elderly Austrian survivors of World War I, in the study of (Gómez- Salgado et all, 2020) was among healthcare professionals and study of Barni, et al,2020) between persons diagnosed with COVID-19 and fear of contracting COVID-19). In a study by (Ragger, et all.,2019) the sample was Austrian ambulance personnel while in a study by (Caballero et all, 2021) were Emergency Medical Workers. In a study by (Chen et all, 2021) the sample was hospitalized patients with coronavirus disease. In the study of (Dadaczynski et all, 2021) where the sample included German university students, an online survey with n ¼ 14 916. agreed with the study of (Xueyan Li&Miao Zhu, 2021) which included university students in Wuhan College. Also, the study of (Chiara et all, 2021) agreed with the sample of this research which included international students which was 609 students.

According result**,** the study by (Hellack & Al. Shoubaki, 2019) agreed with the study of (Jibril and Mohammad, 2013) and the study by (Bianchi, et all, 2018) whit the result of this research. Where the results show statistically significant differences between the experimental and control group. PTSD symptom levels were less compared to the control group. The study by (Ruiz-Frutos et all, 2020), the study of (DU Dek& Koniarek, 2000), and the study by (Gómez- Salgado et al, 2020) agreed that Low levels of sense of coherence correspond to the highest percentages of PTSD and percentages of distress. In the study of (Barni, et all,. 2020) participants who knew at least one person diagnosed with COVID-19 showed lower levels of psychological well-being at low levels of SOC.

Moreover, in the study of (Glück et al, 2015) mindfulness partially mediated the association of SOC scores with posttraumatic cognitions but not with posttraumatic symptoms. in a study by (Schäfera et all, 2020) high-stress group experienced an increase in psychopathological symptoms and a decrease in SOC, and the low-stress group showed a reversed pattern. Changes in SOC and psycho-pathological symptoms were predicted by pre-outbreak SOC and psychopathological symptom levels.

And in the study of (Dadaczynski et all, 2021) regression analysis revealed a significant association between the SoC dimensions and well-being.

In addition, the study of (Caballero et all, 2021) the result refer to the COVID-19 pandemic has been a traumatic event for EMS workers. The number of professionals presenting psychological distress, possible PTSD, or insomnia increased dramatically during the early phases of the pandemic.

The study of (Xueyan Li&Miao Zhu, 2021) findings suggest the severity of the psychological impact of COVID-19. Mental health services reducing PTSD should be provided. Students who have lost loved ones and suffered family financial loss should be given particular care. (Kira et all, 2021) Results indicated that COVID-19 traumatic stressors, and each of its three subtypes, were unique predictors of PTSD, anxiety, and depression. Thus, COVID-19 is a new type of traumatic stress that has serious mental health effects. (Chiara et all, 2021) In this study, 70.5% of foreign students reported experiencing low psychological distress while 29.5% reported experiencing high psychological distress.

In the study of (Chen et all, 2021): The results showed that the prevalence of PTSD, depression, and anxiety was 13.2, 21.0 and 16.4%, respectively. Hospitalized patients who were more impacted by negative news reports, had greater exposure to traumatic experiences and had lower levels of perceived social support reported higher PTSD, depression, and anxiety.

CHAPTER III

RESEARCH METHODOLOGY AND PROCEDURES

This chapter reviews the methodology and procedures. which includes the research method, population, sample, tools, and Intervention program of the research.

3.1. Research Methodology

The researcher used the quasi-experimental approach as it is the appropriate approach for research aimed at identifying the effectiveness of a cognitive-behavioral program in the sense of coherence to reduce PTSD. The definition of the quasi-experimental method is studies that aim to evaluate interventions, and quasi-experimental studies aim to prove causality between an intervention and an outcome. This method is employed when there are difficulties in using the experimental method due to religious or social reasons or to avoid exposing individuals to danger or humiliation (Harris et all., 2014).

3.2. The Experimental Design Used in the Research.

3.2.1. Equated Group Method:

One experimental group and one control group, the researcher designed an experimental design that includes a pre- and post-measurement of students, the experimental group (n = 13), and the control group (n = 13). Researcher applied the program to the experimental group excluding the control group; during that, the "experimental group" was exposed to the experimental (the intervention program) and was able to participate in the program sessions. Then, the researcher applied the pre-test to the two groups (experimental and control), applied a post-test, and after that, applied the following test. After that, the researcher evaluates the scales to obtain the participant's scores and analysis through SPSS. Then researcher makes a comparison between the results of the pre- and post-tests for the two groups (experimental and control) to know the difference that happened because of the program and the effectiveness of the program’s impact (Alharethe, 2010; Waked, 2016).

Table 1.

Explains Equated Group Method

Group	Sample	Pre-test	participate in the program	Post-test	Follow- test
Experimental	13	+	+	+	+
Control	13	+	-	+	-

3.3. Research population

The research population consists of all international students in Turkey, who have recovered from COVİD-19.

3.4. Research sample

3.4.1. Research Sample That Researcher Applied The Scales

The sample of the research consists of 609 male and female students selected non-randomly from a research population using the snowball sampling technique.

The snowball sample is used when we face difficulty identifying the members of the community to be studied. This process begins with identifying a person who meets the required search criteria. The researcher asks them to tell him about others they know who meet the criteria and conditions of the search. According to this, the researcher can obtain the required sample that achieves the purpose of the search. To determine the steps for selecting a sample, the researcher follows these steps:

1-Contact one or two individuals from the community which the researcher wants to study.

2-Researcher asks them to identify other cases and to contact them.

3-Researcher ask the new cases to identify other new cases to contact them.

4-Stop when we can't reach new cases or obtain an acceptable sample size (Nwfal & Abu Awadah, 2010).

3.4.2. Research Sample That Researcher Applied The Program

The researcher selected 26 students who were chosen based on their high scores on the PTSD scale and low scores on the sense of coherence scale. There were 13 participants in the experimental group and 13 participants in the control group. The experimental group included five students from Yemen (4 females and one male), four

students from Egypt (3 females and one male), three from Sudan (one female and two males), and one male from Chad. Moreover, eight students were female, and five students were male. Also, they were between 18 and 21 years old old and residing in Konya City. The control group consisted of 13 students from Yemen (8 females and 5 males).

Table 2.

Explains the Demographic Variables Which Included

Variables	Category	NO	Percent
Gender	Male	422	69.1
	Female	187	30.9
Major	Scientific	72	57.2
	Social	166	42.8
Level	Level 1	35	19.0
	Level2	67	25.1
	Level 3	12	31.2
	Level 4	11	21.3
	Level 5	15	3.4
Age	19-20	205	33.6
	21-23	268	44.1
	24-26	136	22.3
City	Adana	73	12.0
	Istanbul	70	11.0
	Bursa	55	9.0
	Kayseri	50	8.0
	Konya	122	20.0
	Sakarya	53	10.0
Nationality	Ankara	49	8.0
	Mersin	46	7.6
	Erzincan	45	7.0
	Kahraman	40	6.0
	Isparta	44	7.26
	Jordan	37	6.1
	Syria	37	6.1
	Libya	25	.4 1
	Algeria	25	4.1
	Morocco	19	3.11
	Tunisia	18	2.95
	Chad	18	2.95
	Mauritania	16	2.62
	Djibouti	15	2.46
	Somalia	10	1.64
	Lebanon	8	1.3

Of a Convenience Sample (Fraenkel & Wallen, 1993) of 609 students, 422 of them were male (69.9%). Furthermore, 186 were females with (30.1%) while in scientific departments were 443 (18.6%), and in social departments 166 (42.8%). And according to the level of education first level 120 with (19.0%), second level 153 with (25.1%) third level 185 with (31.2%), fourth level 130 with (21.3%) and finally fifth level 21 with (3.4%).

According to age variables (19-20), 205 with (33.6) and (21-23) were 268 with (44.1) and (24-26) 136 with (22.3).

According to the city variable, Adana was 73 with (11.98%), Istanbul was 70 with (11.49%), and Bursa was 55 with (9.03%). Kayseri was 50 at (8.21%), Konya was 122 at (20.03 %), Scaria was 53 at (8.70%), Ankara was 49 at (8.04%), Mersin was 45with (7.38%), Trabzon was 43 at (7.06%), Karma was 40 with (6.56%), and Sparta was 18 with (2.09%).

According to the nationality variable Yemen was 203 with (33.3%), Egypt was 85 with (14.02%), Iraq was 49 with (8.4%), Sudan was 44 with (7.22%), Jordan was 37with (6.1%), Syria was 37 with (6.1%), Libya was 25with (4.1%), Algeria was 25 with (4.1%), Morocco was 19 with(3.1%), Tunisia was 18 with (2.95%) Chad was 18 with (2.95%), Mauritania was 16 with (2.62%), Jabot was 15 with (2.46%), Somalia was 10 with (1.64%), and Lebanon was 8 with (1.3%).

The research sample included 13 students from Konya City. This choice was made because Konya City had the highest number of COVID-19 infections. Additionally, there was a significant population of international students in Konya, while the number of infected students in other cities was comparatively lower between three and four students. Furthermore, many students in other cities across Turkey were residing away from Konya, making it impractical for them to participate in the program. Given that the researcher needed more than three or four participants for the program, Konya was chosen as the most suitable city.

3.5. Research Tools

3.5.1. Post-Traumatic Stress Disorder Scale (Researcher Preparation)

The researcher structured a PTSD scale for the following reasons:

A. The PTSD scale that were used in previous studies are inappropriate to use in this research to measure the symptoms of PTSD during the covid-19 pandemic.
B. Building a measure for university students. That includes different categories from various countries, cultures, and races, and researchers will be able to use this measure in their future research

3.5.1.1. Steps of Building the PTSD Scale

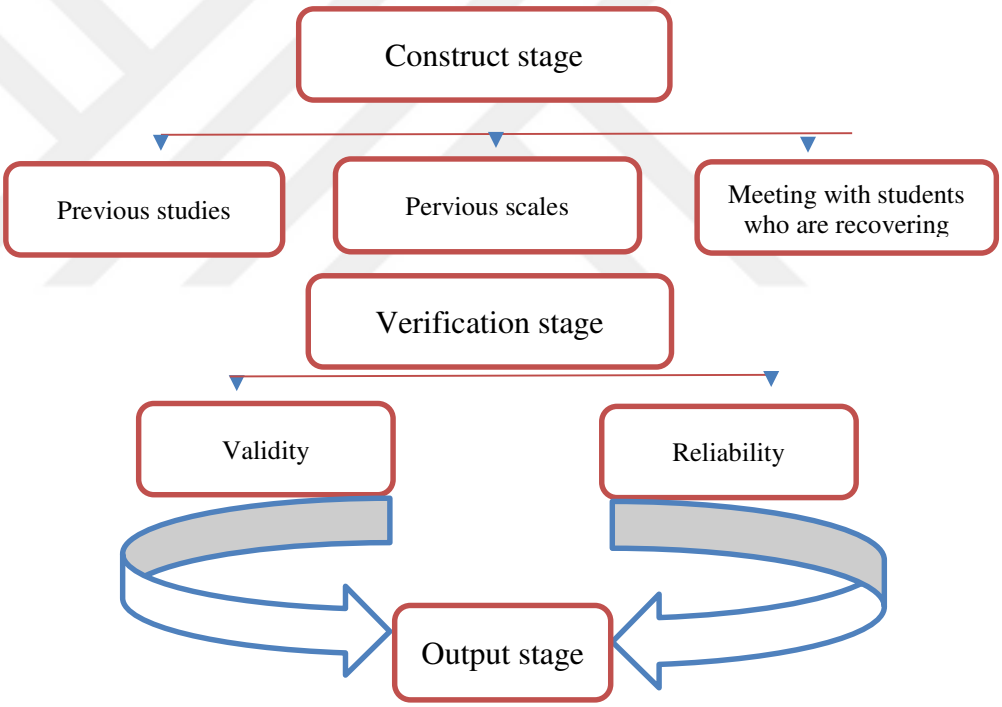

Figure 2. Explains the Stages of Building Scale

3.5.1.1.1. Construction Stage

The researcher reviewed the theoretical literature related to studies and research on PTSD and the previous scales prepared in this area, including (DSM-5, 2013; Foa, Riggs, Dancu, Rothbaum, 1993; Herman et all., 1996; Keane National Center for PTSD, Behavioral Science Division, 1994; Davidson Trauma Scale, 1995; Gidzgier et all., 2019; United Nations Conference on Trade and Development, 2020), meeting students who are

recovering from COVID-19, and calling with students who are infected. The researcher formulated the items of the scale according to the initial form, which was 36 items. With the five alternatives, according to Likert. (Not at all, less/a little, somewhat, severe - very severe) that allow the respondent to express their opinion in a completely accurate manner (Attached1).

3.5.1.1.2. Stage of Erification of The Validity of The PTSD Scale

3.5.1.1.2.1. Face validity of PTSD Scale (Descriptive Validity)

Bollen (1989) defined face validity as a qualitative form of validity that evaluates whether the expressions contained in the measuring instrument represent the phenomenon intended to be measured. İmply, and furthermore, the validity of a scale instrument refers to the revealing extent to which all items in the measuring tool serve the purpose. If they have the same goal, the instrument is able to measure what was put to measure. It is considered valid, and this indicates that the tool is suitable for the purpose for which it was set (Al-Tariri, 1997; Abdel-Hafeez & Mustafa, 2002).

In the literature on measurement, there are many methods to measure validity; face validity is one of them. It is taken through expert opinions in this approach, and researchers offer the tool to over one expert to obtain good validity opinions.

Rubio et all., (2003) and Ayre & Scally,(2014) pointed out that in this method the researcher seeks advice from the experts to evaluate every item in the measuring instrument in its initial form in terms of the content of the tool or appropriateness of concepts and evaluates each item in a match with the rules of the experts to obtain objective results that had been made for determining the face validity (Attached 2), where the Specialization and number of experts have significant importance to be more objective in arbiter (Sürücü& Maslakçı, 2020), to confirm the validity of the scale in this way, the scale was examined in its initial form which included 36 items by seven experts (Attached 2), who are with expertise and specialization, in education and psychology, explaining the purpose of the research and the sample, and the alternatives that used it. And no one of these items was deleted. The agreement rate between the arbitrators was 90%.

3.5.1.1.2.2. Construct Validity of PTSD Scale

Exploratory Factor Analysis

Exploratory factor analysis is used to reduce the data to a smaller set of summary

variables and to explore the underlying theoretical structure of the phenomena (Goldberg& Velicer, 2006). The analysis extracted four factors; the fifth and sixth factors were deleted due to the loading factor. Each with Eigenvalues above one, which explains 52.47% of the total variance. The scale consists of 32 items within four dimensions. Based on the rotated component matrix, out of the 36 items, four were dropped due to cross-loading in another component, the items that were deleted were 22, 25, 30, and 36. The items were selected to be classified within the four dimensions according to the following criteria: the loading factor of the item must be the factor to which it belongs 0.3 or more, as suggested by Guilford, if the item has good loading on more than one factor, it is considered to belong to the factor whose loading is higher by at least 0.01 difference than any other factor (Hamad & Erhaif, 2013; Abd El-Hafiez et all., 2020).

The first 8 items were categorized as hyperactivity behaviors (3, 23, 15, 28, 34, 9, 19, and 27). The other 6 were under the behavior of re-experiencing (1, 7, 11, 12, 13, 33; also, the behavior of avoidance and sedation included 9 items: (4, 10, 14, 16, 20, 21, 24, 29, 35); and the remaining 9 items were the behavior of fear of infection: (2, 5, 6, 8, 17, 18, 26, 31, 32). And the KMO was.93, indicating a meritorious level based on (Kaiser & Rice, 1974, 9; Swaminathan, 2013), and Barlett's test for sphericity was significant p-value = .000 = 8679.650511. The measure of sampling adequacy was found to be MSA = .000 for all 32 items (Hair et all., 2009).

3.5.1.1.2.3. Criterion validity of PTSD Scale

It is a type of validity that is used to measure the confluence of the results with another instrument that was previously prepared by other researchers and tested for validity and reliability to apply it with the tool with which the researcher structured it to measure the very structure and confirm the validity. Whenever a higher correlation coefficient between the two scales indicates the validity of the scale that the researcher prepared (Oluwatayo, 2012). To investigate the validity of the tool in this way, the researcher applied her scale, which consists of 32 items with five alternatives prepared by the researcher (at the same time), with the (Davidson Trauma Scale, 1995), which consists of 17 items with five alternatives, and then verified the validity by using a Pearson correlation, which was $P < .001$

Table 3.

Criterion Validity Correlations of PTSD

Variables	1	2
1 Researcher Scale	-	
2 Davidson Trauma Scale	.79**	-

Note1. **p<.001

3.5.1.1.3. Stage of Verification of The Reliability of The PTSD Scale

3.5.1.1.3.1. Test & Re-test

Refers to the stability of the scores obtained while the scale is applied to the same individuals at various times. It means the same scale is applied twice to the same sample group after a specific time, such as two weeks (Sürücü & Maslakçı, 2020). The researchers used a test-retest to determine the reliability of the scale. By applying to an experimental sample of 350 students. After two weeks from the first application, the researcher re-applied the scale to the same sample. Then found a high correlation between the first and second applied, researchers used the Pearson correlation to find reliability, and it was p<.001 imply, which is a strong correlation coefficient.

Table 4.

Correlations Between Test-retest for PTSD scale

Variables	1	2
1 Test	-	
2 Re-test	.87**	-

Note1. **p<.001

3.5.1.1.3.2. Cronbach's Alpha for PTSD Scale

Internal consistency is related to the reliability of the expressions contained in the measuring instrument. The measuring instrument measures the consistency of the items within it and questions how well the measuring instrument measures a particular behavior or quality. The most popular method used in research to test internal consistency is the determination of the alpha coefficient. Cronbach's alpha p-value between.6 and.7 and up is a good index to measure the scale of internal consistency (Cronbach & Meehl, 1995). The researchers examined the reliability of the PTSD scale by using the alpha-Cronbach

coefficient and obtained a reliability value ranging between.76 and.87 for the dimensions. also obtained a total reliability value on the scale of .83, which is high reliability.

Table 5.

Cronbach's Alpha for PTSD scale

No	N of Items	Dimension	Cronbach's Alpha
1	8	Hyperactivity	.74
2	6	Re-experiencing	.74
3	9	Avoidance	.76
4	9	fear of infection	.84
5	32	All	.83

3.5.1.1.4. Final Output Stage

The scale included 32 items with four dimensions; the first 8 items were categorized as hyperactivity behavior (3, 23, 15, 28, 34, 9, 19, 27), and the other 6 were under the behavior of re-experiencing (1, 7, 11, 12, 13, 33). Also, the behavior of avoidance and sedation included 9 items (4, 10, 14, 16, 20, 21, 24, 29, 35), and the remaining 9 items were the behaviors of fear of infection (2, 5, 6, 8, 17, 18, 26, 31, 32), with five alternatives according to Likert. Not at all = 1, less/a little = 2, somewhat = 3, severe =4, very severe = 5 (Attached3).

3.5.1.1.5. The Score of The PTSD Scale

The highest score on the scale is 160, the lowest score is 32, and the mean is 96 degrees, according to the correction key for the scale in the below table. If the respondents' score on the scale is more than the criterion (expect mean), the score indicates that the individual is suffering from PTSD, but if the respondent's score is less than the degree of severity, it indicates no traumatic disorders. This possibility applies to international students of various nationalities.

3.5.2. SOC Scale

Sense of coherence scale that was prepared by Antonovsky in (1987), Antonovsky saw SOC as having a stress-buffering effect. SOC is built upon three components that are dynamically interconnected: comprehensibility, manageability, and meaningfulness. Comprehensibility refers to the extent to which a person perceives that the world makes sense and is structured, consistent, and predictable. comprehensibility (consisting of

(Items:2, 6, 8, 9, and 11), Manageability refers to the degree to which a person has sufficient resources at their disposal to meet both external demands and internal needs. (Items: 3, 5, 10, and 13). Finally, meaningfulness refers to the degree to which a person feels that life is a challenging but worthy emotional engagement. (Items: 1, 4, 7, and 12) (Holmefur, et all., 2014). The original instrument consisted of 29 items with seven-point response scales. There is now a 29-item and a 13-item version of the SOC scale, and the items in the shorter form were used in this research (Attached4).

3.5.2.1. Validity and Reliability of SOC Scale

The reliability of the instrument has been investigated mostly in terms of internal consistency. Cronbach´s alpha has been reported to range between .79 and .95 for the 29-item version and between .70 and.90 for the 13-item version, and test-retest analyses have shown the construct "SOC" for the 13-item is stable over time = .70 (Mahammad & Poursharifi& Alipoura, 2010; Holmefur, 2014; Nouar & Zekri, 2019)The researcher investigated the validity of the scale by:

3.5.2.1.1. Face Validity of SOC Scale

Face Validity to confirm the validity of the scale in this way, the scale was examined in its initial form, which included 13 items by seven experts (Attached 2) who have expertise and specialization in education and psychology, explaining the purpose of the research, the sample, and the alternatives that were used. and no on item of these items was deleted. The agreement rate between the arbitrators was 90%.

3.5.2.1.2. Criterion Validity of SOC Scale

To investigate the validity of the tool in this way, the researcher applied SOC, which was prepared by Antonovsky and consists of 13 items with five alternatives (at the same time) with the scale of hardiness that was prepared by Kobasa (1979). The scale contains 15 items with five alternatives, with each component of hardiness psychology (commitment, control, and challenge) measured by 5 items. Previous research shows that it has good psychometric characteristics. The coefficients of internal consistency (Cronbach alpha) for hardiness components ranged from .70 to .77, while the whole scale is .83 (Kardum et all., 2012), then,verified the validity by using a Pearson correlation was .69 and p-value = .003.

Table 6.

Correlations between SOC scale and Hardiness scale

Variables	1	2
1 hardiness psychology	-	
2 Sense of coherence	.69**	-

Note. **p<.01

3.5.2.1.3. Cronbach's Alpha for SOC Scale

The researcher found the reliability of the SOC scale by using the alpha-Cronbach coefficient and obtained a total reliability value on the scale of .77 which is high reliability.

Table 7.

Cronbach's Alpha for SOC scale

Cronbach's Alpha	Items
.771	13

3.5.2.1.4. Final Form

The scale included 13 items, with three dimensions, the first 5 items comprehensibility consisting of (Items: 2, 6, 8, 9, and 11), and the other 4 under. Manageability (Items: 3, 5, 10, and 13). Finally, meaningfulness with 4 Items (1, 4, 7, and 12) (with five alternatives according to Likert. Not at all = 1, less/a little = 2, somewhat =3, severe =4, very severe= 5 (Attached 5).

