Original Article

Religious Coping as a Predictor of Outcome in Major Depressive Disorder

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Abstract

Background: There is a large body of empirical evidence that religious coping can alter individual's psychological, social, physical, and spiritual adjustment of people to stress or adversity. Depression is a very important public health issue, and there is a need to find effective augmentation treatment modality along with antidepressant therapy. Most of the literature related to depression, religious coping come from the western world, and there is a paucity of such studies from the eastern part, especially Asian countries. **Aim:** To study the association of religious coping with severity and treatment outcome in major depressive disorder. **Settings and Design:** This is a cross-sectional hospital-based study. Subjects were recruited by random sampling. **Materials and Methods:** Sixty-six treatment naïve patients with first episode depression or recurrent depressive disorders were recruited. Hamilton rating scale for depression (HAM-D) and religious coping scale administered on baseline visit and after 6 weeks of treatment. **Statistical Analysis:** Co-relational analysis is done between HAM-D score and religious coping scale. **Results:** Out of 66, 60 subjects were analyzed. Mean age of 35 years and M:F ratio is 43:17. Co-relational analysis of baseline HAM-D score with religious coping reveals that more positive and less negative religious coping is related to the lesser severity of depressive symptoms. After 6 weeks of treatment, more positive religious coping was observed in a group who responded to treatment than nonresponder to treatment. No significant difference of demographic variable found between responder and nonresponder group found. **Conclusion:** More positive religious coping was associated with less severe depressive symptoms and better treatment outcome in major depressive disorder.

Key Words: *Major depressive disorder, outcome, religious coping*

Introduction

Depression is very common psychiatric disorder and found in every society of the world. Hence it is an important public health problem. The depressive disorder has an enormous impact on person's ability to function at work, in relationships, and in other areas of life. As per Lopez *et al*.[1] One-year prevalence has estimated to be 5.8% for men and 9.5% for women as a per report on the global burden of disease. By 2020, depression is projected to reach second place in the ranking of disability-adjusted life years calculated for all ages. In India, many studies have estimated the prevalence of depression in community samples and the prevalence rates have varied from 1.7 to 74/1000 population.[2]

Antidepressants and psychotherapeutic interventions are important tools to manage depression effectively. Because of lack of awareness and stigma related to psychiatric illness, many patients do not reach to a psychiatrist for treatment and use religious belief to cope with depression. Many studies have reported positive impact of using religious belief to come out of depression, as it was found that patients receiving therapy with religious content had better scores on measures of post-treatment depression and adjustment than whose therapy did not include religious content.[3]

Religious coping refers to the use of religious beliefs or practices to cope with the stressful life circumstances. Religious beliefs provide a meaning, purpose, help an individual in difficult life circumstances and promote optimism and hope within Individuals. They provide role models in scared writings that facilitate acceptance of suffering. Koenig *et al*.[4] mentioned that It helps to master control over circumstances and reduces isolation and loneliness by offering a community support. The majority of psychiatric patients spent nearly half of the time trying to cope with their illness in religious activities.[5] While designing the treatment plan for patients it is important to

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Access this article online

Quick Response Code:

Website: www.indjsp.org

DOI: 10.4103/0971-9962.193653

How to cite this article: Kataria LR, Shah SH, Tanna KJ, Arora RS, Shah NH, Chhasatia AH. Religious coping as a predictor of outcome in major depressive disorder. Indian J Soc Psychiatry 2016;32:332-6.

consider the cultural belief also, as studies mention that Culturally competent services have the potential to improve health outcomes, increase the efficiency of clinical and support staff, and result in greater client satisfaction with services.[6] Especially, in a country like India where people have, lots of faith in religion and spirituality to solve their problems related to psychological and physical health.

Most of the literature related to religiosity and mental health problems appears from the western-Christian population, and there is a paucity of studies from developing Asian countries. As only few controlled studies were done in past, this study is designed as a controlled study to assess the role of religious coping in the outcome of depression. This study was based on Pargament *et al*.[7] framework of positive and negative religious coping styles that specify how an individual makes use of religion to understand and deal with stressors.

