

METACOGNITIONS AND OBSESSIVE-COMPULSIVE SYMPTOMS IN OCD PATIENTS: MODERATING ROLE OF GUILT SENSITIVITY

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ABSTRACT

Present research was designed to understand the connection between metacognitions and obsessive-compulsive symptoms, with guilt sensitivity as moderator in people suffering from obsessive compulsive disorder (OCD). A positive association among metacognitions, guilt sensitivity and obsessive compulsive (OC) symptoms was hypothesized. Moreover, guilt sensitivity would significantly play the role of moderator in the connection of metacognition and obsessive-compulsive symptoms. The research was carried out in two phases. Phase 1 comprised of translation of Guilt Sensitivity Scale (GSS, Perdighe, Cosentino, Faraci, Gragnani, Saliani, & Mancini, 2015) in Urdu by forward-backward translation method. In phase 2, sample of the study consisted of 105 OCD patients. Sample was recruited through purposive sampling technique. Metacognitive Questionnaire (MCQ-30) by Wells and Cartwright-Hatton (2004), GSS by Perdighe et al., 2015 and Obsessive-Compulsive Symptoms Checklist (OCSC) by Jabeen and Kausar (2010) was used. Findings of the study revealed that there is a significant positive relationship in metacognitions, guilt sensitivity and OC symptoms. Furthermore, results revealed guilt sensitivity moderated with positive beliefs, cognitive self-consciousness, and uncontrollability/dangerousness of metacognitions in OC symptoms. It was concluded that people using more metacognition and with heightened guilt sensitivity were found to have more severity of OC symptoms.

Keywords: Guilt sensitivity, Metacognitions, OC symptoms.

INTRODUCTION

The definition of obsessive-compulsive disorder (OCD) is formulated as one having obsessions or compulsions or both (American Psychiatric Association, 2015). Obsession refers to super disturbing consideration, image, or urge, which continually enters one's mind. These are bothersome but are agreed as originating in one's mind, and not forced by a remote outfit. They are typically regarded by them as bad-tempered or unwarranted. Compulsions are distinct as recurring behaviors or psychological acts that the human being feels determined to carry out. It can any be evident and discernible by others, such as checking that a door is protected or a stealthy mental act that cannot be pragmatic as in repeating a certain phrase in the mind. (Belloch, et al. 2015).

OCD as being an addiction and vague quarrel at the anal stage. Learning theory was also functional to the OCD, amplify in the attractiveness of behavioral representation in 1950s. In recent decades OCD and metacognition have turned out to be a critical subject for studies (Papageorgiou, et al., 2001). Behavioral model explains that there is a significant relationship in obsessions that induce anxiety and compulsions which end with break from anxiety. Cognitive approach emphasizes the major contribution to judgment about event, as an alternative incident being a cause of anxiety disorders (Salkovskis. 1985).

Metacognition is one of the newest jargons in psychology. It has been over thirty years because the notion of metacognition was introduced into the psychology field by John Flavell in 1979. He was predisposed by the effort of Jean Piaget. The monitoring of a broad mixture of cognitive enterprise occurs during the measures & exchange as four course of phenomenon (1) Metacognitive knowledge (2) Metacognitive experiences (3) Goals (or tasks) and (4) Actions or strategies Flavell (1979).

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Decades ago the explicit metacognitive model of OCD was projected by Wells and Matthews (1994) and Wells (2000) define metacognitions in two levels. The first one is, fusion beliefs, incorporate view point concerning the general idea or supremacy of pushy judgment. It consists of following three types of fusion. Thought-Action-Fusion (TAF) standard that an attention unaided may origin an entity to accomplish exploit. Thought-Event-fusion (TEF) comprises believe that having a consideration may root measures facts that incident happened, whereas Thought-Object-Fusion (TOF) known to belief that feelings and mind-set can be transferred against matter. Siev, Chambless, and Huppert (2010) has found positive relationship between moral thought-action-fusion and OCD. However, the present study has focused on the influence of general thought-action-fusion aspect in metacognitions with OCD symptoms.

Researchers figure out that OCD is second most prevalent mental health problem after depression in Pakistan. According to a study conducted by Akhtaret al (1975), one third of the patients with OCD report Obsessions alone. There are some common obsessions such as contamination, aggression, blasphemous and religious, somatic and indecisiveness. In Pakistan, available empirical evidence suggests that nearly all frequently report obsessions are thoughts about infectivity and pathological distrust. Other compulsions embrace scrutiny, repeating, order and arrange, confessing, doubting, as well as, hoarding & religious avoidance (Nazar& Shafique, 1999).

