

## “Gilhari (Lizard) Syndrome” A New Culture Bound Syndrome

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### Abstract

**Aim:** The aim of this study is to estimate the prevalence and incidence of mental disorders, in patients of the psychiatry service of a district hospital in central Portugal (Beira Interior South) that has served a population of 12,393 patients since 1979. **Methods:** The sample included 976, randomly selected, patients' charts, of these 592 were women (60.7%) and 384 were men (39.3%). The average age for the first consultation was of 43 years of age (SD=19, Median=43, mode=30, minimum age=3, maximum age=86). The data gathering instruments used were the patient's charts and data collection form (design for this study), and the instruments that supported the data analysis were the Pharmacological Symposium and DSM-IV, to help decode the diagnosis presented by the psychiatrist. The data collected was coded (human coding), and inserted in a SPSS database. Epidemiological rates were calculated.

**Results:** The prevalence of mental disorders in this population, between the years of 2000 and 2006, was of 32.15%. The main disorders found in this sample were: mood disorders (42.6%), anxiety (13.8%), alcohol (12.4%), mental retardation (5.3%), dementia (4.7%) and schizophrenia (4.6%).

**Conclusions:** The results obtained allow the filling of an important information gap regarding the epidemiology of mental disorders in Portugal, and also contribute in a significant way to the worldwide understanding of these disorders. Overall, our findings confirm the prevalence of the major mental disorders referred to in other studies. The implications of these results are thoroughly discussed.

**Keywords:** Culture-bound syndrome; Gilhari (Lizard); Culture

### Introduction

Culture plays a significant role in determining the psychopathology of various psychiatric disorders. Some of these psychiatric syndromes are limited to certain specific cultures. These disorders are called culture specific or culture bound syndrome [1-8]. Culture-specific syndrome or Culture-bound syndrome is a combination of psychiatric and

Somatic symptoms that are considered to be a recognizable disease only within a specific society or culture. There is no objective biochemical or structural alterations of body organs or functions, and the disease is not recognized in other cultures [9].

The term and concept of culture bound reactive syndrome was introduced in 1960, Several hundred such condition have since been cited in the literature under their indigenous names<sup>7</sup>. Some were listed in a DSM IV glossary and in ICD 10 diagnostic criteria for research. These universally occurring dysphoric and anxiety reaction with various somatoform symptoms, known in a particular culture under a local name that designates them as appropriate for special treatment by traditional healers. Before Pow Meng Yap, such conditions were considered as phenomenon peculiar to nonwestern cultures and labeled as “Exotic psychotic syndrome” [10]. The term culture-bound syndrome denotes recurrent, locality-specific patterns of aberrant behavior and troubling experience that may or may not be linked to a particular DSM-IV and ICD-10 diagnostic category [11,12]. Many of these patterns are indigenously considered to be illnesses, or at least afflictions and most have local names. They are generally limited to specific societies or culture and are localized, folk diagnostic categories that frame coherent meanings for certain repetitive patterned, troubling sets of experiences and observations [11]. Culture Bound Syndromes are mental events which may have, a sudden onset dissociative or psychotic episode or various physical symptoms with full remission without apparent after effects and explanation for which is determined by ethnic and cultural values. Sometimes the episode involves violence and automatism and at times paranoia and anxiety may be a major

feature. There may be amnesia of the events during the episode and hearing Voices is often mentioned but usually in the local ethnic understanding, spirit possession or speaking to ancestors.

In India, common culture bound syndromes are Dhat Syndrome, Possession Syndrome, Koro, Gilhari syndrome, Bhanmati, Compulsive spitting, culture-bound suicide (sati, santhra), ascetic syndrome, Jhinjhinia etc. Literature regarding Gilhari Syndrome is almost scanty and its nosological status is also not clear [9].

Present study was planned after witnessing a case of Gilhari (Lizard) syndrome by Verma [13] in Bikaner, a major district of Rajasthan province in northern part of India. Patient was found to have typical presentation, ethnic explanation and with widespread familiarity of the particular belief in that area. It was also observed that almost all people of this area believed in existence of such phenomenon. Simultaneously physicians working in that locality also suggested to have come across several such cases in their clinical practice. This study presents phenomenology and diagnostic evaluation of 10 such cases that were referred to department of psychiatry from different specialties. We have also tried to understand whether this belief is specific to one geographical or culturally distinct location or have a wide spread presence regardless of such distinction

### Methodology

The study was carried out at the Emergency department of PBM

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hospital, Bikaner. The patient recruited in the study had presented with complain of Gilhari (a kind of Lizard) crawling underneath the skin with intense anxiety and apprehension of death and with crush skin injuries which was produced either by relatives or faith healers to kill the Gilhari. The patients were examined to exclude any systemic medical illness and substance abuse. A total of 10 patients were evaluated in detail under the study.

