



## Koro-like Syndrome beyond Asia: Case Report of a Female from Jos, Nigeria

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**Abstract.** Koro is a culture-bound syndrome characterized by acute anxiety and the belief that one's genitalia is retracting into the body, which may lead to death. The syndrome is a culture-bound disorder commonly reported among men in Asia, Koro-like presentations have also been documented globally, with few cases involving women. This paper presents a case report of a 22-year-old single female in Jos, Nigeria, who experienced sudden anxiety and perceived genital disappearance after an encounter with a stranger. Examination of the genitalia by one of the researchers revealed that the genitalia were intact, psychological first aid was provided. Further medical evaluation confirmed that her genitalia were intact. The case is discussed within the framework of anxiety and delusional disorder theories, including the four-factor theory of anxiety, and two-factor theory of delusion, with emphasis on sociocultural influences, observational learning, and cognitive bias. This report underscores the importance of differentiating between culture-bound syndromes and medically verifiable genital pathology, highlights the role of psychoeducation in dispelling harmful beliefs, and calls for public awareness to prevent mob violence against alleged perpetrators of "genital theft." The findings contribute to cross-cultural psychiatric literature by documenting a rare presentation of Koro-like syndrome in a Nigerian female.

**Keywords:** Koro-like Syndrome, Asia, Case Report, Female, Jos, Nigeria

### 1. Introduction

Koro is a culture-bound syndrome characterized by intense anxiety and the fixed false belief that the external genitalia commonly the penis in males and, less frequently, the nipples or vulva in females are retracting into the body, or disappear, which may lead to death. Despite the absence of any anatomical

changes or medical evidence, affected individuals often experience significant distress and may engage in various physical measures to prevent the perceived retraction. Koro has been historically described in Southeast Asia as a culture-bound disorder. Cases have been documented in Africa, including Nigeria. In the Nigerian context, Koro cases are sometimes reported in association with rumors of "genital theft" or "spiritual attack," leading to community panic and, in some instances, mob violence against alleged perpetrators. Such beliefs and reactions highlight the interplay between cultural narratives, psychopathology, and social behavior. Given its potential for public disorder and its psychological impact on individuals, understanding Koro within both local and global perspectives is essential for effective mental health intervention and public education.

According to Kar, et al., (2022) Koro is a culture-bound syndrome which mostly affects men in places like South Asia, Africa, and China. Similarly, Diagnostic and Statistical Manual of Mental Disorders, DSM (2013) define Koro as a disorder characterized by different symptoms such as the belief that man's penis has retracts into his stomach, the fear of death and anxiety. Other factors that can cause this disorder are sexual practices, sexual myths, and feeling of sexual inadequacy. The disorder relates to cultural factors; cases of Koro are under reported, however few chronic cases has been reported which required intensive intervention. This is usually called the Koro-like condition because the person develops a delusion associated with a relapse of the psychiatric disorder (Ellepolo, 2021). Over the years, Koro has changed from a sickness specific to one culture to a pathology that affects people all across the world (World Health Organization 2016; American Psychiatric Association, 2013). Koro is having strong feeling of anxiety that the penis, or

vulva and nipples recede into the body which cause death (Halgin & Whitbourne, 2000).

Koro is a word gotten from Malay culture it refers to the appearance of a turtle when it retracts its head inside the shell. The diagnosis of Koro has been an issue of debate for many years. Previously, the disorder is geographically assigned as a culture-bound which is localized to countries such as China, Japan and Southeast Asia. The first known reported case was in Guangdong, China in 1865, cases were also reported in Indonesia in 1880s (Chowdhury, 1996), in 1967 similar case was reported as Singaporean Koro epidemic (Chaing, 2015). Symptoms of the Koro include, fear that the penis, breast, nipples, and labia shrink, retracts or disappear into the abdomen, which leaves victims with the fear that they will die (Diagnostic and Statistical Manual of Mental Disorders, 2013). Among the Afro-Asian cultures, one's genital is the symbol of stamina, strength, and power. Therefore, shrinkage of genital or its disappearance is seen as loss of power (Kar et al., 2021). The anxiety that comes with the beliefs that the genital would shrink and withdraw into the stomach, ultimately causing death, characterizes this dysphoria. The illness has been regarded as an endemic in Southeast Asia, but it also occasionally manifests itself elsewhere in the world (Ima, & Effendy, 2023). In some cultures, penis shrinking is believed to cause infertility and impotence (Mattelaer & Jilek, 2007).

