Chapter 13

The Relationship Between the Culture-Bound Syndrome Koro and Obsessive-Compulsive Disorder

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Abstract

Little research has been conducted on the culture-bound syndrome known as koro. Typically not observed in Western cultures, koro is characterized by the obsession with the possibility of one's genitalia receding into the body, resulting in infertility or death. To prevent any envisioned shrinkage or retraction of the genitalia, a koro sufferer will perform certain behaviors (i.e., pulling of genitals, spiritual rituals, securing genitals to prevent retraction) that are intended to reduce or eliminate anxiety. Obsessive-compulsive disorder (OCD) is a disorder characterized by distressing and typically implausible obsessions, coupled with compulsions specifically designed to reduce the anxiety caused by the obsessions. Through a review of the literature, we discuss the possibility of koro as a form of OCD or related disorder, as an alternative to the current classification as a culture-bound syndrome. Given the key similarities of koro and OCD (i.e., symptoms involving genital recession as the target of obsessional anxiety and genital pulling as a compulsion) it is prudent to discuss implications for the classification, assessment, and treatment of koro. Also discussed is the need for future research to specifically examine biomedical and sociocultural facets of koro and its presentation as a secondary symptom to a psychological or medical condition.

Keywords: koro; anxiety; obsessive-compulsive disorder; culture-bound syndrome; obsessions; compulsions; classifications
WHAT IS KORO?

Symptoms

Koro is a culture bound syndrome characterized by the fear that one’s sexual organ(s) will shrink and/or retract into the body, possibly causing death (APA, 2000; Roy, Hazarika, Battacharya, Das, Nat, and Kadaicha, 2011). Although koro may occur in females (i.e., Kovacs and Osvath, 1998), it has been primarily reported in males. To combat fears of perceived shrinkage or retraction, koro sufferers may engage in periodic pulling of the genitals, spiritual rituals, drugs, and in some cases psychotherapy (Cheng, 1996). Among koro sufferers, there is a distinction between the fears of genital shrinkage versus genital retraction that involve an abdominal pulling sensation not present in shrinkage fears (Dutta, Phookan, and Das, 1982). Some common fears associated with genital retraction/shrinkage include a change in gender, possible sterility, or being possessed by spirits (Ng, 1997; Gwee, 1963). Perhaps the most extreme fear associated with koro is death, but this fear is only present in certain cultural contexts and is not always reported as the primary concern. In Western cultures where the disorder has been diagnosed, those with the condition express more concern about genital retraction and few consider it fatal (Buckle, Chuah, Fones, and Wong, 2007; Chowdhury, 1996).

History

Koro originated in China and has typically presented in Southeast Asia. Koro was derived from a Malaysian term “kuro”, which translates as “turtle head”, due to the similarity between the retraction of the turtle’s head into the shell and the penile retraction into the body (Cheng, 1996; Earleywine, 2001; Gwee, 1963). The first known medical reference to koro took place in Guangdong, China in 1865 and the first epidemic outbreak occurred in Singapore in 1967 (Ng, 1997). The Chinese equivalent to koro is suo-yang. In Cantonese it is termed shook-yang, which translates to “shrinking penis.” Koro has also been observed in some parts of Africa. In this instance, the media was a catalyst for spreading beliefs about the crime of “genital theft,” inflicting concerns of genital shrinking or retraction as a curse from travelers (Dzokoto and Adams, 2005; Dgmodoran and Nizamie, 1993; Mather, 2005).

Types and Causes of Koro

There are two subtypes of koro: primary and secondary. Primary koro, also known as epidemic koro, is depicted as a massive outbreak of koro-related fear that spreads within a village and on to nearby villages (Chowdhury, Pal, Chatterjee, Roy and Chowdhury, 1988). The widespread fears are often associated with cultural beliefs related to health and sexual practices (Buckle et al., 2007; Yang, 2009). Epidemic koro has a major social component, as a single report of koro is all that is required to initiate an “outbreak” in a village (Dutta et al., 1982). The mere suggestion of koro in one locale can incite panic and can heighten fear of koro in another area. Preceding circumstances to koro outbreaks often include anxiety about
cold sensations, insect bites in the genital area, sickness, and feelings of weakness (Cheng, 1996), as these instances can temporarily cause penis shrinkage.