3.6. The Program Used in The Research

Frequently, individuals inquire about or assume that counseling and psychotherapy are synonymous terms. Defining counseling and psychotherapy proves challenging due to the lack of consensus on their precise definitions and whether any distinctions exist between the two.

Burks and Stiffler (1979) refer to counseling denotes a professional relationship between a trained counselor and a client. This relationship is usually person-to-person, although it may sometimes involve more than two people. It is designed to help clients understand and clarify their views of their life space and to learn to reach their self-

determined goals through meaningful, well-informed choices and through the resolution of problems of an emotional or interpersonal nature (McLeod, 2003). On the other hand, psychotherapy focuses on facilitating an individual's or individuals' healing and the acquisition of constructive coping strategies for the challenges or issues they encounter in their lives.

Aleksandrowicz (1994) suggests conceptualizing psychotherapy as a form of psychological interaction primarily oriented towards the remediation of disorders experienced by the individual or categorized as diseases within their environment. That influence the functional status of organs and behavior. It occurs through alterations in the patient's cognitive processes, particularly in domains where the elimination of causative factors and symptomatic manifestations of the treated illness is deemed essential (Pawlak, Agnieszka Kacprzyk, 2020).

This approach is typically recommended when an individual grapples with protracted life, relationship, or work-related difficulties, or when a specific mental health concern persists and causes the individual significant distress over an extended period, not just a few days. So, psychotherapy serves as a frequently employed umbrella term encompassing the process of addressing psychological disorders and mental distress. However, counseling is used with normal individuals (Sharf, 2008). Also, cognitive-behavioral therapy (CBT), a form of psychotherapy, is grounded in the cognitive model of mental disorders. This Intervention approach posits that a prevailing feature shared among numerous emotional problems and various mental disorders, including but not limited to depression, anxiety disorders, truma diorder, and eating disorders, is the presence of discernible elements. These elements encompass automatic thoughts and cognitive distortions that serve as intermediaries in the perception of distinct emotional states and subsequently influence behavioral responses (Corey, 2009). So the researcher prepared a intervention program to reduce PTSD.

For building the intervention program, the researcher relied on cognitive-behavioral theory to use its techniques to improve the sense of coherence within the three dimensions of it. (the cognitive aspect, the behavioral aspect, and the meaning of life) to reduce post-traumatic stress disorder resulting from COVID-19 among the participants of the research sample. The program was prepared by the researcher, who benefited from previous studies, research, and books that studied and dealt with the topic of the research, some of which aimed to reduce post-traumatic stress disorder, another that studied the techniques of cognitive-behavioral therapy, and some that studied sense of coherence.

These such as (Alharethe & Subhi , 2010 ; Waked , Rabeh , 2016 ; Dudura, Mutaz,2021; Montasi, Shadia, Edries & Safaa , 2021; Mustafa & Mohammed, 2020 ; Liese & Beck,1997; Ali , Mohammed , Esa & Magid, 2021; Hertfordshire Partnership University NHS Foundation Trust,2016; Li et all , 2020; Bianchi et all,2018; Shubinaa ,2015)

3.6.1. Purpose of Program

This program has three purposes:

1. The first one is the Intervention purpose is to help recover from PTSD through an increased sense of coherence among students who were infected with COVID-19 and recovered from it.
2. The second one: preventive purpose; increasing the skills of participants in sense coherence and practicing them continuously; that becomes like a part of their personality that helps them to overcome crises and problems that they may face in their lives, whether private or public ones.
3. The third one is general-purpose psychological education of the participants about psychological trauma, how it affects our lives and behaviors, and how to deal with it by using the skills of sense coherence in overcoming it.

3.6.2. Place and Time of Implementation Program

The program was conducted at an association affiliated with the Yemeni Students Union, which provided a dedicated training hall over a span of five weeks. Each week featured two sessions, totaling 12 intervention sessions, all held in Konya city. The program commenced on January 24, 2022, and successfully concluded on March 1, 2022.

3.6.3. Validity of Program

To assess the validity of the program, the researcher distributed it to the psychology professors and experts in psychotherapy, who were eight professors, and requested their input and feedback on its content and structure (Attached 7).

3.6.4. The Intervention Program Plan for Reducing PTSD as A Result of COVID-19 Was Constructed in Accordance with The Cognitive-Behavioral Therapy (Attached 6).

The intervention program plan for reducing PTSD as a result of COVID-19 was constructed in accordance with the cognitive-behavioral theory.

1. Session

Topic of session

Welcome and introductions

General aim

Establishing acquaintance and cultivating a relationship based on understanding and respect between the researcher and the participants, while also conducting a pre-test using the scales.

Time

60 minute

Techniques

Techniques employed include:

- Ice-breaking activities.
- Facilitated discussions and lectures. (PowerPoint)
- Applied the SOC scale and the PTSD scale. (1.2)
- Signing of an agreement paper. (Form1)

Preparations conducted prior to implementation.

1. Form 1 (Attached 8)
2. The PTSD & SOC Sacles
3. Blow up th balloons

Session Procedures:

Welcoming Participants: The researcher greeted the individuals participating in the Intervention program upon their arrival at the designated session location. After participants had taken their seats, the researcher extended a warm welcome and expressed gratitude for their punctual attendance.

Researcher Introduction: The researcher introduced herself, providing information about her expertise and the nature of her work.

Icebreaking Activity: Participants were encouraged to introduce themselves through an icebreaking activity involving balloons. In this activity, the researcher randomly selected and punctured one balloon, and the owner of the punctured balloon introduced

themselves, sharing their most significant hobby and any additional information they wished to disclose to their fellow group members.

Establishing Rules and Guidelines: The researcher elucidated the rules and guidelines for participants, emphasizing the importance of adherence. These guidelines were further discussed and documented in the form of a contract agreement paper.
Psychotherapy's Role: The researcher explained the significance of psychotherapy and its role in assisting individuals in resolving seemingly insurmountable problems.

Program Overview: An overview of the program was provided, including the total number of sessions and the key skills participants were expected to acquire.

Pre-Test befor begining in the porgram: The researcher applied the SOC (Sense of Cohesion) Scale and the PTSD (Post-Traumatic Stress Disorder) Scale to participants as a pre-test befor begining in the porgram.

Next Session Reminder: Participants were reminded of the date of the upcoming session, and a brief overview of its topic and content was provided.

A summary of the session: is made by the practitioner.

Distribution of Agreement Papers: Agreement papers were distributed to participants for their signature, formalizing their commitment to the program.

The session end: by listening the story of the one participant in program about positive thing did in her life

The practitioner expressed gratitude to the participants for their attendance and bid them farewell as the session concluded**.**

Homework

Write What do you expect from the Intervention program? And what changes they are wanting?

Drawing a picture of the coronavirus**.**

2. Session

Topic of session

What is the COVİD -19?

General aim

Offering participants accurate information about the Coronavirus and the psychological ramifications it can have on individuals during and after infection.

Time

90 minute

Techniques

Techniques employed include:

- Discussion and lectures,
- PowerPoint presentation
- A measurement scale ranging from 0 to 10. Form 2 (attached 9)

Preparations conducted prior to implementation.

1. Form 2 (Attached 9)
2. Preparing the data show
3. Session presentation
4. Papers, pencils.

Session Procedures

Review of Previous Session: Commence the session by revisiting the content covered in the previous session and discussing assigned homework with the participants.

Participants' Drawings of COVID-19: the researcher shares and discusses drawings created by the participants, depicting their perceptions of COVID-19. Inquires about their individual perspectives on the virus, their mental images of it, and how it has disrupted their normal lives. The aim is to gain insight into their fears and concerns surrounding the virus.

Behavioral Discussion: the researcher facilitates a conversation with the participants regarding the behaviors they practiced during quarantine and when infected (e.g., avoiding visits, public transportation, handshakes, nervousness, isolation, excessive medication use, etc.), and explores which behavior was the most pronounced and why.

Psychological Effects and Impact Assessment: The researcher encourages participants to openly discuss the psychological effects the virus has had on their mental well-being. and askes about the extent to which these effects have affected their personal and overall lives, rating it on a scale from 0 to 10. Than requestes participants to retain this scale for future evaluation at the conclusion of the Intervention program. The researcher gives participants form (2) A measurement scale ranging from 0 to 10.

Discussion of Ongoing Challenges: the researcher workes to engage participants in a discussion about the most significant problems and situations they continue to grapple with, which are hindrances to resuming their normal lives.

Guest Speaker - Medical Microbiology Student: the researcher Invites a Ph.D. student

majoring in medical microbiology to provide participants with accurate and comprehensive information about the virus. The guest introduced herself and explained her major and started to explain with powerpoint showing

What Coronavirus is.
Common symptoms.
Long-term effects.
Modes of transmission.
Protective measures.
Address misconceptions.
Information on vaccines.

Encourage participants to ask questions and share their comments during this informative session.

Explaining Common Mistakes: Discuss the potential errors or misconceptions that may have led to their COVID-19 infections.

They are asked to watch carefully. After watching the powerpoint showing, they must write (evaluation about the showing).and writeing the notes in paper

A summary of the session: is made by the practitioner. This structured session aims to provide participants with essential information, address their concerns, and foster open dialogue regarding the virus's psychological impact and ongoing challenges.

The session ends by listening the story of the one participant in program about positive thing she or onther person did in her life

Homework:

Participants should write down a few pieces of advice for individuals dealing with COVID-19

3. Session

Topic of session

What is PTSD?

General aim

Providing information to participants regarding psychological trauma and Post-Traumatic Stress Disorder (PTSD), including its associated symptoms

Time

90 minute

Techniques

Techniques employed include:

- Showcasing a video presentation on trauma,
- Engaging in brainstorming sessions,
- Using colored balloons,
- Form 3 (Attached 10)

Preparations conducted prior to implementation.

- Distributing worksheets
- Preparing the data show
- Video about PTSD
- Papers, pencils
- Blow up the colored balloons
- PTSD form

Session procedures

Review of Previous Session and Homework: the researcher commences the session by revisiting the content discussed in the previous session and engaging participants in a discussion about the assigned homework.

Icebreaking Activity: the researcher starts the session with a group icebreaking activity involving colored balloons. In this activity, participants attempt to burst each other's balloons using their feet, fostering group interaction and energy.

Video Presentation on Post-Traumatic Stress Disorder: the researcher Presents a video about Post-Traumatic Stress Disorder (PTSD), covering its definition, symptoms, types, and recommended actions when dealing with trauma, and offers explanations for each point addressed in the video.

Defining Trauma and PTSD: the researcher defines trauma as per the American Psychological Association (APA) guidelines, emphasizing exposure to or the threat of death, serious harm, or sexual violence. Define PTSD as a psychological disorder affecting individuals who have experienced traumatic events, such as combat veterans, survivors of natural disasters, victims of violence, or those involved in traumatic accidents.

Program Specifics: The researcher shares that this program pertains to individuals

who contracted COVID-19 and subsequently exhibited symptoms of post-traumatic stress or those who witnessed COVID-19 patients and experienced shock.

Types of Psychological Trauma: the researcher eexplains different types of psychological trauma as per the aforementioned definition, including examples such as wars, natural disasters, sexual harassment, loss of a loved one, and deadly diseases/epidemics. Encourage participants to share their examples and engage in discussions.

Diagnosing Trauma: The researcher elaborates on the criteria for diagnosing trauma versus normal reactions to distressing events, based on participant examples. Foster understanding of when trauma can be identified as such.

Symptoms of PTSD: The researcher distributes a paper listing symptoms associated with PTSD as outlined in DSM-5. Engage participants in discussions about the symptoms detailed on the paper.

Symptom Mapping Activity: the researcher instructs each participant to create a symptom map that their have and coloring the most impactful symptoms in red, the least impactful in green, and the moderately impactful in yellow. This exercise promotes self-awareness and insight.

Diagnosis of PTSD: The researcher explains the diagnostic criteria for PTSD, which necessitate three different symptom types that persist for at least one month and cause substantial distress or disruption in daily life, referencing the American Psychiatric Association's guidelines.

1. Re-experiencing the Trauma: The persistent recollection of the traumatic event.
2. Avoidance and Numbing: A consistent avoidance of trauma-related stimuli.
3. Hyperarousal: The manifestation of sustained symptoms of excessive excitement.

Than, modifying Thoughts and Actions: the researcher emphasizes that psychological trauma can be mitigated by altering one's thoughts and adopting appropriate coping strategies.

Open Discussion: Allocate time for participants to discuss the session's topic and address any questions they may have.

A summary of the session: is made by the participants.

The session ends by listening the story of the one participant in program about how he or she felt during infection in COVID-19

Homework Assignment: Assign participants to read about various types of psychological trauma and stories of individuals who have recovered from it.

4. Session

Topic of session

What is SOC?

General aim

Offering participants insights into the concept of "sense of coherence" and its significance in equipping them to cope with potential future crises.

Time

90 minute

Techniques

Techniques employed include:

- Engaging in discussions and lectures,
- Conducting brainstorming sessions,
- Utilizing a short story as a modeling example,
- Forming working groups
- Instructional video.

Preparations conducted prior to implementation.

- Papers, pencils
- Preparing the data show
- Video about cancer, COVID-19, and achieved remarkable

Session Procedures

Homework Review and Open Discussion: the researcher session begins with a review of the homework assigned in the previous session. Participants are encouraged to ask any questions they may have, either within the group or in private with the researcher. Introduction About Sense of Coherence: the researcher introduces the concept of a "sense of coherence" as a general tendency that reflects the degree to which an individual possesses a consistent and dynamic sense of confidence. It is characterized by the belief that the demands of both the internal and external worlds are integral to life's journey and can be comprehended and interpreted. Furthermore, it encompasses the understanding that the necessary resources for meeting these demands are attainable and that these

challenges are worth investing in.

The researcher simplifies the concept for them as the extent of an individual's ability to confront challenging events in their life with resilience without negatively affecting their mental health. The researcher also recounts the story of Hitler, who sent people to concentration camps where some would die before reaching the camps while others would continue to live even though nothing had changed. This disparity was due to their flexible thinking and optimism, believing that something good would eventually happen to save them. Many individuals have contracted the coronavirus, but they did not worry about the infection and its aftermath when they recovered due to their positive thinking, that mean our thinking influences in our behaviors, accrding to the way we perceive and interpret events, situations, and challenges can significantly impact how we react and respond to them. after that, the researcher mentions to the three dimensions of a sense of coherence.

1- Cognitive Dimension (comprehensibility), The capacity to understand and perceive.
2- Behavioral Dimension (Manageability), The ability to manage and take action.
3- Motivational Dimension (meaningfulness), The sense of life's meaning and purpose.

Working Groups for Dimension Exploration: the researcher divideds the participants into three working groups, each named after one of the dimensions of a sense of coherence. Each group is tasked with explaining the dimension it represents at specific points.

Group Presentations: After the working groups complete their tasks, the researcher facilitates discussions where each group presents its findings on the respective dimension of sense of coherence.

Comprehensibility Dimension: divided explains comprehensibility as the extent to which an individual perceives internal and external stimuli as logically understandable. It is the ability to attain a comprehensive understanding, making it easier to comprehend one's environment, ongoing events, and personal role within it. Understanding stressful situations is crucial for effective coping.

The researcher clarifies to them that this dimension addresses human thinking.

Our lives are shaped by our thoughts, and the more we cultivate positive thoughts, the more they influence our behavior. By doing so, we can follow a path towards achieving our goals in a healthy manner, free from feelings of tension and hesitation. Individuals who harbor negative thoughts often experience fear and find themselves unable to take action due to the fear of failure. Consequently, they may abandon their goals, create new ones, and continue to fear their attainment, thereby losing their way towards achieving their objectives as a result of their thought patterns. Therefore, it is imperative for individuals to overcome negative thoughts and start cultivating productive, positive thoughts.

Manageability Dimension: Describe manageability as the degree to which an individual feels they have internal and external resources at their disposal to cope with the challenges they encounter. Resources can include social support, family, friends, and trusted individuals.

The researcher explains the concept as the extent of an individual's ability to manage the problems they encounter in life and how they can potentially find complete or partial solutions to these problems. This involves effectively addressing challenges in a way that leaves no room for stumbling in the pursuit of their goals. If one approach fails, the individual is encouraged to try alternative solutions until they reach a resolution to their problem.

Motivational Dimension (Meaningfulness): Elaborate on the meaning of life dimension, emphasizing an individual's motivation to address stressful problems and the willingness to invest their energy in resolving them. It reflects the perception that life has meaning, and challenges are opportunities for personal growth.

The researcher explains to them that the concept of the meaning of life is a sensitive term for individuals because it is linked to their existence, such as why they are here, how they should live, whether there is a purpose for their existence, what they have achieved so far in life, whether they deserve to live, and what their accomplishments are.

The researcher further clarifies that these three terms will be studied in detail, and training will be provided to enhance them in order to increase the sense of coherence

Provide an overview of the Intervention program designed to enhance a sense of coherence. and how its alignment with positive psychology and its integration of cognitive-behavioral therapy principles. also, will explain how to reducing traumatic disorders by that, also, mentionde to mechanism of sense of coherence: Clarify how the sense of coherence functions to maintain participants' psychological and physical well-

being during crises or psychological pressures.

The researcher supports explanation with three video that explain the stories of individuals who have recovered from cancer, COVID-19, and achieved remarkable success serve as powerful examples of resilience and determination. These stories illustrate how individuals facing significant challenges managed to overcome adversity, demonstrating the human capacity for recovery and achievement. These narratives can inspire and motivate others to confront their own difficulties with hope and determination, reminding them that even in the face of formidable obstacles, it is possible to emerge stronger and successful.

Homework

Create a chart that outlines the most significant resources you currently possess and identify any resources you aspire to develop throughout the program.

5. Session

Topic of session

Relaxing

General aim

Learning and practicing relaxation techniques for managing stress in challenging situations

Time

90 minute

Techniques

Techniques employed include:

- Delivering a lecture,
- Showing video about relaxation exercises
- Form 4 of relaxation exercises (Attached 11)
- Divided the participants into three groups to apply the relaxation exercises

Preparations conducted prior to implementation.

- Relaxation exercises Form 4 (Attached 11)
- Preparing the data show
- Video
- Papers, pencils
- Hall
- Rope

- 12 Chairs

Session procedures

Started the session with various sports activities, including jumping rope and the missing chair to enhance the activity in the group.

Review the previous session and discuss the homework.

The researcher defines relaxation: as a training technique, that the individual feels a state of calm and comfortable after the removal of the stimuli that led to tension as a result of an emotional event or being exposed to an unexpected shock or exerting effort, or pressure, So, all contractions stop completely. Muscular tension is associated with lowering the emotions associated with this tension.

The researcher elaborates the principles on which relaxation is based by steps

1. Go to the bathroom, take off shoes, and clothes if it is tight, especially at the neck and midsection.
2. We should not do the relaxation process immediately after a meal because it slows down the digestion process and will not lead to satisfactory results
4. We should not do relaxation sessions before sleep because it will make the individual feel sleepy
5. Relax in a quiet place away from the noise
6. Providing a comfortable chair or bed that helps the relaxation process, and prefers to stay away from harsh things that may cause pain and discomfort for the back muscles

The researcher elucidates the overarching advantages of relaxation techniques, supported by various examples:

- Slowed Heart Rate: Relaxation methods can lead to a noticeable reduction in heart rate, promoting a calmer and more balanced cardiovascular system.
- Lowering Blood Pressure: By inducing relaxation, blood pressure levels can be effectively lowered, reducing the risk of hypertension-related health issues.
- Slowing Down the Respiratory Rate: Practicing relaxation exercises can lead to a slower respiratory rate, enhancing lung function and overall respiratory health.
- Improving Digestion: A relaxed state fosters improved digestion, aiding in the efficient breakdown and absorption of nutrients.

- Maintaining Normal Blood Sugar Levels: Relaxation techniques can contribute to stabilizing blood sugar levels, particularly beneficial for individuals with diabetes.
- Reducing the Activity of Stress Hormones: Relaxation diminishes the activity of stress hormones like cortisol, minimizing the detrimental effects of chronic stress on the body.
- Increasing Blood Flow to Main Muscles: Enhanced blood circulation to major muscle groups can improve physical performance and reduce the risk of muscle-related discomfort.
- Reducing Muscle Tension and Chronic Pain: Relaxation practices alleviate muscle tension and offer relief from chronic pain conditions, promoting comfort and mobility.
- Improving Focus and Mood: Achieving a state of relaxation enhances mental clarity, focus, and mood stability, facilitating improved cognitive functioning.
- Improving Sleep Quality: Practicing relaxation techniques can lead to more restful and rejuvenating sleep, promoting overall well-being.
- Reducing Fatigue: Relaxation helps combat fatigue, offering a revitalizing effect that can counteract feelings of exhaustion.
- Reducing Anger and Frustration: The calming effects of relaxation methods can mitigate feelings of anger and frustration, promoting emotional balance.
- Enhancing Confidence to Deal with Problems: Engaging in relaxation practices can boost self-confidence and resilience when confronting life's challenges, empowering individuals to tackle problems with a positive mindset.

Also,the researcher told the participants to get the most benefit, use relaxation techniques along with other positive coping methods, such as (positive thinking, finding humor, problem-solving, and time management, exercise, getting enough sleep, connecting with supportive family, and friends.

After that , the researcher explains the types of relaxation techniques:-

- Self-relaxation: It comes from within you, you use both visual imagery and body awareness to reduce stress. You are repeating words in your mind that may help you relax and reduce muscle tension. For example, you might imagine a calm environment and then focus on controlled breathing and relaxation, slowing the heart rate, or feeling different physical sensations, such as relaxing each arm or leg one by one.

- Visualization: - you form mental images to take a visual journey by imagining a quiet place. Try to integrate as many senses as possible, including smell, sight, sound, and touch. If you imagine relaxing in the same place. For example, think of the smell of salt water, the sound of crashing waves, and the warmth of the sun on your body.
- Muscle relaxation (used in this program) and its steps are as follows

1. The researcher reviews the relaxation techniques, which are based on the idea that it creates tension in specific muscle groups and notices the feeling of tension in this part of the body, then works to let that muscle loosen tension and start noticing how the relaxed muscle feels as if the tension is escaping away.
2. The researcher provides participants with a (form 4) including the steps of relaxation, and training the participants on the steps of relaxation according to (Jacobson's relaxation technique in the form4 and applying it during the session in the training halland , and than, at home too.(form4),

The researcher placed a carpet on the floor and asked the participants for a volunteer to demonstrate the exercises in front of their peers during the training session. One of the participants stepped forward, and the researcher prepared them, asking them to think of something positive while practicing relaxation exercises. She then began to guide them through the relaxation steps one by one, as outlined in the manual.

