Effectiveness of Intervention Based Cognitive Behavior Therapy (CBT) Module among Females with Major Depressive Disorder in Pakistan

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ABSTRACT

Purpose. The present research was conducted to examine the effectiveness of intervention based Cognitive Behavior Therapy (CBT) module in treating signs of depression among females with major depressive disorder. **Method.** Qusai experimental (pretest-posttest) research design was used in the present study. Females (age range; 25-40 years) suffering from moderate level of major depressive disorder were selected through random and stratified sampling strategy. Demographic sheet, DSM-5 checklist, visual analogue scale and beck depression inventory were used as an assessment measure in this study. **Results.** Statistical analysis revealed significant results. Findings showed that cognitive behavioral therapy alleviated depression symptoms among females with major depressive disorder. Females who received cognitive behavioural therapies scored lower on the Beck Depression Inventory than females who did not get any interventions, according to the findings. This suggests that Cognitive Behavioral Therapy (CBT) is useful for ladies suffering from serious depression. **Novelty/Originality of The Study.** The main goals of the first treatment interview develop a warm collaborative therapy connection, identify particular problem sets and associated goals, psycho-educate the patient about the cognitive model and vicious cycle that keeps depression alive, and give the patient an idea about future treatment methods. CBT is divided into three sections: beginning treatment, behavioural interventions, and working with negative automatic thoughts, used cognitive restructuring and ending sessions. **Implications.** The current treatment will demonstrate significant decreases in depressive symptoms and endorsement of faulty metacognitive beliefs between baseline and posttreatment, as well as, in the follow-up.

KEYWORDS: Cognitive Behavior Therapy, Detached Mindfulness, Females, Major Depressive Disorder, Pakistan.

INTRODUCTION

According to IHME, depression affects 3.8 percent of the global population in 2021, with 5.0 percent of adults and 5.7 percent of people over 60 years suffering from it. According to IHME, about 280 million people globally will be depressed by 2021. Normal mood swings and short-term emotional responses to everyday hardships are not the same as depression. Depression can be harmful to one's health, especially if it lasts for a long time and is moderate or severe. It can cause extreme suffering in the person who is affected, as well as poor performance at work, school, and in the family. In the worst-case situation, depression can lead to suicide. Every year, over 7,00,000 people commit suicide. Suicide is the fourth leading cause of mortality among people between the ages of 15 and 29.

Lacko et al. (2018) discovered that more than 75% of people in low- and middle-income nations do not receive therapy, despite the fact that there are established, effective interventions for mental issues. Ineffective treatment is hampered by a lack of funds, a paucity of trained health-care practitioners, and the societal stigma associated with mental diseases. In countries of all income levels, those with depression are regularly misdiagnosed and given antidepressants, while individuals who do not have the disorder are commonly misdiagnosed and given antidepressants.

According to Norman et al. (2021), major depressive disorder (MDD), sometimes known as depression, is a mental illness characterized by persistently low mood, low self-esteem, and a loss of interest or pleasure in normally pleasurable activities lasting at least two weeks. Depression is currently the largest cause of disability worldwide, according to the World Health Organization (2017). Conference Board of Canada, 2015; Greenberg et al., 2015. If left untreated, the illness can be extremely painful for both the patient and their family. In several developed countries, such as Canada, evidence-based managements are widely available; however, gaps in the quality of care persist, such as a large number of people with depression receiving psychological health maintenance that does not meet the basic criteria for treatment suitability established by Thornicroft et al. (2017); Puyat et al (2016). In the general population, women have a 10% -25 percent probability of acquiring depression, while men have a 5% -12 percent chance. However, patients with long-term problems have a 25% -33 percent chance of developing depression (WHO, 2017).

