Effectiveness of Psychological Intervention Based on Compassion Focused Therapy on Automatic Thoughts and Dysfunctional Attitude among Patients with Depressive Symptoms

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Abstract

Background: Depression is among the most prevalent psychological disorders, significantly impacting an individual's performance and resulting in numerous adverse consequences. The third phase of psychotherapy aimed at treating mental health issues, especially depression, is known as compassion-focused therapy (CFT).The aim of this intervention is to better manage the patient's dysfunctional attitude and automatic thoughts and enhance depressive symptoms .**Aim**: To evaluate the efficacy of psychological interventions based on compassion-focused therapy on automatic thoughts and dysfunctional attitudes among patients with depressive symptoms. **Setting**: The research was conducted at the psychiatric inpatient ward of the Hospital of Mental Health and Addiction Treatment located in Benha City, Qaluobia. **Subjects**: A purposive sample of seventy patients with depressive symptoms was selected as study group (35 patients) and the control group (35 patients). **Research Design**: Quasi-experimental research design pre- post,and follow-up test, two groups were utilized. **Tools**: Four tools were used; Tool (1) Socio-demographic data and clinical characteristics, Tool (2) Self Compassion Scale, Tool (3) the Automatic Thoughts Questionnaire (ATQ) and Tool (4) Dysfunctional Attitude Scale (DAS). **Results**: There was a statistically significant positive correlation coefficient between the total number of automatic thoughts and dysfunctional attitudes among patients with depressive symptoms in the study group, and compassion-based therapy significantly reduced these thoughts and attitudes in patients with depressive symptoms ($p < 0.001$).**Conclusion**: It was determined that automatic thoughts and dysfunctional attitudes in patients exhibiting depressive symptoms can be effectively addressed through CFT. **Recommendation:** The psychiatric nursing personnel ought to establish a comprehensive nursing intervention program across all governorates of Egypt for individuals experiencing depressive symptoms. This initiative aims to enhance their emotional well-being and mitigate negative automatic thoughts as well as dysfunctional attitudes.

Keywords: Depressed mood, Compassion-focused therapy, automatic thoughts, Dysfunctional attitudes

Introduction

Mood is a pervasive and long-lasting internal feeling that influences every facet of a person's conduct **(Mehta, 2022).** Sadness, characterized by a diminution in motivation and interests, is frequently associated with a decrease in activity and performance, as well as feelings of humiliation and worthlessness. Additionally, it is linked to an elevated risk of mortality or suicidal behavior, all of which are indicative of depression **(Shamsababdi & Dehshiri, 2024).** Automatic negative thoughts are a major feature of depression, guilt or feelings of worthlessness. They are also linked to inadequate social support, high maladaptive coping, and feeling of rejection and loneliness **(Kupferberg & Hasler, 2017).**

According to a study by **(Alsaleh et al., 2016),** "A continuous flow of thoughts, ideas, and images that persistently accompany an individual as they navigate through the routines of daily life" is considered to be the product of our information processing system, which controls how individuals imagine and understand the world. A person's performance may be impacted by dysfunctional attitudes linked to depression, anxiety, stress,and early experiences since they can result in severe feelings and actions as well as bad coping mechanisms **(Li et al.,2023).**

Individuals possessing dysfunctional attitudes may perceive life as more daunting and adverse, exhibiting elevated levels of anxiety, negative cognitive evaluations, and tendencies toward rumination **(Örnek & Şimşek, 2023).** Dysfunctional attitudes are

those that have produced bad ideas about oneself, other people, and the future**(Li et al.,2023).**

The significance and contribution of psychological intervention in the field of positive psychology have generally been established by recent meta-analytic research **(Kraiss et al.,2022).** Compassion-focused psychological therapies have gained popularity in recent years **(Asano et al.,2022).** The third wave of psychotherapy, known as compassion-focused therapy (CFT) is used to treat psychological illness including depression.This therapy combines social, developmental, and neurological approaches.A fundamental aspect of his strategy is to aid individuals in cultivating a sense of safety, tranquility, and encouragement by fostering compassion and a profound understanding of the suffering inherent in humanity, as well as striving to alleviate it **(Sadeghi et al.,2018).**

According to**(Shin et al.,2023),** compassion is defined as gentleness and tenderness combined with a profound awareness of suffering and stress and a desire for alleviation. it also includes kindness toward oneself during difficult and stressful situations rather than self-judgment, the inevitable existence of human suffering and commonalities rather than isolation, and a balanced awareness of one's own feelings and thoughts rather than over-identification. This therapeutic approach promotes a loving and accepting encounter with oneself by realizing the inevitable nature of suffering, stress and by adopting a calming compassionate perspective towards oneself throughout stressful experiences **Sharifpour et al.(2024).**

Significance of the study:

The Eastern Mediterranean Region (EMR) had a total disease burden of 5.6% from 1990 to 2013 due to mental health disorders, according to the Global Burden of Disease (GBD) study. Egypt is one example of a middle-income country. Depression accounted for the majority of the disability-adjusted life years (DALYs) at 1,884 per 100,000 people, the estimated total. Furthermore, the working-age population (25–49 years) had the highest DALYs, 5344 /100,000 **(Charara et al.,2017).** There exists a significant deficiency of information concerning the precise prevalence of melancholy and its associated factors among public sector employees. In Egypt, there are approximately 27 million individuals engaged in employment **(The World Bank, 2021).** The existing evidence is derived from either non-representative or non-functional samples, which include elderly individuals **(Odejimi et al.,2020).** Individuals suffering from chronic pain conditions **(Shoukry 2021),** and undergraduate students **(Eshak & Abd-El Rahman., 2022).**

A study conducted between Egypt and Candash revealed that individuals experiencing depression in both nations exhibited significantly more negative perceptions of themselves and their future, demonstrated more dysfunctional attitudes, and possessed fewer positive self-reflections compared to their non-depressed counterparts. According to **(Beshai et al.,2016).**

Egyptians had much more dysfunctional attitudes than their Canadian counterparts. Compassion-Focused Therapy enhances positive emotions and compassion while decreasing self-criticism and hopelessness. Happiness, psychological flexibility, mental health, anxiety, and depression have all been associated with self-compassion **(Chupradit et al.,2022).** Consequently, the present study intends to assess the efficacy of a psychological intervention grounded in CFT in mitigating automatic thoughts and dysfunctional attitudes among patients exhibiting depressive symptoms.