After completing the exercise, the researcher asked the participant about their feelings. They mentioned feeling a sense of relaxation and relief, noting that their previously tense muscles being less tense than befor exercise, and they expressed a desire to practice this exercise daily

The researcher commenced by presenting a video demonstrating relaxation exercises to facilitate participant learning more. Subsequently, the participants were divided into three groups, with each group tasked with implementing the acquired knowledge within their respective training area.

Homework: Do relaxation exercises at home.

6. **Session**

Topic of session

Comprehensibility

General aim

Enhancing the skills of comprehension, understanding, and rational thinking to enable individuals to address events and problems in a logical and reasoned manner within their surroundings.

Time

90 minute

Techniques

Techniques employed include:

- Cognitive Restructuring (CR): The process of reevaluating and modifying cognitive patterns and thought processes. attached12
- Exceptional Questions: Inquisitive inquiries aimed at identifying unique or uncommon aspects within a situation.
- Socratic Questioning: Employing the Socratic method of questioning to stimulate critical thinking and exploration of ideas.
- Cognitive Map: A mental representation of one's thought processes and beliefs. attached14
- Self-Talk: Internal dialogue and self-directed communication to foster positive thinking.
- Exploratory Questions: Questions designed to delve deeper into an issue or topic for a comprehensive understanding. Preparations conducted prior to implementation.

Preparations conducted prior to implementation.

- Form 5 (Attached 12)
- Form 7 (Attached 13)
- Preparing the data show
- Video
- Papers, pencils
- Worksheets

Session procedures

Review of Homework and Relaxation Technique: The session begins with a review of the participants' experiences with practicing relaxation techniques at home.

Participants are asked to share how they felt during and after relaxation.

The researcher and participants establish the objectives of the therapy, and the agenda this session, and structured evidence-gathering to support or refute the participants's beliefs. These negative thought are examined using Socratic questions by the researcher, rather than directly challenging the participants's thoughts and beliefs, along with other cognitive-behavioral techniques that researcher used in this session

In the first method of this technique, the researcher presents an alternative perspective directly to the client. For instance, the researcher points out inconsistencies and errors in thinking, prompting the client to express their agreement or understanding of these observations.

In the second method, Socratic questions are utilized to guide the client in examining facets of their situation that may have been overlooked, thereby helping them discover previously unconsidered options and solutions. Ultimately, and finally to accustom the client to slow down, think and ask questions (to himself), in exchange for spontaneous rush and empower him Thus, from starting to objectively evaluate his different beliefs and ideas

- "What is your personal evidence that this thought is not true?"
- "Can you provide other examples from your life that support this belief?"
- "What could happen if these beliefs were to change?"
- "Is there any other evidence that could be interpreted differently?"
- "What is the worst-case scenario that could happen? And what is the most realistic one?"
- "Do you believe this thought is connected to past experiences in your life?"
- "Does this belief occur with you all the time or only in specific situations?"
- "What are the positive things that could happen if this belief were to change?"
- "Can you imagine how you would feel if you got rid of this thought?"

These questions aim to help the person explore and analyze their thoughts and beliefs in a logical and rational way, encouraging them to engage in critical thinking and settle on thoughts that are healthier and more positive

Cognitive Restructuring (CR): The researcher introduces the steps of cognitive restructuring, a technique to challenge irrational thoughts and replace them with rational ones. Participants are given a cognitive reconstruction form and asked to apply it to a

problem they believe they cannot solve. After that, about their thoughts around the Coronavirus, and asked to consider the evidence supporting their beliefs about the virus.

The researcher provided an example to demonstrate how the form is used:

Negative Thought: I am afraid of flying because the plane will crash, and we will all die.

Evidence: I saw on Facebook that a plane coming to Yemen crashed into the sea, and everyone died. I saw their pictures on Facebook. So, all planes will crash into the sea.

New Thought: We will discuss the negative thought and work on replacing it with a rational idea. How will people travel if they don't use airplanes? Have you heard today that a plane crashed? Do you know that life and death are in God's hands, predetermined since birth? Do you know the reason for the plane crash? For instance, someone says yes, there was a fuel issue. researcher respond that you should read the news from a reliable source. The plane crashed because it was too old and hadn't been properly maintained before takeoff. Now, all planes are being maintained

Group Discussion on Coronavirus Beliefs: Participants are divided into two groups, and each group engages in a discussion to explore their thoughts and beliefs about the Coronavirus. They share the sources of their information and the evidence that supports their ideas.

Challenging Distorted Beliefs: The researcher assists participants in identifying and understanding their distorted beliefs and the faulty reasoning behind them. This process helps participants realize how their interpretations of events have contributed to anxiety and excessive fear.

Understanding the Relationship Between Thinking and Behavior: The researcher explains that our thoughts and behaviors are interconnected, and the process of perception plays a crucial role in shaping our reactions to events. Positive thinking leads to healthy behaviors, while negative thinking lead to anxiety and avoidance.

Training in Self-Talk: Participants learn the importance of self-talk in developing a sense of coherence. They are encouraged to engage in positive self-talk, affirming their abilities and maintaining an optimistic outlook. where the researcher shew the video about impact of psychological trauma on brain, and explaied how psychological trauma can affect communication between different brain regions. This visual aid helps participants understand the neurological impact of trauma on their behavior, so we must be positive, and speak with our slef by positively way. like, I can face COVID-19, I can protect myself by following the rules, and I will use public transportation.

Cognitive Map: Participants receive form with drawings resembling maps of varying sizes. They are instructed to write down thoughts that affect their behavior, placing each problem in the appropriately sized space on the map that explain the real effect of problem.where the biggest size means the worst problem, and smallest one refer to less effect. The researcher encourages participants to color-code the thoughts based on their impact (red for most impactful, yellow for moderate, and green for least impactful).

The researcher encourages participants with this technique to understand the extent of their fears and helps them apply program techniques to make the problem smaller in their map, gradually fading away even if it takes time. The Cognitive Map technique assists them in identifying the underlying causes that have made their problems appear and recognizing the most threatening one. and realize that finding a solution to the main problem will address and resolve the accompanying issues.

For example, if the red color on the map represents the fear of using public transportation, the yellow problem is skin diseases due to excessive use of hand sanitizer, and the green issue is an using of vitamins. If a person can overcome the major problem, return to their normal life, and use public transportation, they will notice that others have also returned to their normal lives, and there is no longer a need for excessive hand sanitizer use. Furthermore, the vaccine helps prevent infection, eliminating the need for medications. Participants will see that the disappearance of the primary problem leads to the disappearance of the other issues.

Homework:

Write your irrational thoughts and refute them. Put. Practice positive self-talk.

***7.* Session**

Topic of session

Comprehensibility (Part 2)

General aim

Enhancing the skills of comprehension, understanding, and rational thinking to enable individuals to address events and problems in a logical and reasoned manner within their surroundings.

Time

90 minute

Techniques

Techniques employed include:

- Demolition of Stories and Negative Thoughts: The act of dismantling negative thought patterns or narratives.
- Problem-Solving Skill: The ability to effectively address and resolve issues and challenges. (Attached13)
- Positive Messages: Encouraging and affirming messages to promote a constructive mindset.

Preparations conducted prior to implementation.

- Form 6 (Attached 14)
- Preparing the data show
- Papers, pencils
- Worksheets
- Ballons
- Cards to write message

Session procedures

Demolition of stories and negative thoughts: Participants are guided to reflect on their feelings related to the Coronavirus, its impact on their lives, and their experiences during infection and recovery. The researcher encourages participants to externalize their problems and deconstruct them in their minds. This is achieved through techniques like demolishing unwanted stories

The researcher uses exploratory questions to help participants gain insight into their emotions.The researcher helps them demolish negative stories and ideas within their minds by giving them balloons.

Participants are given balloons and asks them to write on the balloons a single phrase representing their problem that they want to get rid of, than they must pop these balloons to signify letting go of their problems.

Training in Problem-Solving Skills: Participants are divided into three working groups and provided with problem-solving worksheets.

The researcher explains the step-by-step process of problem-solving, involving problem identification, generating solutions, evaluating solutions, selecting a solution, creating an action plan, implementing the plan, and evaluating the results.

The researcher outlines the step-by-step process of problem-solving, which involves several key stages. Here's a detailed breakdown of each step with examples:

Problem Identification:

This is the first step where you identify and define the problem clearly.

Example: You're consistently late for work, and it's causing issues with your supervisor.
Generating Solutions:
In this stage, brainstorm various solutions to the problem.
Example: Possible solutions could include setting multiple alarms, preparing things the night before, or changing your morning routine.
Evaluating Solutions:
Assess the pros and cons of each solution to determine their feasibility.
Example: Evaluate each solution based on factors like effectiveness, time required, and ease of implementation.
Selecting a Solution:
Choose the most suitable solution based on your evaluation.
Example: After considering all options, you decide that setting multiple alarms is the best solution.
Creating an Action Plan:
Develop a detailed plan outlining how you'll implement the chosen solution.
Example: Your action plan includes setting three alarms at different times, placing your work clothes and essentials by the door, and allowing extra time for your morning routine.
Implementing the Plan:
Put your action plan into practice consistently.
Example: Follow your new morning routine diligently, setting the alarms, and sticking to the schedule.
Evaluating the Results:
After a reasonable period, assess whether the chosen solution has resolved the problem.
Example: After a month, evaluate if your punctuality has improved, if your supervisor is satisfied, and if you feel less stressed in the mornings.
Remember that problem-solving is an iterative process, and if the initial solution doesn't work as expected, you may need to revisit previous steps, generate new solutions, and make necessary adjustments until the problem is effectively resolved.

Exploring Positive Exceptions: Participants are guided to identify positive exceptions in their lives when problems they expected did not occur. Exception questions help them reflect on these moments and their achievements.

The researcher refers to many examples to understand this technique

- Can you share a positive exceptional experience from your life when you expected a certain problem, but it didn't happen?

- Can you recall an exceptional instance when you anticipated a significant difficulty or challenge, but you found that things were easier than you thought?
- What are the things you've successfully achieved in your life, even when faced with significant challenges?
- Do you have an exceptional story of overcoming a particular problem and making significant progress in your life?
- Can you remember exceptional times when you felt happiness and motivation, even when facing pressure or stress?
- What are examples of goals you've successfully achieved in your life, and how did you manage to accomplish them?
- Do you have an exceptional story to share about moments that positively impacted your relationships with specific individuals?
- Can you mention a positive change in your behavior or habits based on a positive exceptional experience?
- Do you have stories when you witnessed significant improvement in your mood or mental state due to positive events in your life?
- Can you recall an exceptional experience when you felt pride and self-confidence after achieving a specific success?

Use these questions to help individuals reflect on positive moments in their lives and how they can contribute to achieving more success and happiness

The session ends by writing Positive Messages: Participants write positive messages to each other and exchange them. They must guess who wrote each message, fostering positivity and optimism within the group

These session procedures aim to help participants challenge negative thought patterns, develop problem-solving skills, and foster a positive mindset as part of their journey towards

Homework:

Write your irrational thoughts and refute them. Put one of your problems and apply the problem-solving skill to it. Practice positive self-talk.

8. Session

Topic of session

Manageability

General aim

Assist individuals in modifying undesirable behaviors that hinder their regular activities and support their reintegration into family, society, and daily life.

Time

90 minute

Techniques

Techniques employed include:

- Behavioral activation Form 10 (Attached 15)
- Exposure Technique: Gradual exposure to challenging situations or stimuli to reduce fear or anxiety. Form 9 (Attached 17)
- Discussion of the Events of Emotive Experiences: Conversations centered around emotionally charged experiences.
- Modeling: Demonstrating desired behaviors as examples for others to emulate.
- Symbolic Stories: Employing stories with symbolic meanings to convey messages or lessons.

Preparations conducted prior to implementation.

- Form 9 (Attached16)
- Form 10 (Attached) 17
- Preparing the data show
- Papers, pencil

Session Procedures:

The researcher starts the session with discuss the homework with participants and ask them to predicte about the session's contain.

The researcher asked them to play with the empty chair activity, which involves 12 chairs arranged in a circle. Participants rotate around the chairs, and the person left standing without a chair exits the game. Remove one chair after each round.the aim of this active to enjoy.

The researcher shows a video about the unwanted behavioral symptoms resulting from post-traumatic stress disorder, aiming to help individuals address these symptoms. The video highlights how one's life can be affected when they give up their interests, activities, and habits, researcher encourages individuals to return to activities and hobbies

they used to enjoy.

The researcher gave a (Form 10) Behavioral activation, with two columns for participants to list activities they used to do and left behind. In the second column, they note how many times they engaged in these activities.

Collaborate with participants to return to their daily activities, add new ones to boost their energy, and create a weekly schedule. Activities can be done with friends they enjoy spending time with.

The activity schedule might include two hours of outdoor sports, reading a book, playing chess, and engaging in play. Participants should notice that they have regained their natural state and resumed their activities without fear.

The researcher explains the skill of self-Monitoring (form 8) to observe how the mind responds to trauma, and provide participants with a self-monitoring form that includes columns for noting the situation that triggers fear, the source of fear, its time, physical symptoms, and accompanying fantasies. Below the form is a scale from 0 to 10 to measure the severity of fear. This helps participants understand their fears and work on reducing them.

They must identify behavioral problem to get rid from it ,such as observing an individual's behavior when rid the bus.

They start to know situation that triggers fear is getting on the bus, for example. The source of fear includes touching the poles or overcrowding. The duration of feeling fear in this situation, whether it continues only while boarding the bus or persists even when disembarking. The accompanying symptoms like trembling, difficulty breathing, sweating, etc. Negative thoughts accompanying this situation include the fear of someone infected in the bus and I will be infecte in the virus.

The researcher encourages participants to discuss traumatic events in their lives, including experiences related to infection. and let them to express their feelings and reactions.

When participants become stressed, researcher guides them to relax, take deep breaths, also, asks questions like: What was the worst outcome you expected when you were most worried about getting infected? What thoughts crossed your mind at that time? Did you have any vivid imaginings during that moment?

After discussing these questions and helping to reduce tension through modeling, which researcher mentied to examlpe (story of our friends Ahmed and Kother) then, researcher asks them to continue sharing their stories experiences of infection, recovery,

and returning to life.

The researcher helps individuals confront traumatic situations by facing avoidance behaviors related to the traumatic event. By explain the exposure technique, its forms, rules, and steps, and gradually apply it.

what is the meaning of exposure?

The exposure technique involves continuous exposure to fear-inducing stimuli related to the virus or traumatic event, which disperses the individual's fear response, and allowing the individual to desensitize their fear response over time. It includes forms of exposure (form 10).

Imaginary Exposure: In this form, individuals vividly imagine the feared situation or object. It's a safe way to start confronting fears without real-life exposure.

Gradual Exposure: This method involves gradually and systematically facing the feared stimulus in a controlled manner, starting with less anxiety-provoking situations and progressing to more anxiety-inducing ones.

Live Exposure (Reality): This is the most direct form of exposure, where the individual confronts the actual feared situation or object in real life.

Provides participants with an exposure form. Create a fear hierarchy or fear ladder, ranking situations or stimuli from least anxiety-inducing to most anxiety-inducing. This helps structure the exposure process. Participants should keep this list and repeat the exposure activity 4-5 times a week, sessions should be at least 20-30 minutes .Exposure is conducted in a safe and controlled environment. The individual should feel supported and secure during the process.noting their progress.

The researcher started with the participants by implementing imaginary exposure to a situation they feared, for example, getting on a bus with someone sneezing and coughing. They were initially a bit tense, but by revisiting relaxation exercises, they managed to ease their anxiety.

The researcher then asked the participants to watch a video of COVID-19 cases as part of applying the exposure technique. The participants unanimously agreed.

Steps of Exposure:

- Assessment: Identify the specific fear or phobia, its triggers, and its severity. Develop a fear hierarchy to determine the order of exposures.

For example: Fear of riding the bus due to the fear of virus transmission caused by crowding.

- Psychoeducation: Explain the exposure technique to the individual, emphasizing

its effectiveness in reducing anxiety over time.

- Establish Goals: Set clear, measurable goals for the exposure sessions. What does the individual aim to achieve by the end of each session? overcome the behavior of avoidance behavior of using public transportation.
- Begin with Least Fearful: Start with the situation or stimulus that is least anxiety-inducing according to the hierarchy.
- The researcher started with them by implementing imaginary exposure, followed by showing a video. Then, she suggested an end-of-program trip to test the stability of their behavior using public transportation, and everyone agreed.
- Stay Present: Encourage the individual to stay in the moment during exposure. Remind them to focus on their feelings, thoughts, and physical sensations without avoidance behaviors.

"Do not think about avoidance; face what you fear. Relax when you feel tension."

Gradual Progression: As the individual becomes more comfortable with the initial exposure, gradually move to the next item on the fear hierarchy. Keep progressing until they can face the most fear-inducing situation.

What did you feel, and was there any change in your behavior?

Practice Coping Strategies: Teach and practice relaxation and coping techniques during exposure sessions, such as deep breathing and positive self-talk.

- Reflect and Evaluate: After each exposure session, reflect on the experience. Discuss what was learned, how anxiety levels changed, and any insights gained.
- Repeat: Regularly repeat exposure sessions until the individual can face the feared situation or object without excessive anxiety.
- Generalization: Encourage the individual to apply what they've learned from exposure to real-life situations. The goal is for them to confront their fears independently.
- Apply what you have learned in the exposure technique to confront all situations that frighten you. For example, if you are afraid of dogs, gradually confront them with someone you feel safe with.

Homework:

Assign homework related to the activities participants completed during this period.And appling exposure technique

9. Session (Part 2)

Topic of session

Manageability

General aim

Assist individuals in modifying undesirable behaviors that hinder their regular activities and support their reintegration into family, society, and daily life.

Time

90 minute

Techniques

Techniques employed include:

- Self-Monitoring: Keeping a personal record or diary to track thoughts, emotions, and behaviors. Form 8 attached16
- Discussion of the Events of Emotive Experiences: Conversations centered around emotionally charged experiences.
- Video: Incorporating video presentations for visual learning.
- Modeling: Demonstrating desired behaviors as examples for others to emulate.
- Symbolic Stories: Employing stories with symbolic meanings to convey messages or lessons.
- Lecture and Discussion: Combining informative lectures with interactive discussions for comprehensive understanding and engagementPreparations conducted prior to implementation.

Preparations conducted prior to implementation.

- Form 8 (Attached 15)
- Video
- Papers, pencil to participants.

Session Procedures

The researcher welcomes the participants and asks them about their application of the exposure activity and whether they found any differences**.**

Then researcher Shows a video about the unwanted behavioral symptoms because of post-traumatic stress disorder, to help the individual get rid of it.

The video discusses how an individual's life becomes when he gives up his interests, activities, and habits.

Develop the skill of Self-Monitoring to note how the mind responds to trauma, the researcher provides the participants with a self-monitoring form, which is form that

includes four columns in which the participant writes the situation that provokes fear, the source of fear, its time, physical symptoms, and fantasies that accompanied that situation below the paper is a scale from 0 to 10 that measures the severity of his fear. It helps the participants to know about their fears to work on reducing them. Then identify problems in the behavioral aspect and get rid of them, such as observing the individual's behavior when touching things outside.

The researcher encourages the participants to talk in detail about the traumatic events in their life, including the trauma of the infected, to discuss the events of emotional experiences.

Listen to them calmly, when participants describe their feelings and reaction.

When the individual gets stressed, ask him to relax, breathe deeply, and continue the story.

Ask them questions such as (What was the worst thing you expected to happen when you were so worried that you were infected?) What came to your mind at the time? Did you imagine something at that moment?

After discussing these questions with them and working to reduce tension by presenting models, they talked about their experience of infection, how they passed this period, what after their recovery, and how they returned to life normally.

Help the individual face the traumatic situation, by not to avoid behaviors related to the traumatic event.

Use the exposure technique with them after explaining to them what the technique of exposure is. What are forms of exposure? What are its rules and steps? then gradually applies it to them.

The exposure technique is based on continuous exposure to stimuli that cause fear of the virus and infection or any traumatic event, which results in a dispersal of the fear response of the individual. It has several forms, including imaginary exposure, gradual exposure, and live exposure (reality). Exposure to be effective must be gradual., prolonged, repeated, and without distraction.

Provide the participants with the exposure form in the form of a pyramid.

Ask them to write the situations that cause them to feel in fear, to be in the order from most exciting to the least exciting, and the individual should keep this list with him until he faces his fears because he will repeat the exposure activity from 4 to 5 times a week, and he can make progress on this list to notice the difference.

Show a video of cases infected with the virus for them to watch.

Discuss with them what they felt while watching the video,

Ask them how scared fear they are while watching the video.

Tell them to rate their fear from 0 to 10.

Repeat the activity of displaying a video for them until their fear rate reduces to at least half.

Ask them to repeat the exposure step in the week four to five times.

Encourage the individual to return to the activities and hobbies that used to do before. Therefore, the researcher used the behavioral activation technique, which aims to replace avoidant behaviors with positive activities, whether those that the individual used to do or new activities.

Provide the participants with a form consisting of two columns asking them to write the activities they used to do and left and in the second column the number of times they did these activities.

The researcher agrees with the participants to return to their daily activities and add new activities that enhance their energy and encourages them to do these activities in a weekly schedule to do different activities, it is possible to implement this schedule with friends whom you love.

The schedule of activities included sports for two hours in the fresh air, reading a book, playing chess, and playing. You will notice that you have returned to your natural senses and returned to your activities without fear.

Homework

"Apply the skill of exposure and self-monitoring when encountering any shocking event, please."

10. Session

Topic of session

Meaningfulness

General aim

Fostering an individual's sense of life's meaning and encouraging them to perceive challenges as opportunities for personal growth and development.

