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REVIEW ARTICLE

Pathological guilt: A persistent yet overlooked treatment factor in obsessive-compulsive disorder

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BACKGROUND: Guilt appears to be a factor that may increase the severity of obsessive-compulsive disorder (OCD), and negatively impact the treatment outcome of this disorder. However, researchers and clinicians have paid little attention to addressing guilt in the treatment of OCD. Because guilt is an important perpetuating and mediating factor for OCD symptoms and development of guilt-specific strategies may yield improved treatment outcomes, we hypothesized that a review of the relevant literature could provide important guidance.

METHODS: To identify existing scientific contributions across psychological and theological disciplines, we conducted a review of the scientific body of literature on the topic of guilt in OCD.

RESULTS: We identified 14 studies focusing on pathological guilt (PG) and OCD, demonstrating that guilt plays a significant role in OCD and obsessive-compulsive symptoms.

CONCLUSIONS: The potential influence and moderating effects of guilt will require more focused attention in the clinical management of OCD. Development of routine standardized measures and treatment protocols targeting the role of guilt in OCD, and consulting clergy or other appropriate community resources, would also provide potentially valuable contributions to the literature and clinical practice. Addressing this affective component may lead to improved treatment outcomes and fewer relapses for this debilitating and frequently chronic illness.

KEYWORDS: OCD, guilt, state, trait, moral, responsibility

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Introduction

It has been suggested that guilt may negatively impact the severity and treatment outcome of OCD. Interest in the role of guilt in OCD has recently resurfaced.[1-4] Although guilt has been intermittently cited as an important mediator of outcome by OCD investigators,[5-9] no clinical treatment protocols have been devised to effectively address this factor. It is unclear whether unaddressed guilt in OCD leads to relapse following an otherwise effective course of treatment, and/or if guilt is a responsible component in treatment refractoriness of some OCD cases. We hypothesized that guilt is a significant perpetuating factor for OCD symptoms and that development of effective guilt-specific strategies could yield improved outcomes. To examine contributions on this topic across psychological and theological disciplines, we reviewed the body of relevant literature on guilt in OCD.

The heterogeneous symptoms of OCD are well described by the Young-Brown Obsessive Compulsive Scale (Y-BOCS) Symptom Checklist.[10] While PG is frequently conceptualized as a major component of OCD scrupulosity (obsessions that involve religious and/or moral content),[11-19] its impact extends beyond this context. From a clinical perspective, guilt may mediate most other obsessions, including aggressive, contamination, sexual, religious, symmetry/exactness, and other obsessions. It may also motivate nearly all compulsion subtypes, including cleaning, checking, repeating, counting, ordering, and miscellaneous compulsions. Although descriptions of guilt in OCD have been provided with respect to scrupulosity patients, it has been largely ignored in other OCD subtypes. Rather, a sense of inflated responsibility has been identified as the primary concern regarding the "moral" aspect of obsessions.[4]

For many patients with OCD, the concern is not that they will be responsible for the consequences of their obsessions; rather, they fear that the obsessive thoughts indicate an unintended wish for them to happen. With regard to not-just-right experiences (NJREs), frequent and intense guilt feelings and the fear of guilt itself, have been detected as an inherent vulnerability in those with OCD.[2] Further, it has been suggested that acting on OCD symptoms often has an intention of avoiding guilt for fear of acting irresponsibly.[1] Bringing this affective component to awareness during treatment may lead to improved outcomes and fewer relapses for this debilitating and frequently chronic illness.

Classification of guilt

Guilt is a concept that has been examined across multiple disciplines, including biological, psychological, and theological domains. Evolutionary biology describes guilt as a component of "reciprocal altruism." By this definition, guilt is advantageous as it regulates opportunistic behaviors such as those that maintain social relationships.[20] According to this definition; guilt is adaptive and protects humans from one another.

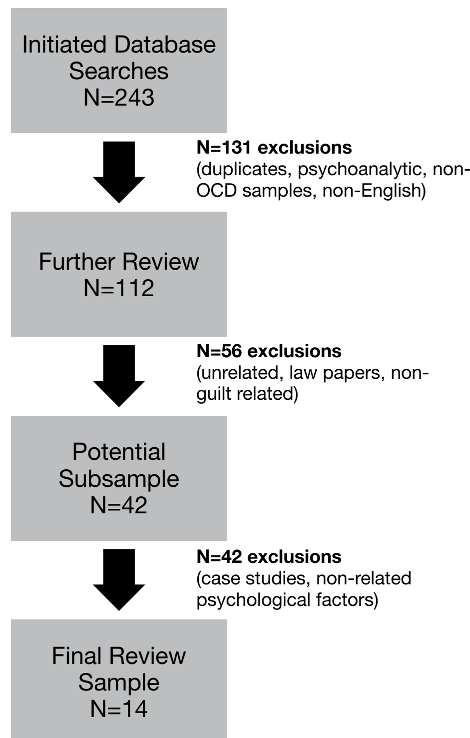
Guilt is also a factor in other psychiatric disorders. Major depressive disorder (MDD) includes excessive or inappropriate guilt as a diagnostic affective component, along with feelings of worthlessness.[21] Interestingly, Alexander et al[22] found guilt, but not shame, to be associated with levels of depression.

