

Cross-Cultural Phenomenology of Obsessive-Compulsive Disorder

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Introduction

Obsessive-compulsive disorder (OCD) is a debilitating mental disorder, involving distressing obsessions and repetitive compulsions. Obsessions are intrusive, unwanted thoughts, images, or impulses that increase anxiety, whereas compulsions are repetitive behaviors or mental acts used to decrease anxiety. OCD appears in every culture, with the earliest reports dating back to the first half of the second millennium BC, described in ancient Babylonian texts. Although they had little knowledge of the brain or psychological functions, Babylonian physicians carefully recorded the abnormal behaviors that we now recognize as OCD. One such text states that the sufferer, “does not know why he has a morbid fear of beds, chairs, tables, lighted stoves, lamps, etc., of leaving or entering a city, city gate, or house, or of a street, temple, or road” (Reynolds & Wilson, 2011).

We do not know how many people suffered from OCD in ancient times, but in the contemporary United States, the National Comorbidity Survey Replication (NCS-R) found that approximately 1.6% of the population met criteria for OCD within their lifetime (Kessler et al., 2005a), with 1% of the sample meeting criteria within the last year (Kessler, Chiu, Demler, Merikangas, & Walters, 2005b). The prevalence of OCD appears to be roughly consistent across US ethnic groups, with African and Caribbean Americans having shown an OCD lifetime prevalence of 1.6% (Himle, et al., 2008). Epidemiologic studies conducted in other countries find similar rates cross-nationally (Weismann et al., 1994), ranging from 0.3% in Brazil to 2.7% in Hungary. Based on the current world population (US Census Bureau, 2014), it can be estimated that over 114 million people are afflicted worldwide with OCD.

Although many with OCD worry about cleanliness, symmetry, arranging, and perfectionism, OCD is a complex disorder that can manifest itself in a variety of symptom dimensions, including unacceptable or taboo thoughts and ruminations about morality (e.g., Bloch, Landeros-Weisenberger, Rosário, Pittenge, & Leckman, 2008; Williams, Mugno, Franklin, & Faber, 2013). Given the cultural relativity of what constitutes taboo and even morality, it is important that cultural differences be taken

into account when considering diverse populations (Chapman, DeLapp, & Williams, 2014). Culture can have profound effects on the manifestation of psychopathology, particularly with a disorder as multi-faceted as OCD.

This chapter presents a survey of the cross-cultural manifestations of OCD worldwide, based on a comprehensive review of the psychological literature. We include an examination of differences found based on factors such as culture, ethnoracial minority status, geographical region, and religion.

OCD in Non-Hispanic Whites/European Americans & Western Cultures

An examination of OCD in the US by the National Comorbidity Survey Replication (NCS-R) (Ruscio, Stein, Chiu, & Kessler, 2010), found a wide range of symptoms, illustrated in Table 4.1. These symptom categories were not empirically derived, but instead are indicative of those symptoms most often reported by individuals diagnosed with OCD. It should be noted that the findings of the NCS-R may be influenced by several study limitations, including a small sample size ($N=73$).

Many additional studies have examined symptom profiles in clinical samples. The DSM-IV Field Trial of OCD, a large treatment-seeking sample ($N=431$) (Foa et al., 1995), yielded symptom distributions different from those of the NCS-R. There were differences in Checking, with 79.3% reporting the symptom in the NCS-R, and only 28.2% in the DSM-IV Field Trial. Additionally, Ordering was reported by only 5.7% of the DSM-IV Field Trial participants, while it was ten times as prevalent in the NCS-R, at 57%. While the NCS-R sampled from the community, the DSM-IV Field Trial included clinical participants, and this may account for some of the differences, as well as differences in study methodology.

One of the most common means of understanding symptom dimensions in OCD is with the use of the Yale–Brown Obsessive Compulsive Symptom Checklist (YBOCS-SC) because it assesses the majority of obsessions and compulsions seen clinically in Western samples (Goodman et al., 1989). Since its development, many studies have attempted to create an empirically-based classification system that corresponds to the

Table 4.1 Distribution of OCD Symptoms in the NCS-R

	<i>OCD cases reporting each symptom (%)</i>
Checking	79.3
Hoarding	62.3
Ordering	57.0
Moral	43.0
Sexual/religious	30.2
Contamination	25.7
Harming	24.2
Illness	14.3
Other	19.0

Note: Totals exceed 100% given that each participant was allowed to choose multiple obsessions and compulsions.

symptoms listed in the YBOCS-SC. Baer (1994) conducted the first principal components analysis (PCA) of 13 major YBOCS-SC symptom categories. This resulted in three factors: symmetry/hoarding, contamination/cleaning, and pure obsessions. Pure obsessions were those with religious, aggressive, and/or sexual themes, and had no identifiable compulsions. Bloch and colleagues (2008) conducted a meta-analysis of 21 studies involving 5,124 participants, and did not find that symptom dimensions varied greatly cross-culturally, however, 76% of the studies were from Western nations, limiting generalizability. More recent studies have included other compulsions, such as mental compulsions and reassurance, and tend to find five distinct dimensions: contamination/cleaning, hoarding, symmetry/ordering, taboo thoughts/mental compulsions, and doubt/checking (Abramowitz, Franklin, Schwartz, & Furr, 2003; Pinto et al., 2007; Williams et al., 2011). The hoarding dimension has since been classified as a separate disorder (Hoarding Disorder; DSM-5, 2013).

