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ORIGINAL ARTICLE

Role of Anxiety, Depression and Guilt in OCD (Checker and Washer) in IRAN

¹Masoumeh Seyfollahi and ²Ashum Gupta

¹Department of Clinical Psychology, Shahid Beheshti University of Medical Sciences, Iran, Tehran ²Department of Psychology, Delhi University,110007,Delhi, India Email: m.seyfollahi@yahoo.com

ABSTRACT

Obsessive-Compulsive Disorder is not only an important aspect of clinical area but also one of the most common psychopathological problems. Knowing and studying cognitive patterns in OCD patients is an essential area which requires further research. Participants were 90 individuals aged between 20 and 50, sixty (checker, washer) drawn from a psychiatric and psychology clinic and normal population. These three groups were assessed by measures of obsession and compulsion, anxiety, depression and guilt (state guilt, trait guilt and moral standards).

It would be shown that with respect to obsessions, the washer group scored significantly higher than the checker group whereas considering compulsions, the checker group scored significantly higher than the washer group. Both the washer and checker groups showed significantly greater anxiety than the normal control group. Washer group was significantly more depressed than the checker group. Checker group showed significantly more guilt feeling than the washer group. Overall, it can be concluded that the checker and washer groups scored significantly higher than the normal control groups on the measures of obsession-compulsion, anxiety, depression and guilt. Checker group showed significantly more guilt feeling than the washer group.

Keywords: Anxiety; Depression; Guilt; Obsessive-compulsive disorder

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INTRODUCTION

OCD is currently categorized as an anxiety disorder in the DSM-IV-TR (2000). The primary basis for categorizing OCD as an anxiety disorder is the central role anxiety plays in OCD [1] and according to the DSM-IV-TR (2000); Major Depressive Disorder is a mental disorder that is associated with OCD.

Guilt is a diagnostic feature associated with depression in the DSM-IV (1994), but it is also a phenomenological characteristic of obsessive-compulsive disorder [2,3,4].

Cognitive theorists suggest that two cognitive biases are central to the development and maintenance of anxiety disorders: (a) a selective attention toward threatening stimuli; and (b) an overestimation of the threat inherent in relatively benign stimuli.

The majority of the quantitative research that has explored the place of guilt in OCD has found positive correlations between questionnaire measures of guilt and self-reported symptoms of the disorder [5-7]. Mancini et al. [8] found a significant relationship between state guilt and washing and precision symptoms of OCD.

Although there has been relatively little work on the nature of guilt in OCD, depression and guilt are the emotions most likely to result from an appraisal of responsibility for a negative outcome [9-11] and in this study we try to appear the role of those in OCD.

MATERIALS AND METHOD

Participants: A sample of ninety individuals aged between 20 and 50. Sixty drawn from a psychiatric and psychology clinic and thirty from the normal population were the participants of this study. Out of sixty

individuals selected from clinic, thirty patients had predominantly checking problems, and the other thirty patients had predominantly washing problems. The remaining thirty participants were without any known psychiatric problems.

Procedure: All participants in the OCD groups were outpatients at clinical psychology centers, namely the two centers of Shahid Beheshti University of Medical Sciences (SBUMS) in Tehran, Iran. They were diagnosed according to DSM-IV-TR criteria, using the Structured Clinical Interview (SCID-I: Persian Version Translation and Cultural Adaptation of Questionnaire [12].

All participants completed self-report questionnaire given to them. Questionnaire was administered individually. Data collection concluded with filling out of report questionnaire by participants. Once data collection was completed, all questionnaires were carefully scored.

Instruments

Yale–Brown Obsessive Compulsive Scale (Y-BOCS): A self-report version of the semi-structured interview Y-BOCS is designed to identify the severity of obsessive and compulsive behaviors. The self-report version shows high parallel forms of validity with the interview version, r = .97 [13].