Guilt is also found in both simple and complex posttraumatic stress disorder (PTSD).[23] Hathaway et al[24] found that emotions of anger, guilt, shame, sadness, and numbing were reported to occur more frequently than fear. Guilt-based PTSD was recognized as requiring specialized treatment strategies[25] and trauma-related guilt was associated with increased PTSD symptomatology through the use of avoidant coping strategies.[26]

In the current review paper, we utilize the inclusive construct of guilt as examined across disciplines and time periods in order to explore how it pertains to OCD. Guilt has been defined by psychologists, psychiatrists, and clinicians as a disagreeable emotional condition associated with transgression of personal rules, morals, or mores. By this definition, guilt may resolve with reparation, restitution or confession, and forgiveness.[27] Additional clinical definitions of guilt have included the following: guilt as self-reproach and remorse for one's behavior (as if one violated a moral principle)[28]; as a drive, such as fear or anxiety, that motivates compulsive responses[29]; as the resultant dysphoric feeling upon the realization of violating a personally relevant moral or social standard[30]; and as chronic self-blame and obsessive rumination over some objectionable or harmful behavior.[31] In historical psychoanalytic literature, Vergote[32] stated, "Guilt and desire, because of their fundamental nature, are the two themes at the heart of religion and psychoanalysis."

In theological and religious literature, the central tenet of guilt is associated with "condemnation" related to a breach of divine precepts or rules, regulations, and laws of a particular organized religion or church, which is similar to psychologically defined guilt.[33] In biblical text, the terms *guilt* and *sin* are used interchangeably.[34] Text from

FIGURE
Selection of Publications for Review



the Old Testament identifies guilt as "spiritual and moral failure, toward one's fellow man or toward God;" as "deliberate revolting, rebelling, and transgressing against God;" and as "the being or acting wrongly or pervertedly."[35] Text from the New Testament indicates a shift in attitude about sin and guilt by declaring real and certain victory over sin.

METHODS

We conducted a literature search using psychological, medical, and theological databases (**FIGURE**). Identified citations included 135 from PsychInfo (1930 to present), 66 from Journal Storage (JSTOR), 24 from PubMed (1973 to present), 9 from Academic One File, 5 from PsychNet, and 1 from the American Theological Library Association (ATLA) religious database. Three relevant theological dissertations were also obtained through JSTOR. Threshold criteria for manuscript inclusion in this review were defined by the presence of an empirical, prospective qualitative or quantitative approach, of psychometric measure development, or of a critical review of the topic. One case study describing the negative impact of guilt on OCD-affected individuals was excluded from the review due to its non-empirical, anecdotal nature.[36] All identified studies were summarized to evaluate differential perspectives and recommendations regarding this construct across clinical and theological pastoral settings. References from each manuscript were used to identify additional manuscripts in an iterative manner.

RESULTS

Relevant articles were selected from the initial database search results according to defined threshold criteria. Manuscripts meeting the criteria included 10 from PubMed, 7 from Academic OneFile, 5 from PsychNet, and 1 from both JSTOR and ATLA. Several of these were identified by more than one database, such that the total number of identified papers for review focusing specifically on guilt and OCD was equal to 14. Among these, 11 were clinical research studies (including 2 dissertations, 1 case study, and one psychometric measure development), 2 were neuroimaging research studies, and 1 was a literature review. Authors, samples sizes, sample types, measures, and results for each of these studies are summarized in the **TABLE**.