Aim of the study

To evaluate the efficacy of psychological interventions based on compassion- focused therapy on automatic thoughts and dysfunctional attitudes among patients with depressive symptoms.

Research hypotheses:

H1: Patients with depressive symptoms who will attend psychological intervention based on compassion-focused therapy (study group) are more likely to have lower automatic thoughts post intervention compared to those who will not attend the intervention (control group).

H2: Patients with depressive symptoms who will attend psychological intervention based on compassion-focused therapy (study group) are more likely to have lower dysfunctional attitudes post intervention compared to those who will not attend the intervention (control group).

Operational Definition.

- **Compassion-focused Intervention**: In the current study,it refers to how the patient with depressive symptoms can be more self-compassionate in challenging situations and the ability to see events realistically and develop insight into interpreting events and making decisions, not exaggerating or indulging in personal suffering, being mindfully aware of the feelings of others,and accepting problems as part of others' problems. It will be measured by Self compassion scale by **Hanoun and Al-Qarala (2022).**
- **Automatic Thoughts**: In the current study, it refers to the thoughts that automatically arise in our minds all throughout the day. Often, we are completely unaware we are even having thoughts, but with a little instruction and practice, you can learn to easily identify them and, as a result, get a better handle on your mood and behavior.It will be measured by the automatic thoughts questionnaire, which adopted from **Khanagha (2024).**
- **Dysfunctional Attitudes**: In the current study, it refers to over generalized, inconsistent, unrealistic beliefs organized into a continuum regarding the individual's self, the world, and the futur. It will be measured by the dysfunctional attitude scale (DAS-A) which adopted from **Alijani and Ranjbarkohan (2022).**

Methods

Research Design

A quasi-experimental design was employed, consisting of two groups (experimental and control), and incorporated pre-test, post-test, and follow-up assessments to achieve the objectives of the study.

Research Setting

The survey was conducted within the inpatient facilities of the Hospital for Mental Health and Addiction Treatment located in Benha City, Qaluobia Governorate, which is affiliated with the General Secretariat of Mental Health in Egypt. This hospital contains (7) psychiatric inpatient departments (5)men departments,(1) female department, and (1) inpatient addiction department .Moreover, it contains (6) outpatient clinics as follows:(2) psychiatric outpatient clinics (1) addiction outpatient clinic (1) children outpatient clinic (1) epilepsy outpatient clinic, and (1) geriatric outpatient clinic.

Sample

A purposive sample comprising seventy patients exhibiting depressive symptoms participated in this research, which was divided into two groups: thirty-five individuals in the study group and thirty-five individuals in the control group, drawn from the above-mentioned setting. The participants who consented to participate in this investigation were randomly divided into two equal groups (study and control), in accordance with the subsequent inclusion criteria.

The Inclusion Criteria

The following are the requirements that patients must meet in order to be considered for the study: A depressed mood, being between the ages of 18 and 55, and being of either gender are the requirements for participation. Additionally, participants should be adhering to their prescribed medication regimen as directed by their healthcare provider. Participants must also exhibit their intent to engage in the study by furnishing written informed consent subsequent to a thorough elucidation of the study's objectives.

The Exclusion Criteria

The following criteria constitute grounds for exclusion from the study: a) a diagnosis of a neurological disorder; b) substance abuse involving drugs and/or alcohol; and c) engagement in any other psychotherapeutic intervention at the time of recruitment.

The tools: The study's objective was accomplished by using four tools:

Tools (I): A Socio-demographic and Clinical Characteristics Structured Interview Schedule: Researchers attempted to collect data on patients' socio-demographic and clinical characteristics through a thorough

literature review, which led to the development of the framework. This includes variables such as age, sex, marital status, occupation, educational level, birth order, size of family, living with family, physical illness, onset of symptoms, social support, and compliance to medication.

Tool 2: **Self-compassion scale**: The researcher utilized the arabic version of the self-compassion scale by **Hanoun, Al-Qarala, (2022).** It consisted of 33 items, divided into four dimensions: self-kindness versus self-judgment (8 items), common humanity versus isolation (8 items), mindfulness versus over-identification (8 items), wisdom versus lack of wisdom (9 items). The scale is comprised of 33 statements, with certain statements being formulated in a negative manner, including items 6, 7, 8, 14, 15, 16, 22, 23, 24, and 33, while others are presented as positive statements. A five-point likert scale, extending from 1 (representing strong disagreement) to 5 (representing strong agreement), was utilized to assess the responses given by the patients. They are amended accordingly if the statement is affirmative and inverted if the statement is negative.

Scoring systems: The total score of self-compassion was the sum of the four above dimension ranging from (33-165), from 33 to77means mild self-compassion, 78 to 121 means moderate self-compassion, from 122 to 165 means high self-compassion.

Tool 3: **Automatic Thoughts Questionnaire (ATQ)**

The ATQ is a 30-item self-report questionnaire originally developed in English by Hollon and Kendall (1980), **adopted from Khanagha (2024)**, and translated into arabic by researchers to measure the severity and frequency of negative thoughts. Each item is evaluated using a 5-point likert scale, with responses ranging from 1 (not at all) to 5 (all the time). The total scores can be anything from 30 to 150.The scale evaluates five distinct factors: detrimental self-perception, confusion and escapist delusions, personal maladjustment coupled with a yearning for transformation, as well as feelings of loneliness, isolation, and hopelessness.

Scoring system

- Low negative automatic thoughts :(30- 74) <50%
- Moderate negative automatic thoughts:(75-104) 50-75%
- High negative automatic thoughts:(105-150)>75%

Tool 4: **Dysfunctional Attitude Scale (DAS-A)**

It was originally established by Weissman and Beck in 1978 and adopted from **Alijani and Ranjbarkohan (2022)**. in the English language and subsequently translated into arabic by researchers. The DAS-A comprised 40 items, each of which included a statement accompanied by a 7-point likert scale, where 7 denoted complete agreement and 1 indicated complete disagreement. Ten items have been subjected to reverse coding, specifically the following values: 2, 6, 12, 17, 24, 29, 30, 35, 37, and 40.The total score is the sum of the 40-items with a range of 40–280. The higher the score, the more dysfunctional attitudes

Scoring system

- Low dysfunctional attitudes:(40-139)<50%
- Moderate dysfunctional attitudes:(140-195)50-75%
- High dysfunctional attitudes:(196-280)>75%

The procedure of data collection

Validity of the tools: A group of five experts in mental health and psychiatric nursing assessed the instruments' content validity to make sure they were thorough and applicable.