In Western cultures, OCD is viewed as mental disorder caused largely by biological factors (Coles & Coleman, 2010). Aggressive, religious, or sexual symptoms are not as easily recognized as are symptoms related to washing, checking, and symmetry. These obsessive themes are known as “taboo obsessions” and were previously thought to be “pure obsessions,” meaning they were not associated with the presence of any compulsions, making them more difficult to identify (Pinto et al., 2007). However, the concept of the pure obsessional was later refuted (Leonard & Riemann, 2012; Williams et al., 2011). One type of taboo obsessions that may be culture-bound are known as sexual orientation obsessions in OCD (SO-OCD), occurring in approximately 10% of US patients (Williams & Farris, 2011). SO-OCD centers around the fear that one is going through an undesired change in their sexual orientation or gender identity (Williams & Ching, 2016; Williams, Slimowicz, Tellawi, & Wetterneck, 2014). This has mainly been observed in Western cultures, and has not been reported in the literature outside of the United States. This may be due to the societal tension around non-heterosexual orientations in the United States. In some Eastern cultures, homosexuality and transsexuality are embraced socially as a common form of lifestyle/expression. In some cultures, there is evidence of sexual practices between people of the same sex (which would be considered by Westerners as “homosexual”) being seen as acceptable, and separate from one’s sexuality (i.e., male coming of age rituals in Papa New Guinea) (Knauff, 2010).

Additionally, taboo obsessions are more stigmatized (Cathey & Wetterneck, 2013), which can lead to delays in treatment-seeking or hiding symptoms due to shame (Simonds & Thorpe, 2003). As a result, this symptom presentation is likely underrepresented in treatment-seeking populations. However, individuals with these symptoms may be more motivated to seek treatment due to the high-levels of distress caused by such thoughts (e.g., Williams, Wetterneck, Tellawi, & Duque, 2015). Additional research is needed to determine the effect of these issues on help-seeking behaviors.

OCD in African Americans

Until recent years, research on OCD in African Americans and other ethnic and racial minorities has been scarce (Williams, Powers, Yun, & Foa, 2010). One of the first studies on African Americans with OCD (Lewis-Hall, 1991) was a naturalistic study examining treatment-seeking adults in an urban clinic. The researchers observed differences in

treatment patterns, as only 2% of clinic patients with OCD were Black. Williams and colleagues (2012a) examined barriers to treatment among African Americans and European Americans. Barriers found to be unique to African Americans included fears about discrimination by treatment providers and not knowing where to go for help. Barriers to treatment were grouped into seven categories: treatment price, stigma/judgment, fear of forced change, lack of need for treatment, fears about therapy, doubts about the effectiveness of treatment, and being too busy for treatment.

The National Survey of American Life (NSAL) (Heeringa et al., 2004), the largest study of mental health disorders in US racial and ethnic minorities, examined three nationally representative samples: African Americans, blacks of Caribbean descent, and Non-Hispanic whites. Himle and colleagues (2008) found that 1.63% of African Americans and Caribbean black populations met diagnostic criteria for OCD, with both samples experiencing high rates for at least one other lifetime psychiatric disorder, 93.2% and 95.6%, respectively. This was consistent with previous research, as comorbidity is the norm for OCD (Ruscio et al., 2010; Saleem & Mahmood, 2009).

Williams, Proetto, Casiano, and Franklin (2012d) conducted the largest study of African Americans with OCD to date. They identified six discrete symptom dimensions, including contamination/washing, hoarding, sexual/reassurance, aggression/mental compulsions, symmetry/perfectionism, and doubt/checking. While these factors were similar to those found in primarily non-Hispanic white samples, African Americans with OCD experienced contamination symptoms at twice the rate of European Americans (Williams, Elstein, Bucker, Abelson, & Himle, 2012); findings from the NSAL study were similar, also noting increased contamination concerns among African Americans. Higher levels of obsessions and compulsions related to themes of cleanliness may hold cultural relevance for African Americans, as they have historically experienced segregation due to European Americans' fears of contamination through close contact or sharing items (i.e., drinking fountains, swimming pools, etc.). Additionally, research shows that when primed with culturally salient stereotypical images (i.e., Jim Crow law images), African American participants are likely to experience increased disgust sensitivity (Olatunji, Tomarken, & Zhao, 2014). Individuals with a lower socioeconomic status (SES) report greater concerns about contamination (Williams, Elstein, Bucker, Abelson, & Himle, 2012), which is consistent with the hypothesis that individuals with a lower SES may be more exposed to contaminants, leading to greater contamination concerns and cleaning behaviors (Williams, Abramowitz, & Olatunji, 2012b; Williams & Turkheimer, 2007).