The outcomes of this review on the identification of PG as a clinically important factor in OCD are summarized in the **TABLE**. Three central themes emerged on the role of guilt in OCD, as follows: (1) in nonclinical samples guilt leads to obsessive-compulsive (OC)-like symptoms, including increased threat perception, NJREs, overresponsibility, and intrusive thoughts/ impulses[1,2,37]; (2) in nonclinical neuroimaging samples, state-guilt leads to brain activation in regions proximal to OCD-affected regions[38,39]; and (3) in OCD samples common guilt themes are present.[5]

Moreover, OCD subjects experience higher state-guilt, trait-guilt, and moral standards versus controls. In addition, trait-guilt predicts obsessive complaints in non-OCD control samples. Guilt also appears to play a role in OC symptoms that is independent of additive to inflated responsibility. For example, guilt-related life events worsen obsessiveness, and increased guilt is associated with OCD severity.[6,9] Fortunately, a practical, validated measure was also identified that differentiates state- versus trait-guilt for use in nonclinical and OCD samples.[40]

With regard to a search conducted to identify guilt in other psychiatric disorders, MDD and PTSD accounted

TABLE
Studies included in literature review of guilt and OCD

Author	Sample size, n	Sample type	Measures	Findings summary
Non-clinical samples				
Nissenson (2006)	299	Undergraduates	PGI/S&T; VOCI; OBQ; DASS	Perceived responsibility: (1) Inflated by state- and trait-guilt (2) Unchanged by psychoeducation
Schecterle (1999)	281	Lay/religious leaders	TOSCA; SQ2; ISS; BDI; IELCS; STAI; STAEI; RIS; PCBS; AUIEROS	Guilt/shame proneness associated with religion
Takahashi (2004)	19	Nonclinical	fMRI Verbal suggestions	Guilt/embarrassment associated with: (1) increased medial prefrontal cortex, (2) increased L post supratemporal sulcus, (3) increased visual cortical activity
Shin (2000)	8	Nonclinical males	PET; scripted imagery	Guilt increases regional CBF in 3 paralimbic regions
Clinical samples				
Savoie (1996)	9	OC patients	Interview	15 guilt/OCD themes described
Tallis (1994	2	OC patients	n/a	Life events triggered: Obsessive responsibility, guilt, TAF
Shafran (1996)	60	OC patients Healthy controls	PGI/S&T; BDI BAI; MOCI ;	OCD more than controls had higher state- and trait-guilt. Trait-guilt predicted obsessionality
Steketee (1991)	57	OC patients Anxiety patients	PSQ; MOCI; CAC; BDI; STAI; FNE	OCD severity correlates with most guilt measures

AUIEROS: SPELL OUT; BAI: Beck Anxiety Inventory; BDI: Beck Depression Inventory; CAC: Compulsive Activity Checklist; CBF: cerebrospinal fluid; DASS: Depression Anxiety Stress Scale; fMRI: functional magnetic resonance imaging; FNE: Fear of Negative Evaluation; IELCS: Internal-External Locus of Control Scale; ISS: SPELL OUT; ITIS: Intrusive Thoughts and Impulses Survey; MOCI: Maudsley Obsessional-Compulsive Inventory; OBQ: Obsessional Belief Scale; OC: obsessive compulsive; OCD: obsessive-compulsive disorder; PCBS; spell out: PET: positron emission tomography; PGI/S&T: Perceived Guilt Inventory/State and Trait; PI: Padua Inventory; PI-R: PI-Revised; RIS: SPELL OUT; SQ2: SPELL OUT; ST-NJREQ: SPELL OUT "ST" Not Just Right Experiences Questionnaire; STAEI: SPELL OUT]; STAI: State-Trait Anxiety Inventory; TAF: Though-Action-Fusion; TOSCA: Test of Self-Conscious Affect; VOCI: Vancouver Obsessive Compulsive Inventory.

for the majority of guilt-related symptomatology. The few other results involved guilt in prolonged bereavement, and grief over the loss of a loved one, survivor guilt (living on after the loss of a loved one), and having more material possessions or physical gifts than loved ones. These contributed to other types of depression, morbid preoccupation with guilt, suicidal ideation, or psychomotor retardation.[41] Guilt was associated with fears of scrutiny and rejection by others people with body dysmorphic disorder[42] and social anxiety disorder.[43] In those with eating disorders, ineffective alleviation of guilt feelings related to eating and exercise was correlated with depression and greater eating disturbances.[44] In polysubstance abuse, those in recovery showed higher levels of depression, shame, survivor guilt, separation guilt, omnipotent responsibility guilt, self-hate guilt, trait guilt, and state guilt compared with a sample of nondrug-addicted controls.[45,46]

Nonclinical samples

Gangemi et al[1] found that state-guilt and subjective emotional responses drew invalid conclusions about threat in normal controls. While the concept of inflated responsibility has been identified as a strong motivator for ritualistic responses to obsessions, anticipation and fear of guilt were found to be independently important in assessing the severity and likelihood of hypothetical danger in a non-clinical sample with high-trait guilt. However, this was not the case with anxious or low-trait guilt subjects.[4]

