A study to assess the prevalence of possession disorder in a district of South India

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ABSTRACT

Background: Possession disorders are commonly reported, especially from third world countries, like India, Far East, African and South American countries. Despite the various fast paced technological advances, possession disorder is still prevalent in various rural pockets of India. As an extension of the ongoing WHO ECA study in the department an attempt was made to look at the presentation and prevalence of this rather culturally variable and versatile disorder.

Aims: To study the prevalence of ICD-10-RDC diagnosable possession disorder in the revenue district of Chittoor, India.

Methods: Probability sampling design (probability proportional to Size) was employed in this study, which was based on the guidelines adopted in the ongoing WHO Longitudinal Epidemiological study on mental disorders in the department of psychiatry, SVRR Hospital, Tirupati, India. After an inquiry method utilizing the key informants in the locality the cases were identified. Then the subjects and the families were interviewed using ICD-10 RDC criteria for diagnosing Possession disorder. Prevalence rates were calculated as per the data available and an attempt was made to compare the data available in the department.

Results: 364 cases were diagnosed based on the methodology of inquiry of key personnel in the community. A prevalence rate of 0.048 % that is 48 per 100,000 populations is identified. But S.V.R.R Government General Hospital Psychiatry unit being the only tertiary care facility in this area, should have treated 200 cases in a district having five million populations. During the same period census showed only four case of possession disorder out of fifty five conversion disorder patients which was a small fraction. The reason for the above finding could be that many of these cases were utilizing alternate medical or socio cultural interventions.

Conclusion: Prevalence of possession disorder is still high in the rural areas and public need proper education regarding the nature and management of possession disorder.

Key message: Only a tip of iceberg is being treated by the psychiatrist, despite the high prevalence of possession disorder in rural India.

Key words: Possession disorder, prevalence, key informants, probability proportional to size

INTRODUCTION:

Possession disorder is a common manifestation of personal distress in a joint family set up. It is more common among the less privileged sections of the society and psychologically less sophisticated children. Among the broad category of conversion disorders, the number of Dissociation disorders which include possession disorder, was thought to be disappearing in the modern times. But there were episodic occurrences of Mass Hysteria from certain parts of rural areas around Tirupati in the late eighties. There were no epidemiological studies from any part of India about possible changes in the occurrence and presentation of possession disorders. These were seen off late, more often in religious setting where it had got a cultural sanction. It did not interfere with day to day activities of the individual. Some of these subjects even hold special positions in their communities, unless otherwise they or their families were distressed or failed to be controlled by ‘local faith healers’. ICD-10 highlighted this point by including it as one of the characteristics of the diagnosis of this condition.

When they occur in a bigger socio cultural settings and on a perennial base, they may cause disturbance resulting in law and order problems in the society. ‘Banamathi’ in Telangana ‘Chetabadi’ in Rayalaseema are such examples. They may cause distress to the person, family and community in various forms like disturbances in relationships, family functioning, work and financial losses. Sometimes other mental illnesses may be missed or disguised as trance and possession disorders may remain untreated or delayed in getting treated. Schizophrenia, Mania, Depression and even organic diseases are some of these examples.

The present study intends to know the prevalence of these disorders in rural communities of Chittoor District. There
was an ongoing WHO Longitudinal Epidemiological study on mental health in Chittoor district by department of psychiatry, Sri Venkateswara medical college, as part of a global study involving 25 countries in the world. (WMH Survey) using Comprehensive International Diagnostic Interview (CIDI). But unfortunately this instrument did not cover Possession disorder. It was thought that using the same sampling technique which was approved by WHO resource persons, a collateral study could be tried for finding the prevalence of possession disorders. As a result, key informants in the locality were utilised as they were aware of the happenings in their respective areas and their information was utilised to trace the case in the community and confirmed by a trained psychiatrist using proper diagnostic tools and not CIDI.

**Evolution of the concepts:** The beliefs in God or spirit are as old as human existence; the primitive man believed that the evil spirits and angry Gods were the cause for his difficulties and misfortune including ill health. Hysteria has been called the ‘mocking bird of nosology’ by Johnson (1849) and ‘that strange disease’ by Gowers. The history of ‘simulation of neurologic diseases dates back to 1990 BC in Egypt. The Egyptian physicians thought hysterical symptoms to be due to upward mobility of the uterus in the abdomen, probably because such dramatic symptoms were common in females. Hippocratic physician used this concept and coined the term hysteria (Hysteria in Greek means uterus). The boundaries of this diagnosis were not clear and hence other physicians used different terms for similar problems.