In Koro, body image dysphoria is characterized by severe anxiety related to the delusional idea that one's genitals will shrink and retract into one's abdomen (Stip, et al., 2021). Koro presents as a culturally related belief that the sex organ shrinks into the body, the condition correlates with moderate and severe anxiety. Mostly, cases of Koro are self-limiting and it affects the individual's quality of life, and self-esteem (Strong, et al., 2023). Outside Asia, Chowdhury and Chawla (2019) reported that cases of Koro among men has been reported in different European countries such as France, Greece, Britain, Hungary, Czech Republic, Germany, Hungary, Ireland, Italy, Portugal, Spain, Poland and Turkey. One case in a female was reported in Hungary, with another case in a Caucasian woman. According to Ayodeji, et al., (2022) Koro is mostly reported as endemic among Southeast Asia, especially among Chinese. Koro is characterized by anxiety as the result of fear retraction of the genital which is mostly observed in men (Shukla, et al., 2025).

Koro is a socially-transmitted delusion; men with prior knowledge of Koro may likely experience the disorder. Factors that contribute to cases of Koro include, sociocultural such as culture deference, inadequate formal education, spreading of rumors, and through the media. In relation to socially-

transmitted delusion, two-factor theory of delusion can be applied for better understanding of delusions that are reported in epidemic form (Coltheart, & Davies, 2024). The disorder is described as pathological distortion of a person's sex organ, which is characterized by severe anxiety that is similar with the delusion that the sex organ with retract and shrink into the person's abdomen (Stip, et al., 2021). Despite lack of physical changes to an individual's sex organ, people that experience Koro, belief that their sex organ disappeared, the condition is basically characterized by an individual's acute anxiety (Kar, 2005). Sometimes Koro belief is abandoned based on knowledge provided (Coltheart, & Davies, 2024). According to Rizvi (2024) among women only three cases of Koro was documented. Furthermore, Rizvi (2024) reported the first case on koro-like syndrome in an adolescent girl. Also, cases of Koro have been reported among women, especially at an early age (Shukla, et al., 2025).

### 1.1 Statement of Problem

Globally, cases of Koro-like syndrome have not been scientifically proven that individuals who claim that their genitals have been stolen were found to be true. Despite the fact that Koro-like syndrome is a global health concern, in Nigeria for example, "genital theft" is mostly, attributed to rituals or witchcraft, that explains why in most cases people accused of stealing someone's genital ends up facing mob action, beaten and even killed in some instances. It implies that most Nigerian's are not properly informed or they don't have knowledge of Koro as a culture bound syndrome, anxiety or delusional related disorder. Therefore, the problem identified in this study is to report a Koro-like syndrome in a female in Jos, Nigeria. There is poor knowledge of Koro and increase in cases of genital theft in Nigeria. Thus, this case report study is aimed at reporting a Koro-like syndrome in a female which will serve as a evidence based reference material for creating awareness and information on Koro.

### 1.2 Method

#### 1.2.1 Design/participant

This study utilized a single case design of short research communication. A 22-year-old single lady who resides in Jos Nigeria participated in this study.

#### 1.2.2 Ethical consideration

Participation in this study is strictly voluntary, participant consent to participate in this study after experiencing a Koro-like syndrome. Participant's confidentiality was assured that all information she provides is strictly for research purpose, also the

study poses no danger to her in anyway. Psychological first aid and brief psychoeducation on Koro was provided to the participant during debriefing.

### 1.3 Limitation of the Study

This study is limited considering that the study is a single case design, although case of Koro-like syndrome is rare especially among women. Thus, this may affect generalization of the study outcome.

### 1.4 Implication of the Study

The findings of this study have several significant implications; in relation to practice, it serves as an evidence-based guide to clinical psychologists, psychiatrists, medical social workers and other mental health practitioners. Furthermore, outcome of the study serves as an evidence-based awareness to the general public on Koro-like syndrome in a female. The study also contributes to the body of empirical literature on Koro-like syndrome among women.