Symptoms of koro persist due to beliefs based on both folklore and traditional Chinese medical literature. There are several references to genital retraction in the traditional Chinese Tao-ist Yin-Yang medical philosophy. The medical literature outlines koro’s progression from a terminal condition into the current categorization described by the following tenets: (1) “penis twisting itself... shrinkage of the scrotum and the coldness of extremities,” (2) “the penis ascending and entering the abdomen,” and (3) “intense feelings of impending doom” (Bucke et al., 2007). The perspective of Traditional Chinese Medicine suggests that sexual indulgence interrupts the balance of Yin and Yang, which can result in penile retraction (Bucke et al., 2007; Gwee, 1963). This philosophy stresses the importance of producing ching, sexual energy, which if low or depleted can result in death (Gwee, 1963). Chinese philosophy and folklore emphasizes energy as the essential component to life. The spirits have the ability to strengthen or weaken the “vital energy” which for men is represented as semen (Cheng, 1996). It is necessary, when discussing koro that cultural context, is considered as a disorder sensitive to the cultural environment (Guarnaccia and Rogler, 1999). Fear of spirits combined with this classical Chinese philosophy has an impact on several koro sufferers that creates and sustains fears of penile retraction.

The term secondary koro best describes isolated instances of koro typically reported in non-Asian countries. Isolated koro shares similar symptoms regarding fear of retraction of the genitals. What differentiates isolated and epidemic koro is the absence of the fear of death. Most cases of isolated koro exist as a secondary symptom of a psychological or medical condition, such as depression, schizophrenia, or drug withdrawal (Sarro and Sarro, 2004). The idea of the genital retraction resulting in a change of status or sexual identity provokes extreme anxiety.

The fear of possible genital retraction becomes the main focus of the disorder and often results in the need for psychological interventions. Most of the current literature on koro is presented as single case studies, and the published reports reflect the heterogeneity of the symptoms of koro. Given that secondary koro presents in isolated situations, typically as a secondary symptom of a biological or psychiatric condition, persons are often described as exhibiting koro-like symptoms (e.g., Shukia and Mishra, 1981).

**Descriptive Features**

Koro is considered primarily as a male phenomenon that affects young, unmarried adult males, but can afflict those from ages 8 to 54 respectively (Cheng, 1996; Hawley and Owen, 1988). Reports of cases involving children are centered on the fear and anxiety experienced by the parent, usually the father (Chowdhury, 1996). The course of koro is broad and ranges from one episode to several years with either an acute or chronic presentation, although most cases appear to be brief and nonrecurring (Cheng, 1996; Chowdhury, 1992; Dutta et al., 1982). Koro remains classified as a culture-bound syndrome in the DSM-IV, since its addition in the DSM-III-R in 1987, despite new literature and several revisions. Beginning in the 1960’s, attempts were made to accurately describe the basis and classification of koro. Some of the explanations for the disorder included a hysterical pain reaction brought on by culture-specific fears, a culture-bound depersonalization syndrome, a castration fear
associated with oral deprivation, and a culture-bound psychogenic disorder (Chakraborty, 1983; Chowdhury, 1996).

The first attempt to explain koro from a Westernized perspective began with a psychoanalytical interpretation. Theorists suggested that symptoms of koro represented an unconscious fear of symbolic castration but found little evidence to support this conjecture. However, Ng (1997) linked koro to “psychological castration,” whereby the fear of punishment by “castration” manifests as concerns over loss of “vital energy” or power due to sexual choices. The psychoanalytical perspective was mostly applied to epidemic koro as the first attempt at offering a psychological alternative to the common explanation of folklore and spirits (Khublakar and Gupta, 1984). A social perspective was later added but again only applied to epidemic koro, which accounts for the supernatural and cultural beliefs present in koro cases (Cheng, 1996). The biomedical perspective was introduced to explain both epidemic and isolated koro with an emphasis on isolated cases of koro because of its presentation as a concurrent symptom of a primary psychiatric or organic condition (Buckle et al., 2007).

Symptoms of Koro and Other Mental Disorders

By the 1980’s, koro was recognized as the genital retraction syndrome triggered by panic from learned experiences (Chowdhury, 1996). Several researchers speculated about the kind of mental disorders that could be related to koro. Initially, koro was compared to another culture bound syndrome, taijan kyofusho, whereby worries and fear about offending others cause significant distress (Chowdhury, 1996). However, taijan kyofusho is specific to anxiety surrounding social situations, and therefore more accurately described as a cultural variation of social phobia (Kirmayer, 1991).