NJREs are described as uncomfortable sensations that signal a perceived mismatch between the state of the world or of one's own performance and the individual's accepted standards.[2] Individuals with OCD frequently report uncomfortable sensations of things being not quite right and subsequently feel driven to perform an action until this uncomfortable sensation is reduced.[47,48]

In a study of nonclinical samples, it was reported that state-guilt induction produced higher reactivity to NJREs in those with high-trait but not with low-trait guilt.[2]

The Perceived Guilt Index (PGI)[40] has been utilized in several studies to date. This is a brief and validated measure that differentiates state- and trait-guilt for use in nonclinical and OCD samples.[1-3,6,37] This measure was developed to add data on both the affective qualities of guilt and on the impact of an experienced situation on perceived guilt. It has 2 subscales, assessing guilt as a generalized self-concept (G-Trait) and guilt as a transient affective state (G-State). The PGI has also been found to be sensitive to change.

Dissertations

The Intrusive Thoughts and Impulses Survey (ITIS) is a guilt-related measure that was devised in a dissertation.[3] Using a sample of 76 college students, guilt was found to be the most robust predictor of the content of intrusive thoughts and impulses. State- and trait-guilt was reported to increase perceived responsibility and listening to supportive statements did not result in reduced perceived responsibility, guilt, or stress. Another dissertation[34] studied guilt across four religious traditions (Conservative Judaism, Roman Catholic, Evangelical Lutheran, and Black Baptist). Guilt was found to be significantly related to denomination in lay and religious leaders. The data did not support the thesis that Jews experience a higher proneness to guilt than Christians. However, Lutherans were substantially more guilt-prone that Roman Catholics in those study samples.

Clinical samples

Neuroimaging studies have demonstrated that guilt induction in healthy controls increased brain activity in areas proximal to regions of interest identified in OCD research subjects. In 1 study, functional MRI showed activation in medial prefrontal cortices, left posterior and superior temporal sulci, and the visual cortex areas of the brain, when subjects read guilty or embarrassing non-neutral scenarios.[38] In a similar study, research subjects were instructed to recall the situation in which they experienced the most guilt, while undergoing a positron emission tomography scan to observe cerebral blood flow. Under the same conditions, control subjects were instructed to recall an emotionally neutral experience. In the guilt-induction study group, increased blood flow in the anterior paralimbic regions of the brain occurred.[39]

OCD symptom severity has been moderately correlated with most guilt measures in OCD patient populations.[9] In addition, feelings of guilt may precede, motivate, or be a consequence of OCD symptoms.[5] Fifteen common themes emerged in a study from interviews with OCD outpatients. Individuals identified guilt as an interfering component of their OCD, and discussed guilt in the context of several themes[5]: (1) forbidden thoughts, feelings, and behaviors; (2) hyperresponsibility/omnipotence; (3) conflicts between internal standards and external behaviors; (4) rituals alleviating existing guilt; (5) fear-of-guilt as a motivating factor in rituals; (6) inadequate justification; (7) being a bad mother/wife; (8) being a bad daughter/son; (9) being a bad friend; (10) resultant interpersonal isolation/alienation; (11) perceived failing of the self; (12) waste; (13) difficulty coping with guilt; (14) resultant clinical improvement and the loss of conscientiousness; and (15) emergent reparation. Moreover, OCD subjects were found to experience more state- and trait-guilt, and higher moral standards than controls. In both subject groups, trait-guilt predicted more obsessionality, independent of the presence of anxiety or depression.

DISCUSSION

Guilt is a prominent and enduring symptom of human suffering that has been described over the centuries in lay, psychological, and theological literature. The ensuing search to escape guilt is often brought to psychological or religious venues. Typically, the ensuing interactions with mental health professionals or clergy aim to help people accept their human “flaws” and “imperfections,” while validating personal strengths and self-efficacy as tools for improvement.

While adaptive guilt serves to inform individuals when they have truly wronged another or violated a personal standard for which rectification is appropriate,[49] PG drives an intense need for certainty over a “normal” incident, for which rectification is neither necessary nor appropriate. Within the religious setting, religious rituals have emerged to address and absolve guilt, while the therapeutic approach aims to identify dysfunctional guilt, religious or otherwise, and to provide the means to normalize it. Both religious and clinical spheres have their benefits and limitations.

PG frequently produces compulsive reassurance seeking and, ironically, has an unintended detrimental

effect as the "target" person becomes exasperated. In contrast to adaptive guilt, PG is motivated to ensure that the "wrong" is made "right," often at the expense of maintaining social norms and mutuality of social relationships.

PG is a prominent feature of the putative OCD subtype labeled "scrupulosity." Individuals with prominent scrupulosity often transform religious rituals into compulsive rituals. Common scrupulosity rituals related to PG include prayer, confession, purification/washing, mental neutralization, and pact making (with God).