Another form of metacognition is involved in organize and monitoring process. The first is the piercing of cognitive process hooked on two or extra explicitly unified level. The second important attribute of a metacognitive structure is also a sort of govern a context of kin, distinct in requisites of the track of the pour of information. These streams gives mount to a difference b/w what they call manage versus monitor (Nelson & Naren, 1990; Schraw, 1998)

Guilt is an ethical sentiment relating thoughts of sorrow more than a professed offense and entail accountability or answerability for that wrongdoing. Facts tell us to facilitate guilt is a significant element of the phenomena of OCD. For illustration, in obsessive compulsive disorder, guilt come apprehension in proper mating, and holy obsessions. Culpability possibly will probably a hostile, infectivity, and skeptical compulsions (Mancini, 2008; Cosentino, et al.2012). Researchers have postulated with the aim of those having OCD are privileged in trepidation about guilt to a certain extent than in attribute or situation guilt. That is, persons with OCD fright so as to the spirit be judge as responsible intended for not having made the whole lot in their control to avoid the unhelpful happening (Mancini & Gangemi 2004; Cougle, et al..2012).

literature confirmed that various psychologically disturbed conditions possibly caught up by different types of guilt sensitivity. Explicitly desecration of moral norms guilt is more obvious in OCD patients than other disorders (Mancini; Granzio; Gragnani, Femia, Migliorati, Cosentino, Luppino, Perdighe, Saliani, Tenore, et al. 2022). Results of research conducted by Vittoria Zaccari, Guyonne Rogier, Daniela Pulsinelli, Francesco Mancini, and Francesca (2022) supported the relationship between guilt and OC symptoms. Conclusion of the study confirmed that a temperament of heightened guilt and obsessive compulsive symptoms has a central point of guilt in OC symptoms. The present study has explored the moderating role of guilt sensitivity in OCD.

Nadeem, Malik, Atta, Ullah, Martinotti, Pettoruso, Vellante, et al. (2022) conducted a research in order to investigate association between health anxiety and cyberchondria in addition the role of metacognitive beliefs. Results of the study portrayed that there is significant positive relationship between all chosen variables. Metacognitive beliefs were found to be act as moderator positively between health anxiety and cyberchondria. However, the present study has taken guilt sensitivity as moderator between metacognitions and OCD.

Literature throw light on how the level of psychological distress can be reduced. It was concluded that resilience and mindfulness work as boosting keys to negative impact of psychological distress. Emotion regulation can also act as negotiator in mindfulness and psychological distress (Mubarak, Khan, Khan, 2022; Qasim, Rana, Ashraf, 2022). Studies explore that meta-cognition ominously mediated the bond between reading discrepancies and personality traits (Ashraf, Najam, & Jibeen, 2022); Frazier, Schwartz, Metcalfe, 2021). Therefore, the present study has focused on metacognitions, a form of mindfulness as associated with OCD with guilt sensitivity emotional regulation.

Although previous researches suggest a casual and maintenance role of metacognitions on OCD as it was suggested by Janeck, Calamari, Riemann, Heffelfinger (2003) and Myers, Fisher, and Wells (2009). Metacognitive beliefs may act as precursor to a number of affective disorders illustrated by rumination and worry including OCD. Moreover many opinioned that metacognitive therapy as more efficient and less time consuming for the treatment of OCD (Myers, Fisher, Wells, 2009; Gutierrez, Hirani, Curtis, & Ludlow, 2020) have focused the existence of an intermediate role of metacognition. This role is important to explore, as whilst being overly attentive towards one's own process of thinking is a key feature of patients with OCD

(Ramos-Cejudo, Salguero, 2017; Cartwright-Hatton S, Wells A, 1997). Irak and Tosun (2008) were able to metacognition as mediator of the relationship between OC Symptoms and Anxiety. No one consider the effect of guilt sensitivity in metacognitions and OC symptoms in OCD patients. In present study we aimed to find out interplay of metacognitions, guilt sensitivity and OC symptoms through clinical sample. Given the role Guilt sensitivity play as moderator in metacognitions and OC symptoms in OCD patients.

Objectives

1. To find out the relationship between metacognitions, obsessive-compulsive symptoms and guilt sensitivity in OCD patients.
2. To find out the guilt sensitivity as moderator of the relationship between metacognitions and obsessive-compulsive symptoms in OCD patients.

Hypotheses

1. There will be positive relationship between metacognitions, guilt sensitivity and OC symptoms.
2. Metacognitions and guilt sensitivity will predict severity of OC symptoms.
3. Guilt sensitivity is expected to moderate the effect of different metacognitions (cognitive confidence, positive beliefs, cognitive self-consciousness, uncontrollability/danger, need to control thoughts) on obsessive compulsive symptoms.

Method

The study was conducted in two phases. Segment I consisted of transformation of the questionnaire into Urdu to formulate it understandable for the respondents. Psychometric property of the instrument was established. Guilt sensitivity scale was translated commencing English to Urdu, data collection was carried out in part II.

Phase I. Translation of Scale

In phase I of the study transformation of Guilt Sensitivity Scale (GSS) was done. The transformation route was conducted by subsequent MAPI's guiding principle for translation. Permission for translation and adaptation was taken from scale author.

Phase II

Main study was carried out in phase two.

Sample

Data was collected through purposive sampling technique. Sample size for present study consisted of 105 OCD patients with age range between 17 to 60 years ($M= 33.44$, $SD= 11.45$). 6 were uneducated, 21 were between primary to middle qualification, 31 were matric to intermediate qualification, 31 were graduates, and 16 were have done their masters. Outdoor & indoor patients of psychiatry departments of hospitals of Lahore were approached for data collection. i.e. Services Hospital ($n=15$), Mayo Hospital ($n=25$), Jinnah Hospital ($n=10$) and Gangaram Hospital ($n=20$) and Fountain House ($n=35$). Patients diagnosed from psychiatrist and clinical psychologist and verified by the researcher by using OCD symptoms checklist was targeted. Just those individuals were contacted who meet the exclusion & inclusion criteria. 105 (37 males and 68 females) OCD patients who previously diagnose by the higher-ranking clinical psychologist and psychiatric consultant were included in the present study. Individuals with co morbidity of any other mental disturbances were excluded.