All participants completed the Persian Translation and Cultural Adaptation of YBOCS by Malaqutie et.al [14]. This instrument showed high internal consistency α =.91 and with the Maudsley Obsessive Compulsive Inventory (correlations r =.77).

Beck Depression Inventory-II (BDI-II): The BDI-II [15] successfully discriminates between clinically depressed persons and normal control groups [15]. It is a 21 item self-report inventory that assesses the presence and severity of symptoms of depression experienced during the past two weeks. It also correlates .71 with the Hamilton rating scale for depression [15].

All participants completed the Persian Translation and Cultural Adaptation by Fata [16]. This instrument showed high internal consistency (Cronbach α =.87) and test-retest reliability (r =.73).

Beck Anxiety Inventory (BAI): The Beck Anxiety Inventory [16] is a 21 item self-report measure of the severity of anxiety in adults and adolescents. The Persian Translation and Cultural Adaptation of BAI by Fata [16] were used in this study. This instrument showed high internal consistency (α =.92) as well as correlations with BDI-II (r =.73).

Guilt Inventory (GI): The GI [17] is a self-report measure with 45 items that evaluate guilt. It is designed to partition guilt-related responses into its three subscales, *trait guilt*, defined as a continuing sense of guilt beyond immediate circumstances state *guilt*, defined as present guilty feelings based on current transgressions, and *moral standards*, defined as subscription to a code of moral principles without reference either to specific behaviors or overly specific beliefs

Trait guilt is described as the type of guilt that remains even after the situation that triggered it has passed; state guilt is described as a transient sense of guilt about immediate or recent circumstances; and moral standards are described as a global belief structure of strict moral standards that is not related to certain types of attitudes or specific practices.

Responses on this scale are based on a 5-point Likert scale. All participants completed the Persian Translation and Cultural Adaptation of GI by Nazire [18]. This instrument showed internal consistency of α =.83, and test-retest reliability α =.81.

RESULTS

The present study examined the cognitive patterns in the obsessive compulsive disorder (OCD). For this purpose two clinical groups (OCD checker, n = 30 and OCD washer n = 30) and a normal control group (n = 30) were taken. One-way ANOVAs were carried out to compare groups on different clinical measures; where main effects were significant, Tukey HSD tests were used.

Obsession and Compulsion

Table 1 clearly indicates significant group differences on both obsessions and compulsions as measured by the Y-BOCS. Post-hoc tests, however, revealed a different pattern of group differences, where the checker group scored significantly higher than the washer group, which in turn scored significantly higher than the normal control group.

Table 1: Comparison of the checker, washer, and the normal control groups on obsessions and compulsions as measured by Y-BOCS

Variable	Checker (n = 30)		Washer (n = 30)		Normal control (n = 30)		F (2,87)	Significant post hoc $(\alpha = 0.05)$
	M	SD	M	SD	M	SD		
Y-BOCS (Obsessions)	9.10	2.56	14.10	3.17	1.13	1.13	214.30***	Ng <chg<wag< td=""></chg<wag<>
Y-BOCS (Compulsions)	10.27	1.92	8.83	3.36	0.63	0.92	152.95***	Ng <wag<chg< td=""></wag<chg<>

Note: Ng = Normal Group; Chg = Checker Group; Wag = Washer Group

***p< 0.001

Overall, it can be seen from Tables 1 and 2 with respect to obsessions, compulsions, and the total mean scores, both the washer and the checker groups scored significantly higher than the normal control group. However, with respect to obsessions and the total score on Y-BOCS, the washer group scored significantly higher than the checker group whereas with respect to compulsions, the checker group scored significantly higher than the washer group.