In contrast, conventional religious rituals are normally practiced to maintain traditions, participate in community, and to experience momentary peace in the face of problems and stress. As an example, religious prayer is meant to enhance a healthy practice of faith by creating moments of calm reflection and meaning. The quality and duration of a normal prayer has a "natural" beginning and end.

However, similar to the detrimental effect compulsive reassurance has on interpersonal interactions, scrupulous rituals serve the opposite function of their intended purpose. Scrupulous rituals are driven not only by an obsessive need for certainty, to achieve a state of perfection, and to feel "right," but also to allay guilt caused by an obsession that violated the literal "letter" of the religious law (ie, a blasphemous thought). As a result, the "spirit" of the religious law that one is forgiven for (unintended) transgressions becomes lost on the sufferer who does not experience the intended restorative benefit the ritual is created to provide. Instead, untoward compulsive rituals are performed as "contrition" to prove to God that the violation (obsession) of the religious letter of the law was unintended, and that absolution and forgiveness is therefore assured. These rituals often have no end and never reach completion.

It is likely that state-guilt and state-anxiety exacerbate the anxiety response to an obsession when thought and action become fused. For example, cognitive-behavioral therapy (CBT) for the obsession "If I see red, my mother will die" mandates that the person be an observer, not a participant, of the obsession. However, the combination of state-guilt from having the thought in the first place and uncertainty as to whether this thought, attended to or not, will effect reality (magical thinking) and cause state-anxiety (experienced as a surge of physiological anxiety symptoms such as rapid heart rate, shallow breathing, or a feeling of dread) often create a bind when clinical and "moral" issues become conflated.

With regard to trait-guilt and trait-anxiety, the person in this example may have learned that thoughts are equivalent to deeds (ie, having the thought increases the likelihood of death, and/or that the obsession is an indication of the wish for this to happen). When seeing the color red in the environment, the person with trait-guilt will see excessive ritualizing as the most appropriate expression of penitence for the reward of redIn clinical treatment, exposure work consists of the patient purposely looking at the color red, wishing deliberately for the mother to die, and resisting all compulsive urges to ritualize. The efficacy of this two-pronged approach is well documented,[50-53] but unaddressed PG may call into question the "morality" of the exposure and override the ability to comply fully with exposure and response prevention (ERP). In many such cases, treatment often plateaus before the therapeutic range of habituation has been achieved. Implementing strategies to target Thought-Action-Fusion (TAF) would be helpful in dispelling cognitive distortions that interfere with recovery. Adjunctive religious counsel can also help provide the religious "authority" and validation that the process of adopting a more mature relationship to one's limitations, respect for the self, and moving past the literal practice of faith, is necessary.

Exploring the role that state-guilt and trait-guilt play in OCD may reveal that trait-guilt becomes exacerbated by the onset of OCD, and/or that the OCD episode provokes excessive state-guilt due to the premorbid style of coping with negative and uncertain situations, especially with interpersonal interactions. The PGI[40] is a validated measure of state- and trait-guilt, but the creation of a more OCD-specific measure would be valuable in evaluating the effects of PG on OCD treatment and recovery. Research designed to identify the frequency, severity, incidence, relapse rate, etc. will reveal the extent to which guilt impacts treatment, as well as understanding the nature of patients' ambivalence toward ERP compliance.

With regard to the psychological, psychiatric, and theological literature included in this review, three central themes emerged in describing the interconnectedness between guilt and OCD. These are as follows: (1) guilt may lead to OC-like symptoms in healthy individuals; (2) state-guilt in healthy samples activates brain regions proximal to those implicated in OCD; and (3) higher levels of state-guilt and trait-guilt are reported in OCD subjects versus healthy controls. As such, current literature suggests that guilt is not restricted to the scrupulosity subtype, and that its impact should be considered in the assessment and management of all OCD patients.

It is hypothesized that some post-CBT relapses may occur when high state-guilt and, especially, high trait-guilt, have not been adequately addressed under otherwise excellent ERP treatment conditions. Some authors have attributed great importance to "inflated responsibility" as a discrete dysfunctional cognitive domain of OCD.[54-58] However, more recent investigations of "treatment resistant" OCD have suggested that guilt may be an equally salient factor.[1-2,4]

Thus, the relationship between PG and OCD appears complex. Given the cross-sectional nature of the studies examined, it is unclear as to whether increased guilt in OCD is a product of the disorder (state), if trait-guilt is a vulnerability factor for the onset of OCD, or whether brain pathology in OCD leads to increased expression of guilt (which appears to involve similar brain regions).