Research Instruments

Socio-demographic Questionnaire. Socio-demographic survey was developed subsequent to review the prose. It included age, gender, and education, number of siblings, birth order, family system, occupation, monthly income and duration of problem

Obsessive Compulsive Disorder Symptom Checklist (OCDSC). OCDSC is a self-report appraise for measuring signs of Obsessive-Compulsive Disorder (OCD). It was developed by Jabeen and Kausar, 2010. There are four possible response categories for all the items on a four point instrument where zero describes absence of symptoms and four means a lot of symptoms. Reliability of Overall Obsessive Compulsive Checklist ($\alpha=.98$) which was strongest.

The Metacognitions Questionnaire-30 (MCQ-30). The MCQ-30 a shortened adaptation to Metacognitions Questionnaire (MCQ; Wells & Cartwright-Hatton, 2004) evaluates series of metacognitive beliefs, judgments, and monitoring propensities pains taking significant in theory of metacognitions (Wells, 2000). It also shows strong reliability of the subscales of Metacognitive Questionnaire-30 (MCQ30). Results shows strong reliability of total scores of metacognitions questionnaire-30 ($\alpha=.95$). Subscale scores of MCQ30 vary starting 6 to 24, and sum scores ranged from 30-120, through higher scores signifying higher level unsupportive metacognitions. It consists of 5 subscales namely cognitive confidence, positive beliefs about worry, cognitive Self-Consciousness, negative beliefs about uncontrollability/danger and need to control thoughts.

Guilt Sensitivity Scale (GSS). GSS is a self-report measure for assessing level of guilt sensitivity. It is a 10-items scale developed by Peterson and Reiss, 1987. Guilt sensitivity also have highly significant reliability ($\alpha=.72$). It consists of two factors known as Negative emotional consequences and fear of guilt/reprimand. Range of F1 scores from 6-42 and for F2 from 3-21. It is a seven point rating scale where “1” is never true and “7” is always true.

Procedure

At initial stage the consent concerning the obligatory instruments which were going to use in the at hand make inquiries granted beginning the creative in addition to from author who interpreted into Urdu. After those dean so units of psychiatry of various public hospitals are loomed toward catch approval in order to gathering information commencing their particular psychiatry cells. Diagnosed clients referred by psychologist in the psychiatric units of the hospitals. Additionally, for the purpose of authorization conclusion of Obsessive Compulsive Disarray, Obsessive Compulsive Symptoms Checklist (OCSC) was also administered on OCD patients by the investigator. DSM-V diagnosis criterion of OCD was used to authenticate diagnosis. Total 105 study contributors were referred to take part in the research who were falling under inclusion criteria. A demographic opinion made by the pollster was administered to all the contributors. After obtaining the written informed consent from all the participants remaining study questionnaires were separately and verbally conducted by the examiner. The participants who were educated answered protocol themselves in the existence of the investigator. When data was collected, all the responses from participants were entered into SPSS-21 (Statistical Package for Social Sciences-21). Conclusion was drawn from results acquired after analysis of data.

RESULTS

Analysis was run in SPSS-21. At first explanatory investigation done in order to trace out the frequencies, percentages, mean and standard deviation of every demographic variable. Reliability analysis was computed to conclude Alpha coefficient of instruments used. Pearson product moment correlation was computed to find out association of study variables and with various demographics. In addition Moderation analysis was carried out through Process by (Hayes, 2013) to assess the moderating role of guilt sensitivity on relationship of metacognitions (cognitive confidence, positive beliefs, cognitive self-consciousness, uncontrollability/danger, need control thoughts) with obsessive compulsive symptoms.

Table 1 shows mean standard deviation, range, skewness and cronbachalpha of the study variables. Cronbach alpha for Obsessive Compulsive Symptoms Checklist and its subscales (Filth related contaminations, Health related contaminations, Checking, Obsessional images/impulses, Blasphemous/Religious, Obsessions, Ritual related contaminations, Checking general, Checking safety, Controlling compulsions diversion, Controlling compulsions religious, Compulsions, OCSC) showed 90, .86, .91, .75, .63, .95, .92, .86, .97, .91, .63, .97, .98 respectively. The cronbach alpha metacognitions and its subscales (Cognitive confidence, Positive beliefs, Cognitive self-consciousness, uncontrollability/danger and need to control thoughts) are .95, .92, .79, .85, .82, .84 respectively. Further the reliability of guilt sensitivity is .72. So it is clear that all the scales and subscales have sufficient reliabilities to carry out further studies which are acceptable as per criteria specified by George and Mallery (2010).