Cultural differences were also found with regard to animal concerns, which is consistent with findings in nonclinical samples (Wheaton, Berman, Fabricant, & Abramowitz, 2013; Williams, Abramowitz, & Olatunji, 2012; Williams & Turkheimer, 2007). This increased level of animal concerns may be a result of historic events, such as dogs being used to hunt for slaves or attack civil rights protesters (Williams et al., 2012).

OCD in Western Christian Samples

Abramowitz, Deacon, Woods, and Tolin (2004) administered self-report measures to better understand the relationship between Protestant religiosity and OCD symptoms, such as washing, checking, and the importance of controlling one's thoughts. Participants were divided into three groups based on level of religiosity. Individuals high in religiosity reported more obsessive symptoms and compulsive washing, as well as

more importance on their thoughts and the need to control them. The researchers referenced the Bible, in which Christ asserts that the thought of committing a sinful act is equal to committing it, as a way to explain the importance of control of thoughts in highly religious participants. Similar results were found in a sample of college students, with Christian students reporting higher levels of thought–action fusion (TAF), a symptom that highlights the importance of thoughts and controlling them (Shafran, Thordarson, & Rachman, 1996; Williams, Lau, & Grisham, 2013).

Sica, Novara, and Sanavio (2002) found similar results in Catholic Italian nuns and friars. Participants who reported high or medium levels of religiosity also reported high levels of obsessions related to the importance of thought control. The researchers attributed these findings to Catholic precepts, such as the notion that thoughts and behaviors are equal, as well as teachings about purity and perfectionism.

Overall, the research in Christian samples indicates differences in the importance of thought control and the notion that thoughts and actions are interchangeable. These beliefs may facilitate distress in Christians with OCD as they find they are unable to control their obsessions.

OCD in Jewish Communities

When obsessions in OCD focus on moral or religious issues, they are known as scrupulosity (Huppert, Siev, & Kushner, 2007). As Judaism is oriented around traditions and focuses on rituals and laws fundamental to Jewish life, many Jewish OCD sufferers experience scrupulosity (Huppert & Siev, 2010), although scrupulous obsessions may be experienced by individuals of other religions or even by people with no religion at all. Huppert and colleagues (2007) reported that when treating Jewish patients who suffer from scrupulosity, it may be difficult to distinguish between religious rituals and compulsive behaviors. Compulsions related to scrupulosity in Jewish individuals often include washing, prayer, and consultation with religious leaders (Huppert et al., 2007). Hand washing may be a particularly prominent compulsion because Jewish customs specify a detailed hand washing ritual in order to remove impurities (Huppert et al., 2007). However, religious rituals, if found outside the religious context or if extreme in nature, could be indicative of scrupulosity rather than religious devotion.

Rosmarin, Pirutinsky, and Siev (2010) studied attitudes of Orthodox and non-Orthodox Jews in the US toward OCD symptoms by giving participants descriptions of either religious (scrupulous) or nonreligious OCD symptoms. When confronted with descriptions of religious behaviors, such as excessive prayer, repeated crossings, and sky-gazing toward God, Orthodox participants were more likely to recognize the scrupulosity as OCD and recommend treatment than non-Orthodox participants, which was in direct opposition to the researchers' hypothesis. One potential reason for the discrepancy was that Orthodox participants had a more detailed understanding of normal religious practices due to a more "strict adherence to religious law" and could therefore identify behaviors outside the norm. Another reason was that non-Orthodox Jews may not have wanted to identify excessive religious behaviors as OCD for fear of offending other religious individuals (Rosmarin et al., 2010).

OCD in Middle Eastern Islamic Cultures

Several studies have been conducted examining the cultural components of OCD and its presentation in Islamic Middle Eastern countries. Mahgoub and Abdel-Hafiez (1991) examined a conservative Muslim sample in Saudi Arabia and found strong religious themes in their OCD symptomatology, including obsessions related to prayers and washing (50%), contamination (41%), and faith (34%). These obsessive themes may stem from a religious practice called *al-woodo*, in which the body must be systematically cleaned before prayer. The researchers noted that the need to frequently and meticulously perform these preparation rituals, may be a reason for the prevalence of repeating, washing, and checking compulsions in this sample. Religious obsessions related to contamination and purity, as well as compulsions involving washing, have been observed in many studies (Al-Solaim & Loewenthal, 2011; Okasha, Saad, Khalil, & Dawla, 1994; Saleem & Mahmood, 2009; Shooka, Al-Haddad, & Raees, 1998; Yorulmaz & Işık, 2011).

Yorulmaz and Işık (2011) noted that Islamic participants of Turkish descent experienced TAF, which is also noted in Western cultures (Abramowitz et al., 2004). The researchers concluded that this was due to similarities between certain beliefs in Islam and characteristics of OCD. While all participants in Yorulmaz and Işık (2011) reported an Islamic affiliation, the differences in symptom presentation are culturally significant because they exist between participants of reportedly equivalent ethnic descent. Those who had lived in Turkey from birth reported more severe symptoms, specifically in contamination/cleaning, when compared with Bulgarian-born Turkish participants and Turkish remigrants. The authors noted that Islam is more rigorous in Turkey, and could explain the more severe symptomatology for Turkish-born participants.