Time

90 minute

Techniques

Techniques employed include:

- Socratic Questions: Utilizing thought-provoking inquiries to stimulate critical thinking and self-reflection.
- Lifeline Technique: Creating a visual representation of one's life journey to gain insights and perspective. Form 12 attached19
- Short Stories: Sharing or creating narratives to convey valuable lessons or insights.
- Video Presentation: Incorporating visual media presentations to enhance learning and understanding.
- SWOT Analysis: Evaluating strengths, weaknesses, opportunities, and threats to develop a strategic perspective on personal growth and development.) Form 13 attached 20

Preparations conducted prior to implementation.

- Form 11
- Form 12
- Form 13
- Preparing the data show
- Video
- Paper, pencil to participants

Session procedures

Discuss the homework, then do an activity with them to stimulate the activity within the group.

Researcher asks each person to write on a piece of paper what they like and ask them to put the paper in a box with it folded. One by one, she asks them to take one piece of paper and guess who this piece of paper is for.

Researcher told them a religious story, the story of Moses, "peace be upon him" who was thrown into the sea by his mother, and the story of Victor Frankl, who survived Hitler’s Holocaust.

And asked individuals to describe their life in one word and write it on the board. After that, asks them to explain this word, and what it means to them to help the individuals discover the original meaning inside them, which they may not be aware of it.

Then, ask them to talk about situations or models in their life that have a meaning, and did this situation or story leave an impact on them? Did these events change anything in their life? In what value do you find meaning in your life?. By discussing these questions with them, we can learn about the experiences of the individual that help them to search

for sources of new meaning.

Know the situations in which the individuals succeeded and failed in their life and changed them into positive experiences. Gives them a worksheet with a line drawn on it, pens, and colors, and explains to them that, they consider this line their life.

They will draw points or signs on it according to the chronological timing of events that occurred in their lives, that represented success or failure, including the events of the pandemic and the period of infection, and they can color those events in a way that expresses the path of their life, in which sadness, joy, difficult, easy, and accomplishments etc.

Also, asks them to analyze the impact of these events on their lives. What did you gain and what did you lose? What changes occurred after that event? This helps the researcher to immerse himself in their lives and know their future expectations. It also increases the individual's insight into themselves, increases awareness of their abilities, and learns about their way of life in dealing with events, which gives them life meaning.

Researcher opens presents a video that helps the individual to know his strengths and weaknesses according to the SWOT technique to help them Know about where the individual's strengths be.

Provides them with a colored form with squares and inside it a large circle asking them to write inside the big circle their biggest strong point, and in the boxes around it write several of their strengths and weaknesses points.

Work with participants discussion of what they write, how to turn weaknesses into a strength by the big circle, and what you need to overcome these weak points.

The individual will discover the most important personal, social., and cognitive resources he possesses, that enable him to achieve his goals and discover options and solutions he was not aware of it, which increases his motivation for production and orientation toward the goal.

Homework:

Why are you here? What about your future? Draw a picture of your life.

11. Session (Part 2)

Topic of session

Meaningfulness

General aim

Fostering an individual's sense of life's meaning and encouraging them to perceive

challenges as opportunities for personal growth and development.

Time

90 minute

Techniques

Techniques employed include:

- Socratic Questions: Utilizing thought-provoking inquiries to stimulate critical thinking and self-reflection.
- SMART Goals Technique: Setting specific, measurable, achievable, relevant, and time-bound goals to guide personal development. Form 11 (Attached 18)

Preparations conducted prior to implementation.

- Form 12
- Papers, pencils

Session procedures

The researcher welcomes the participants in the program and engages in a discussion with them regarding the homework from the previous session, preparing them for the current session.

The researcher works to reduce the sense of meaninglessness by helping participants to realize their life, where the researcher asks several questions to the participants. What is the greatest achievement in your life that you felt distinguished from others? Why are you there? What motivates you to continue? If you had one thing that you could change in your life, what would you change? All these existential questions help the individual discover the meaning of his life and reduce the sense of meaninglessness

Explains to them through their answers that, we obtain meaning through work and engaging in a field in which we find ourselves, accomplishing the tasks in a good way, human meanings in the life of the individual such as establishing truth, goodness, and beauty, also love and successful relationships especially the family, the suffering that occurs in our life make us pass it as a challenge and we able to change it into an experience that adds to our personality and human resources.

Discusses with the participants the importance of setting smart goals and helping the individual to set their smart goals.

Imagine you are planning a trip and looking for directions, is it possible to get directions to a destination you don't know yet? In the same way, if you don't have any goals, how do we know what techniques to use to help you reach your goals?

You must specify the destination and the path you are taking. Imagine there is a voice

saying the journey has begun, it is up to you to work with Smart Goal Technology, which teaches you to reach your destination.

Asks them what are the individual's future goals seek to achieve. and what are their plans and divides the participants into small working groups and provides the participants with a smart goal worksheet.

Helps the participants to learn the skill of goal setting and increases their insight into the importance of setting long and short goals and that a person's life must be planned according to the goals. Asks them to write their long and short goals on the form, to determine their future destination, according to the standard of the form.

Discusses these goals with them and asks them about their plans to achieve goals in the future, and what obstacles they may face and how to solve it.

asks them, did they have specific goals during the Corona pandemic. Did you achieve it? Did the virus have an effect in preventing the achievement of these goals?

Ask everyone to talk about those goals and how they worked to achieve it

Ask who is the person you want to be.

Ask everyone to write on a piece of paper what he expects to be and put it in a box.

Each person reads what the other wrote to the other, and this enhances the motivation to reach his or her goals.

Everybody reminds themselves that the fear of infection with the virus is over, and here we stand with our full strength, in front of any difficulties to achieve what we want.

Homework

Write down your goals that you want to achieve and specify the time needed to accomplish them. Remember that you need to write a general goal and break it down into specific sub-goals. Achieving the sub-goals will lead to the general goal**.**

12. Session

Topic of session

Finished the program and said goodbye

General aim

Concluding the program and proceeding with the implementation of the post-test assessment.

Time

60 minute

Techniques

Techniques employed include:

- PTSD and SOC scales for assessment,
- Engaging in a Water Balloon Game

Preparations conducted prior to implementation.

- Scales
- Water Balloon

Session procedures

The researcher welcomes the participants in the program with some enthusiasm and starts with them her closing session with a review of everything she did in the previous sessions from the theoretical side of psychological education and the practical side, which included the most important techniques that helped them reduce their trauma.

Researcher Asks them about the most important positive changes that they have gained from the program and work to strengthen them to continue applying techniques in the event of crises or difficulties in their lives, where working as a protective shield for them.

Researcher gives participants a form and asks them to write their opinions about the program and their evaluation of it.

The researcher with them implements the balloons activity to spread the spirit of activity, and laughter before applying the post-test.

Then the researcher distributes the post-traumatic stress disorder scale and the sense of coherence scale to the participants and asks them to answer it, to measure the changes that occurred after implementing the program.

Finish the program and thank the participants in the program, and distributes souvenirs to them and certificates of thanks and gratitude.Wish them all success in their lives.

3.7. Data Collection and Analysis

3.7.1. Data collection process

After completing the procedure steps and confirming the precision of both research instruments, the researcher proceeded to elucidate the instructions to be followed by the participating students and the method for providing their responses. Subsequently, the final versions of the two assessment scales were meticulously prepared. These scales were then disseminated to a targeted research sample via Googel link shared with the heads of a union representing international students in various Turkish cities, with the

specific aim of reaching students who had contracted COVID-19. The distribution phase of the scales extended over a period of forty-five days, during which the researcher successfully gathered data from a total of 609 male and female students from diverse cities in Turkey.

3.7.2. Analysis of Data

The collected data underwent rigorous analysis using the Statistical Package for the Social Sciences (SPSS) software. To ensure the appropriateness of the statistical methods employed, they were selected in accordance with the research hypotheses and the criteria for sample selection. The researcher opted for non-parametric statistical methods due to the nature of the research sample, which was not characterized by a specific numeric value or measurement The researcher employed a series of statistical techniques, namely:

- Pearson Correlation Coefficient: to find the validity of the criterion test for both scales, in addition to establishing their reliability through the test-retest approach.
- Exploratory Factor Analysis: to evaluate the construct validity of the Post-Traumatic Stress Disorder (PTSD) scale, an exploratory factor analysis was conducted.
- Cronbach's Alpha Coefficient: This coefficient was employed to ascertain the reliability of both scales.
- Two independent Sample (Mann-Whitney U Test), to found differences between the experimental and control groups.
- Two dependent Sample (Wilcoxon Z-Test), to identify disparities between the post-test and pre-test scores, as well as between the post-test and follow-up test scores.

This comprehensive approach to statistical analysis was instrumental in scrutinizing and interpreting the data in alignment with the research objectives and hypotheses.

CHAPTER IV

RESULTS

This comprehensive approach to statistical analysis was instrumental in scrutinizing and interpreting the data in alignment with the research objectives and hypotheses.

4.1. There Are Statistical Significance Differences Between The Mean of The Experimental Group and The Control Group Among International Students On The Sense of Coherence Scale and The PTSD scale in the Post-test.

To verify the hypothesis, the Mann-Whitney U test is applied to find out the differences between two independent samples.

Table 8.

Post Test in SOC between the experimental group and the control group

a- SOC

No	Dimensions	Groups	sample	Mean Rank	Sum of Rank	U	p-vlaue
1	Comprehensibility	Experimental	13	20.00	260.00	.00	.00
		Control	13	7.00	.9100		
2	Manageability	Experimental	13	19.85	250.00	.02	.00
		Control	13	7.15	93.00		
3	Meaningfulness	Experimental	13	19.96	250.50	.05	.00
		Control	13	7.4	91.00		
4	Total	Experimental	13	20.00	260.00	.00	.00
		Control	13	7.00	91.00		

Table 8, above shows that there are statistically significant differences between the scores of the experimental group and the control group in favor of the experimental group in the post-test on the SOC scale and its sub-dimensions at ($U= 0, p<.01$) , the mean ranks (20.00) and the sum of ranks (26.00) for the experimental group. In the control group, the mean rank (7.00), the sum of rank (91.00).

There are statistically significant differences between the scores of the experimental group and the control group in favor of the experimental group in the post-test in the first dimension, Comprehensibility, ($U= 0, p<.01$) , the mean rank is (19.85),

and the sum of rank (250.00) for the experimental group. and in the control group, the mean rank was (7.15) and the sum of rank was (93.00).

There are statistically significant differences between the scores of the experimental group and the control group in favor of the experimental group in the post-test in the second dimension Manageability, (U= 0, p<.01) mean ranks (19.96) and the sum of ranks (250.50), for the Experimental group. and In the control group, the mean rank was (7.4) and the sum of the rank was (91.00).

There are statistically significant differences between the scores of the experimental group and the control group in favor of the experimental group in the post-test in third dimension Meaningfulness, (U= 0, p<.01)mean ranks (20.00) and total rank (260.00), for the experimental group. In the control group, the average rank (7.00) and the sum of rank (91.00)

Table 9.

Post Test in PTSD between the experimental group and the control group

b - PTSD

No	Dimensions	Groups	sample	Mean Rank	Sum of Rank	U	p-value
1	Hyperactivity	Experimental	13	5.60	93.20	.00	.01
		Control	13	3.00	61.00		
2	Re-xperiencing	Experimental	13	4.73	89.61	.00	.01
		Control	13	2.69	58.03		
3	Avoidance	Experimental	13	6.01	95.01	.03	.01
		Control	13	3.80	55.97		
4	Fear of infection	Experimental	13	4.90	97.50	.00	.01
		Control	13	2.77	53.50		
5	Total	Experimental	13	7.00	91.0	.00	.00
		Control	13	4.83	73.00		

Table 9, above shows that there are statistically significant differences between the scores of the experimental group and the control group in favor of the experimental group in the post-test on the PTSD scale and its sub-dimensions, at (U= 0, p<.01) , the mean ranks (7.00), and the sum of ranks (91.00) for the experimental group. In the control group, the mean rank (4.83) and the sum of rank (73.00).

There are statistically significant differences between the scores of the experimental group and the control group in favor of the experimental group in the post-test in the first dimension, Hyperactivity, at (U= 0, p<.01),the mean ranks (5.60) and the

sum of ranks (93.20) for the experimental group. In the control group, the mean rank (3.00) and the sum of rank (61.0).

There are statistically significant differences between the scores of the experimental group and the control group in favor of the experimental group in the post-test in the second dimension Re-experiencing, at (U= 0, p<.01), the mean ranks (4.73) and the sum of ranks (89.61) for the experimental group. In the control group, the mean rank (2.69) and the sum of rank (58.03).

There are statistically significant differences between the scores of the experimental group and the control group in favor of the experimental group in the post-test in third dimension Avoidance, at (U= 0, p<.01), the mean ranks (6.01) and the sum of ranks (95.01) for the experimental group. In the control group, the mean rank (3.80) and the sum of rank (55.97).

There are statistically significant differences between the scores of the experimental group and the control group in favor of the experimental group in the post-test in the fourth dimension Fear of infection, at (U= 0, p<.01)the mean ranks (4.90) and the sum of ranks (97.50) for the experimental group. In the control group, the mean rank (2.77) and the sum of rank (53.50) **.**

4.2. There Are Statistical Significance in The Mean of The Experimental Group Among The International Students On The SOC and PTSD Scales in The Pre and Post-Tests

To verify the hypothesis, the Wilcoxon test is applied to find out the differences between Pre-test and post test with same sample

Table 10.

Pre and Post Tests in SOC Scalea- SOC

No	Dimensions	Test	sample	Mean Rank	Sum of Rank	Z	p-value
1	Comprehensibility	post-test	13	5.23	37.22	.03	.01
		pre-test	13	2.80	23.52		
2	Manageability	post-test	13	3.64	33.52	.04	.01
		pre-test	13	2.32	20.46		
3	Meaningfulness	post-test	13	4.50	32.60	.01	.00
		pre-test	13	3.01	19.68		
4	Total	post-test	13	7.40	51.84	.00	.00
		pre-test	13	5.30	31.84		

Table 10, above shows that there are statistically significant differences between the scores of the pre-test and post-test favor the post-test on the SOC scale and its sub-dimensions at (Z= 0, p<.01), the mean ranks (7.40) and the sum of ranks (51.84) for the post-test. In the pre-test the mean rank (5.30), the sum of the rank (31.84),

There are statistically significant differences between the scores of the pre-test and post-test in the first dimension Comprehensibility favors the post-test, at (Z= 0, p<.01), the mean rank is (5.23), and the sum of rank (37.22) for the post-test. and in the pre-test, the mean rank was (2.80), and the sum of rank was (23.52).

There are statistically significant differences between the scores of the pre-test and post-test in the second dimension, Manageability favors the post-test, at (Z= 0, p<.01), the mean rank is (3.64), and the sum of rank (33.52) for the post-test. and in the pre-test, the mean rank was (2.32), and the sum of rank was (20.46).

There are statistically significant differences between the scores of the pre-test and post-test in the third dimension Meaningfulness favors the post-test, at (Z= 0, p<.01), the mean rank is (4.50), and the sum of rank (32.60) for the post-test. and in the pre-test, the mean rank was (3.01), and the sum of rank was (19.68).

Table 11.

Pre and Post Tests in PTSD Scale

b- PTSD

NO	Dimensions	Test	sample	Mean Rank	Sum of Rank	Z	p-value
1	Hyperactivity	post-test	13	9.39	62.01	.01	.01
		pre-test	13	5.08	25.22		
2	Re-experiencing	post-test	13	6.30	56.00	.02	.03
		pre-test	13	4.50	25.38		
3	Avoidance	post-test	13	5.61	60.10	.00	.01
		pre-test	13	3.92	24.14		
4	Fear of infection	post-test	13	8.63	50.14	.00	.00
		pre-test	13	4.26	23.38		
5	Total	post-test	13	7.00	84.76	.01	.00
		pre-test	13	5.02	73.00		

Table 11, above shows that there are statistically significant differences between the scores of the pre-test and post-test favor the post-test on the PTSD scale and its sub-

dimensions at (Z= 0, p<.01), the mean ranks (7.00) and the sum of ranks (84.76) for the post-test. In the pre-test the mean rank (5.02), the sum of the rank (37.00).

There are statistically significant differences between the scores of the pre-test and post-test in the first dimension Hyperactivity favors the post-test, at (Z= 0, p<.01), the mean rank is (9.39), and the sum of rank (62.01) for the post-test. and in the pre-test, the mean rank was (5.08), and the sum of rank was (25.22).

There are statistically significant differences between the scores of the pre-test and post-test in the second dimension Re-experiencing, which favors the post-test, at (Z= 0, p<.01), the mean rank is (6.30), and the sum of rank (56.00) for the post-test. and in the pre-test, the mean rank was (4.50), and the sum of rank was (25.38).

There are statistically significant differences between the scores of the pre-test and post-test in the third dimension Avoidance favors the post-test, at (Z= 0, p<.01), the mean rank is (5.61), and the sum of rank (60.10) for the post-test. and in the pre-test, the mean rank was (3.92), and the sum of rank was (24.14).

There are statistically significant differences between the scores of the pre-test and post-test in the third dimension Fear of infection favors the post-test, at (Z= 0, p<.01), the mean rank is (8.63), and the sum of rank (50.14) for the post-test. and in the pre-test, the mean rank was (4.26), and the sum of rank was (23.38).

4.3. There Are No Statistical Significance in The Mean of The Experimental Group Among The International Students On The SOC and PTSD Scales in The Post and Follow-Up Tests.

Table 12.

Post and follow-up Tests in SOC Scale

a- SOC

No	Dimensions	Test	Sample	Mean Rank	Sum of Rank	Z	p-value
1	Comprehensibility	follow-up test	13	9.21	54.00	.64	.51
		post-test	13	5.08	36.00		
2	Manageability	follow-up test	13	6.58	39.50	.58	.55
		post-test	13	5.50	26.50		
3	Meaningfulness	follow-up test	13	7.00	70.00	2.48	.13
		post-test	13	4.00	8.00		
4	Total	follow-up test	13	4.50	38.01	2.55	.21
		post-test	13	4.01	36.00		

Table 12, above shows that there are no statistically significant differences between the scores of the post-test and follow-up test on the SOC scale and its sub-dimensions at (Z= 0, p>.01), the mean ranks (4.50) and the sum of ranks (38.01) for the follow-up test. In the the post-test the mean rank (4.01) the sum of the rank (36.00),

There are no statistically significant differences between the scores of the post-test and follow-up test in the first dimension Comprehensibility at (Z= 0, p>.01), the mean rank is (9.21) and the sum of rank (54.00) for the follow-up test. In the post-test, the mean rank was (5.08), and the sum of rank was (36.00).

There are no statistically significant differences between the scores of the post-test and follow-up test in the second dimension, Manageability at (Z= 0, p>.01), the mean rank is (6.58) and the sum of rank (39.50) for the follow-up test. In the post-test, the mean rank was (5.50), and the sum of rank was (26.50).

There are no statistically significant differences between the scores of the post-test and follow-up test in the third dimension Meaningfulness at (Z= 0, p>.01), the mean rank is (7.00), and the sum of rank (70.00) for the follow-up test. In the post-test, the

mean rank was (4.00),and the sum of rank was (8.00).

Table 13.

Post and follow-up Tests in PTSD Scale

b- PTSD

No	Dimensions	Test	sample	Mean Rank	Sum of Rank	z	p-value
1	Hyperactivity	follow-up	13	5.50	33.00	.58	.56
		test	13	5.50	28.00		
		post-test					
2	Re-xperiencing	follow-up	13	5.63	45.00	.94	.52
		test	13	5.00	37.00		
		post-test					
3	Avoidance	follow-up	13	5.65	43.00	.85	.47
		test	13	5.53	28.00		
		post-test					
4	Fear of infection	follow-up	13	6.83	41.00	.75	.44
		test	13	5.00	25.00		
		post-test					
5	Total	follow-up	13	4.50	36.00	2.56	.31
		test	13	3.00	30.0		
		post-test					

Table 13, above shows that there are no statistically significant differences between the scores of the post-test and follow-up test on the PTSD scale and its sub-dimensions at (Z= 0, p>.01), the mean ranks (4.50) and the sum of ranks (36.00) for the follow-up test. In the the post-test the mean rank (3.00) the sum of the rank (30.00),

There are no statistically significant differences between the scores of the post-test and follow-up test in the first dimension Hyperactivity at (Z= 0, p>.01), the mean rank is (5.50), and the sum of rank (33.00) for the follow-up test. In the post-test, the mean rank was (5.50) and the sum of rank was (28.00).

There are no statistically significant differences between the scores of the post-test and follow-up test in the second dimension, Re-experiencing at (Z= 0, p>.01), the mean rank is (5.63), and the sum of rank (45.00) for the follow-up test. In the post-test, the mean rank was (5.00) and the sum of rank was (37.00).

There are no statistically significant differences between the scores of the post-test and follow-up test in the third dimension Avoidance at (Z= 0, p>.01), the mean rank

is (5.65), and the sum of rank (43.00) for the follow-up test. In the post-test, the mean rank was (5.53) and the sum of rank was (28.00).

There are no statistically significant differences between the scores of the post-test and follow-up test in the third dimension Fear of infection at ($Z= 0$, $p>.01$), the mean rank is (6.83), and the sum of rank (41.00) for the follow-up test. In the post-test, the mean rank was (5.00) and the sum of rank was (25.00).

CHAPTER V

DISCUSSION AND INTERPRETATION OF THE RESULTS

The researcher discusses the results in this chapter.

5.1. First and Second Hypothesis Results Discussion

There are statistically significant differences between the mean of the experimental group and control group among international students on the SOC and the PTSD scales in the post-test.

The results of this hypothesis generally indicated that there was a decrease in the level of PTSD in the experimental group members after participating in the cognitive behavioral counseling program and developing a sense of coherence, which indicates the effectiveness of the cognitive behavioral counseling program in its development. Sense of cohesion and its effect on the experimental group in reducing PTSD (its dimensions and overall scores) compared to the control group that was not exposed to the program

Researcher attributes this result to the positive impact of the program in reducing PTSD and the quality of the methods and techniques used in the cognitive-behavioral program, as this type of program has proven its effectiveness in reducing PTSD. CBT focuses on helping patients understand processes and how they influence their thoughts, emotions, and behavior to re-assess a person's views regarding themselves and their disorder. Intervention intervention in the CBT approach focuses on the symptoms of PTSD, such as re-experiencing the trauma (intrusive thoughts, flashbacks, physiological reactions), avoiding activities (forgetfulness, avoidance), symptoms of excessive excitation (sleeping problems, oversensitivity, and intense reaction to surprise or astonishment), and how a patient tries to interpret the traumatic event (Jaycox & Foa, 1998).