Reliability of the tools: The researcher employed reliability to ascertain the internal consistency of the instrument by administering the identical tools to the same participants under equivalent conditions. Upon evaluation of the findings from repeated assessments (test-retest reliability), the instruments demonstrated a reliability coefficient of 0.88 for Tool 2, with sub-scale reliability ranging from 0.81 to 0.87. Tool 3 exhibited a reliability coefficient of 0.93, while Tool 4 showed a reliability of 0.84.

A pilot study

The instruments' usefulness and effectiveness were evaluated, and the time needed to complete them was determined, in a preliminary study. Ten percent of the total population was enlisted for the

pilot study. People who did not fulfill the inclusion criteria in the pilot study were not included in the main study.

Ethical consideration: The General Secretariat of Mental Health Hospitals' Commission for Research Ethics, along with the director of the psychiatric and addiction treatment facility located at Benha City, Qaluobia, Egypt, have both granted their formal sanction for the continuation of the study. Approval from the Scientific Research Ethics Committee of the Faculty of Nursing at Benha University was secured to conduct the present study and program **(Code REC PSYN P 30)**. The hospital administrator also granted his written consent for the implementation of the study and program. The objectives of the study were clarified to the participants, who were subsequently requested to review the informed consent document prior to their participation in the program. Before the commencement of the data capture process, all questions were thoroughly deliberated and organized. Each participant provided written consent after being thoroughly informed about all phases of the program and intervention.

Field work

The study was conducted through assessment, planning, implementation, and evaluation phases.

Phase 1: **Assessment stage**: After the goals and objectives of the study were explained, informed consent was obtained before data collection began. After reviewing all inpatient documents to identify individuals who met the inclusion criteria, the researcher proceeded to conduct the interview on the ward. The researchers employed four study instruments to gather baseline data (pretest) in order to evaluate the efficacy of a psychological intervention grounded in CFT. The average duration of each participant interview was approximately 40 to 50 minutes. The researchers intend to gather data on a weekly basis specifically one day each week. This phase persisted for approximately eight weeks.

Phase 2: **Designing stage:** This phase was intended to develop a program centered on CFT. It was composed in the Arabic language and founded upon relevant contemporary literature evaluations.

This phase encompassed the delineation of the objectives and components of the CFT intervention, which comprises:

- Concept of compassion focused therapy
- Benefits of compassion-focused therapy
- Strategies for putting compassion-focused therapy into action.
- Teaching techniques include open discussion, group brainstorming, demonstrations, real-world scenarios, teamwork, and role playing.

- Media: A brochure, hand out, power point and booklet were used.

- Role-playing game, group discussion, demonstration and re-demonstration were all used during the study.

- Evaluation techniques include oral inquiries, re-demonstrations, posttest and follow up after two months.

Phase 3: **Implementation stage**: The execution of the intervention was conducted during meetings, employing various educational methodologies and utilizing instructional pamphlets that were developed during the planning phase. The implementation of the intervention required a duration of eight weeks to conduct the sessions aimed at evaluating the impact of CFT on patients exhibiting depressive symptoms.

- The primary objective of the program was to evaluate the efficacy of psychological interventions based on compassion-focused therapy on automatic thoughts and dysfunctional attitudes among patients with depressive symptoms.

Specific goals of compassion focused therapy:

- After completing the program of compassion-focused therapy patients will have the ability to:
- Recognize symptoms of depression.
- Identify the benefits of compassion-focused therapy for the mind and body.
- Examine the significance and methodologies of CFT and their contribution to alleviating the symptoms of depression.

- Describe their needs and emotions verbally, provide straightforward responses to inquiries presented to them, and initiate and sustain a productive dialogue.

Data were gathered over a period of two months from the beginning of May 2024 to the end of June 2024, followed by follow-up on the beginning of September. Patients were categorized into three distinct subgroups, each comprising 11 to 12 patients. Compassion-focused therapy involved 8 sessions. The application was conducted for a duration of 40 to 50 minutes per day, once a week, between the hours of 9 AM and 12 PM.

The CFT sessions were conducted in the leisure rooms of the inpatient facilities at the aforementioned location. Each session commenced with a recapitulation of the information conveyed during the preceding session, followed by the articulation of the objectives for the current session. This was conducted with careful consideration of the necessity to employ accessible language suitable for all patients exhibiting depressive symptoms.

This was conducted to ascertain that all patients comprehended the principles of CFT. The researchers utilized modeling and demonstration throughout the sessions to facilitate the patient's practice of skills associated with CFT. Following that, the researchers employed repeated demonstrations of the skill by each patient to facilitate their acquisition of it. Upon conclusion, the researchers expressed their gratitude to the participants for their time and invited them to seek clarification on any aspects that remained ambiguous.

Sessions are scheduled as follows:

Session 1: (Greeting): The aim of this session was to promote active participation among patients in CFT. The researchers achieved this by familiarizing themselves with the patients and establishing the group protocols, including confidentiality, as well as clarifying the nature and objectives of the study. Participants were provided with psychological education regarding depression, specifically addressing the intricate phenomenon of the brain. This included an exploration of the distinctions between humans and other animals, particularly our exceptional ability for self-awareness and self-evaluation, encapsulated in the notion of "not our fault." This concept is widely recognized and serves as a foundational element within the framework of evolutionary psychology. Mindfulness exercises focused on auditory awareness were also introduced and assigned to participants as part of their assignments.

Session 2: Compassionate wisdom (three systems of emotional regulation): Participants received instruction on the three-circle model, which encompasses threat, drive, and calming, while the underlying mechanisms of emotion and motivation were elucidated from a neuroscientific standpoint. The practice of soothing rhythmic breathing has been assigned as a homework task. Researchers employed a video and a power-point presentation to convey the content of the program.