Depression is a psychological health illness wherein low mood and low energy can influence an individual's cognitions, emotions, performance and sense of happiness. It is considered through insomnia, change in appetite, lethargy, irritability, lack of concentration, poor

decision-making power and even suicidal ideations. Depression is a common mental health disease effecting over 350 million individuals from all age groups in Pakistan by Saleem et al. (2014). Unipolar depressive illness is likely to be the main important reason of illness problem through the year 2014. Clear as one of the most usual anonymous psychological health issues in Pakistan, screened through enduring diseases and emotional conflicts, depression shows a most important role in worsening the prognosis of enduring illnesses. Depression is a major cause of disability in low-income countries like Pakistan. Adult depression is difficult to detect; some younger children pretend to be ill and worry about their parents' deaths; older children avoid family and social activities, take drugs, and cease caring about their appearance (Saleem et al. 2014).

Furthermore, due to a lack of resources to spend in health, Pakistan has had several significant crises in the last two years. A massive earthquake struck the country in 2005, while catastrophic floods ravaged the country in 2010. Terrorism and violence on a large scale (2000–2014) did not even demolish schools and colleges. In 2014, a terrorist attack on an Army public school in Peshawar killed over 100 children, making it the world's deadliest terrorist incident. Terrorists assaulted a university in the northwest of the country in 2016, killing 19 students and instructors. An entire generation in Pakistan has grown up in an insecure and unpredictable environment. Cities are home to over 70% of the population. Due to current socioeconomic concerns, Pakistan, like other developing countries, has a higher incidence rate of depression. According to Mirza and Jenkinson (2014), the total prevalence of depressive diseases and anxiety in Pakistan was 34% (range 29-66 percent for females and 10-33 percent for males).

Additionally, depression can influence each part of a female's life comprising physical health, social relations, associations, career, and feeling of self-esteem and is difficult through different aspects such as reproductive hormones, societal burdens, and the single female response to stress. Suicide is one of the most common mental health crises, with one person dying every 40 seconds. Low- and middle-income countries account for four out of every five suicides. Despite the fact that religion is a protective factor against suicide, the estimated number of suicides among Pakistani females is rapidly growing (Safdar et al. 2021).

Cukor et al. (2017); Haynes, (2015); Hofmann et al. (2016) define CBT is a style of psychotherapy that assists patients in dissecting the relationships between their emotions, cognitions, and behaviours in order to recognise and reframe unreasonable and self-defeating thoughts, thereby improving their mood and changing their behaviors. Through research and clinical practise, CBT has been found to be effective in reducing symptoms and relapse rates in a

variety of mental diseases, including major depressive disorder (Knapp and Beck) (2008). For acute depression, Churchill et al. (2010) compared the efficiency and acceptability of cognitive behavioural therapies (CBTs) to all other psychological therapy techniques.

Several studies have recommended various psychological methods to alleviate melancholy and anxiety, including Creswell and Lindsay's Cognitive Behavioral Therapy (CBT) (2014). Patients benefit from CBT because it helps them identify their faulty thought processes and dysfunctional behaviours. CBT is based on changing one's thought process. According to this theory, the experience of action is insufficient; rather, it is an individual's interpretation of that experience that causes a psychological sickness. CBT (cognitive behavioural therapy) is a sort of treatment that helps people analyze and interpret critical life experiences (Galhardo et al. 2013).

Cognitive behavioural therapy focuses on changing automatic negative thought patterns that can aggravate emotional issues, depression, and anxiety. Detrimental thoughts that are unreasonable have a negative impact on one's mood. CBT detects and confronts these thoughts, then replaces them with more objective, realistic ones. CBT has been demonstrated to help those with insomnia as well as those who have a general medical condition that keeps them awake at night, such as pain or mood disorders like depression (Trauer et al. 2015).