Materials and Methods

This is a correlation study with the goal of finding out the relation between religious coping and outcome of depression. Institutional Ethics Committee had given prior written permission to conduct the study.

Sampling

Treatment naïve patients with first episode depression or recurrent depressive disorders were recruited.

Inclusion criteria

All subjects having Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision (DSM-IV-TR) diagnosis of major depression, new episode without psychotic symptoms, not on any treatment currently, aged 18–65 years and willing to give written informed consent were included for the study.

Exclusion criteria

Subjects having diagnosed resistant depression, co-morbid mental retardation, delirium, dementias and severe medical conditions were excluded.

Data collection

Demographic variables of all subjects were collected and recorded in case report form. The diagnosis of depression was made by using DSM-IV-TR criteria. All subjects were assessed with Hamilton rating scale for depression (HAM-D) for baseline severity of depression. Further, all subjects were assessed for religious coping using Religious Coping scale (Brief R-Cope long form).[8]

All included subjects were treated with same antidepressant-Escitalopram 10 mg to take once daily with food. Subjects were followed for 6 weeks of the treatment period. At the end of 6 weeks treatment period, subjects were assessed with HAM-D to evaluate change in the symptomatology of depression. Subjects who were not compliant with antidepressant treatment were excluded from further study.

Data analysis

Data thus generated were tabulated and categorized, and analysis was done using SPSS and Epi-Info 6.0 packages (Bangalore and Centers for Disease Control and Prevention, Atlanta). Suitable statistical parameters such as mean, standard deviation, Chi-square, unpaired Test, correlation analysis were done. $P < 0.05$ was considered for statically significant.

Religious coping scale

Religious coping scale was developed by Pargament *et al*. in 1997. It consists of five items for positive patterns and 5 for negative patterns and 1 item for overall religious coping. “I think about how my life is part of a larger spiritual force,” “I try to find a lesson from God in crises” are some Examples of a positive pattern of religious coping. “I wonder whether GOD has abandoned,” “I question whether God really exists” are some example of negative religious coping. Each question on these items rated from 1 to 4 (As 1 = great deal to 4 = not at all), in this context less score on positive pattern and overall item and more score on negative pattern indicates good religious coping. The subscales were internally consistent, and evidence was found of discriminate and criterion-related validity.[9]

Hamilton rating scale for depression

It is 17 item clinician-rated scale to assess the severity of depression. The items on the HAM-D are scored from 0 to 2 or from 0 to 4, with a total score ranging from 0 to 50. Scores of seven or less may be considered normal, 8–13 mild, 14–18 moderate, 19–22 severe, ≥23 Very severe. Reliability is good to excellent, including internal Consistency and inter-rater assessments.[10]

Results

Demographic variables

Totally 66 patients have participated. Out of it, six subjects did not turn up for follow-up, hence 60 subjects were analyzed. Mean age of study population was 34.5 with a standard deviation of 13.3. Male participants were 43 and 17 were females. The majority of study participants were Hindu (70%), 18.3% were Muslims and 11.7% were from other religions, most (61%) of them belongs to rural areas. 46.7% of subjects were married. 50% of the subject have a single episode, and 50% have recurrent episodes of depression. Many subjects (36.7%) have chronic depression (>2 years duration) While 33.3% of have a duration of depression 6–12 months. 58 percentage of subjects have substance use, of which 15 percentage are multiple substance user [Table 1].

Table 1: Demographic variables

Sociodemographic variable	Frequency *n* (%)
Age (years)	Range: 18-65 years, mean: 34.5 years, SD: 13.3
Gender	
Male	43 (71.7)
Female	17 (28.3)
Domicile	
Rural	37 (61.7)
Urban	23 (38.3)
Religion	
Hindu	42 (70.0)
Muslim	11 (18.3)
Others	07 (11.7)
Marital status	
Married	28 (46.7)
Unmarried	20 (33.3)
Divorced	02 (03.3)
Separated	02 (03.3)
Widow/widower	08 (13.3)
Depressive episode	
Single	30 (50.0)
Recurrent	30 (50.0)
Duration of depressive illness	
<6 months	11 (18.3)
6 - <12 months	20 (33.3)
12 - <24 months	07 (11.7)
24 or more months	22 (36.7)
Substance use	
Alcohol	09 (15.0)
Nicotine	09 (15.0)
Opioid	01 (01.7)
Multiple	16 (26.7)