Session 3: Introduction about automatic thoughts and dysfunctional attitude, Understanding the path from automatic thoughts and dysfunctional attitude (“not our fault”) through the social construction of self and the tricky brain. Examine the repercussions of automatic thoughts through the framework of the three-circle model. Participants were instructed on the functions of emotion and were subsequently assigned exercises involving compassionate color and place imagery as assignments.

Session 4: (Compassionate engagement) participant understanding how our thinking, posture, and imagery can influence our physiology. Engaging with the compassionate self encompasses various dimensions, including physical postures, vocal tone, expressions of tenderness, and corresponding actions. The practice of compassionate self-imagery has been assigned as assignment.

Session 5: (Compassionate courage): Cultivating the compassionate self to effectively engage with the cognitive and affective responses linked to the threat system. Exploration of automatic thoughts, reasons, and consequences, using compassionate self to respond to automatic thoughts. Participants were instructed to engage in image-based exercises focused on fostering compassion towards oneself and others, and they were encouraged to practice these exercises in the comfort of their own homes.

Session 6: (Compassionate Courage), Dealing, understanding, and responding to

dysfunctional attitudes with compassion and case formulation through role play. Participants were advised to substitute their safety behaviors by adhering to a case formulation designed to facilitate the transformation of their behavioral cycles.

Session 7: Compassionate fortitude, also referred to as compassionate assertiveness. Comprehending the elements of compassionate assertiveness in contrast to submissive and aggressive forms of expression. Practicing compassionate assertiveness through role plays. Participants engaged in the composition of compassionate letters and the subsequent sharing of these letters with others.

Session 8: We concised the program and formulated strategies to sustain the participants' endeavors. The objective of this session was to provide a comprehensive overview of previously acquired skills, to enhance awareness of the patients' competencies, and to gather feedback regarding available relaxation techniques.

Phase 4: **Evaluation phase**

Specifically, this post-test phase aimed to evaluate the effectiveness of a CFT-based psychological intervention in addressing dysfunctional attitudes and automatic thoughts in patients displaying depressive symptoms. The post-test was carried out immediately at the end of the intervention period by using the same pretest (tool 2, tool 3& tool 4).After completing the research, control group patients were informed that they could be given compassion-focused intervention training if they wished to, beside routine care such as taking medication and physical exercise.

Phase 5: **Follow-up phase**

The follow-up assessment was conducted two months subsequent to the conclusion of the intervention period utilizing the same post-test instruments (Tool 2, Tool 3, and Tool 4).

Statistical Analysis

The Statistical Package for the Social Sciences, version 20, was used for data analysis. In order to answer the research questions, descriptive statistics, and correlation coefficients were used. For the purpose of elucidating the subjects' characteristics, descriptive statistics were employed, which comprised percentage, arithmetic mean, standard deviation, and frequency. This included the participants' socio-demographic and clinical characteristics, self-compassion scores, the frequency of their automatic thoughts, and the existence of any abnormal attitudes. The relationships between the variables were investigated using a chi-square test. A p-value < 0.05 indicates a statistically significant difference, while a p-value < 0.001 indicates a highly statistically significant difference. The results are not statistically significant if the p-value is > 0.05.

Results

Table (1) Shows that (45.7 %, 40.0 %) were age <38 for the control group and age < 48 for the study group respectively, (60.0%, 77.1 %) of them were female for control and study group respectively. As regards marital status (82.9%, 74.2%) of them are married. Also (46.7%, 68.5%) of patients are worked for control and study group respectively, (40%, 40.0%) of them have secondary education and (48.6%, 57.3%) of them second birth order for control and study group respectively, also (77.2%, 88.6%) of them have nuclear family for control and study group respectively and (77.2%, 85.7%) of them are living with family for control and study group respectively. 74.3% and 71.5% of patients not have physical illness for control and study group respectively. As regards onset of symptoms (77.2%, 71.5%) of them suffer from > 2 years of symptoms for control and study group respectively. Also this table shows that (60.0%, 51.4%) of them not have social support for control and study group respectively.

Table (2) Illustrates that highly statistical significant difference between all negative automatic thoughts subscale pre, post, and follow-up intervention among the study groups.

Table (3) illustrates that highly statistical significant difference between all dysfunctional attitude subscale pre, post, and follow-up intervention among the study groups.

Table (4) illustrates that highly statistical significant difference between all self-compassion subscale pre, post, and follow-up intervention among the study groups.

Figure (1) illustrates that (48.6%) of the depressed patients had moderate negative automatic thoughts pre-program, while (54.3%) of them had low negative automatic thoughts post, and follow-up program implementation among the study groups.

Figure (2) illustrates that (57.1 %) of the depressed patients had moderate level of

dysfunctional attitude pre-program , while (54.3%, 57.1%) had low level of dysfunctional attitude post and follow-up program implementation among the study groups respectively.

Figure (3) illustrates that (48.6%) of the depressed patients had low level of self-compassion pre program, while (48.6%, 57.1%) of them had high level of self-compassion post and follow-up program implementation among the study groups respectively.

Table (5) reveals that, there is statistically significant positive correlation coefficient between depressed patients total automatic thoughts and dysfunctional attitudes among the study groups post and follow-up program implementation.

Table (1): Frequency distribution of depressed patient socio-demographic and clinical characteristics among control and study group

Items	Control group (n=35)		Study group (n=35)		X^2	P
	No	%	No	%		
Age						
• 18 - <28	6	17.1	6	17.1	17.65	<0.001**
• 28 - <38	16	45.7	11	31.4		
• 38 - <48	11	31.4	14	40.0		
• 48 - ≤58	2	5.8	4	11.5		
Mean ± SD	30.71± 6.56		32.71± 5.59			
Sex						
• Male	14	40.0	8	22.9	0.40	>0.05
• Female	21	60.0	27	77.1		
Marital status						
• Single	5	14.2	7	20.0	111.3	<0.001**
• Married	29	82.9	26	74.2		
• Divorced	1	2.9	1	2.9		
• Wildwood	0	0.0	1	2.9		
Occupation						
• Not work	19	54.3	11	31.5	1.42	>0.05
• Work	16	46.7	24	68.5		
Education level						
• Illiterate	1	2.9	2	5.8	19.0	<0.001**
• Basic education	12	34.3	9	25.7		
• Secondary education	14	40.0	14	40.0		
• University	8	22.9	10	28.5		
Birth order						
• 1	9	25.7	5	14.2	12.5	<0.001**
• 2	17	48.6	20	57.3		
• 3	9	25.7	10	28.5		
Size of family						
• Nuclear	27	77.2	31	88.6	30.2	<0.001**
• Extended	8	22.8	4	11.4		
Living with family						
• Yes	27	77.2	30	85.7	27.6	<0.001**
• No	8	22.8	5	14.3		
Physical illness						
• Yes	9	25.7	10	28.5	1.46	>0.05
• No	26	74.3	25	71.5		
Onset of symptoms						
• <1 year	0	0.0	0	0.0	1.90	>0.05
• 1-2 year	8	22.8	10	28.5		
• >2 years	27	77.2	25	71.5		
Social support						
• Present	14	40.0	17	48.6	1.52	>0.05
• Not present	21	60.0	18	51.4		
Compliance of medication						
• Yes	35	100.0	35	100.0	---	----
• No	0	0.0	0	0.0		

