Spiritually Integrated Cognitive Behavior Therapy for Treatment of Depression in a Male Patient with Cardiac Illness and Diabetes

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This case study aimed to ascertain the effectiveness of spiritually integrated cognitive behavior therapy (SICBT) in the treatment of depression in a male patient with cardiac illness and diabetes. It was hypothesized that there would be a significant difference in the level of depression reported by a male patient with cardiac illness and diabetes before and after being treated with spiritually integrated cognitive behavior therapy (SICBT). This case study was carried out at a private hospital in Karachi, Pakistan. The patient in this case study was a 49 year old man. A semi-structured interview and Depression in Chronic llnesses Scale (DCIS; Yaseen, 2014) were used as pre and post measures. Techniques from spiritually integrated cognitive behavior therapy (SICBT) (Good, 2010) were adapted to alter negative thoughts and modify behavior. Post treatment assessment indicated an improvement in the patient's overall functioning and showed remarkable reduction in symptoms of depression. Patient reported gaining insight and having control over negative thinking. Based on the post treatment assessment, it can be concluded that SICBT can be an effective approach to treat depression in patients with cardiac illness and diabetes. It is critical to note that the factor of subjective inclination towards spirituality needs to be considered while drawing any conclusion.

Keywords: spirituality, cognitive behavior therapy, depression, cardiac illness, diabetes

Depression has become the key cause of worldwide disability and affects individuals of all ages, and countries from all walks of life (Farahzadi, 2017). People experience depression in different ways as it affects daily life, productivity, relationships, and some chronic health conditions. There are many causes of depression ranging from brain related factors to environmental factors (Marcus et al., 2012). Common etiology includes personal or family history, early childhood trauma, and low self-esteem, being self-critical, stressful events, certain medication or drug, and/or medical conditions such as cardiac illness or cardiovascular diseases, which is a general term that refers to conditions affecting the heart or blood vessels (Huffman et al., 2013).

Depression is a common occurrence among patients with cardiac diseases (Bekelman et al., 2007). Prevalence of depression is 13.9 % to 36.5 % in patients with heart failure diseases (Bekelman et al., 2007). In addition, depression in patients with cardiac diseases results in poor quality of life, with a decline in health status and social functioning (Farahzadi, 2017). Many patients with cardiac diseases feel worried and anxious as well. This is because cardiac illnesses have become the leading causes of morbidity and mortality across the globe. Many researches show a direct association of cardiac illnesses with psychological illnesses and have been observed to be caused by one another. However, the exact nature of the link is still unknown (De Hert et al., 2018).

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Individuals with chronic medical conditions are more likely to be depressed as compared to healthy people. Type 2 diabetes mellitus (T2DM) is one such medical condition. T2DM patients are two times more likely to develop depression than the general population. The cause-and-effect relationship between these two entities remains unclear as to whether diabetes increases the risk of depression or depression increases the risk of diabetes. Despite the well-known association, physicians often fail to recognize and appropriately address depression while managing diabetics. This could be due to the limited time period available for consultations, a perception that treating depression is not in the domain of physicians treating depression, or doctors' under-recognition of the potential impact of depression on diabetes (Arshad & Alvi, 2016). Depression associated with cardiac diseases and diabetes is distinct due to the medical and social factors that accompany the diseases. World Health Organization (WHO) reports that annually 57.02 million deaths occur from heart diseases. According to the College of Physicians and Surgeons Pakistan (CPSP), across the globe, over 40 % of disease burden is because of the group in cardiovascular diseases, whereas for all other diseases it measures less than 60 % (WHO, 2017). It is however treatable through different methodologies.

Both psychological therapies and medications have proven to be useful in treating depression. Psychotherapy, through different schools of thought, has been used for decades to treat depression. Therapies such as solution-focused therapy, dialectical behavior therapy, and cognitive behavior therapy are considered useful. Cognitive behavior therapy (CBT) is one of the most used and effective methods for the treatment of depression, which targets the beliefs and thoughts of the person (Pearce & Koenig, 2013). SICBT that is another method used for treating depression. Through enhancing and modifying the beliefs and values of patients' spiritual narratives, this method is used for recovery, treatment adherence, low post-treatment relapse, and reduced disparities (Bekelman et al., 2007).