As an author's opinion about the current research was having to a strong image about the effectiveness of intervention-based CBT module among females with Major depressive disorder. A few types of researches conducted on females with major depressive disorder in Pakistan by Rehman et al. (2021). Females faced many problems due to this disease such as, family, social, psychological, spiritual, physical and economical. Adults' high self-efficacy and empathy leads them towards high satisfaction by Qamar and Sana, (2020) but when they failed to achieve this then they tend to perceive suicidal thoughts. Generally, According to Gadit and Mumford, (2006) 5-10% of the population suffers from clinical depression at any given moment, necessitating psychiatric or psychosocial care. Females suffer from depression at a higher rate than males. According to the World Health Organization, (2017) women have a 10-20 percent lifetime risk of having depression. So, the purpose of the current research was to discover the experiences of intervention-based CBT module among females with Major depressive disorder.

In this section, as a researcher I describing the reason to choose this topic. Why it involved me likewise my intentions in this procedure to create all my expectations, opinions, and experience transparent to the patients. The concept of this study project arose in my mind when my females' patients used to discuss the problems of their depression. Society has a lack of information and

awareness about major depressive disorder, and they considered it is the normal. Media morning shows, medical research articles, weblogs, dramas, movies and news articles also inspired me to investigate females' depressive problems and experiences. My supervisor in hospital was also interested to explore the issues of female's patients with major depressive disorder so she suggested me to do research on this topic. This idea strengthened when my best friend shared that her sister's has suicidal ideation and also committed suicide and she faced many problems and difficulties due to this and everyone advised her for coping. The family attitude towards her was not healthy and supportive. In Pakistan the tendency of depression is higher among women comparatively men by Gadit and Mumford (2006). Here is need to create awareness and provide family, social and emotional support to these types of individuals.

METHODOLGY

Design and Setting

The present research aims to study the effectiveness of cognitive behaviour therapy (CBT) in females with major depressive disorder. Therefore, Qusai experimental research used a (One-Group Pretest-Posttest) research design in the current study. CBT was delivered in an Outpatient Department (OPD) setting with scheduled sessions. Each session lasted about two hours, depending on the patients' and therapists' appropriateness. CBT was also used to treat comorbid disorders of major depressive disorder in some cases.

One-Group Pretest-Posttest Design Showed in Figure 1 explains the intervention process of the study groups:
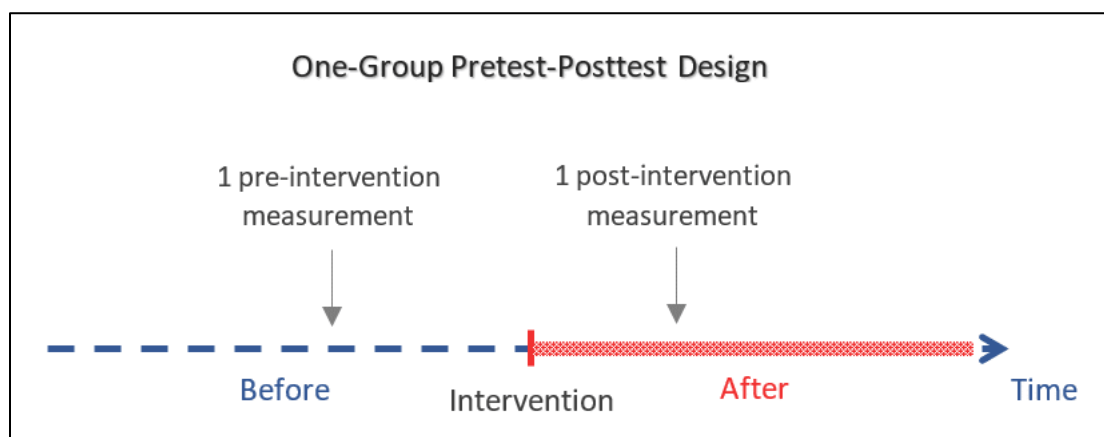
Figure 1

Figure 1 Showed One-Group Pretest-Posttest Design (Campbell & Stanley, 1963)

Study Groups

Treatment group one and control group one was administered intervention by a known trainer. The quasi-experimental study on treatment group and control group with a trainer was conducted at Captain Mouzam Ali Shaheed (Welfare Trust) Hospital, Jhelum which is situated in Punjab Province of Pakistan. CBT sessions were conducted in Urdu language. Total (n=10) participants were be divided into two smaller groups consisting of 5 members each (experimental group n=05, control group=05).