Table .1

Psychometric properties of Subscales of Obsessive Compulsive Symptoms Checklist (OCSC), Metacognitions (MCQ30) and Guilt Sensitivity (N=105)

Variables	N	M	SD	α	Range		Skew
					Potential	Actual	
Filth related contaminations	7	15.91	8.47	.90	0-28	0-26	-.60
Health related contaminations	5	10.54	6.22	.86	0-20	0-20	-.38
Checking	3	6.75	4.35	.91	0-12	0-12	-.33
Obsessional Images/impulses	5	11.47	5.08	.75	0-20	0-20	-.50
Blasphemous/ Religious	3	6.67	3.44	.63	0-12	0-12	-.19
Obsessions	23	51.36	23.86	.95	0-92	10-88	-.33
Rituals related contaminations	8	21.11	10.35	.92	0-32	0-32	-.80
Checking general	4	9.55	6.05	.86	0-16	0-28	-.03
Checking safety	3	6.02	4.38	.97	0-12	0-12	.02
Controlling compulsions diversion	5	11.25	7.32	.91	0-20	1-20	-.12

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Controlling compulsions religious	3	7.42	3.29	.63	0-12	0-12	-.44
Compulsions	23	55.38	28.85	.97	0-92	2-96	-.33
OCSC	46	106.74	51.96	.98	0-184	20-177	-1.46
Cognitive confidence	6	18.58	5.44	.92	6-24	7-24	-.88
Positive belief	6	18.58	4.11	.79	6-24	7-24	-.70
Cognitive self-consciousness	6	19.73	4.46	.85	6-24	9-24	-1.19
Uncontrollability/ danger	6	19.23	4.34	.82	6-24	8-24	-1.29
Need to control thoughts	6	19.46	4.48	.84	6-24	8-24	-1.09
MCQ30	30	95.60	20.39	.95	0-120	39-120	.09
Guilt Sensitivity	10	50.07	10.18	.72	10-70	22-70	-.36

Note. n= Number of Items, M= Mean, SD= Standard Deviation, α = Cronbach's Alpha, OCSC= Obsessive Compulsive Symptoms Checklist, MCQ30= Metacognitions Questionnaire-30

Results in Table 2 indicate that Metacognitions have significant positive relationship with guilt sensitivity and obsessive compulsive symptoms. Results also show that Guilt sensitivity has significant positive relationship with overall OC symptoms in OCD patients.

Table 2

Mean, Standard Deviation, and Inter- Correlation between Obsessive Compulsive Symptoms Severity, Metacognitions and Guilt Sensitivity in OCD Patients (N=105)

Variables	M	SD	1	2	3
MCQ30	95.60	20.39	-	.51**	.73**
Guilt sensitivity	50.07	10.18		-	.23*
OCS	258.54	100.24			-

Note. **p<0.01, *p<0.05, MCQ30= Metacognitions Questionnaire, OCS= Obsessive Compulsive Symptoms.

Table 3

Moderating Role of Guilt Sensitivity on Relationship between Cognitive Confidence and Obsessive Compulsive symptoms (N=105)

Variables	Obsessions		Compulsions	
	B	SE	B	SE
Constant	-35.15	29.80	-50.17	36.49
GSS	.72	.65	.88	.80
CC	5.07**	3.15	6.93***	1.97
GSS*CC	-.04	.03	-.07	.04
ΔR^2	.01		.01	
ΔF	1.89		2.97	

Note. **p< 0.01, ***p<0.001 GSS= Guilt Sensitivity Scale, CC= lack of Cognitive Confidence, S.E= Standard Error, B= Coefficient Beta,

The result revealed that guilt sensitivity was set up to non-significant forecaster of obsessions, compulsions, while cognitive confidence was institute to be significant interpreter of obsessions and compulsions. Moreover, the interaction effect of guilt sensitivity and cognitive confidence was set up to be non-significant for obsessions, compulsions.

Table 3

Moderating Role of Guilt Sensitivity on Relationship between positive beliefs and obsessive compulsive symptoms (N=105)

Variables	Obsessions		Compulsions	
	B	SE	B	SE
Constant	61.12*	27.88	73.30*	35.90
GSS	-2.26***	.599	-2.84***	.77
PB	0.45	1.61	.91	2.07
GSS*PB	0.01**	.03	.11**	.04
ΔR^2	.02**		.02**	
ΔF	9.29		7.21	

Note. *p< 0.05**p< 0.01, ***p<0.001 GSS= Guilt Sensitivity Scale, PB= positive beliefs, S.E= Standard Error, B= Coefficient Beta,

The results revealed that guilt sensitivity was found to be significant negative predictor of obsessions and compulsions. Positive beliefs were found to be non-significant predictor of obsessions, compulsions and psychological distress. Moreover, the interaction effect of guilt sensitivity and positive beliefs was found to be significant predictor of obsessions and compulsions.