## 2. Cases of Koro-like syndrome in Nigeria

In Nigeria, few cases of Koro were reported, for example; Ayodeji, et al., (2022) reported the case of Koro in a 37-year-old man in Port Harcourt. Several cases of penis theft or loss are reported in Nigeria, the cases are mostly related to shaking hands with a stranger, or touch (Ilechukwu, 1992). In six communities of Osun state, 12 people were killed by mob; the 12 people killed were accused of making people's penis to disappear. However, the police dismissed the claims (Dan-Ali, 2001). Willie (2020) reported a case in Bayelsa state, where a man was almost killed due to false alarm of penis theft. According to Adejoro (2023) the incidents of false disappearance of penis in Nigeria has led to panic attacks, the Police command in Abuja alone reported 62 cases of alleged disappearance of penis. In Nigeria penis disappearance is mostly believed that it's for ritual reasons. However, it may be due to Koro syndrome which is a health condition, the disorder is manifest often due to increase anxiety, stress and social unrest, people that experience significant relationship challenges, life changes, or pressure from the society are more prone to experience Koro. The case of missing genitals is an unproven claim, which is widely spreading and mob action is always unleash on individuals accused of genital theft. A woman in Abuja was accused by two men for magically stealing their penis. However, there was no video or photographic evidence to support the men's claims, security operative rescued the woman and the men were arrested for false claims. Similarly, in Delta state a man accused a 68-year-old widow of stealing his penis after physically

touching him, but after police investigation, the police reported through their Public Relation Officer that the man's penis was intact (Ayeni, 2023).

Salami, (2025) reported a case of penis shrinking involving a man who accused policemen of stealing his penis after interrogation, but after a doctor's physical examination, the man's penis was intact. The man reported that when he left the police station, "*I opened my trousers and checked, but I was scared because it appeared to be shrinking and very small. Later I realized it was my panic that caused it.*" Recently in Jos, Nigeria according to Pam (2025), a woman was alleged for stealing male genitals through mysterious means, the alarm was raised shortly after some group of men helped the woman, one of the men claimed that his manhood had mysteriously disappeared when he reached home. It was reported that the woman had a pending case involving similar allegation. Several factors are identified in relation to the case of Koro in West Africa. These factors include religious doctrine, cultural belief, mental condition, psychosocial factors and strong belief in the power of voodoo, furthermore in Nigeria; people believe that genital theft is for ritual purposes (Okechukwu, 2021). Similarly, Stip, et al., (2021) states that cultural beliefs play a vital role in the origin and spread of Koro in Asian countries. Cases of mystical disappearance and theft of the penis have been reported in West Africa, in most cases in Nigeria for example, people allege to have stolen someone's penis are beaten or even killed (Dzokoto, & Adams, 2005).

## 3. Theoretical Review

Theoretically, several theories can explain Koro in relation to anxiety and or delusion. The four-factor theory of anxiety posit that, the following source of information; person's behavior, person's physiology, environmental threat and a person's negative future-oriented cognition are determinants of anxiety (Eysenck, & Eysenck, 2007). Based on learning theory anxiety can occur as the result of observational learning, someone may learn fear through observational learning by observing other people's fear. Also, anxiety is seen as the result of fear conditioning, reinforcement and stimulus generalization (Myers, 2002). In relation to delusion, two-factor theory of delusion posit that; people usually adopt belief that is unusual due to neuropsychological deficit that manifest as the result of the individual's experience. The second factor explains that when there is cognitive deficit in someone's evaluation of belief it leads the individual to adopt a belief which is unusual in the face of counter evidence or low prior probability (Coltheart, et al., 2010; McKay, 2012). Delusion is seen as a dysfunctional belief (McKay et al. 2005). Coltheart,

et al., (2010) sees delusion as pathological due to cognitive dysfunction. In contrast McKay, (2012) states that delusion is not pathological but it's due to cognitive bias. In anxious situation, a person experiences the feeling that something extremely bad will happen which the person doesn't have the power to change it. These feelings make the person to focus on his or her inner concerns, the person becomes hyper vigilant and watchful based on the possibility of danger (Halgin & Whitbourne, 2000).