Table (2): Frequency distribution of depressed patients regarding negative automatic thoughts sub scale pre, post, and follow-up intervention among control and study group

Items	Control group (n=35)						Study group (n=35)					
	Preprogram		Post program		Follow up program		Preprogram		Post program		Follow up program	
	No	%	No	%	No	%	No	%	No	%	No	%
Negative self-concept												
• Low	4	11.5	5	14.3	5	14.3	4	11.5	13	37.1	11	31.4
• Moderate	20	57.1	20	57.1	20	57.1	21	60.0	19	54.3	20	27.1
• High	11	31.4	10	28.6	10	28.6	10	28.5	3	8.6	4	11.5
X^2	1.41				1.41		4.00				4.01	
P	>0.05				>0.05		**<0.001****				**<0.001****	
Confusion/ escape fantasies												
• Low	6	17.1	8	22.9	8	22.9	8	22.9	16	45.7	17	48.6
• Moderate	21	60.0	20	57.1	20	57.1	17	48.6	15	42.8	16	45.7
• High	8	22.9	7	20.0	7	20.0	10	28.5	4	11.5	2	5.7
X^2	1.73				1.73		3.74				4.00	
P	>0.05				>0.05		**<0.001****				**<0.001****	
Personal adjustment												
• Low	16	45.7	17	48.6	17	48.6	20	57.1	7	20.0	7	20.0
• Moderate	15	42.8	15	42.9	15	42.9	12	34.4	21	60.0	21	60.0
• High	4	11.5	3	8.5	3	8.5	3	8.5	7	20.0	7	20.0
X^2	1.41				1.41		4.13				4.13	
P	>0.05				>0.05		**<0.001****				<0.001**	
Desire for change												
• Low	20	57.1	19	54.3	19	54.3	19	57.1	7	20.0	7	20.0
• Moderate	13	37.1	12	34.3	13	34.3	14	37.1	22	62.9	22	62.9
• High	2	5.8	4	11.4	4	11.4	2	5.8	6	17.1	6	17.1
X^2	1.73				1.73		4.00				4.00	
P	>0.05				>0.05		**<0.001****				**<0.001****	
Negative expectation												
• Low	5	14.3	7	20.0	7	20.0	2	5.7	12	34.3	12	34.3
• Moderate	21	60.0	19	54.3	19	54.3	17	48.6	18	51.4	17	48.6
• High	9	25.7	9	25.7	9	25.7	16	45.7	5	14.3	6	17.1
X^2	1.41				1.41		4.58				4.60	
P	>0.05				>0.05		**<0.001****				**<0.001****	

Table (3): Frequency distribution of depressed patients regarding dysfunctional attitudes sub scale pre, post, and follow-up intervention among control and study group

Items	Control group (n=35)						Study group (n=35)					
	Preprogram		Post program		Follow up program		Preprogram		Post program		Follow up program	
	No	%	No	%	No	%	No	%	No	%	No	%
Achievement	3	8.6	4	11.5	4	11.5	4	11.5	18	51.4	17	48.6
• Low	21	60.0	21	60.0	21	60.0	19	54.2	12	34.3	12	34.3
• Moderate	11	31.4	10	28.5	10	28.5	12	34.3	5	14.3	6	17.1
• High												
X^2	1.38				1.38		5.00				4.90	
P	>0.05				>0.05		**<0.001****				**<0.001****	
Dependency												
• Low	12	34.3	11	31.4	11	31.4	7	20.0	19	54.4	19	54.4
• Moderate	18	51.4	15	42.9	15	42.9	21	60.0	10	28.5	10	28.5
• High	5	14.3	9	25.7	9	25.7	7	20.0	6	17.1	6	17.1
X^2	1.32				1.32		4.95				4.95	
P	>0.05				>0.05		**<0.001****				**<0.001****	
Self-control												
• Low	3	8.6	4	11.4	4	11.4	4	11.5	17	48.6	17	48.6
• Moderate	22	62.9	22	62.9	22	62.9	21	60.0	12	34.3	12	34.3
• High	10	28.5	9	25.7	9	25.7	10	28.5	6	17.1	6	17.1
X^2	1.11				1.11		**4.70**				**4.70**	
P	>0.05				>0.05		**<0.001****				**<0.001****	

Table (4): Frequency distribution of depressed patients regarding self-compassion sub scale pre, post, and follow-up intervention among control and study group