Table 2: Comparison of the checker, washer, and the normal control groups on total scores obtained on Y-BOCS

Checker (n = 30)		Was (n =	sher 30)	Normal (n =	control 30)	F(2,87)	Significant post hoc	
M	SD	M	SD	M SD			$(\alpha = 0.05)$	
19.37	3.58	22.80	5.07	1.17	1.33	283.75***	Ng <chg<wag< td=""></chg<wag<>	

Note: Ng = Normal Group; Chg = Checker Group; Wag = Washer Group

***p< 0.001

Anxiety

The mean scores obtained on Beck Anxiety Inventory (BAI) by the three groups are shown in Table 3 It was found that while both the washer and checker groups showed significantly greater anxiety than the normal control group, no significant difference was found between the two groups on anxiety.

Table 3: Comparison of the checker, washer, and the normal control groups on Beck Anxiety Inventory (BAI)

Che	Checker Washer		sher	Normal	control	F(2,87)	Significant
(n = 30)		(n = 30)		(n =	30)		post hoc
M	SD	M	SD	M SD			$(\alpha = 0.05)$
24.27	10.38	21.97	12.32	7.23	3.88	27.95***	Ng <wag<chg< td=""></wag<chg<>

Note: Ng = Normal Group; Chg = Checker Group; Wag = Washer Group

***p< 0.001

Depression

ANOVA was conducted to compare the three groups with respect to depression as indicated by their total score obtained on BDI-II. The total mean scores obtained on BDI-II are represented in Table 4

Table 4: Comparison of the checker, washer, and the normal control groups on total scores obtained on Beck Depression Inventory-II (BDI-II)

Che	cker	Washer		Normal	control	F(2,87)	Significant
(n =	= 30) (n = 30)		(n = 30)			post hoc	
M	SD	M	SD	M SD			$(\alpha = 0.05)$
19.13	5.38	24.87	7.56	6.57	3.48	80.11***	Ng <chg<wag< td=""></chg<wag<>

Note: Ng = Normal Group; Chg = Checker Group; Wag = Washer Group

***p< 0.0

Guilt

ANOVA was conducted to compare the three groups with respect to guilt feeling as indicated by their total score obtained on Guilt Inventory (GI). The total mean scores obtained on GI are represented in Table 5.

Table 5: Comparison of the checker, washer, and the normal control groups on total scores obtained on Guilt Inventory (GI)

Checker (n = 30)		Washer (n = 30)			control 30)	F(2,87)	Significant post hoc
M	SD	M	SD	M SD			$(\alpha = 0.05)$
120.77	14.26	114.43	21.24	90.40	16.26	25.11***	Ng <wag<chg< td=""></wag<chg<>

Note: Ng = Normal Group; Chg = Checker Group; Wag = Washer Group

***p< 0.001

Further, the three groups were also compared on the three dimensions of GI, namely, state guilt, moral standard, and trait guilt. While significant main effects of group were found in case of state guilt and moral standard, F (2, 87) = 25.92, p< .001; F (2, 87) = 62.75, p< .001, respectively, no significant effect was found in case of trait guilt. With respect to state guilt and moral standard, Post-hoc HSD tests were conducted to

identify specific between-group differences. In case of state guilt, the checker group scored significantly higher than the washer group, which in turn scored significantly higher than the normal control group. In case of moral standard, the washer group scored significantly higher than the checker group, which in turn scored significantly higher than the normal control group. The mean scores obtained on the three dimensions of GI are represented in Table 6.

Table 6: Comparison of the checker, washer, and the normal control groups on the various dimensions of Guilt Inventory (GI)

No	Dimensions of GI	Checker (n = 30)		Washer (n = 30)		Normal control (n = 30)		F(2,87)	Significant post hoc (α = 0.05)
		M	SD	M	SD	M	SD		
1.	State Guilt	25.07	6.23	20.90	6.74	13.43	6.02	25.92***	Ng <wag<chg< td=""></wag<chg<>
2.	Moral Standard	44.0	7.66	44.70	6.32	27.07	6.65	62.75***	Ng <chg<wag< td=""></chg<wag<>
3.	Trait Guilt	51.70	6.03	50.07	12.52	49.83	9.22	NS	Ng <wag<chg< td=""></wag<chg<>

Note: Ng = Normal Group; Chg = Checker Group; Wag = Washer Group

DISCUSSION

In the present study, clinical groups (OCD checker and washer) clearly showed a significantly higher score on obsessions and compulsions than the normal control group as measured by the Yale-Brown Obsessive Compulsive Scale (Y-BOCS). The Y-BOCS is a widely used semi-structured, clinician-administered measure that assesses the severity of obsessions and compulsions over the previous week. Ratings are based on information provided by the patient and collaterals, as well as clinical observations.