Okasha and colleagues (1994) found that most of their Egyptian sample were rated on the Y-BOCS as having moderate to severe symptom presentation, which the researchers took as indicative of Egyptian patients' high tolerance for psychiatric difficulties before seeking help. They also reported that mental health professionals are often a last option for participants, who instead tend to seek help from informal social networks of native healers, friends, elderly family members, and religious people (Okasha et al., 1994), as they may be less likely to manipulate or harm a patient (Al-Solaim & Loewenthal, 2011). This help-seeking pattern is parallel to that seen in African American communities (Hatch, Friedman, & Paradis, 1996), and suggests a preference for culturally and religiously relevant assistance with issues concerning psychological disorders.

Ghassenzadeh and colleagues (2002), found obsessive doubts and indecisiveness as the most frequent symptom, as well as washing compulsions. They also found that males most often reported blasphemous thoughts and ordering compulsions, while females reported greater concerns about impurity and contamination, and washing compulsions, which has been seen in other studies (Shooka et al., 1998) and other cultures (Jaisooraya, Reddy, Srinath, & Thennarasu, 2009; Labad et al., 2008). As 70% of the female participants were housewives, the authors concluded that this could affect the content of obsessions as cleaning would be a part of daily chores.

In a Pakistani sample, Saleem and Mahmood (2009) described "Napak," which is a "mix of unpleasant feelings of contamination with strong religious connotations of dirtiness and unholiness" in Islam. Two-thirds of participants added Napak to the questionnaire as an item within the category of contamination. If a Muslim is in the state of Napak, he cannot participate in religious rituals until he has cleaned himself

systematically. Al-Solaim and Loewenthal (2011) also found that some participants believed that OCD was caused by an “evil eye,” described as being an illness caused by social conflict or the envy of another individual.

Inozu, Clark, and Karanci (2012) compared the OCD symptomatology of a Canadian sample to a Turkish sample. They found that the predominantly Islamic Turkish sample scored significantly higher on the PIOS (a measure of scrupulosity) fear of God items than their Christian Canadian counterparts. These findings were attributed to a greater fear of God’s punishment in Islamic cultures, as fear is a prized attribute in Muslim worship.

An emphasis on cleanliness, purity, and religion is normative in Islamic cultures. However, when rituals surrounding these beliefs are committed in excess, and the beliefs become obsessive, they can then become culturally significant aspects of OCD symptomatology. Adherents of other religious traditions that emphasize cleaning may also combine religion and cleanliness (i.e., Orthodox Jews), but this presentation may be particularly prevalent among Muslims with OCD due to the many cleaning rituals required in Islam.

OCD in India

The extent research in India has found typical OCD obsessions to be contamination, aggression, symmetry, sexual, religious and pathological doubt. One such study by Girishchandra and Khanna (2001) found that the most commonly reported symptoms in a sample of 202 Indian participants were doubts about having performed daily activities (64.9%) and contamination concerns about dirt and germs (50%). In a comprehensive review of the Indian literature Reddy, Jaideep, Khanna, and Srinath (2005) observed that contamination concerns and pathological doubt were highly prevalent. Reddy and colleagues found the lifetime prevalence rate of OCD to be approximately 0.6% in India, which is relatively low compared to the lifetime prevalence in other countries. Girishchandra and Sumant (2001) also noted a disproportionate number of males in the study compared to females, a ratio of over 2:1.

Jaisoorya and colleagues (2009) found male participants had a tendency to report sexual and symmetry obsessions coupled with checking and bizarre compulsions, while dirt, contamination, and cleaning related symptoms were reported more often by females (e.g., Labad et al., 2008). Similar findings were observed by Cherian and colleagues (2013), who observed that men exhibited a slightly earlier onset and a greater tendency to have comorbid Social Anxiety Disorder. They reported higher frequencies of sexual, religious obsessions, pathological doubt, and checking and repeating compulsions. Whereas women were more likely to be married, have comorbid depression, risk for suicide, and report a higher frequency for fear of contamination (Cherian et al., 2013). To explain the higher frequency of symptoms surrounding dirt, contamination, and cleaning, the authors commented that women were more often subjected to unclean conditions and could be more concerned with contamination. In Western samples, it has been suggested, as an explanation for females reporting higher levels of contamination concerns, that biological make-up and brain chemistry, specifically greater numbers of steroid hormone receptors the female brain may be causing a sexual dimorphism (Labad et al., 2008). The authors also mentioned

that environmental differences could mediate the differences found (i.e., females being socialized to do a greater share of the domestic work).

In a study by Jaisoorya and colleagues, the majority of participants were men, which was also noted in Girishchandra and Sumant (2001). Although there has been little to no difference in help-seeking between men and women with OCD in Western samples historically, the difference between male and female participation in Indian samples presents a disparity in the literature (Goodwin, Koenen, Hellman, Guardino, & Struening, 2002; Torres et al., 2007). In the Indian sample, the authors commented that a possible explanation for this was the difference in access to health care, resulting from differing male versus female social status in India, where the males hold dominance within the social hierarchy. Despite the differences found in symptom presentation, it was found in a large clinical sample that “good insight” and a grounded understanding of the motivations behind thoughts and behaviors was correlated with a lower severity of OCD (Cherian et al., 2012).