Literature suggests that koro may be comparable to several DSM-IV-TR diagnoses. Comorbidity is common in acute koro cases, whereby the resulting anxiety can be compared to panic disorder (Cheng, 1996). Koro also resembles somatoform disorder in which anxiety is due to a physical abnormality that does not actually exist (Chowdhury, 1996). As demonstrated in American cases of koro, comorbidity of body dysmorphic disorder is common, with symptoms manifesting as scrutiny of the penis (Earleywine, 2001). Body dysmorphic disorder has also been considered an obsessive-compulsive spectrum disorder (e.g., Phillips, Pinto, Menard, Eisen, Mancebo and Rasmussen, 2007), and one theory that has not yet been studied is the possibility that koro is a part of that same spectrum.

Koro and OCD

Obsessive-compulsive disorder (OCD) is a highly debilitating disorder that affects about 1.6% of the population (Kessler, Berglund, Demler, Jin, Merikangas and Walters, 2005). It involves severely distressing obsessions and compulsions. Obsessions are intrusive, unwanted thoughts and images that increase anxiety. Obsessions are so distressing that to decrease the anxiety they cause, an OCD sufferer will develop compulsions, which are repetitive actions or mental acts. OCD has been shown to be highly disabling, as nearly two-thirds of those afflicted report severe daily functioning impairment (Ruscio, Stein, Chiu, and Kessler, 2010).
Because the obsessions associated with OCD are often outlandish or implausible, it is important to understand the cognitions behind manifested symptoms.

While the epidemiology of koro shows it to be a phenomenon that is predominant in East Asian culture, isolated cases of the disorder found in the West suggest that koro is not just a culture-bound syndrome, but includes an underlying universal phenomenon. The abstract nature of a disorder like koro leaves room for speculation as to an appropriate classification. One that has not been suggested, that we are aware of, is the possible classification as an OCD spectrum disorder or peripheral symptom of OCD itself. The symptomatology of the disorder, as well as reported subjective experience, bears a remarkable resemblance to what is typically seen in OCD.

**Obsessions and Compulsions Associated with Koro**

The most salient feature of koro concerns the anxiety surrounding the retraction and shrinkage of genitalia (Chowdhury, 1990). The degree to which this anxiety and fear can impair the daily functioning of those who report it has marked similarities to the construct of obsessions in OCD. This, coupled with the improbability of one’s genitalia actually receding into the body, makes it possible to categorize this fear as an obsession. Sexual obsessions are extremely common in OCD worldwide (e.g., Ruscio et al., 2010; Williams and Steever, in press), but these types of thoughts are considered taboo or embarrassing in most cultures. Thus, the stigma and guilt attached to the experience of sexual symptoms of OCD is highly distressing (Gordon, 2002). Furthermore, Bernstein and Gaw (1990) note that sexual identity questions and conflicting feelings about sexuality are common in the experience of koro. Similarly, approximately 10% of treatment-seeking OCD patients report concerns about their sexual identity as a main concern (Williams and Farris, 2011). In OCD, these worries manifest as fears of experiencing a change in sexual orientation, which is strikingly similar to the worries that underlie many cases of koro.

Along with the obsessional component of the disorder, the symptomatology of koro also includes features that could be considered compulsive. In OCD, common compulsions include behaviors such as washing and checking. Likewise, in koro, behaviors such as tugging or pulling with hands or special instruments, to secure genitalia to impede retraction can be classified as a compulsion (Mattelaer and Jilek, 2007).

Avoidance of anxiety-producing stimuli is also characteristic of both OCD and koro. Kar (2005) describes the case of a man diagnosed with koro who would intentionally avoid touching or looking at his genitalia, even when visiting the bathroom. Behaviors such as these are typical of anxiety disorders like OCD. Some documented cases of koro have described males going to extremes to avoid marriage and the company of a female for fear of the sexual ramifications involved (Kar, 2005). Similarly, people with sexual-orientation themed OCD may avoid dating due to the nature of their fears (Williams, 2008).