Sample and Sample Size

The population of the study were females with major depressive disorder in Jhelum, Pakistan. The population size of females with major depressive disorder in Pakistan is depend on approximate figures, where currently 75% of the females in Pakistan are suffering from major depressive disorder, and precisely, there is no accurate depression statistics for females with major depressive disorder in Jhelum, despite the rampant problem by Bushra et al. (2018).

Exclusion Criteria for the Study

Participants ages range from married females 25-40 years of age by Zahidie and Jamali, (2013) and those who will fulfill the criteria for clinical depression with mild to moderate depression score by the Beck Depressive Inventory were included in the study. It was determined that none of them had any other clinical disorder with decreased functioning after administering clinical interviews and screening tests. Psychopathology diagnoses such as depression with psychotic symptoms, bipolar disorder, and others were eliminated. Any incidences of cognitive impairment associated with physical sickness were also ruled out.

Assessment Measures

Demographic Questionnaires

A set of queries will establish to get appropriate demographic information regarding females with major depressive disorder. Participants details included age, marital status, socioeconomic status, family background and duration of illness etc.

Diagnostic and Statistical Manual Checklist (DSM-5 Checklist; Arlington, 2013)

The Diagnostic and Statistical Manual of Mental Disorders (DSM-V) has diagnostic criteria for Major Depressive Disorder. This checklist is used by patients to review their diagnostic evaluation. Mark the box if the symptom is "obviously evident." Mark the box "sustained" if the symptom has been present for at least two weeks, every day, for the majority of the day. Five of the nine criteria from Section A must be marked as "clearly present" and "maintained" for a diagnosis of MDD to be present. Criteria B and C must also be fulfilled. Items C, D, and E must also be readily visible.

Beck Depression Inventory (BDI-II; Beck et al, 1961)

The Beck Depression Inventory was formerly established by Beck et al. (1961). The Beck Depression Inventory (BDI) has 21-questions, self-report assessment checklist that measure characteristic attitudes and symptoms of depression. The Cronbach alpha reliability of this scale is (α= .80).

Arrangement of the Sessions

The following session summary is based on Naeem, (2010) Kingdom's Cognitive Behavioral Therapy Urdu Manual.

No. of Sessions	Session's Tasks
Session# 1	Rapport building, history taking, MSE, visual analogue, homework (DTR)
Session# 2	Review of homework, formal assessment (BDI-II), finalizing diagnosis, Psychoeducation
Session# 3	Introducing members, goal of sessions, explanation intervention plan, brochure and homework practices.
Session# 4	Discussion of homework of prior session, training of cognitive restructuring and mindfulness practices awareness and its application, Brochure and homework practices.
Session# 5	Review homework of prior session, problem solving method strategy, explaining the logic of problem-solving method strategy and its application, Brochure and homework practices.
Session# 6	Discussion of homework of prior session, training of CBT guidance and association techniques of distraction, awareness and its application, brochure and homework practices
Session# 7	Discussion of homework prior to session, training of imagination and looking at the thoughts using techniques of thought v/s challenges and awareness, brochure and homework practices.
Session# 8	Discussion of homework of prior session, relapse prevention management.
Session# 9	Discussion of homework of prior session, therapy blueprint and guide about follow up.
Session# 10	Discussion of homework of prior session, summarizing and answer the final questions of patients.

RESULTS AND DISCUSSION

Cognitive behaviour therapies are beneficial in reducing depression symptoms in females, according to scientific observation and analysis of the data. The uniqueness of the CBT Intervention Module is in its emphasis to decrease clinical depression and comorbid (stress and anxiety) in the Pakistan context. Table 1 below highlights studies that have conducted CBT therapeutic interventions which supported the findings of this study.