A questionnaire based survey was designed to assess awareness and belief of Gilhari syndrome in general public from different geographical and culturally distinct areas by including 1000 participants from each location. The sample population consisted of relatives and friends of patients attending various Departments of P.B.M. Hospital Bikaner, ESI Hospital Jaipur and NTPC Hospital, Gautam Buddha Nagar. The questionnaire included questions related to awareness, presentation, causation, and treatment of Gilhari phenomenon. Informed consent was obtained from the participants prior to their inclusion in study. They were excluded from the study if they were unable to comprehend the questionnaire or found to have major psychiatric illness or substance abuse which could restrict their understanding about the context being asked.

## Results

Table 1 shows sociodemographic characteristics of total 10 patients who attended emergency department of PBM hospital in acute condition. Out of these 10 patients 3 (30%) were male and 7 (70%) were female. All the patients were from rural background and educated

up to primary or middle level but majority of them were illiterate. All females were housewife and male were laborer by occupation. Four (40%) patients had past psychiatric history of somatoform disorder and they were mainly females. Three (30%) patients reorted to have family history of somatoform disorderin 1st degree relatives. All the patients were diagnosed as Somatoform disorders NOS (DSM-IV TR) or other specified neurotic disorders F48.8 (ICD-10) as they didn't fulfill the criteria of any other disorder and as it was limited to a specific region and fulfilling the guidelines to be called as culture bound syndrome.

Table 2 shows symptomatology and belief. The most common symptoms were that the swelling arises at the back underneath the skin accompanied by apprehension and palpitation with shouting, crying and running spell with the fear of death as the swelling will reach the neck and causes difficulty in breathing which may cause fatality (100%). Half of the patients (50%) also complained of swelling arising from neck itself whereas 60% reported abnormal rolling movement of body and 40% reported fits of unconsciousness. The cultural belief was that if the swelling which they believed and described as Gilhari is not crushed then they may die due to breathing difficulty caused by this swelling. Crushed skin wound, made by faith-healer or relative of patient was present in all (100%) patients.

Table 3 Describe the socio-demographic characteristics of surveyed population from three different geographical and cultural loacations (n=1000). Samples were randomly selected from the relatives of the patients attending Psychiatric OPD from the three centers i.e., Bikaner,

S. No.	Age	Sex	Marital status	Education	Domicile	Occupation	Past H/o Psych disorder	Family H/o psychiatric disorder	Type of family	DSM-IV TR
1	32	M	Married	Illiterate	Rural	Farmer	No	No	Joint	Somatoform Disorder NOS
2	25	M	Married	Illiterate	Rural	Labour	No	No	Joint	Somatoform Disorder NOS
3	60	F	Widow	Illiterate	Rural	House wife	Somatoform disorder	No	Joint	Somatoform Disorder NOS
4	21	M	Unmarried	Illiterate	Rural	Labour	No	Yes (mother somatoform disorder)	Joint	Somatoform Disorder NOS
5	30	F	Married	Illiterate	Rural	House wife	Somatoform disorder	Yes (Father somatoform disorder)	Joint	Somatoform Disorder NOS
6	28	F	Married	Middle	Rural	House Wife	Somatoform Disorder	No	Joint	Somatoform Disorder NOS
7	23	F	Married	Middle	Rural	House Wife	Somatoform disorder	No	Joint	Somatoform Disorder NOS
8	19	F	Unmarried	Illiterate	Rural	Labour	No	Yes (Sister Somatoform disorder)	Joint	Somatoform Disorder NOS
9	25	F	Married	Primary	Rural	House wife	No	No	Joint	Somatoform Disorder NOS
10	22	F	Married	Middle	Rural	House wife	No	No	Joint	Somatoform Disorder NOS

Table 1: Patient's Socio-demographic characteristics.

S. No.	Sign and Symptom	No. of Patients
1	Swelling underneath the skin in the back	10
	Swelling in neck	5
	Difficulty in breathing	10
	Feeling of obstruction in the airways	7
	Fear of death	10
	Palpitation and apprehension	10
	Abnormal body movements	10
	Fits of unconsciousness	4
	Rolling movement of the body	6
	Maladaptive behavior (Shouting, Running, Crying etc.)	10
	2	Cultural belief that if the swelling (Gilhari) will not be crushed, they will not improve
3	Presence of crushed skin wound	10

Table 2: Presenting Complaint of Patients.

Jaipur and Delhi. The mean age was  $42.18 \pm 8.94$ ,  $42.73 \pm 11.53$  and  $41.8 \pm 10.77$  of surveyed population in Bikaner, Jaipur and Delhi respectively. Most of the patients from Bikaner division were middle aged, from rural background and were less educated. Otherwise surveyed population was socioeconomically similar in all the three centers.

