International Journal of Clinical Medicine, **2013, 4, 479-484**
Published Online November 2013 (http://www.scirp.org/journal/ijcm)
http://dx.doi.org/10.4236/ijcm.2013.411084

Obsessive-Compulsive Cognitions, Symptoms and Religiousness in an Iranian Population

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Received August 26th, 2013; revised September 25th, 2013; accepted October 20th, 2013

ABSTRACT

Individual differences in obsessive-compulsive (OC) behavior in various cultures appear to be associated with religiosity. The purpose of this study was to evaluate the role of religion in OC symptoms and cognitions in distinctly low and high religious groups from a normal community sample of 119 Iranian Muslims. Specifically, we compared the two groups on OC cognitions and symptoms, and we examined the correlations between the cognitive and symptom measures within each group. There was a trend for the high religious group to produce greater scores than those in the low religious group on the Obsessive Beliefs Questionnaire (OBQ) subscale of threat overestimation and responsibility. Furthermore, participants that were more religious achieved significantly higher scores on the Penn Inventory of Scrupulosity and on its Fear of God subscale. Although a number of significant correlations were observed between OBQ and Padua Inventory total and subscale scores, particularly in the low religious group, there was no conclusive relationship between religiosity and OC behavior and obsessional beliefs. Religion appears to be one more arena where OC symptoms expressed, rather than being a determinant of the disorder.

Keywords: OCD; OCCWG Scrupulosity; Cross-Culture

1. Introduction

A wealth of psychiatric research has examined the relationship between OCD and cultural and religious identity and practice. Several studies suggest that scrupulosity is a common presentation of OCD [1,2], and previous research suggests that patients' religious denomination and strength of religiosity can influence their OCD symptoms [3,4]. Yet, despite the prevalence and recognition of scrupulosity in OCD, relatively few studies have examined it in the countries with Muslim cultures.

In a study on the relationship between religiosity, religious obsessions and other clinical characteristics of OCD, no significant differences were found in the overall severity of obsessions and compulsions between patients with or without religious obsessions [5]. No particular relationship was found between religious practice or religious obsessions and any other particular type of obsession or compulsion. Overall, their findings indicated that there was no conclusive relationship between religiosity and any other clinical features of OCD. Other studies, however, have demonstrated links between OCD and religiosity in particular cultural groups. For example, religious compulsions were second only to contamination and cleaning compulsions in a sample of patients from Eastern Turkey [6]. A high proportion of religious obsessions is related to observance and blasphemy in a sample of Muslim OCD patients [7]. The relationship between religiosity and OC behavior was investigated in Israeli Jews [8]. In their first study, no association was found between religiosity and OC behavior, although religiosity is related to some degree to perfectionism and to parental attitudes toward upbringing. However, in their second study, a significant difference was observed between more religious and less religious groups on OC behavior, as measured by the Maudsley Obsessional-Compulsive Inventory (MOCI).

Some studies have investigated the relationship between OC behavior and religious beliefs and practices in normal individuals (non-OCD), with findings suggesting that there is a relationship between religiosity and OC

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ideation and behavior. Other studies [9] indicated that thought-action (TAF) significantly associated within the Christian population [10] then developed an inventory of religious OC symptoms and tested it on a sample of American college students. They found that students who identified themselves as highly devout scored high on two scales of the inventory: Fear of Sin and Fear of God's Punishment. When comparing high, medium and low levels of religiosity, [4] results suggest that measures of control of thoughts and over-importance of thoughts are associated with OC symptoms only in religious participants. The authors concluded that religion might play a role in obsessive-compulsive disorder phenomenology, but it is plausible that a few aspects of religious teachings (e.g. inflexibility and prohibition) linked to OC phenomena. In sum, research with non-clinical samples has found that certain OCD-relevant cognitive styles are related to religiosity. A tentative summary of these results is that in the normal population, there is a relationship between religiosity and OC beliefs and behavior. Despite the prevalence and recognition of scrupulosity as a presentation of OCD, relatively few studies have examined its cognitive and symptoms correlates. Fear and intolerance of uncertainty (often seen in individuals with scrupulosity) result in distorted perceptions of the boundary between normal religious behavior and OC symptoms [11], which may complicate cognitive behavioral therapy. A clear understanding of scrupulosity might facilitate the development of more effective treatment strategies for this particular presentation.