In a study by Chowdhury, Mukherjee, Ghosh, and Chowdhury (2003), the culture-bound disorder termed “puppy pregnancy” was described as fears of being pregnant with a canine embryo after having been bitten by a dog, and this condition is ironically more common among men than women. Puppy pregnancy has been primarily found in reported in rural parts of India, and symptoms are comparable to OCD. Puppy pregnancy includes a fear of internal contamination (from the puppy fetus), disability (impotence due to damage to internal sexual organs), and death. One case reported excessive checking after having observed a dog licking milk cans and being bitten by the same dog. The subject was fearful that he was being chased by a dog, and would check all milk cans, worried that they had been licked by a dog. The authors also noted obsessive thoughts involving fear of dog bites and behavioral avoidance.

In general, however, research to date has found few differences in symptom dimensions in India from those found in Western studies. Bloch et al. (2008) noted some differences in symptom presentation for Indian participants when compared with studies of white and non-white samples. In Indian studies, the five-factor model of symptoms included a need to touch, tap, and rub, which could be associated with cultural traditions involving touching (i.e., touching the feet of elders as a sign of respect). When seeking treatment, it has been found that, although many psychotic disorders are believed by the lay public to be supernatural in nature, OCD and related disorders are believed to be a result of excessive worry and thinking. Despite this non-spiritual rationale, many in the Indian subcontinent with OCD prefer religious remedies, as many indigenous beliefs are at odds with the Western biomedical model for treating mental disorders (Chakraborty, Das, Dan, Bandyopadhyay, & Chatterjee, 2013; Grover et al., 2014).

OCD in Indonesia

In Bali, a primarily Hindu province, Lemelson (2003) conducted a study of 19 patients suffering from OCD, to understand the degree to which Balinese culture affected the illness experience. The most reported obsession was the need to know, which manifested as the necessity of knowing the identities of passers-by. Lemelson also found obsessions surrounding themes of magic, witchcraft, and spirits, which are all religious themes entwined in the Balinese culture.

As a caveat, it is important to note that other than in Bali, where Hindu has an emphasis on magic, witchcraft, and ancestor worship, the main religious affiliation of Indonesia is Islam. Therefore the phenomenology of OCD in other parts of Indonesia may be more similar to findings in other Islamic cultures. More research is required to validate this notion.

In relation to treatment, recently a study was conducted in Indonesia that supported the use of exposure response prevention (ERP) using the Trans-theoretical Model (TTM) to reduce the symptoms of OCD, as measured by the Y-BOCS total score (Rohayati & Fakrurrozi, 2013). These findings support the use of Western therapeutic techniques to treat OCD in Indonesia.

OCD in East Asia

Matsunaga and colleagues (2008) noted the most common obsessions in a Japanese sample as fear of contamination (48%), followed by obsessions with symmetry or exactness (42%) and aggression (36%). The most common compulsions reported were checking and washing (47%), and repeating rituals (31%). The study's focus was more psychobiological than cultural, and the authors described "transcultural stability" in the symptom presentation of OCD. However, the researchers only compared results with Western countries and did not evaluate differences with respect to other cultures.

In the first study of its kind from Taiwan, Juang and Liu (2001) found the most commonly reported obsessions to be fears of contamination (37%), pathological doubt (34%), and a need for symmetry (19%). The most commonly reported compulsions consisted of checking, washing, and orderliness/precision.

Kim, Lee, and Kim (2005) determined symptom dimensions, based on a factor analysis of the Y-BOCS-SC checklist in a study of Koreans. The factors identified included hoarding/repeating, contamination/cleaning, aggressive/sexual, and religious/somatic, with the latter two dimensions described as "pure obsessional" due to a lack of identified corresponding compulsions. Most Western studies group these two in to a single factor: unacceptable/taboo thoughts (Bloch et al., 2008). Also grouped together in the study was hoarding with repeating and counting compulsions, a combination not usually seen in Western samples. Moreover, the Korean sample differed from other studies originating in Asia by not including an obsession with symmetry. Other studies originating in Asia have shown symmetry obsessions to be among those most highly reported (Li, Marques, Hinton, Wang, & Xiao, 2009; Matsunaga et al., 2008).

The first OCD symptomology study to originate in mainland China, Li and colleagues (2009) assessed 139 patients with OCD in an attempt to determine if the symptom dimensions documented in other studies (unacceptable/taboo thoughts, symmetry/ordering, contamination/cleaning, and hoarding) were applicable in this particular culture. The most common symptoms reported were obsessions with symmetry (67.6%) and contamination (43.2%), followed by aggression (31.7%). A cultural propensity toward harmonious interpersonal relationships due to the presence of Confucianism and its precepts in China were cited as a possible explanation for fewer reports of aggression (Li et al., 2009). Albeit, the contrarian nature of OCD could be an explanation for aggression being the third most prevalent symptom in this sample.