Table 4 shows response of the surveyed population to understand the awareness and knowledge of Gilhari Syndrome. None of the study sample from Eastern Rajasthan (Jaipur) and North India (Delhi) was aware of such kind of entity and had never heard of such illness and symptoms. Only the sample group from Western Rajasthan (Bikaner) in surveyed study population had knowledge about the Gilhari Syndrome (n=928, 92.8%). Out of this population who was aware about this phenomenon, around 12% reported to have seen the case of Gilhari syndrome. These respondents also reported that the main complaints was the feeling of sensation of Gilhari running on the back of body under the skin as a swelling and also difficulty in breathing (n=928), followed by the symptoms i.e. pain at the site (n=908, 97.8%) and fear of death (n=605, 65.1%). It was believed that Gilhari starts from the back (n=612, 65.9%) and ends at neck (n=800, 86.2%) causing death by chocking of respiratory process (n=910, 98.06%). According to them the treatment was to cut or crush the Gilhari till it dies, mainly done by local expert and faith healers.

## Discussion

On surveying the relative of patients attending PBM hospital Bikaner, ESI hospital Jaipur and NTPC hospital Delhi it was found that the Gilhari syndrome is prevalent in Bikaner region supporting the fact that it is confined to a specific culture. This population believed that it starts as feeling of Gilhari running on back of body associated with intense pain and anxiety and finally Gilhari reaching the throat causing

stoppage of breathing. The belief was that the swelling contains mainly dirty blood and only less than 18% of people surveyed believed that it contain lizard alive or dead. The response to the question if they had ever seen the Gilhari syndrome patients, only 12% responded to have seen whereas majority of study population had only heard from others indicating that this belief is culture specific confined to Bikaner region as in other two regions people were not even aware of this entity.

Those who had seen this swelling reported that it appears mainly in back and moves up towards the neck. The possible explanation of the swelling may be that it could be a muscular contraction or movements of specific group of muscles due to intense anxiety, stresses and suggestibility as culture specific belief of lizard. In survey it was found that it affects mainly young adult, the possible reason could be proposed as they are subjected to more of physical, biological and mental stresses. The most common cause of death due to Gilhari syndrome which was found in survey was breathing obstruction by lizard. People believed that Gilhari must be crushed to death or it will kill patients and the treatment is mainly received from local expert or faith healers. The people believed that Gilhari enters in body while working or walking in the field but how, there is no logical explanation which also indicates that's it's a culture specific belief.

In medicine and medical anthropology a culture specific syndrome or culture bound syndrome is a combination of psychiatric and somatic symptoms that are considered to be a recognizable disease only within a specific society or culture. The American Psychiatric Association (APA, 1994) [11] states that the term culture bound syndrome denotes recurrent, locality specific pattern of behavior and troubling experiences that may or may not be linked to a particular DSM IV diagnostic category, these patterns are indigenously considered to be illness or at least affliction and most have local names. According to Wikipedia

Variables	Bikaner (n=1000)	Jaipur (n=1000)	Delhi (n=1000)
<b>SEX</b>			
Male	638	680	660
Female	362	320	340
$X^2_3 = 3.91$ P<.9 NS			
<b>LOCALITY</b>			
Rural	787	612	318
Urban	213	388	682
$X^2_2 = 548.95$ P<.0001 HS			
<b>EDUCATION</b>			
Illiterate	482	387	250
Primary	276	289	215
Secondary	102	215	350
>Graduate	150	109	185
$X^2_3 = 235.12$ P<.001 HS			
<b>AGE IN YEAR</b>			
< 30	180	170	176
31 – 40	260	271	264
41 – 50	328	287	281
51 – 60	176	210	180
60+	56	62	99
Mean $\pm$ SD	$42.18 \pm 8.94$	$42.73 \pm 11.53$	$41.8 \pm 10.77$
<b>MONTHLY INCOME (in Thousands) in INR</b>			
-5	389	337	342
5 – 10	385	329	302
10 – 20	188	259	285
20+	038	75	71
Mean Income $\pm$ SD	$7.64 \pm 5.19$	$9.09 \pm 7.60$	$8.36 \pm 6.09$