To date, there is no research investigating the association between the degree of religiosity (low vs. high) with OC cognitions and symptoms in participants from Iran, a country in which 99% of the population is Muslim (Shiae). The present study therefore conducted to further, investigate these phenomena in distinctly low and high religious groups from a normal community population in Iran. Specifically, we compared the groups on OC cognitions, including responsibility/threat estimation, perfectionism/certainty, and importance/control of thoughts, and symptoms, including contamination, checking, obsessional thoughts/impulses, and dressing/grooming compulsions. The second aim of the present study was to investigate the correlation between OC symptoms and cognitions in each religious group. Finally, we also aimed to describe the demographic characteristics of each of the two religious groups.

2. Method

2.1. Participants

One hundred and nineteen participants (52 women and 67 men) recruited from the community in Tehran, the capital of Iran. Participants ranged in age from 18 to 50 years (M = 34.89, SD = 10.70). All participants were Muslim (Shiae).Participants were asked to indicate their beliefs on Islam with answer options Muslim-non-Muslim. However, the Muslims samples divided into two degree of religiosity through selecting two groups with distinct feature. A high degree of religiosity was considered as typical individuals who strictly obey Islam rules like regular praying, fasting seriously and participating in religious meeting hold in Masjid. A low degree of religiosity was identified in people who believed on God but were not interested to obey Islam rules and regulations. Individuals who did not pray regularly, Fasting or participating in religious meeting hold in Masjid, categorized as low degree of religiosity. The sample selection carried out through oral questions. Participants asked to indicate their religion background, with answer options Muslim-non Muslim. Individuals who did not obey Islamic rules excluded from the study. A brief description of study purpose is given. Participation was voluntary. All questionnaires completed in a pseudo-random order and individually.

3. Measures

Obsessive Beliefs Questionnaire-44-Persian (OBQ-44-Persian) [12]. The OBQ-44-Persian consists of 44 belief statements considered characteristic of obsessive thinking [13,14]. Scale items represent six rationally determined subscales through corresponding to the key belief domains in OCD. The subscales are Responsibility/ Threat Estimation (RT, 16 items), Perfectionism/Certainty (PC, 16 items), and Importance/Control of Thoughts (ICT, 12 items). Respondents indicate their general level of agreement with items on a 7-point rating scale that ranges from (-3) "disagree very much" to (0) "neutral" to (+3) "agree very much". For the current study, item responses transformed to a 1 to 7 scale, and subscale scores calculated by summing across their respective items.

Padua Inventory—Washington State University Revision (PI-WSUR) [15]. The PI-SWUR is a 39-item self-report measure of obsessions and compulsions. Each item is rated on a 5-point scale indicating the degree of disturbance caused by the thought or behavior (0 = "not at all" to 4 = "very much"). Items organized to measure five content areas relevant to OCD, including Obsessional Thoughts about Harm to Self/Others (OTAHSO), Obsessional Impulses to Harm Self/Others (OITHSO), Contamination Obsessions and Washing Compulsions (COWC), Checking Compulsions (CHKC), and Dressing/Grooming Compulsions (DRGRC).

Penn Inventory of Scrupulosity (PIOS) [16]. The PIOS is a 19-item self-report measure developed to assess scrupulosity in the context of OCD (*i.e.*, religious obsessions). It consists of two subscales, one measuring fears of having committed a religious sin (Fear of Sin;

e.g., "I am afraid of having sexual thoughts"), and the other measuring fears of punishment from God (Fear of God; e.g., "I worry that God is upset with me"). Items are scored on a 5-point scale ranging from 0 (never) to 4 (constantly). Participants are also asked to indicate their current religious affiliation and degree of religious devotion on a scale from 1 (not at all devoted) to 5 (very strongly devoted). Responses to the religious devotion item have found strongly correlate with other aspects of religious observance, such as frequency of attending religious worship services [16]. The PIOS has adequate Psychometric properties in non-clinical samples [16] but it has not studied in clinical groups.