Additional investigation in China found that caregiver burden was a source of significant OCD related stress in the home. A study by Siu, Lam, and Chan (2011) discovered that in a Chinese sample of 77 families, 76 reported significant objective and subjective caregiver distress as a result of financial burden, disruption of activities by OCD patient's demands, accommodating patients, participating in rituals, and personal feelings of distress. In one case, the cleanliness rituals of one patient contributed to a significant proportion of the family's overwhelming water bill. The aforementioned study indicated that female caregivers of single patients, primarily mothers, suffered most from subjective distress and may be in the most need of help.

A disproportionate ratio of males to females was noted in the study (almost 2:1). It was unclear whether this could have possibly been mediated by cultural norms, similar to some Indian samples, regarding help-seeking behavior in women as the authors noted that the males of the sample seemed more willing to participate (Girishchandra & Sumant, 2001; Jaisoorya et al., 2009). Contrarily, a study conducted in Singapore with a multiethnic community sample, mostly comprised of Chinese (76.9%), Malay (12.3%), and Indian (8.3%) participants, was slightly majority female. The authors noted that women with anxiety and related disorders reported more cognitive and social disability than their male counterparts (Subramaniam, Abdin, Vaingankar, & Chong, 2013). The authors suggest that in order to accommodate this need, mental health care providers should adhere to some cultural needs (i.e., evening and weekend clinic hours, and a stronger focus on treating the cognitive and social symptoms).

In another study by Subramaniam, Abdin, Vaingankar, and Chong (2012), the authors conducted one of the first investigations into the impact and prevalence of OCD in Singapore. Their large national sample consisted of equal parts Chinese, Malays, and Indians, reported a lifetime prevalence of OCD as 3.0%, with age being the largest demographic contributor. OCD was most common in those between the ages of 35–49, and although there were no gender or ethnic differences associated with OCD, marital status was significantly associated with OCD (i.e., separated or divorced participants having a higher rate of onset). Participants with lifetime OCD were found to have a greater likelihood for comorbid GAD, bipolar disorder, dysthymia, and MDD, as well as physical ailments like chronic pain and hypertension. Those with lifetime OCD who sought treatment was 10.2%, with an average of nine years between onset and seeking treatment.

In Eastern cultures there is an innate cultural emphasis on conformity, collectivism and harmony, often instilled from an early age (Li et al., 2009). The emphasis on symmetry in OCD may reflect these tenets to some degree. Nonetheless, there are some differences in symptoms between Chinese and Japanese with OCD, as reported by Liu, Cui, and Fang (2008). After studying two groups of OCD patients, the authors concluded that aggressive and contamination obsessions were more common in Japanese OCD patients, while religious and symmetry/exactness obsessions are more common among Chinese. Likewise, Japanese OCD patients were more likely to have cleaning/washing and ordering/arranging compulsions, while Chinese were more likely to have checking compulsions. These differences could be reflective of the greater emphasis on symmetry in Chinese culture than Japanese culture (Kim et al., 2005; Li et al., 2009).

One culture-bound disorder that is seen in Asian cultures is Taijin Kyofusho (TKS), which is referred to as an interpersonal fear disorder (Vriends, Pfaltz, Novianti, & Hadiyono, 2013). Although often considered a form of social anxiety disorder, there

are several variants of TKS, including fear of offending others due to a physical defect or offensive facial expression, fears of blushing, fears of having a physical deformity, and the fear of one's own glance (Vriends et al., 2013). Another fear is that of having a foul body odor, which in the West is referred to as olfactory reference syndrome (Feusner, Phillips, & Stein, 2010), which, when paired with the cognitive preoccupations and repetitive behaviors, may be a form of OCD. For example, one study found that individuals with olfactory reference syndrome beliefs were preoccupied with the scent of various body parts, and almost the whole sample engaged in repetitive behaviors, similar to compulsions, such as excessive showering (Phillips & Menard, 2011).

Another culture bound disorder primarily observed in southeast Asian cultures is Koro. This disorder is described as the phenomenon where sexual organs (penis in males and nipples/breasts in women) retract back into the body, disappearing and potentially causing death (Roy et al., 2011). Although this condition has been noted as occurring within female samples, the majority of cases observed have been male (Davis, Steever, Terwillinger, & Williams, 2012). Similar to obsessions seen often in OCD, the Koro anxieties prompt significant anxiety and impairment in those suffering. Additionally, common reactions to symptoms that are reminiscent of compulsions are tugging and pulling on genitals to delay or halt the retraction process (Davis et al., 2012). More research is needed on the cause(s) of initial symptom manifestation, but in two case studies the authors noted each Koro sufferer began to experience symptoms after being warned about an outbreak via social networking (i.e., a phone call and local news reports). In the case studies each Koro sufferer was checked by a physician for sexual organ abnormalities but none were found (Roy et al., 2011). Although predominantly found in Southeast Asia, isolated cases have been reported in the West. This indicates that Koro may not be simply a culture bound syndrome but an OCD-related phenomenon with more universal constructs (Davis et al., 2012).