SD: Standard deviation

After 6 weeks of the treatment period, study subjects were divided into Responder Group and Nonresponder Group. More than OR equal to 50% reduction in Hamilton depression scale from baseline was consider as a response. 43 (71.6%) subjects were responder and 17 (28.4%) subjects did not respond to treatment. These two groups were homogenous for demographic variables, as there was no statically significant difference for any demographic variable between these two groups [Table 2]. (association between baseline severity and treatment response were not studied).

Further, these groups were assessed to identify the correlation between severity of depressive symptoms, improvement on HAM-D and level of religious coping as results mention below.

Severity of depressive symptoms and religious coping

Corelational analysis was done to study the correlation between severity of depressive symptoms and positive, negative and overall religious coping. Pearson corelational analysis was done to find association between baseline HAM-D score (severity of depression) and religious coping scale and it was found that more positive (Pearson co-relational coefficient 0.444, 2 tail significant, $P = 0.0000$) and overall religious coping (Pearson corelational coefficient 0.230, 2 tail significant, $P = 0.0000$) and less negative religious coping (Pearson corelational coefficient −0.350, $P = 0.006$) was associated with less severe depressive symptoms. (Association between baseline depression severity and outcome depression score were not analyzed).

Improvement on Hamilton rating scale for depression and religious coping

Further corelational analysis between HAM-D score at 6 weeks and religious coping was done using Pearson corelational test and it was found that Improvement in HAM-D score after 6 weeks treatment was positively correlated with level of positive (Pearson co-relational coefficient 0.670, 2 tail significant $P = 0.0000$) and overall (Pearson co-relational coefficient 0.430, 2 tail significant $P = 0.0000$) religious coping, while it was inversely related with negative religious coping (Pearson corelational coefficient −0.0518, 2 tail significant, $P = 0.0000$).

Difference in religious coping between responder versus nonresponder

Student's *t*-test was done to compare religious coping among those who are responder and nonresponder to treatment. It was found that, those who responded to treatment had more positive religious coping ($t = 3.72$, df = 58, $P = 0.0000$) and less negative religious coping ($t = 2.88$, df = 58, $P = 0.0056$) than nonresponder [Table 3]. Hence, improvement was significantly associated with more religious coping.

Discussion

In our study, we examined the correlation between religious coping and severity of depressive symptoms, outcome of depression in patients of depression at Tertiary Care Hospital. Our findings suggest that severity and outcome of depression has a strong positive association with more positive and overall religious, and less negative religious coping. Further when participants were divided into two groups-Responder and Non responder to antidepressant treatment and they compared for level of Religious coping, it was found that those who responded have more positive and overall religious coping and less negative religious coping. Except religious coping, these two groups were similar in respect to demographic variables. Findings of our study are in keeping with most studies demonstrated a protective effect of religious coping in the outcome of a major depressive disorder.

Table 2: Comparison of two groups (responder and nonresponder) for demographic variables

Sociodemographic variable	Responder *n* (%)=43 (71.6)	Nonresponder *n* (%)=17 (28.4)	Statistical methods
Age (years)	Range: 18-65, mean: 39.3, SD: 15.7	Range: 18-65, mean: 32.7, SD: 11.8	df=18, *P*=0.12
Gender			
Male	30 (69.8)	13 (76.5)	χ^2=0.041, df=1, *P*=0.84
Female	13 (30.2)	04 (23.5)	
Domicile			
Rural	26 (60.5)	11 (64.7)	χ^2=0.001, df=1, *P*=0.09
Urban	17 (39.5)	06 (35.3)	
Religion			
Hindu	31 (72.1)	11 (64.7)	χ^2=0.44, df=2, *P*=0.80
Muslim	07 (16.3)	04 (23.5)	
Others	05 (11.6)	02 (11.89)	
Marital status			
Married	22 (51.2)	06 (31.3)	χ^2=1.94, df=4, *P*=0.75
Unmarried	14 (32.6)	06 (31.3)	
Divorced	01 (2.3)	01 (05.9)	
Separated	01 (2.3)	01 (05.9)	
Widow/widower	05 (11.7)	03 (17.7)	
Duration of depressive illness			
<6 months	10 (23.3)	01 (05.9)	χ^2=4.43, df=3, *P*=0.21
6 - <12 months	14 (32.6)	06 (35.3)	
12 - <24 months	06 (14.0)	01 (05.09)	
24 or more months	13 (30.2)	09 (52.9)	