4. Results

4.1. Statistical Analyses

Firs Comparison of demographic characteristics between high and low religious groups done via Chi-square tests of association, with the exception of age, which was compared with an independent samples *t*-test. Independent *t*-tests also used to compare the more and less religious groups on OC cognitions, symptoms, and scrupulosity. Pearson correlation coefficients calculated between the OBQ-44, PI-WSUR, PIOS subscales.

The demographic characteristics of more and less religious participants are presented in **Table 1**. Women and individuals with intermediate education (Bachelor's degree) were found to be significantly more religious ($p = 0.01$).

4.2. Comparison of Groups on OC Cognitions, Symptoms, and Scrupulosity

The two participant groups compared on their scores on the OBQ-44, PI-WSUR and PIOS subscales and totals (see **Table 2**). OBQ-44 total scores were higher among highly religious participants. Moreover, the highly religious participants scored higher on the OBQ-44 RT and ICT subscales but not on the PC subscale. However, none of the differences reached statistical significance. Participants who were low in religiosity scored higher on PI-WSUR total and all of its subscales, except for Obsessional Impulses to Harm Self/Others and dressing/grooming compulsion where the reverse was true, but again, these differences were not statistically significant. As for the PIOS, highly religious participants achieved significantly greater scores than less religious participants on the total scale ($p = 0.03$), as well as on the Fear of God ($p = 0.01$) subscale.

4.3. Correlations between Measures of OCD Symptoms and Cognitions in More and Less Religious Participants

In less religious participants, significant correlations observed between the OBQ-44 total and all subscales with the PI-WSUR and its checking compulsions and obsessive thoughts of harm to self/others subscales (see **Table 3**). For this group, no significant correlations were observed between the OBQ-44 total and its subscales with the dressing/grooming compulsions scores on the PI-WSUR. There were significant correlations in partici-

Table 1. Demographic characteristics of more and less religious participants.

	MR	LR	
	Mean (SD)	Mean (SD)	p-value
Age	35.35 (10.97)	29.27 (12.77)	0.02*
	Count (%)	Count (%)	p-value
Sex			
Male	46 (68.7)	21 (31.3)	
Female	47 (90.4)	5 (9.6)	0.01
Years of Education			
Dip /lower	34 (68)	16(32)	
B. Deg	52 (91.2)	5 (8.8)	
M.Deg/high	7 (58.3)	5 (41.7)	0.01
Occupation Stu			
Employee	18 (66.7)	9 (33.3)	
Job/S-at-h	65 (83.3)	13 (16.7)	
wife/mother	10 (71.4)	4 (28.6)	0.27

Note. MR = More religious; LR = less religious; Dip = Diploma; B. Deg = Bachelor's Degree M.Deg = Master's Degree Stu = Student Job/S-at-h = Jobless/Stay-at-home.

Table 2. Comparison of more and less religious groups on oc cognitions, symptoms, and scrupulosity.