Figure 1. Interaction effect of guilt sensitivity and positive beliefs on obsessions

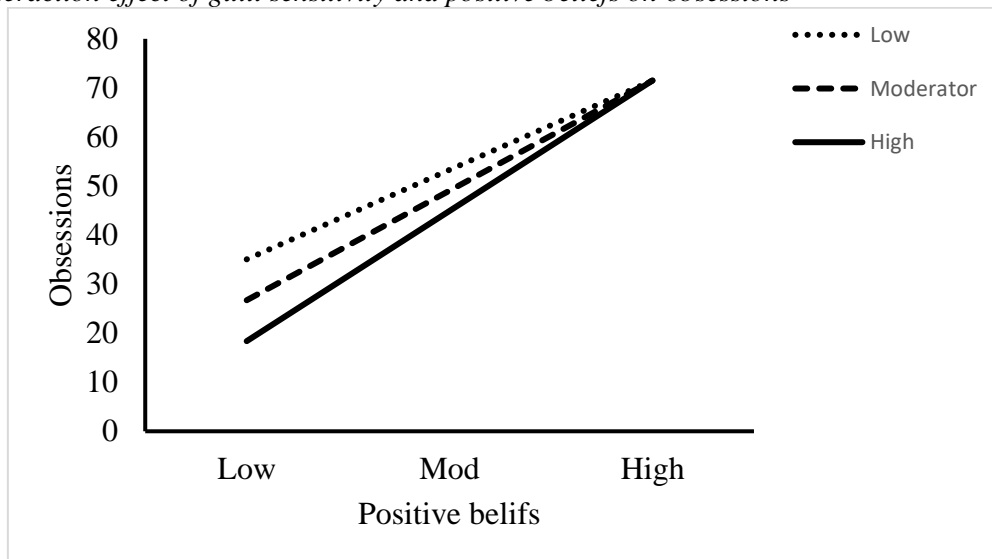


Figure 1 presents the interaction effect of guilt sensitivity and positive beliefs on obsession where at high level of guilt sensitivity the nature of relationship between positive beliefs and obsessions was found significantly positive.

Figure 2. Interaction effect of guilt sensitivity and positive beliefs on compulsions

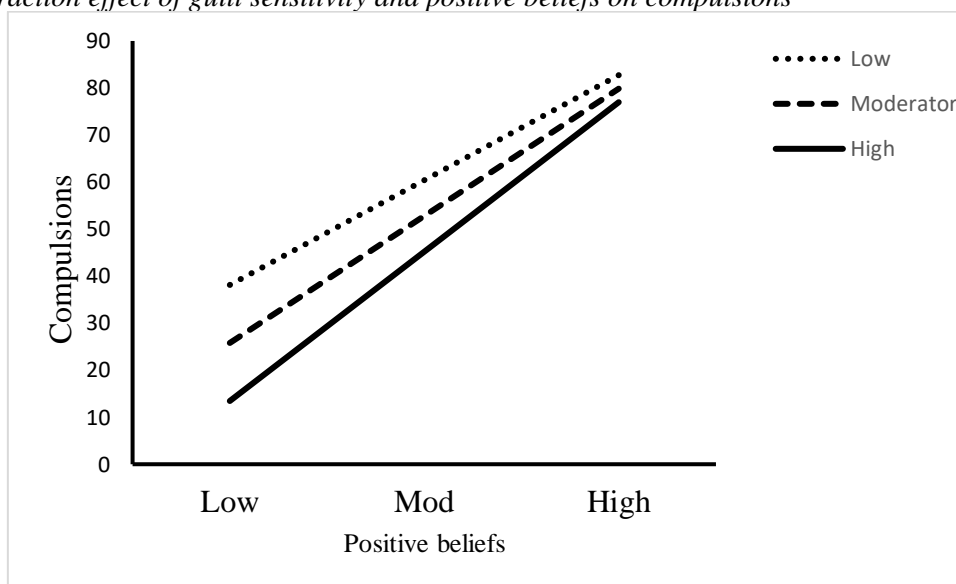


Figure 2 presents the interaction effect of guilt sensitivity and positive beliefs on compulsions where at high level of guilt sensitivity the nature of relationship between positive beliefs and compulsions was found significantly positive.

Table 4
Moderating Role of Guilt Sensitivity on Relationship between cognitive self-consciousness and obsessive compulsive symptoms (N=105)

Variables	Obsessions		Compulsions	
	B	SE	B	SE
Constant	-82.50	43.33	-129.75*	35.90

GSS	1.49	.91	2.43*	.77
CSC	6.67**	2.22	9.76***	2.07
GSS*CSC	-.07	.04	-.12*	.04
ΔR^2	.01		.03*	
ΔF	2.54		5.00	

Note. * $p < 0.05$ ** $p < 0.01$, *** $p < 0.001$ GSS= Guilt Sensitivity Scale, CSC= Cognitive self-consciousness, S.E= Standard Error, B= Coefficient Beta,

The results revealed that guilt sensitivity was found to be significant predictor of compulsions while it was non-significant predictor of obsessions. Cognitive self-consciousness was found to be significant predictor of obsessions and compulsions. Moreover, the interaction effect of guilt sensitivity and cognitive self-consciousness on compulsions was found to be significantly negative.