Items	Control group (n=35)						Study group (n=35)					
	Preprogram		Post program		Follow up program		Preprogram		Post program		Follow up program	
	No	%	No	%	No	%	No	%	No	%	No	%
Self-kindness												
• Low	4	11.5	4	11.5	4	11.5	13	37.1	8	22.9	8	22.9
• Moderate	21	60.0	21	60.0	21	60.0	19	54.3	12	34.3	12	34.3
• High	10	28.5	10	28.5	10	28.5	3	8.6	15	42.8	15	42.8
X^2	…..				…..		4.00				4.00	
P							**<0.001****				**<0.001****	
Humanity												
• Low	6	17.1	6	17.1	6	17.1	16	45.7	8	22.9	7	20.0
• Moderate	26	74.3	26	74.3	26	74.3	15	42.8	10	28.5	11	31.4
• High	3	8.6	3	8.6	3	8.6	4	11.5	17	48.6	17	48.6
X^2	…..				….		3.74				3.80	
P							**<0.001****				**<0.001****	
Mindfulness												
• Low	12	34.3	12	34.3	12	34.3	20	57.2	8	22.9	7	20.0
• Moderate	18	51.4	18	51.4	18	51.4	10	28.5	21	60.0	21	60.0
• High	5	14.3	5	14.3	5	14.3	5	14.3	6	17.1	7	20.0
X^2	……				……		4.16				4.13	
P							**<0.001****				**<0.001****	
Wisdom												
• Low	5	14.3	7	20.0	7	20.0	12	34.3	6	17.1	8	22.9
• Moderate	21	60.0	19	54.3	19	54.3	18	51.4	12	34.3	12	34.3
• High	9	25.7	9	25.7	9	25.7	5	14.3	16	45.6	15	42.8
X^2	1.45				1.45		4.58				4.65	
P	>0.05				>0.05		**<0.001****				**<0.001****	

Figure (1): Distribution of the depressed patients according to their total negative automatic thoughts pre, post, and follow-up program implementations among both groups

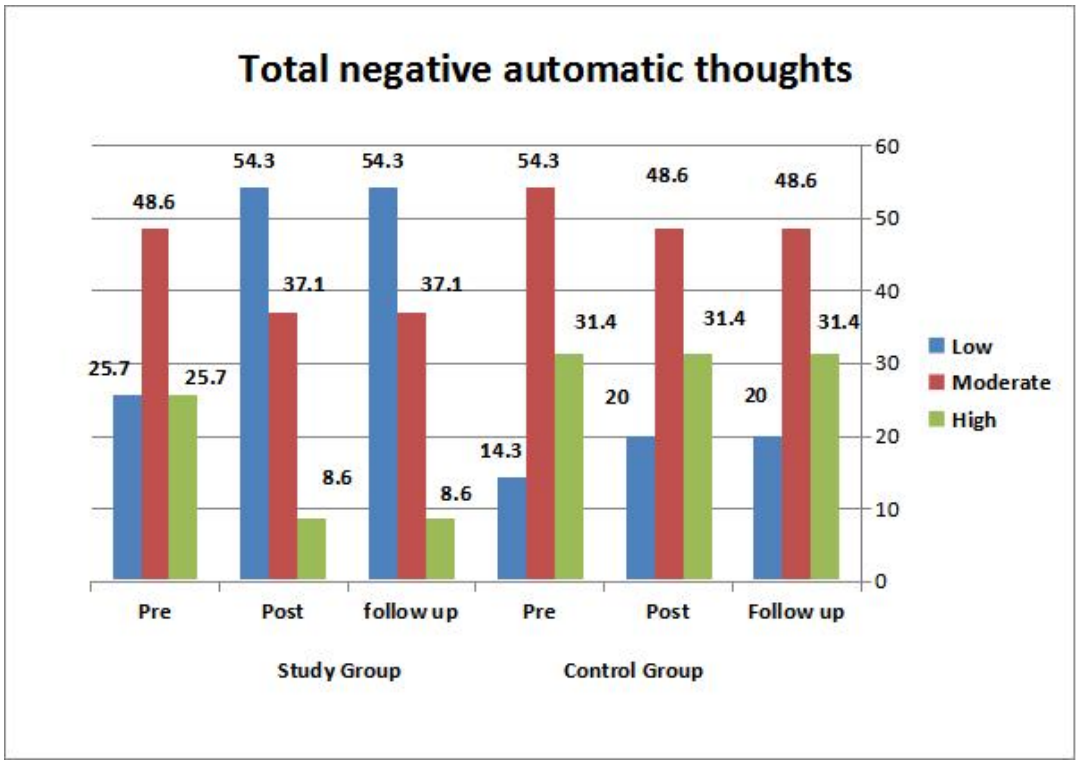

Figure (2): Distribution of the depressed patients according to their total dysfunctional attitudes pre, post, and follow-up program implementations among both groups

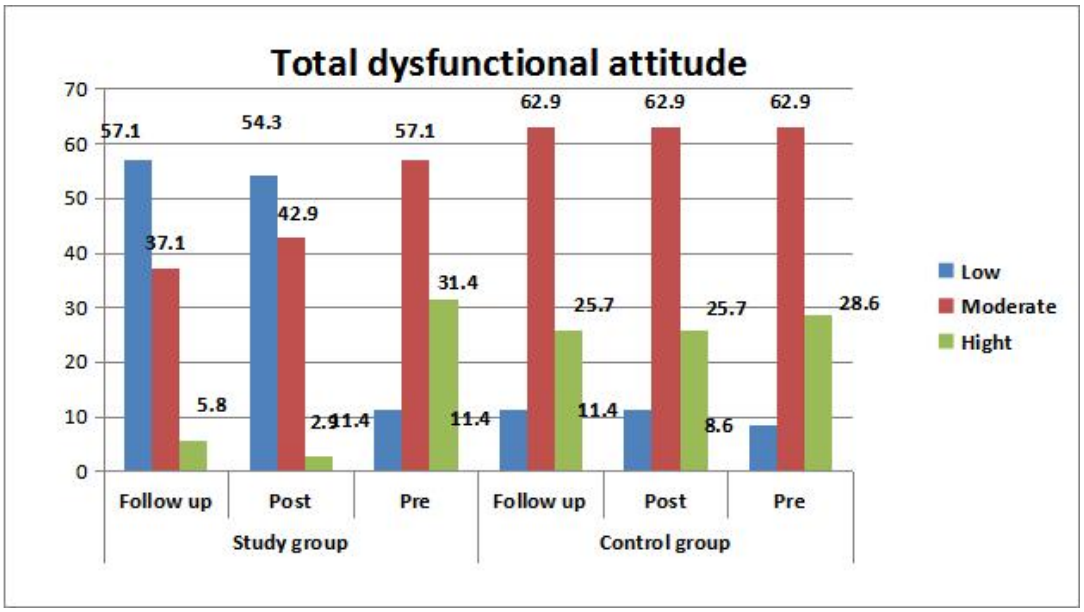

Figure (3): Distribution of the depressed patients according to their total self-compassion pre, post, and follow-up program implementations among both groups.