**Treatment of Koro and OCD**

Many different treatment methods have been employed cross-culturally to alleviate symptoms of koro. Mattalaer and Jilek (2007) documented several treatment attempts in an
epidemic of koro in a rural subset of South China in 1985. In many instances, rituals and exorcisms were employed to drive out the “evil spirits” inhabiting the souls of many of the villagers. Traditionally, ritual treatment of koro began with several villagers sharing the responsibility of holding onto the receding genitalia for several hours before certain rites of exorcism were performed and the evil spirits were chased through the streets by loud noises and fireworks. The authors cited that this also served to heighten the general anxiety of the village. One report even cited that villagers would engage in mass beatings of the inflicted in order to rid the body of the “fox spirit”, the believed cause of the disorder. As Bernstein and Gaw (1990) noted, the cultural belief in the symptoms of koro and their consequences is essential to the beginnings of the experience of the disorder.

While culturally fascinating, modern psychology has sought to approach treatment with empirically-supported methods. Koro has been shown to respond well to behavioral psychotherapy and medications like selective serotonin reuptake inhibitors (SSRIs) (Buckle et al., 2012). These same treatments have long been the preferred method of treatment for OCD and its subtypes (e.g., NICE, 2006). A koro case study by Sarró and Sarró (2004) describes the case of a middle-aged male from Morocco living in Spain. After numerous trips to various hospitals with complaints of genital shrinkage and abdominal pain, the man was referred to a psychiatric clinic. In this setting, he admitted to having been treated years before for homicidal ideation, somatic issues, and anxiety. Treatment for these problems came in the form of the neuroleptic haloperidol. Neuroleptics have been used to augment SSRI medication in the treatment of OCD (Bystritsky, 2004). The man was again prescribed a neuroleptic, and his koro symptoms and genital complaints decreased significantly in the following three weeks. In another study, Berrios and Morley (1984) described a case study of a man in his forties living in England. His symptoms were experienced over a twenty-year period that he said began as a child, when his genitalia were pulled during a game with other boys. This particular case involved treatment with behavioral psychotherapy and phenelzine, a Monoamine Oxidase Inhibitor (MAOI), that is prescribed as second-line anti-depressant medication to persons non-responsive to SSRI’s (Thase and Kupfer, 1996). The comorbidity of depression and the prescribing of anti-depressants is consistent with the typical pharmacotherapy of OCD (Bystritsky, 2004).

**CONCLUSION**

As our society becomes increasingly diverse, it is likely that Western clinicians will see increasing numbers of culture-bound syndromes, such as koro. Researchers have struggled over the last few decades to come to an acceptable classification of koro. Several different interpretations have been advanced (Marlowe, 2009; Chowdhury, 1996), however our knowledge is limited by the fact that much of the available literature is confined to single-site and case studies. From this literature, koro has been categorized as a culture-bound syndrome, anxiety or panic related disorder, somataform disorder, body image distortion disorder, and depersonalization disorder (e.g., Chowdhury, 1996; APA, 2000; Buckle et al., 2007).

Synthesizing the limited literature, it also seems possible that koro is a form of OCD or related spectrum disorder. As detailed in the preceding arguments, OCD and koro share many similarities. The concerns of the retraction or shrinkage of the genitals are the basis of the
obsessive thoughts. Relief is obtained through the compulsive acts of pulling and securing the genitals. The cycle of obsessive-compulsive behaviors persist when afflicted individuals continue to engage in compulsions to decrease anxiety and avoidance of anxiety-provoking situations (Khubalkar and Gupta, 1984). Despite the intrusive thoughts and possible medical complications, the repetitive behaviors persist in interfering with daily functioning. Cognitive-behavioral therapy (CBT) and SSRI medication appear to be appropriate treatments. Similarity of symptoms and treatment approaches support the theory of koro being a culturally-specific form of OCD or related spectrum disorder.

When approaching a disorder as obscure as koro, there will be many interpretations of the limited data. Future research should examine biomedical facets of koro, such as inheritance patterns, as research has suggested a genetic component (Ng, 1997) and there is also a need to conduct CBT treatment outcome studies. Similar to OCD literature, the examination of the genetic underpinnings of koro could offer important information on the impact of social, environmental and psychological aspects of the disorder and related disorders. More research on this interesting disorder is certainly warranted.

REFERENCES