Table. 1

Independent Sample t-test between Demographic Variable Gender and Study Variables (n=100)

Gender	t	df	p	Confidence Internal

	t	df	p	LL	UL
Depression	-.29	08	.02	-17.65	-13.65

Note: t= Statistical Difference, df= Degree of Freedom, p= Significance Value, LL= Lower Limit, UL= Upper Limit. *p<0.05. p<0.01.

An equal variances t test revealed a significant statistical reliable difference between the mean of treatments assessment for pretreatment depression (M=32.52, s=14.73) and posttreatment depression (M=14.00, s=1.26), t (-.19) =1.31, *p*=.05, α=.05.

In Pakistan, one out of every three people suffers from anxiety or depression. During the current research, we conducted three free camps in Jhelum, Pakistan. In initial phase of our study, we assessed (n=134) married females with major depressive disorder in Jhelum, Pakistan. In Pakistan, socioeconomic difficulties and interpersonal issues are the most significant risk factors for anxiety and depressive disorders. Mirza and Jenkins (2014) found that 33% of Pakistanis suffer from depression, based on an examination of over 20 studies. An analysis of the literature revealed that females are more likely than males to suffer from depression. Furthermore, Ayman and Mansour (2009) conducted research in Jordan on the effectiveness of cognitive behavioural therapy (CBT) with university students with moderate to severe depressive symptoms was investigated, and it was discovered that employing CBT resulted in a considerable improvement in the end measures. After the session, students reported less stress, sad symptoms, less use of avoidance coping strategies, and increased use of approach coping approaches.

Table 2

Studies that Conducted CBT Therapeutic Interventions

Author	Study	Intervention Duration	Session Time	Number of Sessions	Group Size
Gautam etal., (2020)	Cognitive Behavioral Therapy for Depression	3 months	1 hour	10 sessions	10
Ackerman (2021)	Cognitive Behaviour Therapy	2 and a half months	35-45 minutes	10 sessions	12
Skedel and Byars (2021)	CBT For Depression	3 and half months	45-55 minutes	15-20 sessions	30

Latif et al. (2017)	The Efficacy of Group Cognitive Behaviour Therapy (CBT) On Anxiety and Depression Symptoms in Women Affected by Domestic Violence	3 months	60-90 minutes	10 sessions	100

CONCLUSION

Depressive symptoms are common in females with major depressive disorder. Higher level of psychopathological distress is strongly associated with depression. Results of this research suggested that here is a high need to assess depressive signs among females and enhance cognitive behaviour therapy techniques among females in the initial assessment to prevent major depressive disorder.

LIMITATIONS OF THE STUDY

There are numerous limitations in this research which need to be considered. Firstly, we measured clients only from a single tertiary hospital. Though captain mouzam hospital, one of the main hospitals in Jhelum, is a therapeutic Centre where individuals come from all parts of the city, we believe that including other hospitals would have increased the strength of results and supported to generalize the results. Secondly, results of this research may not be appropriate to other states in the area, or even to different areas of Pakistan.

ACKNOWLEDGEMENT

DECERATIONS

Author Contribution Statement

Tania Qamar: Comprehended and intended the research; Completed the research; resources, analysis tools or data; Wrote the article.

Assoc Prof. Dr. Saralah Devi Mariamdaran Chethiyar: Analyzed and interpreted the data, Review Paper

Dr. Nabisa Binti Ibrahim: Review Paper

Funding Statement

This study did not receive any specific support from government, commercial, or not-for-profit funding bodies.

Declaration of Interests Statement

There are no conflicts of interest declared by the researchers.

Additional Information

There is no additional information available for this paper.

Data Availability Statement:

Data accessible on demand because of confidentiality/ethical limitations. The data that support the results of this research is accessible on demand from the corresponding author. The data is not openly accessible because of confidentiality/ethical limitations.

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