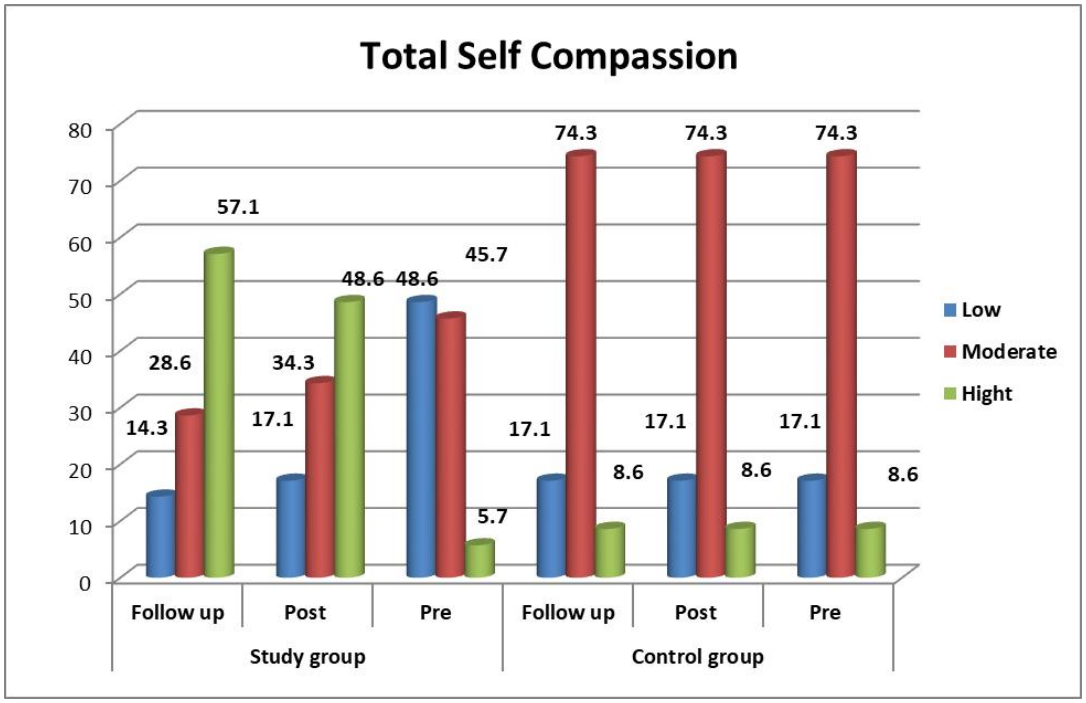

Table (5): Correlation between depressed patients total self-compassion, their total automatic thoughts and dysfunctional attitude pre, post, and follow-up program implementation among study group

Total self-compassion	Total automatic thoughts				Total dysfunctional attitude			
	Pre program		Post program		Pre program		Post program	
	r	P	r	P	r	P	r	P
• **Pre program**	0.13	>0.05	0.01	>0.05	0.00	>0.05	0.06	>0.05
• **Post program**	0.17	>0.05	0.73	**<0.05***	0.01	>0.05	0.69	**<0.05***
• **Follow up program**	0.17	>0.05	0.74	**<0.05***	0.02	>0.05	0.70	**<0.05***

Discussion

In many populations, self-compassion is crucial for reducing stress, anxiety, and depressive symptoms **(Biddle et al.,2020).** A self-compassionate mindset helps people cope with adversity and influences their mental health, psychological issues, negative automatic thoughts, self-esteem, and dysfunctional self-attitudes **(Farhadi, 2023).** When someone has a high degree of self-compassion, they can approach failure or interpersonal difficulties with compassion, understanding failures or difficulties without becoming overly personal. They can also maintain a balance between positive and negative aspects without becoming overly negative in their thinking **(GÜLER, 2022).**

In this study, we found that less than half of the patients in the control group were under the age of 38, and similarly less than half of the patients in the study group were under the age of 48. More than fifty percent of the sample consisted of females, with the control group comprising over one-third of female participants, while the study group included a greater proportion of females. This may be attributed to the fact that women are twice as likely to develop depression compared to men.

This could be caused by a number of reasons, such as hormonal variations, socialization, social roles, coping strategies, and stress in daily life but it's also critical to remember that women are more likely than men to seek treatment, and that men's depression might manifest differently, meaning that males may frequently receive an inadequate or incorrect diagnosis. This was consistent with the findings of **(Han & Kim, 2023)** which indicated that all patients in the study group were female and that less than half of the patients were aged 36 in the study group and 34 in the control group.

Concerning marital status, the current study demonstrated that over two-thirds, and approximately three-quarters, of the participants were married. Also less than half and about two thirds of patients were working for control and study group respectively, more than one third of them have secondary education and about half , more than half of them second birth order for control and study group respectively.

This could be because the investigated sample's age was appropriate for marriage and they were employed, as employment has now become a need. This was contradicted with **(Kalatian et al.,2022)** the analysis revealed that the educational attainment of the sampled population was distributed as follows: more than half were completed elementary education, and one third were classified as illiterate. Additionally, majority of the sample lived alone due to the loss of a spouse.

This study showed that there were highly statistically significant differences in each negative automatic thought sub-scale within the study group before, after, and during the follow-up intervention. This response may be due to that intervention was effective in changing participants' cognitive patterns, specifically by reducing negative automatic thoughts. These improvements were not only immediate but also maintained over time, showing that the participants internalized the changes, and the intervention had a lasting impact on their thought processes.

This response could be due to the compassionate courage practices, aimed at reshaping how people process and respond to negative thoughts. This was consistent with the

view of **(Saw et al.,2020)** demonstrated that there was a highly statistically significant difference among all automatic negative thoughts sub-scale pre, mid, post-intervention, and finally 1-month follow-up.

Furthermore, **(Budak et al.,2024)** demonstrated that there were highly statistically significant differences in all negative automatic thought sub-scale scores between the study groups before, after, and at follow-up intervention. and, it was in line with **(Veshki & Shavandi, 2021)** which demonstrated how compassion focused therapy assisted individuals in experiencing fewer negative emotions (the aspect of human commonalities) in light of the possibility that people will object and that everyone will make mistakes and poor decisions. As a result, individuals will be better able to manage their negative emotions.