	MR (n = 93) Mean (SD)	LR (n = 26) Mean (SD)	Total Mean (SD)	p-value
OBQ-Total	194.24 (35.96)	182.65 (34.83)	191.71 (35.89)	0.15
OBQ-RT	71.20 (15.29)	64.58 (14.70)	69.76 (15.35)	0.06
OBQ-PC	73.22 (14.31)	71.54 (14.70)	72.85 (14.35)	0.60
OBQ-ICT	49.82 (11.61)	46.54 (9.93)	49.10 (11.31)	0.19
PI-WSUR-Total	28.85 (17.79)	30.00 (21.56)	29.10 (18.59)	0.78
COWC	9.16 (6.02)	9.46 (6.45)	9.23 (6.09)	0.83
CHKC	10.90 (8.86)	11.65 (10.10)	11.07 (9.11)	0.71
OTAHSO	3.77 (4.60)	3.69 (3.23)	3.76 (4.32)	0.93
OITHSO	1.12 (2.33)	1.85 (1.85)	1.28 (2.24)	0.14
DRGRC	3.89 (3.65)	3.35 (3.10)	3.77 (3.53)	0.49
PIOS-Total	33.11 (15.52)	25.23 (18.80)	31.39 (16.53)	0.03*
PIOS-Fear of God	14.67 (6.48)	9.54 (7.41)	13.55 (6.99)	0.01*
PIOS-Fear of Sin	18.44 (10.02)	15.69 (11.91)	17.84 (10.47)	0.24

Note. MR = More religious; LR = Less religious. OBQ = Obsessive Beliefs Questionnaire. RT=Responsibility/Threat Estimation; ICT = Importance/ Control of Thoughts; PC = Perfectionism/Certainty; PI-WSUR = Padua Inventory–Washington State University Revision; COWC = Contamination Obsessions and Washing Compulsions; CHKC = Checking Compulsions; OTAHSO = Obsessional Thoughts About Harm to Self/Others; OITHSO = Obsessional Impulses to Harm Self/Others; DRGRG = Dressing/Grooming Compulsions; PIOS = Penn Inventory of Scrupulosity.

Table 3. Pearson correlations between measures of ocd symptoms and cognitions in more and less religious participants.

	PI-WSUR-T		PI-COWC		PI-CHCK	
	MR	LR	MR	LR	MR	LR
OBQ-Total	0.29**	**0.58****	**0.23***	**0.41***	0.16	**0.59****
OBQ-RT	**0.30****	**0.55****	**0.23***	**0.42***	0.19	**0.55****
OBQ-PC	0.18	**0.53****	0.20	0.35	0.03	**0.58****
OBQ-ICT	**0.28****	**0.44***	0.18	0.30	0.20	**0.41***

	PI-OTAHSO		PI-OITHSO		PI-DRGRG	
	MR	LR	MR	LR	MR	LR
OBQ-Total	0.17	**0.57****	0.19	**0.52****	**0.31****	0.36
OBQ-RT	0.19	**0.55****	0.13	0.39	**0.33****	0.35
OBQ-PC	0.02	**0.47***	0.17	**0.51****	**0.32****	0.29
OBQ-ICT	**0.26***	**0.47***	0.20	**0.48****	0.14	0.31

Note. MR = More religious; LR = Less Religious; OBQ = Obsessive Beliefs Questionnaire; RT = Responsibility/Threat Estimation; ICT = Importance/ Control of Thoughts; PC = Perfectionism/Certainty; PI-WSUR = Padua Inventory–Washington State University Revision; COWC = Contamination Obsessions and Washing Compulsions; CHKC = Checking Compulsions; OTAHSO = Obsessional Thoughts about Harm to Self/ Others; OITHSO = Obsessional Impulses to Harm Self/Others; DRGRG = Dressing/Grooming Compulsions

pants that are more religious, on OBQ-44 total and subscale scores with checking compulsions scores in PI-WSUR.

There were, however, no significant correlations between the OBQ-44 total and all subscales with the PI-WSUR checking compulsions and obsession impulses to harm self/others PI-WSUR subscales in this group (see **Table 3**).The results showed the most of statistically significant correlations belong to less religious participants.

5. Discussion

The present study is the first to address the relationship between cognitions and symptoms of OCD in a low and high religious normal community sample of Muslim individuals in Iran. Our data indicated no significant differences in high religious participants as compared to low religiosity on OBQ-RT, OBQ-PC, and OBQ-ICT. On the other hand, less religious participants scored higher on PI-WSUR and all its subscales, except for dressing/ grooming compulsions, compared to highly religious participants.