The Y-BOCS was originally developed in the USA. In recent years, however, adaptations of the Y-BOCS for use with individuals in cultural contexts other than the American culture have been receiving widespread attention. In Iran, Malaqutie et al [14] adapted of the Y-BOCS for use in Iranian people.

In the present study, while both the clinical groups clearly showed a significantly higher score on anxiety than the normal control group, no significant difference was found between the OCD checker and washer groups on anxiety. The primary basis for categorizing OCD as an anxiety disorder is the central role anxiety plays in OCD [1]. Obsessions lead to a sense of mounting anxiety and engaging in compulsive behaviors or mental acts reduces anxiety [19].

The perceptions of threat arising from the occurrence and/ or content of intrusive cognitions give rise to anxiety. The perception of threat related to intrusions would give rise to generalized anxiety, and indeed there is evidence that this is what occurs in generalized anxiety disorder (GAD) [20,21]. Although overestimation of danger and threat is a necessary component of obsessional problems, intrusions in OCD are misinterpreted, not only as indicating danger to themselves or other people, but that the person could be responsible for bringing about and/ or preventing this danger. Cognitive theories further indicate that behavioral responses are driven by threat appraisal, and that the aim of such responses is to seek safety [22-24].

The present findings are in line with the existing research, which has reported an association between OCD and anxiety, for example, LaSalle et al. [25] and Nestadt et al., [26] have reported a relationship between obsessive-compulsive symptoms and anxiety. Sulkowski et al. [26] found an association between symptoms of anxiety and OCD for both genders. Irak et al. [27] reported an association between trait-anxiety and OCD. Briggs et al. [28] also found a positive relationship between OCD and anxiety.

The results in the present study showed that both the washer and the checker groups were significantly more depressed than the normal control group. Further, the washer group was significantly more depressed than the checker group. According to APA [29], a high comorbidity rate has been found between OCD and Major Depressive Disorder (MDD). Several research studies have shown that some of the dysfunctions reported by OCD patients were not only highly correlated with the degree of OCD symptomatology but strong correlations also emerged with depressive symptomatology [30,31].

Studies consistently support the notion that individuals with OCD have an increased risk for developing MDD. Denys et al. [32] have noted that studies investigating the onset of comorbid disorders have typically found that OCD precedes rather than follow depression; this finding suggests that depression is likely to be the result of OCD (washer).

Both the washer and the checker groups showed significantly more guilt feeling than the normal control group. Further, the washer group had significantly more guilt feeling than the checker group. The term guilt has been defined in a number of ways, most of which involve violation of one's internal rules [20, 17,33]. Guilt is a diagnostic feature associated with depression in the DSM-IV (American Psychiatric

^{***}p< 0.001

Association [2], but it is also a phenomenological characteristic of obsessive-compulsive disorder [2, 3,4]. Although there has been relatively little work on the nature of guilt in OCD, depression and guilt are the emotions most likely to result from an appraisal of responsibility for a negative outcome [9-11] and such appraisals are central to cognitive-behavioral models of OCD [34-37]. Appraisals of responsibility for harm evoke guilt and depression, which may exacerbate obsessional complaints by increasing avoidance of guilt-provoking situations, lowering resistance to compulsions, and possibly by further increasing the salience of unwanted intrusions.