Objective of the Study

To investigate the usefulness of the SICBT in reducing depression in a male patient with cardiac illness and diabetes.

Hypothesis of the Study

There will be a significant difference in the level of depression experienced by a male patient with cardiac illness and diabetes before and after the SICBT.

Method

Design of the Study

A pre-post quantitative research design was used in the current case study in which a pretreatment assessment was done, followed by a 12-week session plan, after which a post treatment assessment was conducted.

Sample

The participant in this case study was a 49 year old man, of Pakistani origin, with Islamic faith, who had cardiac illness and diabetes with a moderate level of depression as measured through the Depression in Chronic Illness Scale (DCIS; Yaseen, 2014). The participant was able to read, write, and comprehend the English language. The participant's educational level was graduation. He was offered treatment through a private hospital in Karachi, Pakistan. He was diagnosed with cardiac illness and diabetes for one year and a few months.

Assessment Protocols

Demographic Information Form

The form consisted of items related to demographic information, including name, age, gender, qualification, marital status, address, religion, etc. This form also included questions related to socio-economic background, employment status and duration of employment, and the history of the cardiac condition and diabetes such as duration of the disease, course of medical treatment, and doctors' consultation.

Semi-Structured Interview Form

This form was administered to collect data about the participant's developmental history for the purpose of understanding his particular individual context. The form comprised questions covering history of physical illness, early childhood, family and work, etc.

Depression in Chronic Illness Scale (DCIS; Yaseen, 2014)

The DCIS was administered. It is a culturally receptive scale to measure depression in chronically ill patients. It is an 18 item Likert scale, and each item is scored from 0 to 3 (*strongly agree* = 3, *agree* = 2, *disagree* = 1, *strongly disagree* = 0), and the total score ranges from 0 to 54. A score between 0-16, indicates no and/or minimal depression, 17-25, indicates mild depression, 26-33 indicates moderate depression, and higher than 33 depicts severe level of depression. The scale has demonstrated good psychometric properties, as the scale's internal consistency is .83 and test-retest reliability is .85.

Procedure

Approval from the Ethical Review Committee was obtained. Permission was requested from the authors for the use of DCIS and the use of a twelve-week manualized SICBT treatment plan. After securing permission, and approval of relevant authorities at the hospital, the participant was offered information about the treatment. The identified participant had a cardiac condition and diabetes for one year, with moderate depression.

The participant was informed about the voluntary nature of his participation and his right to withdraw at any time, the purpose of the research, and the maintenance of confidentiality. The participant was presented with the pre-intervention measures, including the demographic information form, semi-structured interview form, and the DCIS by Yaseen (2014), followed by the twelve-week manualized SICBT treatment plan. This plan is based on a total of 12 sessions over the course of 12 weeks, lasting for 60 minutes each, as adapted from Good (2010).

Table 1Details of the Twelve-week Manualized SICBT Treatment Plan

Session	Session Aims and Objectives Description and Homework	
1	To go through the	An overview of the structure, the total number
Explanation and	working treatment	of sessions with the expectation for each
education about	plan,	session and answering participant's queries.
depression	psycho-education	The spiritual assessment and goal setting.
	and learning,	The depression symptoms questionnaire was
	setting goals,	administered.

Session	Aims and Objectives	Description and Homework
	spiritual history for	The assessment of suicidality and self-harm.
	designing an	In case of any suicidal thoughts, a safety plan
	individualized	was developed to ensure the safety of the
	treatment plan.	participant.
	Identification of	Homework: The hand-out on depression and
	participant's	CBT was shared.
	specific symptoms	To prepare questions from the handouts
	of depression,	regarding depression and symptomatology.
	suicidality and self-	To read the given Quranic verses from Surah
	harm assessment.	Al-Qaf as a reminder of Allah's blessings.
2	Education about	Homework from the previous session was
Education about	approaches utilized	reviewed.
the SICBT	within the treatment	Questions were answered from the hand-out on
approach	plan.	depression, cognitive-behavior therapy, or
	To answer the	Quranic guidelines.
	queries of the	Briefing on SICBT and how it works.
	material and	Spiritual coping strategies were discussed, and
	content related to	intervention regarding altering thought cycles
	the previous	was discussed.
	session,	The participant also said prayer at the end of
	To introduce Surah	the session.
	Rahman (audio	Homework: The activity monitoring schedule
	version).	to keep a record of his daily activities to collect
		objective information about functioning and
		track the activities/events that lead to higher-
		level enjoyment or higher level of depression.
3	The key focus of	Homework was reviewed, learning and
Behavior	the session was on	performing deep breathing exercises.
Strategies	behavioral	A behavior plan was devised.
	strategies, which	This was done by completing a doing more
	were highlighted	questionnaire, which helped in goal setting,
	briefly in session 2.	self-monitoring, and rewards for the participant
	The aim was to	to keep motivated.
	design a behavior	The audio version of Surah-Ar-Rahman (The
	plan for the	Beneficent) by Mishrary Rashid Alafasy was
	participant.	played.
		The participant was guided to say a prayer at
		the end of the session.
		Homework: To implement the behavioral