The present findings which were opposite to other [4] results showed that participants with a low degree of religiosity endorsed greater importance of thoughts compared to a highly religious group. The authors also reported that religion was a factor potentially linked to OCD. In the particular situation of Iran, individuals with a high or medium degree of religiosity showed higher levels of obsessionality and OC cognitions as compared to individuals with a low degree of religiosity of the same age, education, and gender. OC cognitions are systematically related to impaired mental control only in religious individuals. The two cognitive domains that best discriminated between religious individuals and individuals who were low in religiosity (control and importance of thoughts) were associated with OC symptoms only in religious participants. The domain of perfectionism, as assessed by the OBQ, was associated with the PI-WSUR total score also only in religious participants. Moreover, highly superstitious participants scored higher than less superstitious participants did on the OBQ threat estimation scale.

It is important to note that the Obsessive-Compulsive Cognitions Working Group (OCCWG) was interested in meaningful and theoretically consistent differences across three OCD, anxious and normal groups. In an initial study in Iran [17], participants with OCD, non-OCD anxiety disorders, and those from a community sample strongly endorsed beliefs related to the importance and control of thoughts. Both the OC and anxiety control patients scored higher than community controls on RT and PC, although there were no significant differences between the two patient populations in these domains. Therefore, the domain that appeared to be specific to OCD was ICT.

In the present study, highly religious individuals obtained a significantly higher total score on the PIOS, as well as on the Fear of God subscale. It is not clear whether different religions have different effects on obsessive-compulsive psychopathology. All religions by their nature involve rituals to some extent, perhaps some more than others. A large Egyptian sample with religious obsessions, reported that their Christian patients, who constituted 10% of the sample, seemed to suffer as much as their Muslim patients from obsessions with religious themes [18]. However, they [19] did not report any differences between Catholic and other OCD patients in terms of religious obsessions, and they did not find any associations between religious obsessions, overall illness severity, and a self-reported level of religiosity. In fact, a variety of symptoms related to religious thoughts are more prevalent in clinical populations from countries in which religion occupies the central core of society, particularly in Muslim and Jewish Middle Eastern culture, by contrast to clinical populations in the West.

Superstition may be a predisposing factor for general rather than specific psychopathology because overestimation of threat appears to be a feature of almost all anxiety disorders. Religion might play a role in OCD phenomenology, particularly in individuals whose religion is a prominent part of their cultural values [4]. Religion appears not to be a distinct domain of OCD; rather it is the context for the disorder in very religious patients [20]. Despite the similarities between obsessive-compulsive psychopathology and religious phenomena, it

does not seem to be a strong relationship between religion and OCD [5]. Instead of being a determinant of the disorder, religion appears to be just another area where OCD expresses itself. Clinicians should be sensitive to the fact that religious obsessions may be more prevalent in certain cultures with which they may not well acquaint. Nevertheless, religious obsessions should be treated as obsessions rather than religious phenomena.

While a consensus seems to have reached on the universality of the form of OCD symptoms, the content of the obsessions and compulsions appears to differ across cultures. There is a risk that OCD may be missed if it's manifested in behaviors which are considered appropriate within a religions context. On the other hand, religious obsessions are common, more so when the variety of obsessions experienced is greater, but that they are not related to the severity of other OCD symptoms, suggesting that religious obsessions are an embellishment of disorder rather than a determinant [21]. Religious aspects of OCD have also been noted by authors who study observant Orthodox Jews [20,22], and some Catholics [23]. The frequency with which different OCD themes played out in life's secular and religious spheres may vary with the intensity of religious observance within cultural groups. Religious obsessions were found to be quite common in a small sample of ultra-Orthodox Jewish patients [20] and in three samples of Muslim patients, one in Saudi Arabia [24], one in Bahrain [7] and one in Egypt [18], but not in a fourth form Turkey [25]. However, there is no indication that groups with more heavily religious have higher incidence of OCD [26]. Thus, it may be concluded that culture has an effect on the way OCD manifests itself but it does not increase its prevalence in population.

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