#### 4. Summary Case Report of Koro-like Syndrome

The incidence of Koro like-syndrome happened in a community in Jos North local government area of Plateau state, Nigeria, involving a 22-year-old single female. She explains that while walking on a narrow road connecting two communities, she met with a middle-aged man whom she doesn't know, when she greeted the man, he did not respond but she noticed that his hand was stretching towards her genital area. When that happened, that she felt empty and suddenly began to shout "thief" but she could not get any help until when a woman dressed in white who was coming behind her shouted thief that was when people started coming out to her rescue, the man in question was beaten by angry mob and later rescued by the police. According to the lady considering that she felt empty she believed that he stole her genitalia. From that moment she could not remember anything she only saw herself in the hospital. However, one of the researchers was call upon when the incident happened, in the presence of three other ladies, examination of the external genitalia was conducted and the genitalia were found intact. Brief psychological first and psychoeducation on Koro was provided after which the lady was taken to a hospital for further examination, where physical examination of the genitalia was also conducted and the doctor confirmed that the genitalia was intact.

#### 5. Discussion

This study aimed at reporting a Koro-like syndrome in a female, serves as evidence-based information on Koro, which is in conformity with earlier studies on Koro. Cases of Koro is mostly reported among men with few cases among women for example, Riziv (2024) reported that only 3 cases of Koro were documented among women. Also, Chowdhury and Chawla, (2019) reported a Koro-like case in a Caucasian woman. According to American Psychiatric Association (2013), symptoms of Koro include, fear of disappearance of the breast, nipples, penis, and labia shrinking. Genital disappearance and shrinking is seen as loss of power among Afro-Asian cultures considering that the genital is seen as a symbol of power, strength and stamina (Kar, et al.,

2021). Most, researchers opined that Koro is basically an anxiety and delusional related disorder, which has to do with the fear that one's genitalia retracts into the abdomen (Kar, 2005; Stip, et al., 2021; Ayodeji, et al., 2022; Ima, & Effendy, 2023; Shukla, et al., 2025). In this study, the Koro-like syndrome possibly happened in the victim due to fear, considering that the victim was alone with the middle-age man who is completely a stranger to her in a narrow road, the man stretching his hands towards her genital area aggravate the situation which made the victim felt empty. In line with four-factor theory of anxiety, environmental threat (Eysenck & Eysenck, 2007) played a vital role which made the victim felt her life is in danger. Also, Halgin and Whitbourne (2000) explained that in anxious state, an individual becomes hyper vigilant and watchful due to possible danger. This also confirms the position of learning theory; according to Myers (2002) anxiety occur as the result of fear and observational learning through observing other people's fear. This implies that prior knowledge on "genital theft" in the society easily made the victim conclude that her genital is stolen.

People who experience Koro strongly believe that their genital is stolen, missing disappear or retracts, which is basically based on the individual's anxiety (Kar, 2005). Coltheart, and Davies, (2024) reported that sometimes those that believe their genital disappeared abandon such believe when they are provided with knowledge. According to Myers (2002) anxiety can occur due to fear that is learnt through observational learning by observing other people's fear. This implies that in line with observational learning, people that experience Koro, may experience the fear of their genitalia disappearing, stolen or shrinks due to negative information they heard about other people's disappearing genitalia. Similarly, two factor theory of delusion centers on individual's experience (Coltheart, et al., 2010; McKay, 2012). Stealing someone's genital (Koro-like syndrome) has not been scientifically proven; the genital is always intact but the victim's anxiety and or delusion make the person believe that his or her genital is missing.

#### 6. Conclusion

This case report underscores the importance of differentiating between culture-bound syndromes and medically verifiable genital pathology, highlights the role of psychoeducation in dispelling harmful beliefs, and calls for public awareness to prevent mob violence against alleged perpetrators of "genital theft." The findings contribute to cross-cultural psychiatric literature by documenting a rare presentation of Koro-like syndrome in a Nigerian female. This confirms that Koro is beyond Asia and not just a male experience. Thus, there is need to

enlighten community leaders, spiritual leaders and the general public on Koro-like syndrome.

## 7. Recommendations

Thus, authors recommend the need for psychoeducation on Koro-like syndrome, mental health practitioners should psycho-educate the general public utilizing different media platforms and or the social media space. In the event of Koro-like syndrome either in male or female, people should avoid “jungle justice” and “mob action” rather, the victim’s genitalia should be examined to confirm his or her claim or the matter should be handed over to security operatives for further investigation. Finally, there is need for psychological first aid, insight orientation therapy and psychoeducation to victims of Koro-like syndrome, which will enable them understand exactly what happened to them.

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