As clinicians, we are obligated to provide the most appropriate means of treatment that specifically target the presenting problem. With improved assessment and data collection, clinical interventions can be devised to help sufferers reattribute their PG as an OCD symptom and not as an indicator of their insufficient morality.

Precise strategies can be developed that differentially target state- and trait-guilt in relation to OCD in order to ensure the optimal effect of ERP. Cognitive therapies targeting TAF, management of negative emotions, issues around homeostasis, and unaccomplished age-appropriate developmental issues stemming from PG/OCD are considered to be promising areas of interest for enhancing treatment outcome.

Future research may also include examining the role that locus of control (LOC) plays in religion and OCD. A useful tool may be Rotter's Internal-External (I-E) scale[59] which measures the extent to which people believe they have control and determination over their lives (internal control), versus the degree to which they feel their destinies are beyond their personal control and are determined by fate, chance, or powerful others (external control). Counter to clinical intuition, a study[60] using the I-E scale found that higher frequency of religious involvement correlated with internal LOC in Protestants and Jews, whereas the opposite was true in the Catholic sample. Analyzing these and other LOC findings may further identify other factors that may contribute to the complex cognitive and affective systems involved in how OCD is experienced.

Limitations

The lack of updated guilt measures, especially related to state- and trait, and absence of OCD-specific guilt measures limited the ability of this review to more clearly operationalize the factors of this construct. The creation of a reliable and valid research measure that delineates the effects of PG in OCD would be a valuable contribution to better understand and treat a meaningful, but often ignored, aspect of refractory symptoms within the standard treatment framework.

Inaccessibility of pertinent archived theological literature (that would likely provide insights into historical formulations and ministrations of how obsessive guilt is addressed within the laity) is another limitation of this review. Likewise, as it was beyond the scope of this review, the impact of historical psychological theories of guilt (ie, the psychoanalytic perspective of guilt/OCD serving as a defense mechanism against conflict between the superego and the id; and of guilt served to defend the individual from acting on impulsive/aggressive urges) as contributors to the current treatment culture was not discussed here

Conclusion

Based on our collective clinical experience, and supported by the results of this review, we conclude that further applied research of PG in OCD will inform whether this unsuspected and untreated factor across OCD subtypes precludes improved treatment outcome. The data will determine that cognitive and behavioral strategies suited to targeting the obsessive feared consequences pathological guilt instigates in the presence of obsessive doubt have the potential to impact better treatment outcome and sustained recovery. The prevalence of PG in OCD, currently an overlooked and indistinct clinical feature, could be determined through the development of valid assessment measures that identify the incidence of state- and trait-guilt in any given OCD clinical case. Once this is better established, differentially appropriate and effective CBT strategies can be developed to address the independent variables of state-guilt, trait-guilt, and any possible synergistic effects they may cause in refractory OCD cases.

OCD symptoms are clinically heterogeneous, but clinical experience in treating PG demonstrates that the individual's response to his/her particular symptoms is more important than the symptoms themselves. We hypothesize that PG is not limited to the scrupulosity subtype, but occurs across almost all OCD subtypes. Development of evidence-based treatment strategies

may result in a more robust treatment outcome for those who have been considered treatment refractory.

Whether guilt is a naturally selected evolutionary trait (reciprocal altruism)[20] that keeps us safe from one another, a function of neurobiology, or conditionally learned from authority figures and/or one's environment, it is clear that OCD further exploits those already vulnerable to guilt.