OCD in Africa

Although much of the OCD related research in the continent of Africa has focused on comorbid obsessive-compulsive symptoms with trauma and psychotic disorders, there are some noteworthy OCD findings. A study conducted in Kenya found that 12.2% of psychiatric in-patients at a residential treatment facility met criteria for OCD, with over 60% of those being male. Comorbidity of anxiety, depression and other psychiatric disorders varied, with 17.8% of those with OCD also meeting criteria for schizophrenia. The symptomology of those with OCD was recurrent and persistent thoughts (14.3%), attempts to suppress thoughts (15.5%), impulses recognized as from one's own mind (11.9%), compulsions of washing hands, counting, and checking (13.1%), distress prevention behavior (9.6%), excessive thoughts (13.1%), and caused distress/time consuming (11.9%) (Ndeti et al., 2008). The study authors postulated that the Kenyan patients had difficulty distinguishing between OC and psychotic symptomology. Kenyans tend to believe that OCD is caused by witchcraft, and therefore patients consult traditional healers, with no results. They may consult one healer after another, while symptoms continue to worsen (Karume & Osiemo, 2014).

One rare glimpse into the phenomenology of OCD in Africa comes from a report that originates from the Republic of Benin, a west African country bordered by Nigeria. The authors provide a case series of OCD symptoms in five young males (Bertschy & Ahyi, 1991). The symptoms observed in the five cases included rituals of

counting and checking, behavior obsessions, compulsive urges to act out embarrassing behavior, doubt obsessions and contamination rituals (Bertschy & Ahyi, 1991). The counting and checking behaviors were evident in a series of daily rituals that lasted for several months where the young man felt compelled to spend hours recounting all of the people he had associated with in his life. In the second case, the patient ruminated about smiling at inappropriate times and his religious convictions. Contamination rituals were also observed in two cases. One young man would refuse to use utensils if they did not meet his standard of cleanliness and would also not eat the section of food that had been touched by his hands, which was noted as deviating from the cultural standard in that region. The other case that exhibited contamination rituals was evidenced by a phobic reaction to dirt and excrement that resulted in nausea and vomiting from remembering such triggers (Bertschy & Ahyi, 1991). In three of the five cases, comorbid depressive episodes were documented, along with an additional case noting previous affective psychotic episodes. The authors conclude that despite cultural differences, OCD symptoms are generally similar to those seen in the West (Bertschy & Ahyi, 1991).

Another study conducted with an Afrikaner founder population (descendants of mostly White Dutch settlers in South Africa in the seventeenth and eighteenth centuries) found that among those with schizophrenia or schizoaffective disorder, 13.2% had OCD or OC symptoms. The most prevalent obsession was contamination, followed by religious obsessions, pathological doubt and sexual obsessions. Compulsions reported were checking behaviors, repetitive rituals, washing and counting (Seedat, Roos, Pretorius, Karayiorgou, & Nel, 2007). More research is needed to determine the OCD symptom dimensions separate from comorbid schizophrenia and schizoaffective disorder.

In post-conflict South Sudan, Ayazi, Lien, Eide, Swartz, and Hauff (2014) sought to find the association between exposure to traumatic events and the onset of anxiety disorders. In their community sample of 1,200 participants it was found that 12.7% had OCD. OCD was found to potentially be associated with exposure to traumatic events, although much higher prevalence rates were observed in other disorders (i.e., panic disorder, generalized anxiety disorder and post-traumatic stress disorder).

Unfortunately, on the African continent, many countries have no documented information on OCD (Karume & Osiemo, 2014), and thus more research is needed to identify the most prevalent specific obsessive-compulsive symptom dimensions.

OCD in Hispanic and South American Samples

To date there have been few studies conducted that address OCD in Hispanic and South American populations. Studies that have compared prevalence rates of OCD between Latino and European American populations in the US have yielded inconsistent findings. Studies of OCD in Latin America note a lifetime prevalence rate of 1.4% in Mexico City, 1.2% in Chile and 3.2% in Puerto Rico (Canino et al., 1987; Caraveo-Anduaga & Bermúdez, 2004; Vicente et al., 2006).

Although there have been few studies of symptom dimensions in Hispanic Americans, one study did note greater contamination concerns in a non-clinical sample (Williams, Turkheimer, Schmidt, & Oltmanns, 2005). In a study conducted in Costa Rica, participants reported lower levels of symptom severity, including lower levels of functional impairment and less perceived distress, when compared to their

US counterparts (Chavira et al., 2008). Culturally relevant explanations cited for the differences were a possible lack of psychosocial stressors in the Costa Rican sample, as the participants were from a primarily agrarian region of the country and lower levels of perceived stress possibly reflected the ability of the participants to “accommodate” their symptoms (i.e., avoiding driving due to the fear of harming others and this was easily avoided due to the ease of access in Costa Rican society) (Chavira, et al., 2008).

A study in Rio de Janeiro outlined differences with respect to content of obsessions, as the most commonly reported obsessions included the theme of aggression, (69.7%), followed by contamination (53.5%) (Fontenelle, Mendlowicz, Marques, & Versiani, 2004). This differs from findings in many other cultures, where issues of contamination seem to overshadow others in the spectrum of OCD manifestations (i.e., Matsunaga et al., 2008). Possible reasons for the findings of their study were the climbing rates of mortality and morbidity resulting from violent causes, therefore that population has likely prioritized avoiding violence. It is important to note that this study is from a single city in Brazil and reflects the urban culture of the participants.