The clients see how these irrational thoughts can affect their behavior and daily activities. where the main assumption of CBT is that patients with PTSD avoid thinking about and discussing the situation, actions, and memories connected with the trauma. The wrong way of interpreting events leads to learning non-adaptive behaviors (Salkovskis, 1991).

CBT deals with events according to here and now," so CBT works to remove psychological pain and the suffering and distress that the individual feels by identifying

individual's thoughts, feelings, way of thinking, and dealing with events. working to help an individual to know about the wrong behaviors that result from irrational thinking due to thinking and incomplete and distorted perceptions of events that led the person to behave in a withdrawal behavior and fall within the cases of mental health.

Most practitioners of cognitive behavior therapy (CBT) realize that PTSD victims at least partly create their severe distress by holding dysfunctional or irrational beliefs and that to alleviate their overwhelming fears, they had better be treated with cognitive restructuring plus exposure (Ellis, 1994).

Expert Intervention guidelines for PTSD published for the first time in 1999 recommended that cognitive-behavioral Intervention (CBT) with prolonged exposure (PE) should be the first-line therapy for PTSD. Prolonged exposure is a form of individual psychotherapy based on Foa and Kozak's emotional processing theory, which posits that PTSD involves pathological fear structures that are activated when information represented in the structures is encountered. These fear structures are composed of harmless stimuli that have been associated with danger. The restructured cognitive work to refute those irrational thoughts helps individuals learn the skills to solve their problems, increase their ability to understand and perceive events, and give them a logical explanation without exaggeration. This makes the individuals more flexible and positive in their way of thinking and dealing with events. Also, the researcher was keen on using modern and diverse techniques in the cognitive-behavioral and emotional fields, which gave the participants many varied skills that helped them face their fears and problems and overcome them.

These techniques contributed to developing SOC that reduces the effects of stress by modifying the perception of the situation and reducing the negative impact of stressors through cognitive assessment and coping strategies. These personality traits are highly desirable for health maintenance.

However, these techniques give the experimental group members the opportunity to participate in group counseling sessions to express themselves freely, trust, and benefit from their experiences with others, as well as identify wrong thoughts and feelings in the different experiences and attitudes they are exposed to on the part of the participants and work to correct them with ideas and positive feelings that lead to achieving balance and psychological compatibility with themselves, as well as providing an

opportunity for some one-on-one meetings (other than program sessions) between the researcher and participants who are shy to talk about their thoughts, feelings, and

experiences in front of their colleagues in the first sessions of the program so that they are integrated and positively participate in the program sessions, where the participants were trained in the skills of sense of coherence included in the current research (comprehensibility, manageability, and meaningfulness) and its evaluation after the completion of each skill as well, and the evaluation upon completion of training on it as a whole, had a significant impact on the acquisition of these skills. It was used correctly in different situations. (Antonovsky, 1987).

Individuals with a strong SOC are viewed as more competent regarding health choices, which contributes to understanding situations as comprehensible, manageable, and meaningful, and have greater opportunities for coping, which further impacts their health. Also, they have a general orientation to conclude that the world is comprehensible, that challenges are manageable, and that it is meaningful for them to engage in these challenges (Antonovsky & Sage, 1986).

The researcher's use of humor had the effect of breaking the barrier of boredom among the group members and increasing the participant's acceptance of the directions and continuation of the program sessions. where this humor is like an emotional outlet for their negative thoughts and feelings that they want to get rid of, all of that. also greatly contributed to developing the skills of a sense of coherence for the experimental group.

Research that indicates that a sense of coherence can be changed through psychotherapy, an external intervention, is reported (Bağ, 2017). It is offered that conducting prospective studies, especially experimental ones, can be beneficial to justify Antonov Sky's idea (Volanen, 2011).

The study by Hellack and Alshoubaki (2019) agreed with the study by Jimbril and Mohammad (2013) and the study by Bianchi et all. 2018) with the result of this research. The results show statistically significant differences between the experimental and control groups. PTSD symptom levels were lower compared to the control group.

5.2. Third and Fourth Hypothesis Results Discussion

There are statistical significance in the mean of the experimental group among the international students on the SOC and PTSD scales in the pre and post-tests.

In general, the results of this hypothesis indicated a decrease in PTSD among participants in the experimental group between the pre-test and post-test after exposure

to the cognitive-behavioral therapy-based intervention program used to improve the sense of coherence, which indicates a positive impact of the activities and techniques of the program used in the current research to increase the sense of coherence, which had an impact on reducing PTSD among individuals in the experimental group after participating in the program. The researcher attributed this result to an increase in the level of sense of cohesion by using the techniques of CBT that reduce traumatic disorders. Sense of coherence is linked to posttraumatic growth after critical incidents for individuals. The study by Carlos Ruiz-(Frutos et all.,2020), the study by (Dudek & Koniarek ,2000), and the study by (Gómez-Salgado et all.,2020) agreed that low levels of sense of coherence correspond to the highest percentages of PTSD and distress. Antonovsky saw that people with a strong sense of coherence can manage stress much better than individuals with a weak SOC. Since people with strong SOC seem to have a better comprehension of the world around them, as well as confidence in the availability of coping resources, as the researcher focused on reducing these symptoms in successive steps that began with Psychoeducation for individuals about traumatic disorders, as well as providing them with sufficient and correct information about the virus, which increased their knowledge, awareness, and awareness of what they put themselves in and how that Sufficient knowledge has an effective role in correcting the erroneous and illogical ideas that they derived from non-scientific sources or perhaps the way they interpret those events, in the study of (Chen et all., 2021) The results showed that the prevalence of PTSD, depression, and anxiety was 13.2, 21.0, and 16.4%, respectively. Hospitalized patients who were more impacted by negative news reports, had greater exposure to traumatic experiences, and had lower levels of perceived social support reported higher levels of PTSD, depression, and anxiety, as psychological education is important for the cognitive reconstruction of the individual.

The human being is by nature afraid and worried about unknown events, which is a natural reaction of people. Where false news and illogical ideas spread about the virus, not to mention watching the news and hearing the events about the deaths of people and the high death toll every day, all of this leads to some individuals suffering from post-traumatic stress disorder.

Psychoeducation is an important item in the early stages of Intervention . Usually reading materials are provided to educate individuals on the symptomatology of the diagnosed disorders and their etiology, in addition to other Intervention -relevant information (Tang& Kreindler, 2017). The COVID-19 pandemic caused PTSD, which,

through the stressors it generates, significantly exacerbates and perpetuates pre-existing PTSD. The researcher noted that after the quarantine period, some people in buses, parks, and public places avoided mixing with others and shouted when people were not wearing masks.

So the researcher worked to train them on skills and activities that helped them to correct their path and bring them back to life again, using cognitive and behavioral techniques and reinforcing them with existential techniques to increase the individual's motivation towards life and production and create meaning for their lives that they deserve to live for by setting goals that they wish to achieve. When individuals focus on those goals, their focus and thinking on the irrational side of their lives fade, the positive side grows, and the pathological side disappears. Individuals who are participating in the program will return to their normal lives and take advantage of what they have learned in the cultural, knowledge, and training aspects of the program.

As well as a positive change in the level of sense of cohesion among members of the group to the individual's acquisition of the skills of sense of cohesion in the three dimensions, as the researcher worked on its development by using the techniques of cognitive-behavioral therapy as well as existential therapy because the sense of cohesion includes three dimensions of cognitive and behavioral and existential, which is one of the topics addressed by the existential theory to reach a high level of sense of cohesion that enable individuals to face the requirements of life and confront to difficulties and consider it as experiences they can learn from and new opportunities for the growth of their personalities and even benefit them in the future when facing similar problems. That allows a person to understand why a stressful life event occurred (comprehensibility), to manage it on their own or with the help of others (manageability), and to find a deeper

Meaning in it (meaningfulness). Therefore, people with a high SOC are more capable of handling a stressful life event because of their ability to comprehend the event, manage it, and find deeper meaning in it. Furthermore, they seem to be more capable of choosing functional coping strategies. Thus, the individuals have a system of ideas, experiences, and behaviors that, through it, enable them to face new problems, find appropriate solutions and alternatives to overcome them, and change the path of those events in their favor, as if they had not gone through those events in the first place, especially if they had a high degree of flexibility in positive thinking.

Al-Buhairi 2011, mentions in his writings that every person has sufficient strength that he does not know and through which he can protect himself and manage adversity in

times of crises and adversity. These forces appear only when the individual interacts directly with the danger. They are supported by the individual's previous experiences, whose degree varies from one situation to another, as well as the ability to know the true causes of these events and explain them in a sound manner that enables him to reach a degree of balance in his life in general.

This is one of the positive variables that works to discover and develop human forces, and accordingly, individuals who enjoy a sense of cohesion are more able to adopt appropriate strategies without being affected by the pressures they are going through and are more flexible in responding to them, so they challenge them with their positive skills, and accordingly, the individual will have more self-conciliation and more mental health.

5.3. Fifth and Sixth Hypothesis Results Discussion

There are no statistical significance in the mean of the experimental group among the international students on the SOC and PTSD scales in the post and follow-up tests

The results of this hypothesis indicated that there were no real differences in degrees of dimensions of scales between post-test and follow-up tests where the researcher applied the scales of the SOC and PTSD between the sample members after a month and it was found that there were no differences between the post-test and follow-up test, during this period. That implies, that the positive effect continued in the behavior of the members of the experimental group, as well as the program was effective through the content, and relevance to the nature of the sample, as well it focused on developing aspects of the personality to be more Strong and capable to self-exploration, dealing with others, and developing positive thinking towards people and situations, building and planning goals and striving to achieve it, solving problems, by using several techniques based on cognitive-behavioral therapy. Moreover, the group discussion provided an opportunity to train the members of the experimental group on free thinking, and increased awareness, which led to reconstructing ideas and changing and correcting negative ideas, in terms of helplessness, fear, anxiety, frustration, despair, and various conflicts. By providing them with new concepts and skills that helped them trust their abilities in facing obstacles and adversity, in addition to their acquiring the skill of solving problems that made them more capable to deal with the problems that face in their daily lives, and that contributes to helping them confront future problems and control

conditions surrounding them.

The program's techniques were not picked at random and then applied; rather, each technique was carefully chosen and then read up on in order to be applied and practiced correctly. In addition to the fact that the researcher invited specialists to cover some of the sessions because they are more knowledgeable and experienced than the researcher, the participants were able to retain the method of using these techniques and apply it to their real lives when confronted with crises or shocks. Also, the researcher was keen that the intervention sessions would be interspersed with activities that break the routine and boredom, and to enhance this a period of rest between the activities and techniques that explaining and applied by the researcher with them, and they return with positive energy and activity.

Additionally, those taking part in the program reported fewer traumatic symptoms, and their desired behaviors remained stable, which suggests that the program's Intervention objective was met. Because the participants received Intervention that was suitable for the sort of trauma they were experiencing and because they gained more awareness into the many types of shocks, their symptoms, and the psychological consequences they have on people, they were better able to control their emotions. As well, the mere disappearance of the danger means the end of those symptoms and the individual's feeling of safety and his ability to take positive steps to protect themselves (Kira et all., 2021) Results indicated that COVID-19 traumatic stressors, and each of its three sub-types, were unique predictors of PTSD, anxiety, and depression. Thus, COVID-19 is a new type of traumatic stress that has serious mental health effects.

The program also provides a kind of psychological support by helping the individual to know that he is not the only one who suffers from these symptoms and that others suffer and need help, especially since group programs force the individual to break his isolation and re-engage in life and increase awareness about these disturbances. There are various disorders that an individual goes through and overcomes, and he should not be ashamed of this. Also, giving meaning to an individual’s life and a goal to live by has a prominent role in giving the individual motivation to overcome these symptoms and be free from them, and gradually the individual notices himself free from traumatic symptoms. The most effective is a commitment to apply the homework that the participants did at home, in sessions, at the university, etc. That helps individuals save the activity that they learned. Also, the researcher’s keenness to discuss the homework with

them in the next sessions enhances ensuring the practice of behavior among the participants and their application in their public and private lives

This homework aims to allow the patients to practice and enhance the skills learned in intervention sessions in real life. Homework non-compliance is one of the first cited reasons for therapy failure in CBT, but better homework compliance has been linked with a significant reduction in abnormal behaviors in psychotic disorders (Dunn, Morrison, & Bentall, 2002).

There is strong evidence mentioning that homework compliance is sectional to the efficacy of CBT in several psychological disorders. In the intervention of psychological disorders, CBT, homework, and acquiescence have been correlated with significant improvement in mental health and shown to predict diminishment in both subjective and objective scales of depressive symptoms (Rees, McEvoy, & Nathan, 2005). Homework compliance is linked with short-term and long-term refinement of symptoms in anxiety disorders, hoarding, panic disorder, and post-traumatic stress disorder (Leung & Heimberg, 1996).

CHAPTER VI

CONCLUSION

This chapter of the research included the conclusions that were reached through the research results. Also, the researcher gives several recommendations for those interested in the field of psychological counseling.

As well as some research proposals that the researcher believes may benefit other researchers completing their studies in the field of psychological counseling or positive psychology.

6.1. Conclusions

- According to the scores, obtained from SOC and PTSD scales, after applying the Intervention program, it is clear we can state that Cognitive behavioral therapy can be relied upon to reduce the level of PTSD caused by the spread of coronavirus. The research on the effects of psychological intervention mentions that the intervention based the CBT effectively reduces the symptoms of PTSD, where The cognitive model of PTSD considers is one of the important accomplishments of modern psychology.
- The members of the sample have responded to interventions to relieve PTSD. Future research may be investigate Positive intervention strategies used in methods of qualitative and quantitative to enhance decreasing PTSD with another sample.
- The high level of SOC contributes to reducing PTSD symptoms by enhancing the positive points of the individual that lead to the disappearing negative sides. Therefore, we assume that there may be a negative correlation between the level of SOC and PTSD symptoms.
- COVID-19 pandemic can cause PTSD and, through the stressors, it generates, or significantly exacerbate and perpetuate a pre-existing PTSD.
- The COVID-19 pandemic has affected students to a large extent. The symptoms of (PTSD) shown by participants are proof that this epidemic has had an earnest impact on the mental health of young people, especially scientific department students. Continuing psychological support

and appropriate interventions are necessary to reform this catastrophic situation.

- SOC helps individuals to maintain their psychological and physical health. Where people perceive their world as comprehensible, manageable, and meaningful. As the sense of coherence plays a preventive role against disease, this factor makes some individuals maintain their mental health, especially when they are confronted with destructive factors.

6.2. Recommendations

- Should increase the extent of assessment tools for mental health cases and conduct a survey all over the cities to explore the impact of general COVID-19 events on mental health, styles of coping, and related issues across Turkey.
- Scaling up mental health serving and psychosocial supports as a complete component of universal health coverage and in readiness, response, and recovery for general health emergencies. As a response to the pandemic, WHO has developed a wide area of resources to address mental health requests during the pandemic and keep working to promote recovery and resilience.
- Individuals who fight on the frontline versus the disease must be protected, minimizing dangers and providing individuals with resources and support that can enhance their coping skills. The study results could assist in better understanding the psychological upshot of the effort that professionals of healthcare have made to confront the unexpected covid-19 outbreak. The outcomes may help design the program of mental health care and protection interventions for workers.
- Universities must provide health-reinforcing measures at their campuses as recommended in the "Okanagan Charter" for health-enhancing universities (Okanagan, 2015), with a particular focus on student mental health reinforced and holistic setting approaches.
- Governments, voluntary and public agencies, and the community sector work together to research and continually be careful of the emerging psychological effects of the covid-19, it will be possible to reduce their impact on people’s

mental health and enhance people's resilience in the confront of this challenge.

- Building counseling programs to enhance the psychological health of university students.
- Open Psychological Counseling Centers at the universities that help students to overcome. their Psychological problems.
- Holding developmental and preventive training courses for those who need them or may be at risk in the future, thus avoiding exposure to psychological disorders, and this depends primarily on spreading awareness first of the importance of visiting a counselor or psychotherapist so that each person becomes a decision-maker to attend such courses.

6.3. Suggestions

- Conducting a similar study examining post-traumatic stress disorder resulting from the outbreak of the C1orona epidemic among Turkish students.
- Study of psychosomatic symptoms caused by corona.
- Conducting a study to determine the extent to which mental health contributes to reducing post-traumatic stress disorder.
- Study of the post-traumatic stress disorder variable with other variables such as emotional intelligence, psychological resilience, self-compassion, and others.

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APPENDICES

PTSD Scale

APPENDIX 1. PTSD Scale initial form (Researcher's preparationPTSD Scale Initial Form (Researcher's preparation)

All my Greetings and respect for you, and I wish you full success in your work.

The researcher is conducting research on COVID-19, about "**The effectiveness of the cognitive-behavioral program in sense of coherence to reduce post-traumatic stress disorder as a result of the pandemic of COVID-19 among international students in Turkey"**, In Partial Fulfillment of the Requirements for the Award of the Degree of Ph.D in Education Faculty, Department of Educational Sciences, Major (Guidance and Psychological Counseling)

Moreover, The researcher defined PTSD as "*a psychiatric disorder that occurs in some individuals who have had COVID-19, recovered from it, or have witnessed others who have had COVID-19 and are experiencing trauma, this is evident in their hyperactivity behaviors when they tried to explain the event and sought to avoid the environment where the event occurred and its surroundings, out of fear of contracting COVID-19 or remembering trauma events.*

Through the researcher's review of the theoretical literature and previous studies and measures related to the research topic, the researcher formulated the scale paragraphs in a preliminary form within (35) items, according to five alternatives.

According to your original experiences and scientific and methodological backgrounds, please rate each statement according to alternatives that the researcher will use (Not at all/ less-a little /somewhat/very much /severe).

Yours sincerely

Details about the arbitrator: -

Name	
Specialization	
Academic Degı	
Workplace	

Researcher

Enass Mohammed AL-MUSAWA

Ph. D. Student

no	Items	Valid	Invalid	need to modify
1	The image of the dead peoples comes back to me, who died as Covid-19.			
2	having afraid when I see people who are wearing clothes designed to prevent from Covid-19.			
3	Having trouble falling or staying asleep			
4	avoid using public transportation			
5	Use the sanitizer every few minutes			
6	thinking people around me are infected, and afraid to be close to them			
7	The memories of the events during the quarantine period come back to me.			
8	feeling fear from infection of the covid-19, so avoid visiting others			
9	will not be able to return to normal soon			
10	trying to avoid activities, public places, and situations that remind me of the traumatic event			
11	having disturbing, unwanted memories related to trauma			
10	nightmares and bad dreams related to the trauma of the infection			
13	reliving in the traumatic event as if it was happening again			
14	not being able to remember important parts of the trauma			
15	when I focus on shock event, feeling physical reaction such as sweating and increasing heart rate			
16	losing the interest of activities, you always used to do it			
17	Being overly alert or on-guard when dealing with the things I use			
18	I suspect I have Corona symptoms if I have a cold			
19	Acting with more irritable and aggressive with others			
20	feeling danger threatening my life			
21	I Stay away from people who had covid-19 and then recovered			
22	I blame myself for what happened to me and others because of me			
23	One of my relatives died of covid-19			
24	I feel isolated and unwilling to meet others			
25	I have thoughts of suicide during a period of infection in covid-19			
26	I worry about something around me that I think leads to the risk of the infection again			
27	I get so angry for no real reason			
28	I would panic if I saw a place like quarantine			
29	I feel depressed and lost the meaning of life			
30	I wished everyone infection in covid-19 when I infected in it			
31	I use two masks at the same time because I think one mask is not enough			
32	Excessive use of vitamins and medications such as vitamin C and D, etc that increase immunity			
33	I am seeing the world in a dark way because this epidemic cannot be eliminated			
34	I feel anxious when the education will return face to face that will be crowded in classrooms and student dormitories			
35	when I mingle with an infected person. I am afraid of doing the covid-19 test			

APPENDIX 2. List of arbitrators

No	Name	Academic degree	University
1	Ahmet DOĞANAY	Prof	Çukurova university
2	M. Oguz KUTLU	Prof	Çukurova university
3	Özkan ÖZGÜN	Dr	Çukurova university
4	Moath AHMED	Dr	IBB university
5	Yousf ALSHUGA	Dr	IBB university
6	Mamun ALBANA	Dr	IBB university
7	Mahde HAGRAS	Prof	IBB university

APPENDIX 3. PTSD Scale

Dear students,

This questionnaire was prepared to collect information about PTSD. It is very important that you answer the questions in the questionnaire. Please mark one of the options on the right with an (X) sign to what extent these expressions are suitable for you. There are no right or wrong answers in statements. Not at all/ less-a little /somewhat/very much /severe).

Thank you for your contribution to scientific work.

Note:- Please write your name on the survey form.

Name	City	Age	Nationality	Phon NO

İtems	Not at all	less-a little	somewhat	very much	severe
1. The image comes back to me of the dead people, who died of Covid-19.					
2. I am afraid when I see people who are wearing clothes designed to prevent Covid-19.					
3. Having trouble falling or staying asleep					
4. Avoid using public transportation					
5. Use the sanitizer every few minutes					
6. Thinking people around me are infected, and I am afraid to get close to them					
7. The memories of the events during the quarantine period come back to me					
8. l feel scared of infection of the covid-19, so I avoid visiting others					
9. I cannot return to my normal state soon					
10. I am trying to avoid activities, public places, and situations that remind me of the infection trauma					
11. I have disturbing, unwanted memories related to trauma					
12. I have nightmares and bad dreams related to the trauma of the infection					
13. I'm living the traumatic event, as it if were actually happening again					

14. I'm not being able to remember important parts of the trauma					
15. When I focus on the traumatic event, I feel physical reactions such as sweating and increased heart rate					
16. I lost interest in activities, that I was used to doing it					
17. Being overly alert or on guard when dealing with the things I use it.					
18. I suspect I have Corona symptoms if I have a cold					
19. I am dealing with others in an irritable and aggressive way.					
20. I am feeling in danger threatening my life					
21. I Stay away from people who had covid-19 and then recovered					
22. One of my relatives died of covid-19					
23. I feel isolated and unwilling to meet others					
24. I worry about things around me that I think lead to the risk of the infection again					
25. I get so angry for no real reason					
26. I would panic if I saw a place like quarantine					
27. I feel depressed and lost the meaning of life					
28. I use two masks at the same time because I think one mask is not enough					
29. I excessive use of vitamins and medications such as vitamins C and D, etc that increase immunity					
30. I am seeing the world in a dark way because this epidemic cannot be eliminated					
31. I feel anxious when education will return face to face that will be crowded classrooms and student dormitories					
32. When I mingle with an infected person. I am afraid of doing the covid-19 test					

APPENDIX 4. Sense of Coherence Scale

All my Greetings and respect for you, and I wish you full success in your work.