REFERENCES

1. Gangemi A, Mancini F, van den Hout M. Feeling guilty as a source of information about threat and performance. Behav Res Ther. 2007;45:2387-2396.
2. Mancini F, Gangemi A, Perdighe C, et al. Not just right experience: is it influenced by feelings of guilt? J Behav Ther Exp Psychiatry. 2008;39:162-176.
3. Nissenson K. An evaluation of and a brief intervention for guilt, responsibility, and thoughts and behaviors associated with obsessive-compulsive disorder [dissertation]. New Brunswick, NJ: Rutgers University; 2008.
4. Mancini F, Gangemi A. Fear of guilt from behaving irresponsibly in obsessive-compulsive disorder. J Behav Ther Exp Psychiatry. 2004;35:109-120.
5. Savoie D. A phenomenological investigation of the role of guilt in obsessive-compulsive disorder. J Phenomenol Psychol. 1996;27:193-218.
6. Shafran R, Watkins E, Charman T. Guilt in obsessive compulsive disorder. J Anxiety Disord. 1996;10:509-516.
7. Tallis F. Obsessions, responsibility, and guilt: two case reports suggesting a common and specific aetiology. Behav Res Ther. 1994;32:143-145.
8. Rachman S. Obsessions, responsibility, and guilt. Behav Res Ther. 1993;31:149-154.
9. Steketee G, White K, Quay S. Religion and guilt in OCD patients. J Anxiety Disord. 1991;5:359-367.
10. Goodman WK, Price LH, Rasmussen SA, et al. The Yale-Brown Obsessive-Compulsive Scale II. Validity. Arch Gen Psychiatry. 1989;46:1012-1016.
11. Abramowitz JS. Treatment of scrupulous obsessions and compulsions using exposure and response prevention: a case report. Cogn Behav Pract. 2001;8:79-85.
12. Ciarrocchi JW. Religion, scrupulosity, and obsessive-compulsive disorder. In: Jenike MA, Baer L, Minichiello W, eds. Obsessive-compulsive disorders: practical management. 3rd ed. Chicago, IL: Year Book Medical Publisher; 1990:555-569.
13. Greenberg D. Are religious compulsions religious or compulsive: a phenomenological study. Am J Psychother. 1984;38:524-532.
14. Greenberg D, Witztum E, Pisante J. Scrupulosity: religious attitudes and clinical presentations. Br J Med Psych. 1987;60:29-37.
15. Greenberg D, Witztum E. The treatment of obsessive-compulsive disorder in strictly religious patients. In: Pato MT, Zohar J, eds. Current treatment of obsessive-compulsive disorder. Arlington, VA: American Psychiatric Publishing, Inc.; 1991:157-172.
16. Higgins NC, Pollard CA, Merkel WT. Relationship between religion-related factors and obsessive compulsive disorder. Curr Psychol. 1992;11:79-85.
17. Miller CH, Hedges DW. Scrupulosity disorder: an overview and introductory analysis. J Anxiety Disord. 2008;22:1042-1058.
18. Nelson EA, Abramowitz JS, Whiteside SP, et al. Scrupulosity in patients with obsessive-compulsive disorder: relationship to clinical and cognitive phenomena. Anxiety Disord. 2006;20:1071-1086.
19. Tek C, Ulug B. Religiosity and religious obsessions in obsessive compulsive disorder. Psychiatry Res. 2001;104:99-108.
20. Trivers RL. The evolution of reciprocal altruism. Q Rev Biol. 1971;46:35-37.
21. Diagnostic and statistical manual of mental disorders. 4th ed, text revision. Washington, DC: American Psychiatric Association; 2000.
22. Alexander B, Brewin CR, Vearnals S, et al. An investigation of shame and guilt in a depressed sample. Br J Med Psychol. 1999;72:323-338.
23. Wilson JP, Drozdek B, Turkovic S. Posttraumatic shame and guilt. Trauma Violence Abuse. 2006;7:122-141.
24. Hathaway LM, Boals A, Banks JB. PTSD symptoms and dominant emotional response to a traumatic event: an examination of DSM-IV criterion A2. Anxiety Stress Coping. 2010;23:119-126.
25. Glover H. Guilt and aggression in Vietnam veterans. Am J Soc Psychiatr. 1985;5:15-18.
26. Lee DA, Scragg P, Turner S. The role of shame and guilt in traumatic events: a clinical model of shame-based and guilt-based PTSD. Br J Med Psychol. 2001;74:451-466.
27. Street AE, Gibson LE, Holohan DR. Impact of childhood traumatic events, trauma-related guilt, and avoidant coping strategies on PTSD symptoms in female survivors of domestic violence. J Trauma Stress. 2005;18:245-252.
28. Klass ET. Situational approach to the assessment of guilt: development and validation of a self-report measure. J Psychopathol Behav. 1987;9:35-48.
29. Rosen M. A dual model of obsessional neurosis. J Consult Clin Psychol. 1975;43:453-459.
30. Kugler K, Jones WH. On conceptualizing and assessing guilt. J Pers Soc Psychol. 1992;62:318-327.
31. Tangney JP, Burgraff SA, Wagner PE. Shame-proneness, guilt-proneness, and psychological symptoms. In: Tangney JP, Fischer KW, eds. Self-conscious emotions: the psychology of shame, guilt, and pride. New York, NY: Guilford Press; 1995:343-367.