Session	Aims and Objectives	Description and Homework
4 Behavior Strategies	To learn about the concepts of being more and doing less with the learning of new techniques.	strategy developed in the present session for increasing pleasurable activities, and reducing the ones that contribute to increasing the level of depression. This included increasing self-monitoring towards achieving the goals and following through with the rewards when earned along with the weekly checklist. Review homework and answering the basic concept of doing more was explained in the previous session, and the concept of being more and doing less was explained in this session. The process of shaping, which involves creating a series of steps to follow to carry out a certain behavior and stimulus control, that is related to dealing with the environment where one carries out the behavior included in doing more. The idea of being more was explored. Doing less was explored, and it was linked to bitterness and problems with forgiveness and overindulgence, which can contribute to depression by impeding spiritual growth. The participant was guided to do a deep breathing exercise after which Surah-Ar-Rahman was played. The participant was guided to say a prayer at the end of the session. Homework: The participant was also asked to focus on being more, spiritual identity development, and doing less related to
5 Cognitive Strategies	To focus on exploring cognitive aspects and the impact it has on depression. To explore the ways in which	behaviors that were inconsistent spiritually. Review the homework and answer queries regarding previous session and homework, The researcher reminded the participant of the cognitions previously discussed whilst looking at the depression symptom questionnaire. The participant was informed about the cognitive-behavior model.

Session	Aims and Objectives	Description and Homework
	varying	The participant was guided to do a deep
	interventions of the	breathing exercise after which Surah-Ar-
	spiritual domain	Rahman was played.
	can be used	The therapist incorporated the prayer.
	integrated with the cognitive-behavior model.	Homework: To maintain a cognition log.
6	To work on	The therapist reviewed the cognition log.
Cognitive Strategies	identifying cognitive strategies	The analysis and discussion of several cognitive distortions.
Budiegies	of SICBT.	The participant and the therapist worked
	of SICB1.	together to identify ways to combat cognitive distortions, such as using Surah-Ar-Rahman and Quranic passages from Surah al Inshirah (as this Surah was revealed for easing the pain of Prophet PBUH, surrendering to Allah and prayer).
		Therapist also reviewed the spiritually integrated dysfunctional thought record step-by-step with the participant and explained how it would be filled as homework for monitoring negative cognitions. A deep breathing exercise and prayer was
		done.
7	To focus on verbal and visual beliefs	Homework: The participant was requested to fill spiritually-integrated dysfunctional thought records for monitoring negative cognitions. Review of homework of spiritually-integrated
Cognitive Strategies	and visual benefits and how they play out in their life. To learn and explore ways on how Quranic passages or stories can be used to challenge irrational cognitions.	dysfunctional thought record. The participant was informed about the two types of beliefs: Verbal and visual, and this was linked with Quranic stories or passages of Prophet Noah (A.S) and Prophet Ibrahim (A.S). Allah helped them in difficult times, challenging irrational cognitions and creating healthy counterstatements reflective of Allah's love and supervision through different verses from the Quran. Surah-Ar-Rahman was played.