The researcher is researching Covid-19, **"The effectiveness of the cognitive-behavioral program in the sense of coherence to reduce post-traumatic stress disorder as a result of the pandemic covid-19 among international students in Turkey".** In Partial Fulfillment of the Requirements for the Award of the Degree of PH. D IN Education, Department of Educational & Psychological Sciences, Major (Educational & Psychological Counseling).

And (Antonovsky, 1987: 19) defines a sense of coherence as" a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable, and explicable (comprehensibility); (2) the resources are available to one to meet the demands posed by these stimuli (manageability); and (3) these demands are challenges, worthy of investment and engagement (meaningfulness). the researcher will use Antonovsky 's scale, within 13 items, in short form, according to three Dimensions Comprehensibility (consist items: 2, 6, 8, 9, and 11), Manageability (items: 3, 5, 10, and 13), meaningfulness (items: 1, 4, 7, and 12) in seven alternatives.

According to your original experiences and scientific and methodological backgrounds, please rate each statement according to alternatives that the researcher will use (Almost Always True / Usually True / Often True / Occasionally True / Rarely True / Usually Not True/Rarely True).

Yours sincerely **Details about the arbitrator: -**

Name	
Specialization	
Academic Degr	
Workplace	

Researcher
Enass Mohammed AL-MUSAWA
Ph. D Student

No	Item	Valid	Invalid	need to modify
1	Do you have the feeling that you do not really care about what goes on around you?			
2	Has it happened in the past that you were surprised by the behavior of people whom you thought you know well?			
3	Has it happened that people whom you counted on, would disappoint you?			
4	Up to now your life has no clear goals or purpose at all			
5	Do you have the feeling that you're being treated unfairly?			
6	Do you have the feeling that you are in an unfamiliar situation and don't know what to do?			
7	Doing the things, you do every day is: a source of deep pleasure and satisfaction or a source of pain and boredom			
8	Do you have mixed feelings and ideas?			
9	Does it happen that you have feelings inside you would rather not feel?			
10	Many people (even those with strong character) sometimes feel like sad losers in a certain situation. How often have you felt this way in the past?			
11	When something has happened with you , you generally find that: you overestimated or underestimated its importance or you find things in the right proportion			
12	How often do you feel that there's small meaning in the things you do in your daily life?			
13	How often do you have the feeling that you're not sure you can keep under control?			

APPENDIX 5. SOC Scale

Dear students,

This questionnaire was prepared to collect information about SOC. It is very important that you answer the questions in the questionnaire. Please mark one of the options on the right with an (X) sign to what extent these expressions are suitable for you. There are no right or wrong answers in statements. Not at all/ less-a little /somewhat/very much /severe).

Thank you for your contribution to scientific work.

Note:- Please write your name on the survey form.

Name	City	Age	Nationality	Phon NO

İtems	Not at all	less-a little	somewhat	very much	severe
1. Do you have the feeling that you do not really care about what goes on around you?					
2. Has it happened in the past that you were surprised by the behavior of people whom you thought you know well?					
3. Has it happened that people whom you counted on, would disappoint you?					
4. Up to now your life has no clear goals or purpose at all					
5. Do you have the feeling that you're being treated unfairly?					
6. Do you have the feeling that you are in an unfamiliar situation and don't know what to do?					
7. Doing the things, you do every day is: a source of deep pleasure and satisfaction or a source of pain and boredom					
8. Do you have mixed feelings and ideas?					
9. Does it happen that you have feelings inside you would rather not feel?					
10. Many people (even those with strong character) sometimes feel like sad losers in a certain situation. How often have you felt this way in the past?					
11. When something has happened with you , you generally find that: you overestimated or underestimated its importance or you find things in the right proportion					
12. How often do you feel that there's small meaning in the things you do in your daily life?					
13. How often do you have the feeling that you're not sure you can keep under control?					

APPENDIX 6. Cognitive-Behavioral Therapy-Based Intervention Program (Researcher's preparation)

All my Greetings and respect for you, and I wish you full success in your work.

The researcher is researching COVID-19**, "The effectiveness of the cognitive-behavioral program in the sense of coherence to reduce post-traumatic stress disorder as a result of the pandemic COVID-19 among international students in Turkey"**. In Partial Fulfillment of the Requirements for the Award of the Degree of Ph.D. in Education, Department of Educational & Psychological Sciences, Major (Educational & Psychological Counseling).

So, the researcher prepared a program to reduce PTSD, through the researcher's review of the theoretical literature and previous studies and programs related to the research topic, wrote this program within (12) sessions, and according to your original experiences and scientific and methodological backgrounds, please to you to evaluate this program according to).

Yours sincerely **Researcher**

Enass Mohammed AL-MUSAWA

Items	Appropriate	inappropriate	Notes
The appropriateness of the program steps			
Number of sessions			
session time			
Technologies that used in the program			
activities that used in the program			
style of implementing the activities and techniques			
Additions to the program from your opinion			

APPENDIX 7. Intervention program

The effectiveness of the cognitive-behavioral program in the sense of coherence to reduce post-traumatic stress disorder as a result of the pandemic of COVİD-19 among international students in Turkey.

Welcome and introductions
Day: MON **Time** :60 minute Date : 24-01-2022 **Session**: 1
general aim Establishing acquaintance and cultivating a relationship based on understanding and respect between the researcher and the participants, while also conducting a pre-test using the scales. **Aims of the session:** 1- The psychologist has introduced herself and explained her major everyone in the group knows himself as a participant in the Intervention group 2- learns the participants, the rules and the guidelines that should be committed in the PTSD Recovery Program 3- Gives an overview of the Intervention program used 4- applies the pre-test (PTSD& SOC) among individuals in the group 5- Providing participants with the date of the next session 6- Signing at terms of the contract agreed between the researcher and the participants
Techniques : Ice-breaking activity - discussion and lecture -pplied the SOC scale and PTSD scale - the agreement paper.
Preparations conducted prior to implementation. **1.** form 1(agreement) 2. The PTSD & SOC Sacles 3.Blow up th balloons.
Session Procedures: Welcoming Participants: The researcher greeted the individuals participating in the Intervention program upon their arrival at the designated session location. After participants had taken their seats, the researcher extended a warm welcome and expressed gratitude for their punctual attendance. Researcher Introduction: The researcher introduced herself, providing information about her expertise and the nature of her work. Icebreaking Activity: Participants were encouraged to introduce themselves through an icebreaking activity involving balloons. In this activity, the researcher randomly selected and punctured one balloon, and the owner of the punctured balloon introduced themselves, sharing their most significant hobby and any additional information they wished to disclose to their fellow group members.

Establishing Rules and Guidelines: The researcher elucidated the rules and guidelines for participants, emphasizing the importance of adherence. These guidelines were further discussed and documented in the form of a contract agreement paper. Counseling's Role: The researcher explained the significance of counseling and its role in assisting individuals in resolving seemingly insurmountable problems. Program Overview: An overview of the program was provided, including the total number of sessions and the key skills participants were expected to acquire. Pre-Test befor begining in the program: The researcher applied the SOC (Sense of Cohesion) Scale and the PTSD (Post-Traumatic Stress Disorder) Scale to participants as a pre-test befor begining in the porgram. Next Session Reminder: Participants were reminded of the date of the upcoming session, and a brief overview of its topic and content was provided. A summary of the session is made by the practitioner. Distribution of Agreement Papers: Agreement papers were distributed to participants for their signature, formalizing their commitment to the program. The session end: by listening the story of the one participant in program about positive thing did in her life The practitioner expressed gratitude to the participants for their attendance and bid them farewell as the session concluded.
Homework: Write What do you expect from the Intervention program? And what changes they are wanting? Drawing a picture of the coronavirus.

.

What is the COVID -19 ?
Day: THU **Time** : 90 minute **Date** : 27-01-2022 **Session**: 2
General aim: Offering participants accurate information about the Coronavirus and the psychological ramifications it can have on individuals during and after infection. **Aims of** the **session:** 1- Review the previous session. 2- Explain what is the covid-19? 3- Listening to the stories of the participants, and how they infection with the covid-19 4- knowing about the participants' thoughts and fears during the quarantine period 5- knowing about the behaviors they practiced during the quarantine period. 6- Listen to the participants' stories about their feelings after they recover and came back home.

7- knowing the psychological effects that accompanied them during the infection period 8- knowing the most prominent problems that the participants face and are still experiencing after recovering from the infection now
Techniques: Discussion and lecture - PowerPoint presentation - A measurement scale ranging from 0 to 10. (form 2)
Preparations conducted prior to implementation. 1. form 2(A measurement scale) 2. preparing the data show 3.Session presentation 4. Paper, pencil to participants
Session Procedures: Review of Previous Session: Commence the session by revisiting the content covered in the previous session and discussing assigned homework with the participants. Participants' Drawings of COVID-19: the researcher shares and discusses drawings created by the participants, depicting their perceptions of COVID-19. Inquires about their individual perspectives on the virus, their mental images of it, and how it has disrupted their normal lives. The aim is to gain insight into their fears and concerns surrounding the virus. Behavioral Discussion: the researcher facilitates a conversation with the participants regarding the behaviors they practiced during quarantine and when infected (e.g., avoiding visits, public transportation, handshakes, nervousness, isolation, excessive medication use, etc.), and explores which behavior was the most pronounced and why. Psychological Effects and Impact Assessment: the researcher encourages participants to openly discuss the psychological effects the virus has had on their mental well-being. and askes about the extent to which these effects have affected their personal and overall lives, rating it on a scale from 0 to 10. Then requestes participants to retain this scale for future evaluation at the conclusion of the Intervention program. The researcher gives participants form (2) A measurement scale ranging from 0 to 1. Discussion of Ongoing Challenges: the researcher workes to engage participants in a discussion about the most significant problems and situations they continue to grapple with, which are hindrances to resuming their normal lives. Guest Speaker - Medical Microbiology Student: the researcher Invites a Ph.D. student majoring in medical microbiology to provide participants with accurate and comprehensive information about the virus. The guest introduced herself and explained her major and started to explain with powerpoint showing What Coronavirus is. Common symptoms. Long-term effects. Modes of transmission. Protective measures. Address misconceptions. Information on vaccines.

Encourage participants to ask questions and share their comments during this informative session. Explaining Common Mistakes: Discuss the potential errors or misconceptions that may have led to their COVID-19 infections. They are asked to watch carefully. After watching the powerpoint showing, they must write (evaluation about the showing).and writeing the notes in paper A summary of the session: is made by the practitioner.This structured session aims to provide participants with essential information, address their concerns, and foster open dialogue regarding the virus's psychological impact and ongoing challenges. The session ends by listening the story of the one participant in program about positive thing she or onther person did in her life.
Homework: participants should write down a few pieces of advice for individuals dealing with COVID-19

.

What is PTSD?
Day: MON **Time**: 90 minute **Date**: 31-02-2022 **Session**: 3
general aim Providing information to participants regarding psychological trauma and Post-Traumatic Stress Disorder (PTSD), including its associated symptoms. **Aims of** the **session:** 1- Review the previous session 2- What is traumatic? 3- What are the types of traumatic? 4- What is PTSD? 5- When we can diagnose this trauma as PTSD? 6- General reactions in trauma and Identify symptoms according to DSM-5
Techniques: Discussion - video presentation - brainstorming - colored balloons - worksheets
Preparations conducted prior to implementation. 1. preparing the data show 2.video 3. Paper, pencil to participants 4. Blow up the colored balloons 5. PTSD scale form 3
Session procedures Review of Previous Session and Homework: the researcher commences the session by revisiting the content discussed in the previous session and engaging participants in a discussion about the assigned homework. Icebreaking Activity: the researcher starts the session with a group icebreaking activity involving colored balloons. In this activity, participants attempt to burst each other's balloons using their feet, fostering group interaction and energy. Video Presentation on Post-Traumatic Stress Disorder: the researcher Presents a video about Post-Traumatic Stress Disorder (PTSD), covering its definition, symptoms, types, and recommended actions when dealing with trauma, and offers explanations for each point addressed in the video. Defining Trauma and PTSD: the researcher defines trauma as per the American Psychological Association (APA) guidelines, emphasizing exposure to or the threat of

death, serious harm, or sexual violence. Define PTSD as a psychological disorder affecting individuals who have experienced traumatic events, such as combat veterans, survivors of natural disasters, victims of violence, or those involved in traumatic accidents.

Program Specifics: the researcher shares that this program pertains to individuals who contracted COVID-19 and subsequently exhibited symptoms of post-traumatic stress or those who witnessed COVID-19 patients and experienced shock.

Types of Psychological Trauma: the researcher eexplains different types of psychological trauma as per the definition, including examples such as wars, natural disasters, sexual harassment, loss of a loved one, and deadly diseases/epidemics. Encourage participants to share their examples and engage in discussions.

Diagnosing Trauma: the researcher elaborates on the criteria for diagnosing trauma versus normal reactions to distressing events, based on participant examples. Foster understanding of when trauma can be identified as such.

Symptoms of PTSD: the researcher distributes a paper listing symptoms associated with PTSD as outlined in DSM-5. Engage participants in discussions about the symptoms detailed on the paper.

Symptom Mapping Activity: the researcher instructs each participant to create a symptom map that their have and coloring the most impactful symptoms in red, the least impactful in green, and the moderately impactful in yellow. This exercise promotes self-awareness and insight.

Diagnosis of PTSD: the researcher explains the diagnostic criteria for PTSD, which necessitate three different symptom types that persist for at least one month and cause substantial distress or disruption in daily life, referencing the American Psychiatric Association's guidelines.

1.Re-experiencing the Trauma: The persistent recollection of the traumatic event.
2.Avoidance and Numbing: A consistent avoidance of trauma-related stimuli.
3.Hyperarousal: The manifestation of sustained symptoms of excessive excitement.
Then, modifying Thoughts and Actions: the researcher emphasizes that psychological trauma can be mitigated by altering one's thoughts and adopting appropriate coping strategies.
Open Discussion: Allocate time for participants to discuss the session's topic and address any questions they may have.

A summary of the session is made by the participants.

The session ends by listening the story of the one participant in program about how he or she felt during infection in COVID-19

Homework Assignment:
Assign participants to read about various types of psychological trauma and stories of individuals who have recovered from it.

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What is SOC?
Day: THU **Time**: 90 minute **Date**: 03-02-2022 **Session**: 4
General aim: Offering participants insights into the concept of "sense of coherence" and its significance in equipping them to cope with potential future crises. **Aims of the session:** 1- What is SOC? 2- What are the dimensions of a sense of coherence? 3- What is the meaning of a sense of comprehensibility? 4- What is the meaning of a sense of manageability? 5- What is the meaning of a sense of meaningfulness? 6- What is the Recovery Program for using SOC? 7- What is the mechanism by which a sense of coherence works to maintain mental and physical health?
Techniques Discussion and lecture - brainstorming - video (modeling) - working groups,
Preparations conducted prior to implementation. 1. Paper, pencil to participants 2. preparing the data show 3.video
Session Procedures: Homework Review and Open Discussion: the researcher session begins with a review of the homework assigned in the previous session. Participants are encouraged to ask any questions they may have, either within the group or in private with the researcher. Introduction About Sense of Coherence: the researcher introduces the concept of a "sense of coherence" as a general tendency that reflects the degree to which an individual possesses a consistent and dynamic sense of confidence. It is characterized by the belief that the demands of both the internal and external worlds are integral to life's journey and can be comprehended and interpreted. Furthermore, it encompasses the understanding that the necessary resources for meeting these demands are attainable and that these challenges are worth investing in. The researcher simplifies the concept for them as the extent of an individual's ability to confront challenging events in their life with resilience without negatively affecting their mental health. The researcher also recounts the story of Hitler, who sent people to concentration camps where some would die before reaching the camps while others would continue to live even though nothing had changed. This disparity was due to their flexible thinking and optimism, believing that something good would eventually happen to save them. Many individuals have contracted the coronavirus, but they did not worry about the infection and its aftermath when they recovered due to their positive thinking, that mean our thinking influences in our behaviors, accrding to the way we perceive and interpret events, situations, and challenges can significantly impact how we react and respond to them. After that, the researcher mentions the three dimensions of a sense of coherence. Cognitive Dimension(comprehensibility): The capacity to understand and perceive. Behavioral Dimension (Manageability): The ability to manage and act. Motivational Dimension: The sense of life's meaning and purpose. Working Groups for Dimension Exploration: the researcher divideds the participants into three working groups, each named after one of the dimensions of a sense of

coherence. Each group is tasked with explaining the dimension it represents at specific points.

Group Presentations: After the working groups complete their tasks, the researcher facilitates discussions where each group presents its findings on the respective dimension of sense of coherence.
Comprehensibility Dimension: divided explains comprehensibility as the extent to which an individual perceives internal and external stimuli as logically understandable. It is the ability to attain a comprehensive understanding, making it easier to comprehend one's environment, ongoing events, and personal role within it. Understanding stressful situations is crucial for effective coping.
The researcher clarifies to them that this dimension addresses human thinking. Our lives are shaped by our thoughts, and the more we cultivate positive thoughts, the more they influence our behavior. By doing so, we can follow a path towards achieving our goals in a healthy manner, free from feelings of tension and hesitation. Individuals who harbor negative thoughts often experience fear and find themselves unable to act due to the fear of failure. Consequently, they may abandon their goals, create new ones, and continue to fear their attainment, thereby losing their way towards achieving their objectives because of their thought patterns. Therefore, it is imperative for individuals to overcome negative thoughts and start cultivating productive, positive thoughts.

Manageability Dimension: Describe manageability as the degree to which an individual feels they have internal and external resources at their disposal to cope with the challenges they encounter. Resources can include social support, family, friends, and trusted individuals.
The researcher explains the concept as the extent of an individual's ability to manage the problems they encounter in life and how they can potentially find complete or partial solutions to these problems. This involves effectively addressing challenges in a way that leaves no room for stumbling in the pursuit of their goals. If one approach fails, the individual is encouraged to try alternative solutions until they reach a resolution to their problem.

Meaning of life Dimension (Meaningfulness): Elaborate on the meaning of life dimension, emphasizing an individual's motivation to address stressful problems and the willingness to invest their energy in resolving them. It reflects the perception that life has meaning, and challenges are opportunities for personal growth.
The researcher explains to them that the concept of the meaning of life is a sensitive term for individuals because it is linked to their existence, such as why they are here, how they should live, whether there is a purpose for their existence, what they have achieved so far in life, whether they deserve to live, and what their accomplishments are.

The researcher further clarifies that these three terms will be studied in detail, and training will be provided to enhance them in order to increase the sense of coherence
Provide an overview of the Intervention program designed to enhance a sense of coherence. and how its alignment with positive psychology and its integration of cognitive-behavioral therapy principles. also, will explain how to be reducing traumatic disorders by that. Also, mentionde to mechanism of sense of coherence:

Clarify how the sense of coherence functions to maintain participants' psychological and physical well-being during crises or psychological pressures. the researcher supports explanation with three video that explain the stories of individuals who have recovered from cancer, COVID-19, and achieved remarkable success serve as powerful examples of resilience and determination. These stories illustrate how individuals facing significant challenges managed to overcome adversity, demonstrating the human capacity for recovery and achievement. These narratives can inspire and motivate others to confront their own difficulties with hope and determination, reminding them that even in the face of formidable obstacles, it is possible to emerge stronger and successful.
Homework:- Create a chart that outlines the most significant resources you currently possess and identify any resources you aspire to develop throughout the program.

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Relaxing
Day: MON **Time**: 90 minute **Date** : 07-02-2022 **Session** 5
General aim: learning and practicing relaxation techniques for managing stress in challenging situations **Aims of the session:** 1- Review the previous session. 2- Definition what is the meaning of relaxation? 3- Explain the general principles of relaxation. 4- Explain the benefits of relaxation. 5- Explain the types of relaxation. 6- Explain the procedures of relaxation according to (Jacobson's relaxation technique) 7- Showing a video about relaxation exercises 8- Apply relaxation exercises in the hall of training.
Techniques Delivering a lecture, Showing video about relaxation exercises, divided the participants into three groups to apply the relaxation exercises
Preparations conducted prior to implementation. 1. form 4 (relaxation exercises) 2. preparing the data show 3.video 4. Paper, pencil to participants 5. hall 6. Rope 7. 12 chairs
Session procedures Started the session with various sports activities, including jumping rope and the missing chair to enhance the activity in the group. Review the previous session and discuss the homework. The researcher defines relaxation: as a training technique, that the individual feels a state of calm and comfortable after the removal of the stimuli that led to tension as a result of an emotional event or being exposed to an unexpected shock or exerting effort, or pressure. So, all contractions stop completely. Muscular tension is

associated with lowering the emotions associated with this tension.
The researcher elaborates the principles on which relaxation is based by steps.
1. Go to the bathroom, take off shoes, and clothes if they are tight, especially at the neck and midsection.
2. We should not do the relaxation process immediately after a meal because it slows down the digestion process and will not lead to satisfactory results
3. We should not do relaxation sessions before sleep because it will make the individual feel sleepy
4. Relax in a quiet place away from the noise
5. Providing a comfortable chair or bed that helps the relaxation process, and prefers to stay away from harsh things that may cause pain and discomfort for the back muscles

The researcher elucidates the overarching advantages of relaxation techniques, supported by various examples:

Slowed Heart Rate: Relaxation methods can lead to a noticeable reduction in heart rate, promoting a calmer and more balanced cardiovascular system.

Lowering Blood Pressure: By inducing relaxation, blood pressure levels can be effectively lowered, reducing the risk of hypertension-related health issues.

Slowing Down the Respiratory Rate: Practicing relaxation exercises can lead to a slower respiratory rate, enhancing lung function and overall respiratory health.

Improving Digestion: A relaxed state fosters improved digestion, aiding in the efficient breakdown and absorption of nutrients.

Maintaining Normal Blood Sugar Levels: Relaxation techniques can contribute to stabilizing blood sugar levels, particularly beneficial for individuals with diabetes.

Reducing the Activity of Stress Hormones: Relaxation diminishes the activity of stress hormones like cortisol, minimizing the detrimental effects of chronic stress on the body.