32. Vergote A, ed; Wood MH, trans. Guilt and desire: religious attitudes and their pathological derivatives. New Haven, CT: Yale University Press; 1988.
33. Salzman L. Guilt. Ment Health Soc. 1974;1:313-319.
34. Shecterle RA. Guilt reconsidered: empirical research on the theological influences upon religious differences in the phenomenological experiences of the emotions of guilt and shame [dissertation]. Baltimore, MD: Loyola College; 2006.
35. DeVries SJ. Sin and sinner. In: Buttrick GA, Crim KR, eds. The interpreter's dictionary of the bible. Nashville, TN: Abingdon Press; 361-376.
36. Thyer BA. Remorse and guilt in obsessive-compulsive disorder. Psychotherapy Patient. 1989;5:95-111.
37. Niler ER, Beck SJ. The relationship among guilt, dysphoria, anxiety and obsessions in a normal population. Behav Res Ther. 1989;27:213-220.
38. Takahashi H, Yahata N, Koeda M, et al. Brain activation associated with evaluative processes of guilt and embarrassment: an fMRI study. Neuroimage. 2004;23:967-974.
39. Shin LM, Dougherty DD, Orr SP, et al. Activation of anterior paralimbic structures during guilt-related script-driven imagery. Biol Psychiatry. 2000;48:43-50.
40. Otterbacher JR, Munz DC. State-trait measure of experiential guilt. J Consult Clin Psychol. 1973;40:115-121.
41. Blacher RS. "It isn't fair:" postoperative depression and other manifestations of survivor guilt. Gen Hosp Psychiatry. 2000;22:43-48.
42. Fuchs T. The phenomenology of shame, guilt and the body in body dysmorphic disorder and depression. J Phenomenol Psychology. 2002;33:223-243.
43. Ohnishi M. Trait guilt discriminate between anthropophobic tendency and social anxiety in adolescents. Shinrigaku Kenkyu. 2008;79:351-358.
44. Bybee J, Zigler E, Berliner D, et al. Guilt, guilt-evoking events, depression, and eating disorders. Current Psychology. 1996;15:113-127.
45. O'Connor LE, Berry JW, Inaba D, et al. Shame, guilt, and depression in men and women in recovery from addiction. J Subst Abuse Treat. 1994;11:503-510.
46. Meehan W, O'Connor LE, Berry JW, et al. Guilt, shame, and depression in clients in recovery from addiction. 1996;28:125-134.
47. Coles ME, Frost RO, Heimberg RG, et al. "Not just right experiences:" perfectionism, obsessive-compulsive features and general psychopathology. Behav Res Ther. 2003;41:681-700.
48. Coles ME, Heimberg RG, Frost RO, et al. Not just right experiences and obsessive-compulsive features: experimental and self-monitoring perspectives. Behav Res Ther. 2005;43:153-167.
49. Gilligan C, Ward J, Taylor JM, et al, eds. Mapping the moral domain: a contribution of women's thinking to psychological theory and education. Cambridge, MA: Harvard University Press: 1998.
50. Steketee G, Shapiro LJ. Obsessive-compulsive disorder. In: Bellack AS, Hersen M, eds. Handbook of behavior therapy in the psychiatric setting. New York, NY: Plenum Press; 1993:199-227.
51. Foa EB, Steketee G, Grayson JB, et al. Deliberate exposure and blocking of obsessive-compulsive rituals: immediate and long-term effects. Beh Ther. 1984;15:450-472.
52. Jenike MA, Baer L, Minichiello WE. Obsessive compulsive disorders: theory and management. Chicago, IL: Year Book Medical Publishers; 1990.
53. Marks IM, Hodgson R, Rachman S. Treatment of chronic obsessive-compulsive neurosis in-vivo exposure. A two-year follow-up and issues in treatment. Br J Psychiatry. 1975;127:349-364.
54. Salkovskis, PM, Forrester E. Responsibility. In: Frost RO, Steketee G, eds. Cognitive approaches to obsessions and compulsions: theory, assessment, and treatment. Kidlington, United Kingdom: Elsevier Science; 2002:45-61.
55. Salkovskis P, Shafran R, Rachman S, et al. Multiple pathways to inflated responsibility beliefs in obsessional problems: possible origins and implications for therapy and research. Behav Res Ther. 1999;37:1055-1072.
56. No authors listed. Cognitive assessment of obsessive-compulsive disorder. Obsessive Compulsive Cognitions Working Group. Behav Res Ther. 2002;35:667-681.
57. Ladouceur R, Leger E, Rhéaume J, et al. Correction of inflated responsibility in the treatment of obsessive-compulsive disorder. Behav Res Ther. 1996;34:767-774.
58. Rachman S. Obsessions, responsibility, and guilt. Behav Res Ther. 1993;31:149-154.
59. Rotter JB. Generalized expectancies for internal versus external control of reinforcement. Psychol Monogr. 1966;80:1-28.
60. Shrauger JS, Silverman RE. The relationship of religious background and participation to locus of control. Sci Study of Rel. 1971;10:11-16.