The present study found that there was a highly statistically significant difference between all dysfunctional attitude sub-scale pre, post, and follow-up intervention between the study groups. This may be due to that the intervention appears to have been highly effective, and the statistical significance suggests that the improvements in dysfunctional attitudes are not due to random chance but to the intervention's impact.

This was consistent with the results of **(Kürümlüoğlugil & Tanrıverdi, 2021)** which showed highly statistically significant differences between all dysfunction attitudes sub-scale at pre, post-intervention, and follow-up in the study group. This result was inconsistent with **(Kuribayashi et al.,2020)** showed that the program failed to show significant intervention effects on the dysfunctional attitudes sub-scale scores before, after, and during follow-up intervention.

The current study showed that there was a highly statistically significant difference between all self-compassion sub-scale pre, post, and follow-up intervention between the study groups. This response might indicate that the intervention was highly effective in increasing self-compassion among participants. Even more than that, the intervention helped participants reduce self-criticism, foster more positive self-views, and build emotional resilience. The changes were sustained at follow-up, showing that the participants internalized and applied the self-compassion practices they learned. This lasting effect points to the intervention's effectiveness in creating deep-lasting shifts in how people treat themselves, which are central to well-being and emotional health. This response was consistent with the direction of **(Super et al.,2024)** explained that there were significant group effects for the overall self-compassion measure sub-scale pre, post, and follow-up intervention. Moreover, **(Othman et al.,2023)** explained that five of the six sub-categories of the self compassion scale (self-kindness, self-judgment, common humanity, isolation, and over-identification) showed a significant ($p < 0.001$) improvement pre, post, and follow-up the intervention for the study group.

The current study showed that, within the study group, more than half of the sample had low negative automatic thoughts post and follow-up program implementation, but fewer than half of the depressed patients had moderate negative automatic thoughts before the program. This could be because compassion lessens the consequences of unpleasant emotions by regulating negative affect through compassionate activities that teach people how to express, share feelings of warmth and safety.

This was confirmed by **(Millard et al.,2023)** study that focused solely on clinical populations. The results indicated that CFT was better on waiting-list control in improving compassion-based outcomes and clinical symptomatology in individuals with mental health issues, both at baseline and after the intervention. Also, **(Irfan, 2019)** illustrated that negative automatic thoughts and depressive symptoms were positively correlated to each other. Moreover, **(Yavuzer & Karatas, 2017)** showed that there were positive correlations between the students' depressive symptoms and automatic thoughts scores.

According to the current study, more than half of depressed patients had low levels of dysfunctional attitudes post and follow-up program implementation, but more than half of them had moderate levels of dysfunctional attitudes prior to the program. This might be

the result of a self-compassion centered therapy program that assisted depressed patients in reducing their dysfunctional attitudes. This was consistent with the findings of **(Liu et al.,2020)** discovered that following a self-compassion training program, the major depressive disorder group's dysfunctional attitudes score total significantly decreased.

The present study showed that less than half of the depressed patients had low level of self-compassion pre program, while about half of them and more than half of sample had high level of self- compassion post and follow-up program implementation among the study groups respectively. This might be because practicing self-compassion helps depressed people identify when they are suffering and be nice to themselves at those times, which lowers their anxiety and associated depression. Self-compassion also has various positive effects on mental and physical health.

This was consistent with the findings of **(Farhadi et al.,2023)** which demonstrated the effectiveness of self-compassion focused therapy in reducing cognitive vulnerability to depression ($P < 0.01$, $F = 22.78$). Furthermore, **(Han & Kim's,2023)** study found that self-compassion focused interventions had moderate to low impacts on reducing anxiety, stress, and depression symptoms at the immediate post-test compared to control conditions, and small effects on reducing depressive symptoms and stress at follow-up.

Within the study group, both before and after and follow up the program was implemented, there was a statistically significant positive correlation coefficient between dysfunctional attitudes and depressed patients' total automatic thoughts. This means that when automatic thoughts increase, dysfunctional attitude also increase. This was congruent with **(Kürümlüoğlugil & Tanrıverdi, 2021)** which found that patients in the treatment group had significantly fewer dysfunctional attitudes, negative automatic thoughts, and interpersonal cognitive distortions in the post test and follow up ($p < 0.05$) than patients in the control group.

Additionally, **(Alijani & Ranjbarkohan, 2022)** demonstrated the efficacy of compassion-focused therapy (CFT) in treating negative automatic thoughts and dysfunctional attitudes in patients suffering from major depression; subsequent research confirmed the efficacy of CFT in treating negative spontaneous thoughts and dysfunctional attitudes in these patients.

This result was consistent with **(Shafique & Bibi, 2020),** that showed a positive correlation between dysfunctional attitudes and confusion escape but no significant correlation with other sub-scales of automatic thoughts. Besides, dysfunctional attitudes were positively and significantly correlated with automatic thoughts. Furthermore, research by **(Farhadi et al.,2023)** proved that self-compassionate-focused therapy (CFT) and compassionate-mind training were effective in reducing and modifying maladaptive cognitive patterns, faulty attitudes, dysfunctional relationships, and negative self-perceptions.

Conclusion

Based on the finding of the present study, it was concluded that,

There was a highly statistically significant difference between the study group's pre and post-intervention scores on all sub-scales measuring automatic negative thoughts and dysfunctional attitudes and the patient with depressive symptoms who shared in the program improved their dysfunctional attitudes and automatic thoughts than those who were in control group. There was statistically significant positive correlation coefficient between depressed patients total automatic thoughts and dysfunctional attitudes among the study groups post and follow-up program implementation.

Recommendation

In relation to the findings and conclusions of the present investigation, the study recommends the following:

- The psychiatric nursing staff should implement compassion-focused intervention program in all psychiatric hospitals of Egypt for patients with depressive symptoms in order to improve their symptoms, reduce negative automatic thoughts, and dysfunctional attitudes.

- There is a need to apply compassion-focused therapy training program for all people according to their age groups to help them in dealing with their negative automatic thoughts, dysfunctional attitudes, and any stressful experiences in daily life.
- The effectiveness of compassion-focused intervention in this study should be compared with other psycho-therapeutic approach.

Suggested further study

Replication of the study using a larger sample in different settings to generalize the results.

Limitation of the study

The use of non-random and purposive sampling could also pose problems for generalization.

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