Figure 3. Interaction effect of guilt sensitivity and cognitive self-consciousness on compulsions

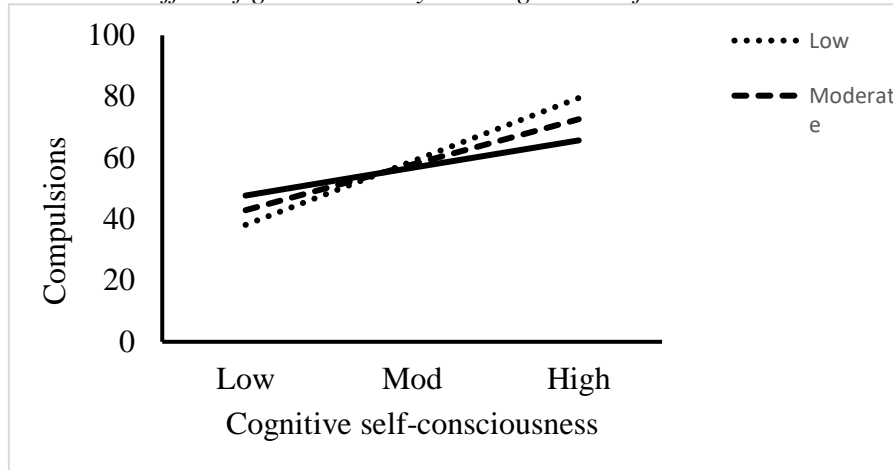


Figure #6 presents the interaction effect of guilt sensitivity and cognitive self-consciousness on compulsions where at high level of guilt sensitivity the nature of relationship between cognitive self-consciousness and compulsions was found significantly negative.

Table 5

Moderating Role of Guilt Sensitivity on Relationship between uncontrollability/danger and obsessive compulsive symptoms (n=105)

Variables	Obsessions		Compulsions	
	B	SE	B	SE
Constant	72.46*	31.08	-108.71**	41.15
GSS	-2.13**	.66	-3.05***	.88
UCD	-1.84	1.72	-3.19	2.28
GSS*UCD	.12***	.03	.16***	.04
ΔR^2	.04***		.05***	
ΔF	11.92		12.02	

Note. * $p < 0.05$ ** $p < 0.01$, *** $p < 0.001$ GSS= Guilt Sensitivity Scale, UCD=Uncontrollability/Danger, S.E= Standard Error, B= Coefficient Beta

The results revealed that guilt sensitivity was found to be significant negative predictor of obsessions and compulsions while it was non-significant predictor of psychological distress. Uncontrollability/Danger was found to be non-significant predictor of obsessions, compulsions and psychological distress. Moreover, the interaction effect of guilt sensitivity and uncontrollability/danger was found to be significant on obsessions and compulsions.

Figure 4. Interaction effect of guilt sensitivity and uncontrollability/danger on obsessions

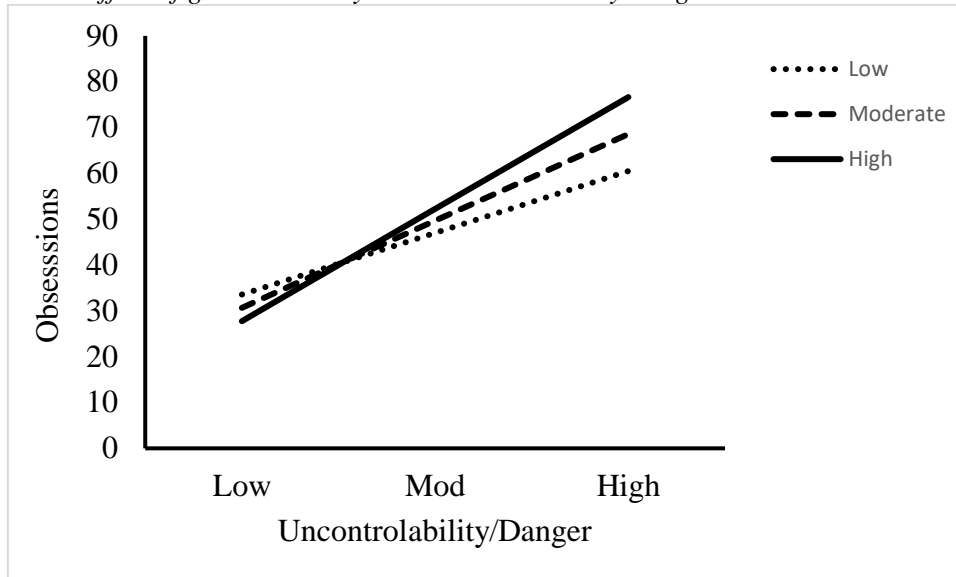


Figure 4 presents the interaction effect of guilt sensitivity and uncontrollability/danger on obsessions where at high level of guilt sensitivity the nature of relationship between uncontrollability/danger and compulsions was found significantly positive.

Figure 5. Interaction effect of guilt sensitivity and uncontrollability/danger on compulsions