Increasing Blood Flow to Main Muscles: Enhanced blood circulation to major muscle groups can improve physical performance and reduce the risk of muscle-related discomfort.

Reducing Muscle Tension and Chronic Pain: Relaxation practices alleviate muscle tension and offer relief from chronic pain conditions, promoting comfort and mobility.

Improving Focus and Mood: Achieving a state of relaxation enhances mental clarity, focus, and mood stability, facilitating improved cognitive functioning.

Improving Sleep Quality: Practicing relaxation techniques can lead to more restful and rejuvenating sleep, promoting overall well-being.

Reducing Fatigue: Relaxation helps combat fatigue, offering a revitalizing effect that

can counteract feelings of exhaustion.

Reducing Anger and Frustration: The calming effects of relaxation methods can mitigate feelings of anger and frustration, promoting emotional balance.

Enhancing Confidence to Deal with Problems: Engaging in relaxation practices can boost self-confidence and resilience when confronting life's challenges, empowering individuals to tackle problems with a positive mindset.

Also,the researcher told the participants to get the most benefit, use relaxation techniques along with other positive coping methods, such as (positive thinking, finding humor, problem-solving, and time management, exercise, getting enough sleep, connecting with supportive family, and friends.

After that, the researcher explains the types of relaxation techniques: -
1. Self-relaxation: It comes from within you, you use both visual imagery and body awareness to reduce stress. You are repeating words in your mind that may help you relax and reduce muscle tension. For example, you might imagine a calm environment and then focus on controlled breathing and relaxation, slowing the heart rate, or feeling different physical sensations, such as relaxing each arm or leg one by one.
2. Visualization: - you form mental images to take a visual journey by imagining a quiet place. Try to integrate as many senses as possible, including smell, sight, sound, and touch. If you imagine relaxing in the same place. For example, think of the smell of salt water, the sound of crashing waves, and the warmth of the sun on your body.
3. Muscle relaxation (used in this program) and its steps are as follows
The researcher reviews the relaxation techniques, which are based on the idea that it creates tension in specific muscle groups and notices the feeling of tension in this part of the body, then works to let that muscle loosen tension and start noticing how the relaxed muscle feels as if the tension is escaping away.

The researcher provides participants with a form including the steps of relaxation, and training the participants on the steps of relaxation according to (Jacobson's relaxation technique in the form) and applying it during the session in the training hall ,and than, at home too.(form),
The researcher placed a carpet on the floor and asked the participants for a volunteer to demonstrate the exercises in front of their peers during the training session. One of the participants stepped forward, and the researcher prepared them, asking them to think of something positive while practicing relaxation exercises. She then began to guide them through the relaxation steps one by one, as outlined in the manual.
After completing the exercise, the researcher asked the participants about their feelings. They mentioned feeling a sense of relaxation and relief, noting that their previously tense muscles being less tense than befor exercise, and they expressed a desire to practice this exercise daily.
The researcher commenced by presenting a video demonstrating relaxation exercises to facilitate participant learning more. Subsequently, the participants were divided into three groups, with each group tasked with implementing the acquired knowledge within their respective training area.

Homework: do relaxation exercises at home.

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Comprehensibility
Day: THU &MON **Time**: 180 minute **Date** : 10-02-2022 & 14-02-2022 **Session**: 6&7
General aim: Enhancing the skills of comprehension, understanding, and rational thinking to enable individuals to address events and problems in a logical and reasoned manner within their surroundings. **Aims of the session:** 1- Review the previous session and discuss the homework. 2- know misconceptions and beliefs about the Coronavirus. 3- Explain the relationship between thinking and behavior. 4- Help participants to understand their feelings about the problem. 5- Work to correct and refute wrong ideas and replace them with new, correct ideas. 6- Training participants in problem-solving skills 7- Training participants to make the problem outside the self and demolish its construction in their minds. 8- Help participants to find positive exceptions that made them feel happy. 9- Training participants in self-talk to develop a sense of coherence
Techniques: Cognitive Restructuring (CR) Alternatives Choosing, exceptional questions, demolition of stories and negative thoughts, problem-solving skill, Socratic Question, cognitive map, positive messages, self-talk, exploratory questions
Preparations conducted prior to implementation. 1. form 5, 6 and 7 2. preparing the data show 3.video 4. Paper, pencil to participants 5. woksheet 6.Ballons 7.Cards
Session procedures: Review of Homework and Relaxation Technique: The session begins with a review of the participants' experiences with practicing relaxation techniques at home. Participants are asked to share how they felt during and after relaxation. The researcher and participants establish the objectives of the counseling, and the agenda this session, and structured evidence-gathering to support or refute the participants's beliefs. These negative thought are examined using Socratic questions by the researcher, rather than directly challenging the participants's thoughts and beliefs, along with other cognitive-behavioral techniques that researcher used in this session In the first method of this technique, the researcher presents an alternative perspective directly to the client. For instance, the researcher points out inconsistencies and errors in thinking, prompting the client to express their agreement or understanding of these observations. In the second method, Socratic questions are utilized to guide the client in examining facets of their situation that may have been overlooked, thereby helping them discover previously unconsidered options and solutions. Ultimately, and finally to

accustom the client to slow down, think and ask questions (to himself), in exchange for spontaneous rush and empower him Thus, from starting to objectively evaluate his different beliefs and ideas.
"What is your personal evidence that this thought is not true?"
"Can you provide other examples from your life that support this belief?"
"What could happen if these beliefs were to change?"
"Is there any other evidence that could be interpreted differently?"
"What is the worst-case scenario that could happen? And what is the most realistic one?"
"Do you believe this thought is connected to past experiences in your life?"
"Does this belief occur with you all the time or only in specific situations?"
"What are the positive things that could happen if this belief were to change?"
"Can you imagine how you would feel if you got rid of this thought?"

These questions aim to help the person explore and analyze their thoughts and beliefs in a logical and rational way, encouraging them to engage in critical thinking and settle on thoughts that are healthier and more positive

Cognitive Restructuring (CR): The researcher introduces the steps of cognitive restructuring, a technique to challenge irrational thoughts and replace them with rational ones. Participants are given a cognitive reconstruction form and asked to apply it to a problem they believe they cannot solve. after that, about their thoughts around the Coronavirus, and asked to consider the evidence supporting their beliefs about the virus.
The researcher provided an example to demonstrate how the form is used:

Negative Thought: I am afraid of flying because the plane will crash, and we will all die.

Evidence: I saw on Facebook that a plane coming to Yemen crashed into the sea, and everyone died. I saw their pictures on Facebook. So, all planes will crash into the sea.

New Thought: We will discuss the negative thought and work on replacing it with a rational idea. How will people travel if they don't use airplanes? Have you heard today that a plane crashed? Do you know that life and death are in God's hands, predetermined since birth? Do you know the reason for the plane crash? For instance, someone says yes, there was a fuel issue. Researchers respond that you should read the news from a reliable source. The plane crashed because it was too old and hadn't been properly maintained before takeoff. Now, all planes are being maintained
Group Discussion on Coronavirus Beliefs: Participants are divided into two groups, and each group engages in a discussion to explore their thoughts and beliefs about the Coronavirus. They share the sources of their information and the evidence that supports their ideas.

Challenging Distorted Beliefs: The researcher assists participants in identifying and understanding their distorted beliefs and the faulty reasoning behind them. This process helps participants realize how their interpretations of events have contributed to anxiety and excessive fear.

Understanding the Relationship Between Thinking and Behavior: The researcher explains that our thoughts and behaviors are interconnected, and the process of perception plays a crucial role in shaping our reactions to events. Positive thinking leads to healthy behaviors, while negative thinking lead to anxiety and avoidance.

Training in Self-Talk: Participants learn the importance of self-talk in developing a sense of coherence. They are encouraged to engage in positive self-talk, affirming their abilities and maintaining an optimistic outlook.
where the researcher shew a video about impact of psychological trauma on brain, and explaied how psychological trauma can affect communication between different brain regions. This visual aid helps participants understand the neurological impact of trauma on their behavior, so we must be positive, and speak with ourselves in by positively way. like, I can face COVID-19, I can protect myself by following the rules, and I will use public transportation.

Cognitive map : Participants receive form with drawings resembling maps of varying sizes. They are instructed to write down thoughts that affect their behavior, placing each problem in the appropriately sized space on the map that explain the real effect of problem.where the biggest size means the worst problem, and smallest one refer to less effect. The researcher encourages participants to color-code the thoughts based on their impact (red for most impactful, yellow for moderate, and green for least impactful).
The researcher encourages participants with this technique to understand the extent of their fears and helps them apply program techniques to make the problem smaller in their map, gradually fading away even if it takes time. The Cognitive Map technique assists them in identifying the underlying causes that have made their problems appear and recognizing the most threatening one. and realize that finding a solution to the main problem will address and resolve the accompanying issues.
For example, if the red color on the map represents the fear of using public transportation, the yellow problem is skin diseases due to excessive use of hand sanitizer, and the green issue is an using of vitamins. If a person can overcome the major problem, return to their normal life, and use public transportation, they will notice that others have also returned to their normal lives, and there is no longer a need for excessive hand sanitizer use. Furthermore, the vaccine helps prevent infection, eliminating the need for medications. Participants will see that the disappearance of the primary problem leads to the disappearance of the other issues.

Demolition of stories and negative thoughts: Participants are guided to reflect on their feelings related to the Coronavirus, its impact on their lives, and their experiences during infection and recovery. The researcher encourages participants to externalize their problems and deconstruct them in their minds. This is achieved through techniques like demolishing unwanted stories
The researcher uses exploratory questions to help participants gain insight into their emotions. The researcher helps them demolish negative stories and ideas within their minds by giving them balloons.
Participants are given balloons and asks them to write on the balloons a single phrase representing their problem that they want to get rid of, than they must pop these balloons to signify letting go of their problems.

Training in Problem-Solving Skills: Participants are divided into three working groups and provided with problem-solving worksheets.
The researcher explains the step-by-step process of problem-solving, involving problem identification, generating solutions, evaluating solutions, selecting a solution, creating an action plan, implementing the plan, and evaluating the results.

The researcher outlines the step-by-step process of problem-solving, which involves several key stages. Here's a detailed breakdown of each step with examples:
Problem Identification:
This is the first step where you identify and define the problem clearly.
Example: You're consistently late for work, and it's causing issues with your supervisor.
Generating Solutions:
In this stage, brainstorm various solutions to the problem.
Example: Possible solutions could include setting multiple alarms, preparing things the night before, or changing your morning routine.
Evaluating Solutions:
Assess the pros and cons of each solution to determine their feasibility.
Example: Evaluate each solution based on factors like effectiveness, time required, and ease of implementation.
Selecting a Solution:
Choose the most suitable solution based on your evaluation.
Example: After considering all options, you decide that setting multiple alarms is the best solution.
Creating an Action Plan:
Develop a detailed plan outlining how you'll implement the chosen solution.
Example: Your action plan includes setting three alarms at different times, placing your work clothes and essentials by the door, and allowing extra time for your morning routine.
Implementing the Plan:
Put your action plan into practice consistently.
Example: Follow your new morning routine diligently, setting the alarms, and sticking to the schedule.
Evaluating the Results:
After a reasonable period, assess whether the chosen solution has resolved the problem.
Example: After a month, evaluate if your punctuality has improved, if your supervisor is satisfied, and if you feel less stressed in the mornings.
Remember that problem-solving is an iterative process, and if the initial solution doesn't work as expected, you may need to revisit previous steps, generate new solutions, and make necessary adjustments until the problem is effectively resolved.

Exploring Positive Exceptions: Participants are guided to identify positive exceptions in their lives when problems they expected did not occur. Exception questions help them reflect on these moments and their achievements.
The researcher refers to many examples to understand this technique

Can you share a positive exceptional experience from your life when you expected a certain problem, but it didn't happen?

Can you recall an exceptional instance when you anticipated a significant difficulty or challenge, but you found that things were easier than you thought?

What are the things you've successfully achieved in your life, even when faced with significant challenges?

Do you have an exceptional story of overcoming a particular problem and making significant progress in your life?

Can you remember exceptional times when you felt happiness and motivation, even when facing pressure or stress?

What are examples of goals you've successfully achieved in your life, and how did you manage to accomplish them?

Do you have an exceptional story to share about moments that positively impacted your relationships with specific individuals?

Can you mention a positive change in your behavior or habits based on a positive exceptional experience?

Do you have stories when you witnessed significant improvement in your mood or mental state due to positive events in your life?

Can you recall an exceptional experience when you felt pride and self-confidence after achieving a specific success?

Use these questions to help individuals reflect on positive moments in their lives and how they can contribute to achieving more success and happiness

The session ends by writing Positive Messages: Participants write positive messages to each other and exchange them. They must guess who wrote each message, fostering positivity and optimism within the group
These session procedures aim to help participants challenge negative thought patterns, develop problem-solving skills, and foster a positive mindset as part of their journey towards

Homework:
Write your irrational thoughts and refute them. Put one of your problems and apply the problem-solving skill to it. Practice positive self-talk.

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Manageability

Day: THU &MON **Time** :- 180 minute **Date** : 17-02-2022 & 21-02-2022
Session: 8&9

General aim;
Assist individuals in modifying undesirable behaviors that hinder their regular activities and support their reintegration into family, society, and daily life.

Aims of the session:

1- Review the previous session
2- Train participants on Self-monitoring in how the mind responds to trauma
3- Help the individual, not avoid talking about the trauma of the infection that causes him stress
4- Help the individual not to avoid the behaviors associated with the traumatic event.

5- Help the individual to return to the activities and hobbies that did it before
6- Help the participants to control their emotions toward the events

Techniques

Exposure Technique, discussion of the events of emotive experiences, Self-Monitoring, video , modeling, symbolic stories, lecture and discussion, Behavioral activation.

Preparations conducted prior to implementation.

1. form 8,9 and 10
2. preparing the data show
3. Paper, pencil to participants

Session Procedures:

The researcher starts the session with discussing the homework with participants and ask them to predicte about the session's contain.
The researcher asked them to play with the empty chair activity, which involves 12 chairs arranged in a circle. Participants rotate around the chairs, and the person left standing without a chair exits the game. Remove one chair after each round.the aim of this active to enjoy.

The researcher shows a video about the unwanted behavioral symptoms resulting from post-traumatic stress disorder, aiming to help individuals address these symptoms. The video highlights how one's life can be affected when they give up their interests, activities, and habits, researcher encourages individuals to return to activities and hobbies they used to enjoy.
The researcher gave a form (Behavioral activation) with two columns for participants to list activities they used to do and left behind. In the second column, they note how many times they engaged in these activities.
Collaborate with participants to return to their daily activities, add new ones to boost their energy, and create a weekly schedule. Activities can be done with friends they enjoy spending time with.
The activity schedule might include two hours of outdoor sports, reading a book, playing chess, and engaging in play. Participants should notice that they have regained their natural state and resumed their activities without fear.

The researcher explains the skill of self-monitoring to observe how the mind responds to trauma, and provide participants with a self-monitoring form that includes columns for noting the situation that triggers fear, the source of fear, its time, physical symptoms, and accompanying fantasies. Below the form is a scale from 0 to 10 to measure the severity of fear. This helps participants understand their fears and work on reducing them.
They must identify behavioral problem to get rid from it ,such as observing an individual's behavior when rid the bus.
They start to know a situation that triggers fear is getting on the bus, for example. The source of fear includes touching the poles or overcrowding. The duration of feeling fear in this situation, whether it continues only while boarding the bus or persists even when disembarking. The accompanying symptoms like trembling, difficulty breathing, sweating, etc. Negative thoughts accompanying this situation include the fear of someone infected in the bus and I will be infecte in the virus

The researcher encourages participants to discuss traumatic events in their lives, including experiences related to infection. and let them express their feelings and reactions.
When participants become stressed, researcher guides them to relax, take deep breaths, also, asks questions like: What was the worst outcome you expected when you were most worried about getting infected? What thoughts crossed your mind at that time? Did you have any vivid imaginings during that moment?
After discussing these questions and helping to reduce tension through modeling, which researcher mentied to examlpe (story of our friends Ahmed and Kother) then, researcher asks them to continue sharing their stories experiences of infection, recovery, and returning to life.

The researcher helps individuals confront traumatic situations by facing avoidance behaviors related to the traumatic event. By explain the exposure technique, its forms, rules, and steps, and gradually apply it.
what is the meaning of exposure?
The exposure technique involves continuous exposure to fear-inducing stimuli related to the virus or traumatic event, which disperses the individual's fear response, and allowing the individual to desensitize their fear response over time.
It includes forms of exposure:
Imaginary Exposure: In this form, individuals vividly imagine the feared situation or object. It's a safe way to start confronting fears without real-life exposure.
Gradual Exposure: This method involves gradually and systematically facing the feared stimulus in a controlled manner, starting with less anxiety-provoking situations and progressing to more anxiety-inducing ones.
Live Exposure (Reality): This is the most direct form of exposure, where the individual confronts the actual feared situation or object in real life.

Provides participants with an exposure form . Create a fear hierarchy or fear ladder, ranking situations or stimuli from least anxiety-inducing to most anxiety-inducing. This helps structure the exposure process. Participants should keep this list and repeat the exposure activity 4-5 times a week, sessions should be at least 20-30 minutes .Exposure is conducted in a safe and controlled environment. The individual should feel supported and secure during the process.noting their progress.

The researcher started with the participants by implementing imaginary exposure to a situation they feared, for example, getting on a bus with someone sneezing and coughing. They were initially a bit tense, but by revisiting relaxation exercises, they managed to ease their anxiety.
The researcher then asked the participants to watch a video of COVID-19 cases as part of applying the exposure technique. The participants unanimously agreed.

Steps of Exposure:
Assessment: Identify the specific fear or phobia, its triggers, and its severity. Develop a fear hierarchy to determine the order of exposures.
Fear of riding the bus due to the fear of virus transmission caused by crowding.

Psychoeducation: Explain the exposure technique to the individual, emphasizing its effectiveness in reducing anxiety over time.

Establish Goals: Set clear, measurable goals for the exposure sessions. What does the individual aim to achieve by the end of each session?
overcome the behavior of avoidance behavior of using public transportation.

Begin with Least Fearful: Start with the situation or stimulus that is least anxiety-inducing according to the hierarchy.
The researcher started with them by implementing imaginary exposure, followed by showing a video. Then, she suggested an end-of-program trip to test the stability of their behavior using public transportation, and everyone agreed.

Stay Present: Encourage the individual to stay in the moment during exposure. Remind them to focus on their feelings, thoughts, and physical sensations without avoidance behaviors.
"Do not think about avoidance; face what you fear. Relax when you feel tension."

Gradual Progression: As the individual becomes more comfortable with the initial exposure, gradually moves to the next item on the fear hierarchy. Keep progressing until they can face the most fear-inducing situation.
What did you feel, and was there any change in your behavior?

Practice Coping Strategies: Teach and practice relaxation and coping techniques during exposure sessions, such as deep breathing and positive self-talk.

Reflect and Evaluate: After each exposure session, reflect on the experience. Discuss what was learned, how anxiety levels changed, and any insights gained.

Repeat: Regularly repeat exposure sessions until the individual can face the feared situation or object without excessive anxiety.

Generalization: Encourage the individual to apply what they've learned from exposure to real-life situations. The goal is for them to confront their fears independently.
Apply what you have learned in the exposure technique to confront all situations that frighten you. For example, if you are afraid of dogs, gradually confront them with someone you feel safe with.

Show a video about the unwanted behavioral symptoms of post-traumatic stress disorder, to help the individual get rid of it.
The video discusses how an individual's life becomes when he gives up his interests, activities, and habits.

Develop the skill of Self-monitoring to note how the mind responds to trauma, the researcher provides the participants with a self-monitoring form, which is form that includes four columns in which the participant writes the situation that provokes fear, the source of fear, its time, physical symptoms, and fantasies that accompanied that situation below the paper is a scale from 0 to 10 that measures the severity of his fear. It helps the participants to know about their fears to work on reducing them. Then identify problems in the behavioral aspect and get rid of them, such as observing the individual’s behavior when touching things outside.