**Table 3:** Socio-demographic characteristics of surveyed population.

Proforma Questionnaire	Bikaner (n=1000)	Jaipur (n=1000)	Delhi (n=1000)
Have you Ever heard about Gilhari (Lizard) Syndrome			
Yes	928	0	0
No	72	1000	1000
Have you Ever saw Gilhari (Lizard) Syndrome patient			
Yes	120	0	0
No	648	1000	1000
Not Sure	160		
Symptoms of Gilahari Syndrome			
Pain at place of Gilahari	908	NA	NA
Fear of death	605	NA	NA
Difficulty in breathing	928	NA	NA
Shouting, Crying	423	NA	NA
Leading to Unconscious	120	NA	NA
Feeling sensations of Gilahari running on back of body	928	NA	NA
Talking like mentally ill person	432	NA	NA
Other symptoms	354	NA	NA
Where does Gilhari start in-			
Back	612	NA	NA
Leg	138	NA	NA
Neck	50	NA	NA
Not Sure	128	NA	NA
Where does Gilhari Ends -			
Neck	800	NA	NA
Not sure	128	NA	NA
Content of swelling			
Dirty Water	367	NA	NA
Dirty Blood	780	NA	NA
Wastage of body	100	NA	NA
Air	543	NA	NA
Little lizard alive or dead	173	NA	NA
Not known	300	NA	NA
How to death by Gilahari Syndrome			
Stopping breathing	910	NA	NA
Poison transmit in the whole body	214	NA	NA
Fear of death	217	NA	NA
Treatment by people	119	NA	NA
Other	354	NA	NA
What you know about the treatment of Gilahari Syndrome			
Cut or crush the Gilahari till it dies	852	NA	NA
Treatment given by local expert person or faith healer	472	NA	NA
Concern with Doctor	290	NA	NA

**Table 4:** Responses of Surveyed Population.

free encyclopedia a culture-specific syndrome is characterized by categorization as a disease in the culture (i.e., not a voluntary behavior or false claim); widespread familiarity in the culture; complete lack of familiarity of the condition to people in other cultures; no objectively demonstrable biochemical or tissue abnormalities (merely symptoms). Cultural factors have been shown to influence the presentation of various psychiatric disorders. The condition usually is recognized and treated by the folk medicine of the culture. Gilahari (Lizard) Syndrome as McDonough Ga illustrated in his website [www.visionandpsychosis.net/Culture\\_Bound\\_Syndromes.htm](http://www.visionandpsychosis.net/Culture_Bound_Syndromes.htm) in India - is a belief that a blood filled swelling is moving toward the neck and will stop the victim's breathing if it is not crushed. Verma [13] has also reported one case of this kind in his case report where swelling was reported on back. He argued that if the belief that a swelling is moving to the neck is a hallucination, then suspicion that Gilhari (Lizard) Syndrome is a CBS would be raised. The first question to ask is what activities do victims

have that would expose them to repeating Subliminal Distraction. The next problem is what happens in the culture to create this fear. The fear is too specific unless there is communication of the proposed malady between victims. The citing article reported that other women interviewed stated that they too had experienced the problem. All the patients were thoroughly investigated, did not show, any systemic medical disease. We may call these symptoms as hallucination or delusion colored by the culture belief prevalent only in this specific culture and area. On the basis of clinical presentation, these patients could be diagnosed only as somatoform disorder NOS with some difficulty but the prevalence only in western part of Rajasthan and the strong belief among the public about the illness that the Gilahari will crawl to neck and obstruct the air ways leading to death, create severe anxiety and associated maladaptive behaviors in the patient which cannot be explained by another mental disorder. Cultural factors have also been found to influence the manifestation of various

psychiatric disorders. Role of culture has been studied in disorders such as schizophrenia, major depression, anxiety disorders and attention deficit hyperactive disorder [14,15]. In this context cultural influence is evident at various levels like culture and society shape the meanings and expressions people give to various emotions [16], cultural factors also determine which symptoms or signs are normal or abnormal [17], culture helps define what comprises health and illness [18]. Finally, it also determines the illness behaviour and help seeking behaviour [19]. So, it would not be invalid to emphasize that cultural influence on psychiatric disorders may include conditions other than CBS.

DSM-IV has included the cultural footing of the presentations of various mental and behavioral are included in DSM IV in the text descriptions of the individual disorders. Also, it has incorporated the description of the CBS and the outline for assisting the clinicians in systematic evaluation of these conditions in its glossary section. Highlighting the acceptance of the importance of the cultural variables in shaping the psychiatric conditions and their management. Similarly, ICD-10 has also described some of these conditions [20].

## Conclusion

The widespread familiarity of the condition in the particular culture; categorization as a disease in the culture (i.e., not a voluntary behavior or false claim); complete lack of familiarity of the condition to people in other culture; no objectively demonstrable biochemical or tissue abnormalities merely symptoms); the condition usually is recognized and treated by the folk medicine or method of the culture. The belief that the Gilahari (lizard) will rise in the back and after reaching in the neck will kill the person is so strong that the patient himself and/or the relatives produce him for crushing or killing the Gilahari in vital area which is very painful and cruel leading to serious consequences. The perception and belief is so strong that it may be described as delusion and tactile hallucination. The patient repeatedly keeps on showing the swelling and the relatives also believe and argue that they have noticed the swelling but on examination no such swelling was observed. These observations seem to be sufficient to diagnose this Gilhari (Lizard) syndrome as a specific cultural bound syndrome. We will appreciate suggestions and comments on the matter.

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