In a Mexican study by Nicolini and colleagues (1997), contamination obsessions were the most common (58%), followed by sexual (31%), and aggressive obsessions (13%). The proportion of men to women in the study was disproportionate, with only 37% of the sample being men. The authors considered it a cultural phenomenon in which Mexican men have the tendency to deny having a mental illness. Men in the study were also found to have a slightly earlier onset of the disorder than women, with men’s onset at 19.5 years and women’s at 22 years.

In another Mexican study, a clinical sample and control were assessed for personality traits that correlate with the severity of OCD. Their findings supported previous research that found OCD patients to have higher levels of harm avoidance and lower levels of self-directedness and cooperativeness. Low self-directedness was found to correlate with increasing severity of OCD symptoms and comorbidity with Major Depressive Disorder (Cruz-Fuentes, Blas, Gonzalez, Camarena, & Nicolini, 2004).

Discussion

Although OCD is due in part to biological predisposition, culture plays an important role in shaping the phenomenology of the disorder. Obsessional content stems from that which is culturally relevant to the sufferer, resulting in large differences in the expression of symptoms.

Religious Differences

The presence of religious rituals in OCD symptomology is generally an indicator that faith is practiced in excess of cultural norms. In Christian samples the most often reported symptoms were obsessions with contamination and thought control, whereas the Catholic subgroup had an emphasis on perfectionism. The Jewish subgroup had obsessions of a religious nature (Huppert et al., 2007), and themes of morality and divine retribution. There were differences in symptom recognition and help-seeking behaviors between devout Orthodox Jews and their less observant counterparts. In Middle Eastern cultures we see high Islamic affiliation and symptom dimensions that reflect this, and obsessions in the Islamic subgroup centered on purity and religious themes (e.g., Okasha

et al., 1994). The obsession with physical cleanliness in the symptomology of highly religious cultures seems to be a manifestation of the emphasis on spiritual purity within the society. OCD in Near Eastern countries tends to also reflect religious beliefs, as well as familial and societal values (e.g., kissing the feet of respected elders).

Research has noted that religious themed-OCD may be more resistant to treatments (e.g., Williams et al., 2014), and given how many experience these types of symptoms this has important implications for OCD sufferers worldwide. It may be difficult for a patient and/or clinician to distinguish between acceptable religious/moral thoughts or behavior versus excessive symptoms driven by OCD. Thus, cultural competence on the part of the therapists and a good understanding of a patient's belief system is essential (Chapman et al., 2014).

Regional Differences

Four or five factor models with the symptom dimensions contamination/cleaning, hoarding, symmetry/ordering, taboo thoughts/mental compulsions, and doubt/checking are commonplace in Western samples (Abramowitz et al., 2003; Bloch et al., 2008). However, the cultural diversity within Western samples has historically been scant (Williams et al., 2010). Research in Hispanic and Latin American samples has shown contamination and aggression to be among the most common symptom presentations. Indian samples emphasized themes concerning contamination and pathological doubt, with greater gender differences in symptom dimensions. In East Asian samples, symptom dimensions of contamination and symmetry were most prominent, with cultural differences between Japan and China noted (i.e., greater need of symmetry in China and contamination and aggression in Japan) (Liu et al., 2008). The findings suggest that there are elements of symptom dimension that generalize to certain regions and religious groups across the world.

Similarities in Symptoms

OCD sufferers around the world display cross-cultural similarities as well. The majority of the cultures studied include contamination fears as a primary dimension (e.g., Nicolini et al., 1997; Okasha et al., 1994; Reddy et al., 2005). This fear often results in hand-washing compulsions, seen in many cultures (Jaisooriya et al., 2009; Kim et al., 2005; Okasha et al., 1994; Williams, Elstein, Buckner, Abelson, & Himle, 2012c). Matsunaga et al. (2008) implicate biology as a decisive component in symptom presentation and highlight similarities across cultures. Symptom dimensions, like contamination, which are present cross-culturally, support this hypothesis. Additionally, Kim et al. (2005) found differences between the two genotypic groups with respect to religious/somatic obsessions, which provides additional evidence for a biological basis for symptom dimensions.

Conclusions

It is undeniable that cultural context is important in the diagnosis and treatment of OCD. Cross-cultural research in OCD is ongoing, and new findings will help to establish the degree to which cultural beliefs can exacerbate, ameliorate, or alter the symptom presentation and experience of OCD for those diagnosed. There is a paucity

of research in certain regions and cultures that should be addressed, including African samples other than the highly Muslim Saharan region and White South Africa (e.g., Stein et al., 2008), Hispanic Americans, and ethnoracial minority groups in general. The implications of cross-cultural differences are pivotal in the development of empirically supported treatments for individuals of various cultural backgrounds, as well as for determining the applicability of contemporary literature to diverse cultural groups.

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