SD: Standard deviation

Table 3: Difference in religious coping between responder and non-responder group

Responder	Nonresponder	'*t*' test
Positive religious coping		
Range: 5-20	5-18	*t*=3.72
Mean (SD): 7.9 (3.2)	11.5 (3.8)	df=58
		P=0.0000
Negative religious coping		
Range: 8-20	6-16	*t*=2.88
Mean (SD): 14.5 (3.1)	11.8 (3.7)	df=58
		P=0.0056

SD: Standard deviation

Pargament *et al*.[7] has described religious/spiritual coping. Positive religious coping is benevolent method of understanding as if life is part of large spiritual force, I work with GOD as a partner, look to God for strength, find lesion from GOD, confess sins and ask for forgiveness. Negative religious coping is reflective of religious struggle in coping as if perceive the situation as GOD's punishment, spiritual discontent, religious doubts and anger at GOD.

Simon[11] have suggested that those who are religious have a lower incidence of depressive symptoms and that being Religious may increase the speed of recovery from depressive disorder.

Our study finding is also similar to other studies'[12,13] results which demonstrated that more negative religious coping predicts greater depressive symptoms and negative religious item like "why God has abandoned me "was strongly associated with more severe depressive symptoms.

Systemic review of studies by Vasegh *et al*.[14] related to religiosity and depression, which included prospective, controlled clinical trials, cross-sectional indicates that 61% of studies show the possible benefit of religiosity and 6% studies show possible harm.

One study by Kasen *et al*.[15] has assessed individuals who had a parent with MDD and individuals who did not. They were evaluated during childhood and then again 10 and 20 years later. The study examined how the participants felt about religion, their frequency of religious attendance, and near life experiences, they experienced. The study revealed that the participants who were more religious were less likely to develop depression. More recently, one ten year prospective study, has examined that religiosity protects against depression in high-risk individuals.[16]

Depression was found to be lowest among spouses of lung cancer patients who use a moderate level of religious coping and one study indicated that religious coping was inversely related to depression in hospitalized elderly men.[17,18]

Religion offers a variety of coping methods and there is a large body of empirical evidence that religious methods of coping can alter the psychological, social, physical and spiritual adjustment of people of crisis for better or worse.[19,20]

Andreasen[21] has mention that It is time to consider inclusion of religious content into psychotherapies for depression, as study have also examined the beneficial effect of incorporating religious content into psychotherapy of depression.

Conclusion

Study finding suggests that frequent use of positive religious coping methods and less use of negative religious coping methods can protect the patients from severe depression. Findings are also suggestive that those use positive religious coping have good symptomatic control of depression. Negative religious coping do not help to either reduce the severity or recovery of depression. Usually clinician avoid talking about religious beliefs with patients but Based on these findings clinician should discuss about how religious coping can help the early recovery along with medical treatments.

Limitations

Small sample size, selection bias, treatment bias are not well taken care of, are some main limitations of the study.

Future directions

The Large scale multicentric study should be planned to replicate similar findings.

Acknowledgments

I would like to express my sincere appreciation and gratitude to Dr. G. K.Vankar, Head of the Department of Psychiatry, B.J. Medical College and Civil Hospital, Ahmadabad for his invaluable guidance and constructive criticism at all stages of the present study.

Financial support and sponsorship

Nil.

Conflict of interest

There are no conflicts of interest.

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