Guilt predicted obsessional complaints, independent of anxiety and depression in studies examining the relationship between guilt and obsessions [38, 39]. Steketee, Quay, and White [7] designed a study specifically to examine guilt in an obsessional population and found guilt was significantly associated with obsessional complaints.

Further, in the present study, the three groups were also compared on the three dimensions of Guilt Inventory, namely, state guilt, moral standard, and trait guilt. While significant differences were found between the three groups in case of state guilt and moral standard, no significant difference was found in case of trait guilt. In case of state guilt, the checker group scored significantly higher than the washer group, which in turn scored significantly higher than the normal control group. In case of moral standard, the washer group scored significantly higher than the checker group, which in turn scored significantly higher than the normal control group.

According to Kugler, Jones and Schrtter [40], guilt has been defined as the dysphoria arising from moral transgressions [41] and is described as having both adaptive consequences depending on its intensity, origins, and interpersonal dynamics [42]. When present in appropriate amounts, guilt serves a positive social and interpersonal function by inhibiting potentially unlawful or amoral behavior. However, inappropriately high guilt levels can result in dysfunctional, "self-defeating" behaviors that involve people acting how they believe they "should" or "ought to" act - rather than acting how they want to act – as a way of avoiding subsequent feelings of guilt and associated feelings of shame, failure (to self and/or others), and imperfection [17]. In other words, high guilt levels result in seemingly unavoidable internal standards that are strictly followed as a way of avoiding addition guilty feelings.

Kugler and Jones [17] developed the terms Trait guilt, State guilt, and Moral standards from the three primary threads of research in the phenomenon of guilt. State guilt, which is the guilt that accompanies specific incidents of transgression, is expected to be subject to frequent change. Its impact on studies regarding unhealthy guilt may very well be less than that of trait guilt, a more static construct [41]. Kugler and Jones [17] viewed the Moral Standards scale as a means to account for the predisposition individuals may have toward guilt feelings based on the moral expectations individuals have for their own conduct.

The majority of the quantitative research that has explored the place of guilt in OCD has found positive correlations between questionnaire measures of guilt and self-reported symptoms of the disorder [37, 7]. Shafran et al. [7], in a study comparing the guilt of subjects with OCD to the guilt of controls found that obsessional subjects reported significantly more trait guilt, state guilt, and higher moral standards than normal controls.

The present findings support the existing research, for example, Mancini and Gangemi [43] have also provided empirical evidence in support of the above mentioned findings that a fear of guilt regarding one's potential to act irresponsibly increases obsessive-like behaviors, and that the individuals' hypothesistesting process might account for this effect. Gangemi et al. [44] have suggested that people with a general inclination to feel guilty use temporary feelings of guilt as information about the threat content of a situation and do so even if the source of state guilt is unrelated to the situation. In yet another study, Mancini et al. [43] found a significant relationship between state guilt and washing and precision symptoms of OCD.

CONCLUSION

Overall, it can be concluded that the checker and washer groups scored significantly higher than the normal control groups on the measures of obsession-compulsion, anxiety, depression and guilt. Further, in case of checker and washer groups, anxiety and depression were significant predictors of aspects related to obsessive-compulsive behavior, such as guilt, Checker group showed significantly more "guilt feeling" than the washer group. The three groups were also compared on the three dimensions of GI, namely, state guilt, moral standard, and trait guilt. While significant main effects of group were found in case of state guilt and moral standard, respectively, no significant effect was found in case of trait guilt. With respect to state guilt and moral standard, In case of state guilt, the checker group scored significantly higher than the washer group, which in turn scored significantly higher than the normal control group. In case of moral standard, the washer group scored significantly higher than the checker group. A limited number of variables i.e., anxiety, depression and guilt, was included in the present research. In future investigations, a broader

Seyfollahi and Gupta

range of measures needs to be evaluated including other negative affective variables, multiple measures of obsessions and compulsions, and possibly different aspects of cognitive functioning.

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