Session	Aims and Objectives	Description and Homework
		The session included a deep breathing exercise
		and also incorporated a prayer.
		Homework: To fill the index cards as
		homework. These cards included a question on
		the one hand "What am I particularly
		struggling with right now?" And on the other
		hand, the religious story or guideline that
		challenged that statement. These cards were
		used for converting negative thoughts into
		positive ones.
8	To address the	Review of the homework of index cards.
Cognitive	questions regarding	The participant was informed about the
Strategies	cognitive aspects,	cognitive quadrants, including beliefs about
	which include self,	self, others, future, Allah, and spirituality. The
	others, the future,	participant had to fill different worksheets in
	and Allah or	order to identify his cognitive quadrants.
	spirituality.	Discussed ways in which these beliefs have an
	Identifying the	influence on life and how they can be changed
	cause or root of	towards healthier beliefs as per the spiritual
	these belief	doctrine.
	systems, which	The participant was guided to do a deep
	contributed to	breathing exercise after which Surah-Ar-
	increase depression,	Rahman was played.
	worked on	The participant was guided to say a prayer at
	modifying these	the end of the session.
	beliefs in a	Homework: To continue evaluating the
	spiritually	cognitive triad and research on various Quranic
	consistent manner	passages or truths which would negate
	with the	irrational beliefs and restructure his personal
	participant's way of	beliefs to develop healthier working ones.
	living.	Cognitive quadrant form as homework in
		which he had to write the Quranic verses that
		challenged old beliefs and incorporate new
0	To initiate the	ones.
9 Surrandar and	To initiate the	A review of the religious beliefs of the
Surrender and	surrendering	participant.
Control	process in front of Allah and allow	The unconfessed sin/spiritual incongruence
		was recognized, and Quranic references of a
	Him to control the	loving Allah were discussed.

Session	Aims and Objectives	Description and Homework
	client's life.	Surah-Ar-Rahman (The Beneficent) was
	To teach	played.
	surrendering	The therapist took the participant through a
	concerns, worries,	guided imagery exercise (followed by calming
	burdens, and	breath exercise), which helped the participant
	depression to Allah	release concerns into the care of Allah's loving
	as a coping skill for	hands.
	ensuring that the	The therapist asked the participant to reflect on
	participant feels	the experience. The therapist allowed time to
	relieved and stress-	process any experienced emotions.
	free considering	The therapist incorporated a prayer at the end
	that stress,	of the session
	concerns, worries,	Homework: To write a letter to Allah
	and burdens are	including a description of the burdens of the
	taken away and	participant, present relationship with Allah and
	placed into the hand	the desired one, and the personal efforts to
10	of Allah.	bridge the gap.
10 M. Francis	The session aimed	Reviewing homework, the participant learned
Meditation	to teach the	the meditation process that incorporated
	meditation process and review the	breathing, visual meditation, visualizations,
	process of guided	and counting breaths, and the importance of
	imagery for gaining	gaining perspective, reflection, and inner
	perspective, quiet	peace. The surrender/control from the last session,
	reflection, and inner	Serenity Prayer, and the ways of maintaining
	peace.	the message in the Quranic passages from
	peace.	Surah An-Nahl and serenity prayer for
		acceptance in the life of the participant such as
		reading a self-enhancement book, joining a
		Quran research, and continuing to work on
		developing ways to challenge those previous
		negative beliefs.
		Used other meditation methods by counting
		breaths and a mantra, which included focusing
		on a single word or phrase such as "Ar-
		Rahman," and repeating it silently to impact
		the thoughts positively.
		Listening to Surah-Ar-Rahman during the
		session.

Session	Aims and Objectives	Description and Homework
		The session ended after saying the prayer.
		Homework: The therapist asked the
		participant to listen to Surah-Ar-Rahman daily,
		for a week, till the next session
11	Introductory	Review of meditational exercises that were
Relaxation	Discussion,	previously taught.
	Explanation of	The therapist explained the rationale for
	Relaxation	relaxation technique. Progressive muscle
		relaxation was practiced.
		The participant was given time to reflect on the
		new exercises and encouraged to implement
		relaxation over the next week.
		Surah-Ar-Rahman was played.
		The session ended with a prayer.
		Homework: The progressive muscle
		relaxation (PMR) exercise to be practiced daily
		throughout the week.
12	This session aimed to	The session started by answering any of the
Review and	review whatever has	participant's queries related to the reading
Overview of	been discussed and	material given in the previous sessions,
Treatment/	practiced as the	followed by the discussion of different things
Closure	treatment, and analyze	to give closure for the developed therapeutic
	the change for possible	relationship and treatment.
	relapse prevention	The participant and the therapist reviewed the
		ways the participant has changed through the
		treatment and examined the goals established
		initially and how the participant has achieved
		them during this treatment.
		The closure activities entailed a discussion of
		the depressive symptoms that the participant
		had from the start of the treatment, areas of
		change, the learned tools, and identifying the
		ones that are effective and helped in the
		reduction of the individual symptoms.
		The participant communicated personal views
		on spirituality and noted any changes in this
		respect.
		The therapist and the participant also reviewed
		the learned skills and strategies and how,

Session	Aims and Objectives	Description and Homework
		when, and why they could be used.
		Finally, the participant set the goals for future and discussed relapse prevention with the
		therapist.
		In the end, all queries of the participant were
		addressed.