The researcher encourages the participants to talk in detail about the traumatic events in their life, including the trauma of the infected, to discuss the events of emotional experiences. Listen to them calmly when participants describe their feelings and reaction. When the individual gets stressed, ask him to relax, breathe deeply, and continue the story. Ask them questions such as (What was the worst thing you expected to happen when you were so worried that you were infected?) What came to your mind at the time? Did you imagine something at that moment? After discussing these questions with them and working to reduce tension by presenting models, they talked about their experience of infection, how they passed this period, what after their recovery, and how they returned to life normally. Help the individual face the traumatic situation, by not to avoid behaviors related to the traumatic event. Use the exposure technique with them after explaining to them what the technique of exposure is. What are forms of exposure? What are its rules and steps? then gradually applies it to them. The exposure technique is based on continuous exposure to stimuli that cause fear of the virus and infection or any traumatic event, which results in a dispersal of the fear response of the individual. It has several forms, including imaginary exposure, gradual exposure, and live exposure (reality). Exposure to be effective must be gradual, prolonged, repeated, and without distraction. Provide the participants with the exposure form in the form of a pyramid. Ask them to write the situations that cause them to feel in fear, to be in the order from most exciting to the least exciting, and the individual should keep this list with him until he faces his fears because he will repeat the exposure activity from 4 to 5 times a week, and he can make progress on this list to notice the difference. Show a video of cases infected with the virus for them to watch. Discuss with them what they felt while watching the video, Ask them how scared fear they are while watching the video. Tell them to rate their fear from 0 to 10. Repeat the activity of displaying a video for them until their fear rate reduces to at least half. Ask them to repeat the exposure step in the week four to five times. Encourage the individual to return to the activities and hobbies that used to do before. Therefore, the researcher used the behavioral activation technique, which aims to replace avoidant behaviors with positive activities, whether those that the individual used to do or new activities. Provide the participants with a form consisting of two columns asking them to write the activities they used to do and left and in the second column the number of times they did these activities. The researcher agrees with the participants to return to their daily activities and add new activities that enhance their energy and encourages them to do these activities in a weekly schedule to do different activities, it is possible to implement this schedule with friends whom you love. The schedule of activities included sports for two hours in the fresh air, reading a book, playing chess, and playing. You will notice that you have returned to your natural senses and returned to your activities without fear.
Homework: Assign homework related to the activities participants completed during this period.And appling exposure technique

Meaningfulness
Day: THU&MON **Time** : 180 minute **Date** : 24-02-2022& 28-02-2022 **Session** : 10&11
General aim: Fostering an individual's sense of life's meaning and encouraging them to perceive challenges as opportunities for personal growth and development. **Aims of the session:** 1- Review the previous session and discuss the homework. 2- the participants describe the meaning of life from their viewpoint. 3- Knows the situations in which the individual succeeded and failed in their life and turned them into positive experiences 4- Knows where one's strengths have 5- Reduces the sense of meaninglessness by helping the individuals to realize their life 6- Helps them set goals for their lives and live for them (smart goals) 7- knows what you want to be
Techniques Socratic questions, smart goals technique, Lifeline technique, short stories, video presentation, SWOT
Preparations conducted prior to implementation. 1. form 11,12 and 13 2. preparing the data show 3.Session presentation 4. Paper, pencil to participants
Session procedures Start the session by discussing the homework assigned previously. Then, engage in a group activity to stimulate interaction within the group, where each participant writes down something they like on a piece of paper and folds it. Then, have them place their papers in a box. One by one, ask participants to pick a paper and guess who it wrot it . The researcher shared a religious stories that refer to challenges in life which helpe us to more stronger and flexible , the story of Moses and the story of Victor Frankl, who survived the Holocaust during Hitler's time. The researcher requests each individual describe their life in one word and write it on the board. Then, ask them to explain the chosen word's meaning and what it means to them. This helps individuals uncover the deeper meaning within themselves that they may not be aware of. where this word has many effect in thier life. like, I am creative, stuped, failure , alone , helpless, optimistic. a lot of them said i am alone, due they are living far away from other. Then, researchers encourage participants to discuss situations or experiences in their lives that hold personal meaning and have had an impact on them. Ask if these events have led to any changes in their lives or values. like , asks participants about instances in their lives where they succeeded and failed, and how these experiences transformed into positive ones. The researcher gave participants with a form lifeline and asked them to consider this line as a representation of their life. Have them mark points or signs on the line

chronologically to denote events representing success or failure. These events can include experiences during the pandemic and the period of infection. Participants can also use colors to represent various emotions and accomplishments.
Analyze the impact of these events on their lives, focusing on what they gained or lost and the changes that occurred as a result. This exercise helps participants gain insight into their lives, abilities , and and how they overcome all these difficulties . Also, they can overcome the shock of COVID-19

Shows a video that explains to individuals how identify their strengths and weaknesses using the SWOT (Strengths, Weaknesses, Opportunities, Threats). Researcher gives participants SWOT form that a colored form containing squares and a large circle. Ask them to write their most significant strength inside the big circle and list several strengths and weaknesses in the surrounding boxes. Discuss with participants how weaknesses can be turned into strengths. Encourages participants to discover their personal, social, and cognitive resources, which enable them to achieve their goals and explore new options and solutions they may not have been aware of.

Shows a video that explains to individuals how identify their strengths and weaknesses using the SWOT (Strengths, Weaknesses, Opportunities, Threats). Researcher gives participants SWOT form that a colored form containing squares and a large circle. Ask them to write their most significant strength inside the big circle and list several strengths and weaknesses in the surrounding boxes. Discuss with participants how weaknesses can be turned into strengths. Encourages participants to discover their personal, social, and cognitive resources, which enable them to achieve their goals and explore new options and solutions they may not have been aware of.

Elaborates on the issue of existential meaninglessness by asking participants existential questions, such as their greatest achievements, motivations, and desired changes in their lives. These questions help individuals find meaning in their lives and combat a sense of purposelessness.
What is your greatest achievement in life, and why do you consider it significant?
What motivates you to get out of bed every morning and face the day?
If you could change one thing in your life, what would it be, and why?
Have you ever experienced a moment when you felt a deep sense of purpose or meaning? Can you describe that moment?
What are your core values and beliefs, and how do they shape your sense of meaning in life?
How do you find meaning in the face of challenges and difficulties?
Can you identify any past experiences that have had a profound impact on your life and influenced your sense of purpose?
Do you feel that you are living in alignment with your true self and values? If not, what steps can you take to bring your life into alignment?
How do you define a meaningful and fulfilling life for yourself?
What legacy or impact would you like to leave behind in the world?

The researcher emphasizes the importance of setting SMART (Specific, Measurable, Achievable, Relevant, Time-bound) goals. Help participants set both long-term and short-term goals, stressing that life should be planned around these goals.
Divided participants into small working groups and provided them with a SMART goal form. Guides participants in setting goals and understanding the significance of

long-term and short-term goals, researcher discussed participants's goals whit them, inquire about their plans to achieve these goals in the future, and explore potential obstacles and solutions. Also, asks participants if they had specific goals during the COVID-19 pandemic and if they were able to achieve them. Encourage everyone to share their experiences. Prompts participants to envision the person they aspire to become. asks each participant to write down their aspirations on a piece of paper and place it in a box. Read aloud what others have written, fostering motivation to achieve their goals.
The participants confirmed that the fear of virus infection is behind them, and they stand strong in the face of challenges, ready to accomplish their goals.

Homework: Reflect on why you are here and consider your future. Create a visual representation of your life.

. **Finished the program and said goodbye**

Day: MON **Time:** 60 minute **Date** : 01-03-2022 **Session** : 12

General aim:
Concluding the program and proceeding with the implementation of the post-test assessment.

Aims of the session:

1- Review all previous session
2- Applying the post-test (PTSD& SOC) among individuals in the experimental group
3- Listening to everybody that attended all the Intervention sessions to know about the changes that happened because of the program
4- Concluding the program, thanking the participants, and motivating them to use the techniques they have learned in the various problems they may face in their lives.
5- Giving the souvenirs and certificates of thanks

Techniques scales of PTSD and SOC -
Participant feedback form - Water balloon game

Session procedures
The researcher welcomes the participants in the program with some enthusiasm and starts with them her closing session with a review of everything she did in the previous sessions from the theoretical side of psychological education and the practical side, which included the most important techniques that helped them reduce their trauma.

Ask them about the most important positive changes that they have gained from the program and work to strengthen them to continue applying techniques in the event of crises or difficulties in their lives, where working as a protective shield for them.

Give participants a form and asks them to write their opinions about the program and their evaluation of it.
The researcher with them implements the balloons activity to spread the spirit of activity, and laughter before applying the post-test.
Then the researcher distributes the post-traumatic stress disorder scale and the sense of coherence scale to the participants and asks them to answer it, to measure the changes that occurred after implementing the program.
Finish the program and thank the participants in the program, and distributes souvenirs to them and certificates of thanks and gratitude.
Wish them all success in their lives.

APPENDIX 8. Validity of program

No	Name	Academic degree	university
1	Mohammed ALOBIDE	Prof. Dr.	Iraq university
2	M. Oğuz KUTLU	Prof. Dr.	Çukurova university
3	Özkan ÖZGÜN	Assoc. Prof. Dr.	Çukurova university
4	Moath AHMED	Dr.	IBB university
5	Yousf ALSHUGA	Dr.	IBB university
6	Mamun ALBANA	Dr.	IBB university
7	Mahde HAGRAS	Prof. Dr	Iraq university
8	Mohammed ALSAKAF	Prof. Dr	Amran university

APPENDIX 9. Form of agreement

Form 1

1- Commitment to attend weekly at the time and place specified for the Intervention session, and if you are unable to come for an urgent reason, you must inform the researcher before a certain period.
2- Commitment to maintain the confidentiality of all conversations that take place within the Intervention group and not to transfer them abroad
3- All members of the group should treat each other with respect, and accept differences in opinion, " disagreements arise during the discussion"
4- put the mobile phones in silent mode, and far away from you during the Intervention session
5- Share your duties with a group and discuss it with them
6- If you miss two sessions from the program, you will be exempted from the program, and you cannot complete it with us because each session depends on the session that follows it

Name :

The signature

APPENDIX 10. A measurement scale ranging from 0 to 10

Form2

1 2 3 4 5 6 7 8 9 10

APPENDIX 11. Symptoms and -Diagnostic of PTSD

Form 3

Although PTSD symptoms can begin right after a traumatic event, PTSD is not diagnosed unless the symptoms last for at least one month, and either cause significant distress or interfere with work or home life. In order to be diagnosed with PTSD, a person must have three different types of symptoms, the DSM-IV-TR (American Psychiatric Association, 2000) including avoidance and numbing, re-experiencing, and hyperarousal.
First, re-experience trauma
A person remembers the traumatic event continuously and urgently in the least one or more than one of the following ways:
painful memories about the event in a repetitive and compulsive manner, repeated painful or heartbreaking dreams about the event, feeling that the event will happen again, psychological tension when exposed to signs symbolizing the traumatic event, a physiological reaction when exposed to signals symbolizing aspects of the traumatic event
Second: Avoidance and sedation
This appears to be in a state of permanent avoidance of the stimulus that related to trauma, at least three of the following symptoms:
Making efforts to avoid thoughts, feelings, or conversations related to trauma, making an effort to avoid activities, places, people, etc. that make active memories of trauma, inability to recover an important aspect of trauma, reduced interest in or participation in important activities, and a feeling of detachment or alienation about others.
The third: excitement
It appears in the arise of persistent symptoms of excessive excitability, at least two of the following symptoms: Difficulty falling asleep or staying asleep, irritability and tantrums, excessive alertness, and an exaggerated fear response (Idsoe, Dyregrov,, & Idsoe, ,2012, 903; Courtois at al,2017,3; Galovski et all , 2016)

Diagnostic Criteria 309.81 (F43.10) Posttraumatic Stress Disorder

A. Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:
1. Directly experiencing the traumatic event(s).
2. Witnessing, in person, the event(s) as it occurred to others.
3. Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental.
4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s) Note: Criterion A4 does not apply to exposure through electronic media, television, movies, or pictures, unless this exposure is work related.
B. Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred:
1. Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s).
2. Recurrent distressing dreams in which the content and/or affect of the dream are related to the traumatic event(s).
3. Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring. (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings.)

4. Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).
5. Marked physiological reactions to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).
C. Persistent avoidance of stimuli associated with the traumatic event(s), beginning after the traumatic event(s) occurred, as evidenced by one or both of the following:
1. Avoidance of or efforts to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).
2. Avoidance of or efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).
D. Negative alterations in cognitions and mood associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:
1. Inability to remember an important aspect of the traumatic event(s) (typically due to dissociative amnesia and not to other factors such as head injury, alcohol, or drugs).
2. Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world (e.g., "I am bad," "No one can be trusted," 'The world is completely dangerous," "My whole nervous system is permanently ruined").
3. Persistent, distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame himself/herself or others.
4. Persistent negative emotional state (e.g., fear, horror, anger, guilt, or shame).
5. Markedly diminished interest or participation in significant activities.
6. Feelings of detachment or estrangement from others.
7. Persistent inability to experience positive emotions
E. Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:
1. Irritable behavior and angry outbursts (with little or no provocation) typically expressed as verbal or physical aggression toward people or objects.
2. Reckless or self-destructive behavior.
3. Hypervigilance.
4. Exaggerated startle response.
5. Problems with concentration.
6. Sleep disturbance (e.g., difficulty falling or staying asleep or restless sleep).
F. Duration of the disturbance (Criteria B, C, D, and E) is more than 1 month.
G. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
H. The disturbance is not attributable to the physiological effects of a substance (e.g., medication, alcohol) or another medical condition).(APA, 2013, 271:272)

APPENDIX 12. Relaxing

Form 4

No	PROCEEDURE OF JACOBSON'S PROGRESSIVE MUSCLE RELAXATION TECHNIQUE	Tensing Time	Relaxation Time
1	**Hand**	5 sec 10 sec	5 sec 10 sec
	Clench each fist separately (right & left), feel the tension in the fist and forearm respectively for 5 seconds Release the fist, relax and feel relaxation for 10 seconds		
2	**Arms**	5 sec 10 sec	5 sec 10 sec
	Bend each arm separately (right &left) up at the elbow and tense the biceps ,keeping the hand relaxed, feel the tension for 5 seconds . Release the arm , relax and feel relaxation for 10 seconds		
	Straighten the arm separately (right &left) and tense the triceps leaving the lower arms supported by the chair with the hands relaxed, feel tensing for 5 seconds. Relax and feel relaxation for 10 seconds		
3	**Facial Muscles**		
	Wrinkle your forehead; try to make your eyebrows touch your hairline which produces tension ,feel the tension for for 5 seconds. Release the eye brows relax and feel relaxation for 10 seconds.	5 sec 10 sec	5 sec 10 sec
	Close your eyes and screw the muscles around the eyes for 5 seconds. Release , relax and feel relaxation for 10 seconds.		
	Tense the jaw by biting the teeth together, feel the tension in the jaw muscles for 5 seconds. Release, relax and feel relaxation for 10 seconds		
	Press the tongue hard and flat against the roof of mouth with lips closed notice tension in throat and feel it for 5 seconds. Release, relax and feel relaxation for 10 seconds		
4	**Neck & shoulder**	5 sec 10 sec	5 sec 10 sec
	Push the head back as far as it will go (against a chair),feel the tension for 5 seconds. Bring head to its position, relax and feel relaxation for 10 seconds.		
	Bring the head down and press the chin down on to the chest for 5 seconds. Bring the head to its position, relax and feel relaxation for 10 seconds.		
	Tense shoulder by tightening and shrinking shoulders (Shrug your shoulders up to your ears), feel the tension for 5 seconds. Release, relax and feel relaxation for 10 seconds		
5	**Chest**	5 sec 10 sec	5 sec 10 sec
	Take a deep breath, completely filling the lungs, hold the breath for few seconds and passively exhale. Relax and feel relaxation for 10 seconds		
6	**Stomach**.	5 sec 10 sec	5 sec 10 sec
	Pull in the stomach and tense the stomach muscle for 5 seconds. Release the stomach, relax and feel relaxation for 10 seconds		
7	**Back**	5 sec 10 sec	5 sec 10 sec
	Arch your back away from the chair feel tension for 5 seconds. Relax and feel relaxation for 10 seconds.		
8	**Thighs & Buttocks**	5 sec 10 sec	5 sec 10 sec
	Tens both thigh muscles and buttocks by squeezing muscles together and feel tensing for 5 seconds. Release the muscles, relax and feel relaxation for 10seconds .		
9	**Lower Legs**	5 sec 10 sec	5 sec 10 sec
	Point toes towards your head, producing tension in calf muscles, feel tensing for 5 seconds. Relax and feel relaxation for 10 seconds.		
	Point the toes away from the head, feel the tension for 5 seconds. Relax and feel relaxation for 10 seconds		
10	**Toes**	5 sec 10 sec	5 sec 10 sec
	Relax and feel relaxation for 10 seconds .		
11	**After Exercises**	5 sec 10 sec	5 sec 10 sec
	Relax whole body completely		
	Keep your eyes closed and let yourself remain in the relax position		
	Open your eyes and enjoy renewed energy, feel relaxed and refreshed		
	sit up, stretch, and stand up slowly		

APPENDIX 13. Cognitive Restructuring (CR)

Form 5

Negative Thoughts	Evidence	Realistic Thoughts – New Thoughts

APPENDIX 14. Problem-solving

Form 6

Identify the problem
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Identify all possible solutions
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Evaluate pros and cons for possible solutions
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Select a solution
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Plan (write down the steps you will take to apply your chosen solution
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Implement the plan
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Evaluation the plan
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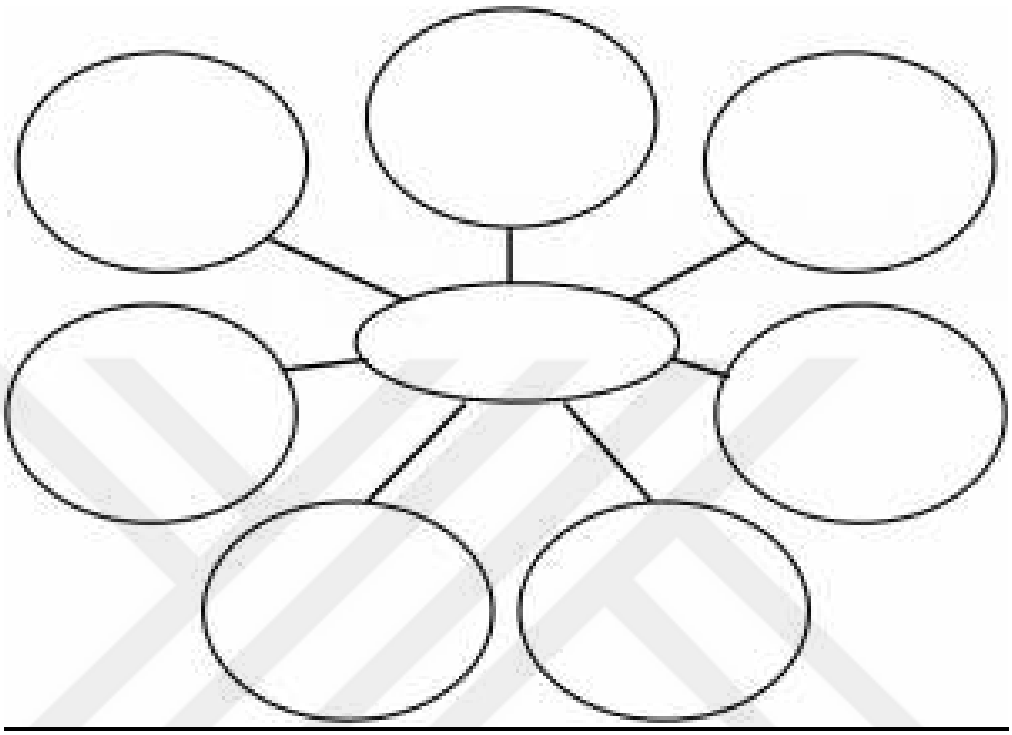
Form 7

Cognitive Map



APPENDIX 15. Self-Monitoring Form

Form 8

The situation that provokes fear,	the source of fear	time of fear,	physical symptoms, and fantasies

APPENDIX 16. Real-Time Exposure Practice Sheet

Form 9

How will gradient exposure help me?

No	Date	Time Started	Beginning SUDS	Time Ended	Ending SUDS

0----------25----------50----------75----------100

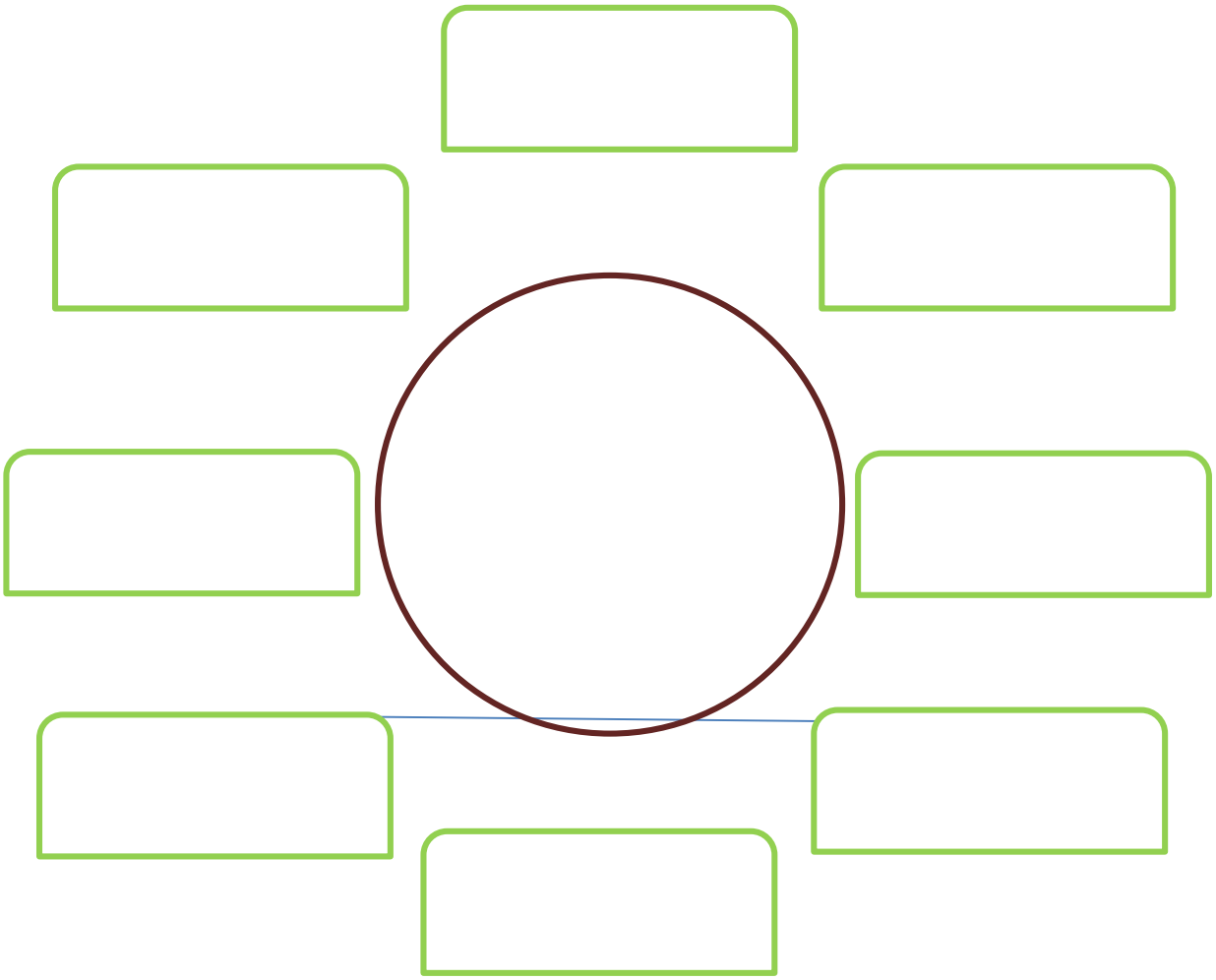
APPENDIX 17. Behavioral Activation Form

Form 10

The activities you used to do and left	The number of times you did it	New activities	The number of times to do it

APPENDIX 18. SWOT Form

Form 11



APPENDIX 19. Smart Goal

Form 12

Start by identifying your goals - Remember to make these goals as SMART as possible.
Creating Goals
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.....
What do you hope to gain or achieve?
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.....
.....
What will be different for you?
.....
.....
What can you do to make those changes happen?
.....
.....
Take some time thinking about your individual goals and write these below.
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.....
.....
.....
Specific.....
Measurable.....
Achievable.....
Relevant.....
Time-bound.....

APPENDIX 20. Lifeline Form

Form 13