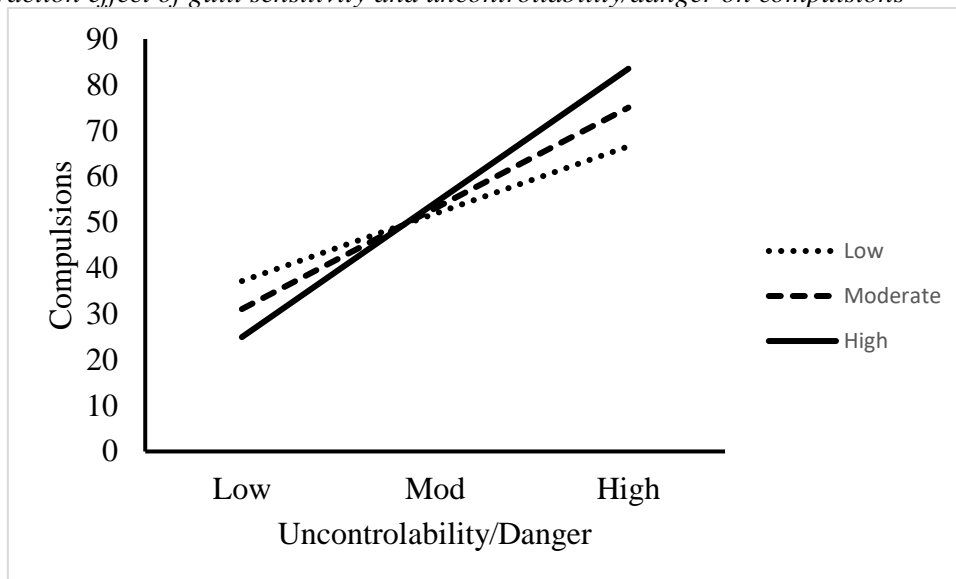


Figure 5 presents the interaction effect of guilt sensitivity and uncontrollability/danger on compulsions where at high level of guilt sensitivity the nature of relationship between uncontrollability/ danger and compulsions was found significantly positive.

Table 6

Moderating Role of Guilt Sensitivity on Relationship between need to control thoughts and obsessive compulsive symptoms (N=105)

Variables	Obsessions		Compulsions	
	B	SE	B	SE
Constant	34.65	41.89	40.78	50.91
GSS	-1.03	.92	-1.44	1.12
NCT	.78	2.27	1.43	2.76
GSS*NCT	.05	.04	.05	.05
ΔR^2	.00		.00	
ΔF	1.24		1.03	

Note. * $p < 0.05$ ** $p < 0.01$, *** $p < 0.001$ GSS= Guilt Sensitivity Scale, NCT=Need to control thoughts, S.E= Standard Error, B= Coefficient Beta

The results revealed that guilt sensitivity and need to control thoughts were found to be non-significant predictors of obsessions, compulsions. Moreover the interaction effect of guilt sensitivity and need to control thoughts was found non-significant.

DISCUSSION

Current research planned to investigate the function of metacognitions and guilt into developing or maintaining of obsessive compulsive symptoms. Demographic distinctiveness of sample was explored and psychometric properties of instruments and their subscales were evaluated.

Association between obsessive compulsive symptoms, metacognitions, and guilt sensitivity was identified. The connection was considerable between research variables. Fallout were in accordance with the hypothesis. Cognitive confidence, positive beliefs, cognitive self-consciousness, uncontrollability/danger and need to control thoughts (subscales of metacognitions) had positive relationship with guilt sensitivity. Guilt sensitivity tend to increase metacognitions. Guilt sensitivity and metacognitions had significant positive relationship with obsessions and compulsions. Results demonstrated that high level of metacognitions in OCD patients might lead them to overly focus on OC symptoms, as a result symptom may get more severe. Increase in severity of OC symptoms as a result of their metacognitions might lead them to experience heightened guilt sensitivity. The results are consistent with previous researches, these conclusion are in line with metacognitive sculpt of OCD (Wells, et al., 2010) found people anguishes of OCD had considerably greater scores on procedures of metacognitions compared to controls. Previous studies have reported OC symptoms severity was significantly interrelated with positive beliefs, cognitive self-consciousness and uncontrollability/danger among study participants with OCD. Previous studies reported almost similar encouraging interaction among metacognitions and various OC symptoms (Wells & Paageorgious, 1998; D' Olimpio, Cosentino, Basile, & Tenore, 2013; Anderson, & Rees, 2013).

Further Findings of present study revealed that metacognitions (positive beliefs, cognitive self-consciousness, and uncontrollability/danger) and guilt sensitivity significantly predicted obsessive compulsive symptoms. These results favor the theoretical framework of McNicol and Wells (2012) suggesting metacognitions contribute to OC symptoms. It indicates that the individuals who are more involved in metacognitions and with heightened sensitivity for guilt, mostly at greater risk of experiencing more obsessive compulsive symptoms. Previous studies have reported almost similar findings which shows that positive beliefs and uncontrollability/danger significantly positively predicted obsessive compulsive symptoms, which indicated that individuals having positive beliefs (i.e. upsetting aids me to find possession studied up in my psyche, distressing helps me deal with, disquieting aid me on the road to unravel troubles, tormenting boost me towards ay away from tribulations in the upcoming) will experience more obsessions and compulsions under the influence of above mentioned positive beliefs in order to reduce their worry and problems which may lead to worsen the problems (Gwilliam, Wells, & Cartwright-Hatton, 2004; Van der Heiden, Rossen, Dekker, Damstra, & Deen, 2016).