Results

The result was compiled and analyzed using pre-post analysis. After completion of the twelve-week manualized SICBT treatment plan, post-treatment assessment was conducted using the measure of DCIS. Participant's post treatment score of 18, as compared to the pretreatment scores of 31, indicated a significant decrease.

Discussion

Results showed significant difference in the level of depression from the pretreatment score of 31 (pre-test) to the post treatment score of 18 (post-test). This decreased value (18) is just above the range of no depression (score falling in the range of 0-16). This indicated that the treatment procedure is effective in decreasing the level of depression of the participant. Thus, the hypothesis that SICBT would be effective in reducing the level of depression, was supported.

One of the reasons behind the effectiveness of the treatment was the participant's faith as a Muslim and belief in Quranic verses. These verses were used in the treatment plan according to the faith of the research participant.

All the strategies utilized in the current research, including religious coping strategies, are very much a part of the coping strategies among the Muslims in Pakistan. Similarly, the researcher used Quranic and spiritual elements during meditation as well. Common phrases such as "Allah," "Al-Rahman," "Raheem," "Alhamdulillah," "Allah is with me" were used during meditation to reinforce not being alone and having divine support.

The inclusion of Surah Rahman and prayer in the treatment helped the researcher model the spiritual part of the intervention effectively and assisted in regulating positive emotions and strengthening faith in times of difficulty. Surah Rahman has been associated with possible mechanisms of activating and releasing emotions that affect the symptoms of depression, such as negative thinking patterns. This is similar to Mahjoob et al. (2016), which showed the positive effect of listening to recitation from the Holy Quran, without its rhythmic tone, on participants' Behavior and cognitive strategies were utilized including activity mental health in Iran. monitoring schedule, deep breathing exercises, goal setting, and self-monitoring which would have been helpful in self-regulation and in creating awareness about the connection between thoughts, feelings and behavior. The present positive gains through treatment utilizing SICBT, highlight that psychological intervention of this type helped the participant to alter his cognitive distortions and use faith based practices in decreasing depression whilst allowing greater positive emotions. These findings are in line with Azhar and Varma (2000). The spiritual component of the treatment provided assistance in building the capacity to allow emotions (as opposed to suppressing them), leading to a sense of wellbeing. The present outcome is in line with the research by Pearce et al. (2015) which highlighted the integration of spiritual and religious beliefs in intervention as a means of reducing depression rather than the use of secular therapies

for religious patients. Some of the major tools of the present therapeutic approaches, (which were also part of the current treatment plan), included scripture memorization to renew one's mind, contemplative prayer, challenging thoughts using religious teachings, engaging in religious practices (e.g., gratitude, altruism, forgiveness), and involvement in a religious community. The basis and foundation of this therapy is the integrative therapeutic plan in which an individual's own beliefs, behaviors, and resources are analyzed and utilized to facilitate recovery.

Conclusion

The present research aimed to investigate the efficacy of SICBT in reducing depression in a male patient with cardiac illness and diabetes. Results of the current case are in favor of utilizing SICBT to reduce the level of depression.

Implications

The present research provides a therapeutic direction for the treatment of depression in patients suffering from cardiac illnesses and diabetes with the help of SICBT. It also reinforces the need to pay close attention to a person's faith and utilization of spirituality in treatment planning and implementation.

Limitations and Recommendations

- The research included a participant with the Muslim faith. Future research could include participants from other faith traditions.
- The research participant was a man in his 40s. Future work can focus on different age ranges including different genders.

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Contribution of Authors

Sr. No.	Author	Contribution
1.	Erum Kausar	Conceptualization, methodology, research conduction, analyses and interpretation, write-up
2.	Zainab Hussain Bhutto	Critical review of manuscript and supervision