Additionally, intend of research was to examined the part of metacognitions in symptoms of OCD. Relationship amid metacognitive beliefs and OC symptom proportions were in favor of the most part comparable transversely the OCD and control groups. Studies results revealed need to organize thoughts contributed to scrutiny, cleaning & ponderings symptoms; cognitive self-consciousness to symptoms of sluggishness; uncontrollability and danger to uncertainty symptoms; positive beliefs to checking signs (Tumkaya et al., 2018; Sun, Zhu, & So, 2017). OCD is defined by an amplified inclination to familiarity and grace with your presence to “not just right” involvement. In literature there is overlap in OCD and metacognitions (Janeck et al., 2003; Coles et al., 2003; Hagen, Solem, Opstad, & Hansen, 2017).

Furthermore results also revealed that uncontrollability/danger (i.e. my tormenting view persevere, regardless of how I endeavor to bring to an end, my disquieting is dangerous for me, I cannot take no notice of my upsetting thoughts) significantly positively predicted obsessive compulsive symptoms which indicated that individuals involved in negative metacognitions also at greater risk of increase in obsessive compulsive symptoms because when they think that they are unable to cope with their problem, eventually they will stop to make effort to cope with problem which may lead to increase in problem. Cognitive self-consciousness (I am all the time alert of my opinion, I always scrutinize my judgment, I am responsive to mode my mechanism whilst I am accepted wisdom during predicament) significantly negatively predicted obsessive compulsive symptoms, these results are supported by previous research of Miegel. et al.(2021) suggested that MCT-OCD is

an add on treatment of OCD, which indicated that people more involved in cognitive self-conscious thinking may lead to experience less obsessive compulsive symptoms because while monitoring their thoughts consciously they can control their compulsive behavior which may lead to decrease in problem with increase in metacognitions (Glombiewski, Hansmeier, Haberkamp, Rief, & Exner, 2021; Heather, Gillian, Naomi, Randi, Karen, & Martin, 2019).

Literature provide evidence that obsessive-compulsive patients, in addition to the cognitive components of their OCD, such as doubt, checking, overestimation of risk, supposition of responsibility, and dysfunctional attitude also experience noticeably from position of feel guilt. Although the cognitive self-consciousness components already point indistinctly to guilt as a result, guilt could be deduced from that point (Leahy, et al., 2018; Geissner, et al., 2019; Sudhir et al., 2017). Results revealed that guilt sensitivity significantly negatively predicted compulsions which indicated that when people have heightened guilt sensitivity it will lead to decrease in performing compulsions and it was supported by previous researches. Melliet al. (2017) conducted a research on function of guilt sensitivity in OCD symptoms proportions. Findings of their study supported the hypothesis that GS plays a applicable part in OCD symptoms while inspection ritual are above all implicated (Wells & Cartwright, 2004; Tenore, K., Basile, B., Cosentino, T., De Sanctis, B., Fadda, S., Femia, G., ... & Mancini, F. (2020).

In adding up there is pragmatic support as soon as monitoring intended for the metacognitive factor of cognitive representation, deduce in metacognitions conferring to wells' model persist seeing that forecasters about behavior management product and fusion way of life be a potential interpreter of OC symptoms (Solem, et al., 2010; Myers, Fisheer, & Wells, 2009). Therefore in spite of some theoretical intersection between both cognitive and metacognitive line of action, the metacognitive conjecture offer a wider explanation about metacognitions equated to these assimilated in old-fashioned cognitive models and may thus grip considerable enlightening influence. In certain, researchers found that heightened guilt sensitivity may play role in maintaining obsessive compulsive (OC) symptoms. The results were in line of with previous researches (Franklin, McNally, & Riemann, 2009; Davani & Imani, 2020; Melli, Gremigni, Elwood, Stopani, Bulli, & Carraresi, 2015).

CONCLUSION

On basis of current investigation, it was accomplished that people using more metacognitions and with heightened guilt sensitivity found to have more ruthlessness of OC symptoms. Different metacognitions & guilt sensitivity are major forecasters of obsessive compulsive symptoms.

Limitations and Suggestions

Sample of study was together from only public hospitals which result in less demonstration of upper middle class. Further studies may include sample from diverse settings like private clinics, counselling centers. As sample of the study was clinical population, there were problem in data collection patients were not willing to give information. There should be programs in order to psycho-educate the patients about the importance of research in treatment of psychological disorders. This is a cross-sectional correlation research and future research may utilize the diverse study designs like qualitative or experimental for better understanding the metacognitions and guilt sensitivity in OCD patients.

Implications

Results of the research may help upcoming professionals as well as psychologist/psychiatrist to handle OC symptoms in OCD patients and protect them from further deterioration. The identification of predictors of OC symptoms may facilitate the counselors and practitioners to better manage the metacognitions and intrapersonal issues such as guilt of OCD patients. Moreover, they may be guided about their metacognitive processes which may enhance their ability to manage OC symptoms. The knowledge regarding metacognitions, guilt sensitivity may contribute and exacerbating their OC symptoms may overall facilitate psychologists, social workers and clinical psychologists and even family counsellors to work on preventive level of OCD.

The findings may guide better treatment approaches to minimize OC symptoms and promote their metacognitive processes. The study is also helpful to the mental health practitioners to develop appropriate treatment programs to manage metacognitions as well as guilt sensitivity in OCD. Overall, this research may be an addition to existing knowledge and facilitate practitioners to better manage OCD patients. It will help a researcher to determine certain types of metacognitive beliefs prevailing in OCD patients. Community work can be designed considering the results of the study for OCD population.

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