Both possession syndromes (described as raksha praha) and pseudo seizures (described as grabhi) find a mention in the mental disorders detailed in Atharvaveda, the ancient Indian Vedic text. Galen (130-200 AD) defined hysteria as a complex, incurable disease with an unknown physical cause. He located the seat of the disorder in the cerebellum, which he defined as ‘ten seat of Carnal love’. Out of the confusion created by the multiple changing complaints the credit goes to Paul Briquet (1796-1881) a French psychiatrist who described hysteria; now known as Briquet syndrome or somatization disorder in 1859. He noted that this condition had an early onset, was polysymptomatic, tended to be familial, most common in females and has poor prognosis. Later giving more importance to fatigue and nerve exhaustion, George Beard (1839-1883) coined the term neurasthenia. John Ferriar (1795) an English physician, used the word conversion for the changing physical symptoms.

Charcot conducted studies on hysteria at the well known La Sal Petriere in Paris, using hypnosis and suggestion to correct the weakness of nervous symptom seen in these patients. Under the influence of Charcot, Janet (1889), started using hypnosis on his patients. He coined the word ‘dissociation’, which meant that the conscious mental elements (like memory, sensation and volition) become unconscious because of the deficiency of mental energy. Later Morton Prince (1906), an American psychiatrist, wrote a book ‘the dissociation of personality’ describing multiple personality disorder. Breuer described a model of ‘hypoid states’ in which ideas that were registered in an altered state of consciousness became unviable to the person in his normal conscious state. Although, Sigmund Freud used the term repression to depict the phenomenon of ideas kept out of consciousness, the model described was really that of dissociation. Freud conceptualized dissociation as an active process, warding off painful affects from conscious awareness, in sharp contrast to the passive process of coconsciousness described by Prince. Frenzi redefined the term conversion as a transformation of genital impulse only, which was couched in ‘a peculiar symbolic language termed as the hysterical idioms’.

Brain (1963) made two important contributions to the concept of hysteria. Firstly, he assigned a central position to dissociation in the production of hysterical symptoms, a concept adopted by ICD-10 for its classification. Secondly, he described the possibility of co-existence of hysteria with other physical disorder and psychiatric merits of describing the condition as a hysterical reaction instead of a disease. ‘Hysteria’ is used in common parlance as a pejorative adjective describing highly coloured emotional behaviour – generally in women. Janet (1920) described hysteria as “a malady of the personal synthesis”. He viewed dissociation as a purely pathological process. Janet was the first to study psychological trauma as a principal cause. In 1921 Osterreich distinguished true possession from instances where the features of possessions were clearly manifestations of mental disorder. He was of opinion that so called true possession occurs in two main forms. A ‘somnambulistic’ or hysterical form and a ‘lucid’ or obsession form. What distinguishes the obsession from the hysterical form is a lack of ego participation. Though the phenomenon of an individual getting possessed by God or spirit is an age old one, it was introduced in to modern scientific literature by Yap in 1960 and called as possession syndrome. From the available literature it is evident that this phenomenon is worldwide but its manifestations differ according to different cultures.

Spirit - possession rituals many mystify the source of women’s suppression and absorb women of any responsibility for an otherwise unacceptable challenge to patriarchal control (Sered 1994). They may also provide the subject with a sense of social association and ultimately attempt to make something socially useful from feelings such as aggression that were previously socially disintegrative (Tantan 1993), may provide a release from normative structural constraints and may facilitate role reversal and role enhancement (Mc Lellan 1991). In fact, when the embodiment of an alternative identity is exercised in the cross-cultural complex of spirit possession it provides a conduit through which subjective suffering can be transcended and through which the past, present and future can be expressed (Mulhern 1991).
Cultural Context:

Cultural bound syndromes are well known entities and gives information regarding socio cultural background of the patient. Witt kover concluded that possession states have distress reliving, integrative, adaptive function and it is considered to be troublesome and harmful to the individuals. Some term it as a culture bound syndrome, for some it is a hysterical dissociation state or hysterical psychosis. In India, there are well documented cultural bound syndromes like Dhat, possession and many documented symptoms. Possession syndrome is very common all over country. It is well accepted that some individuals use this symptom to express their inner conflicts and to get a solution in a socially acceptable manner.

Most scholars agree that the most common clinical features of trance states are amnesia, emotional disturbance and loss of identity. In a study comparing the characteristic features of the possession trace in 3 different ethnic groups of Chinese, Malaysians and Indians found a set the period of the trance, stereotyped behaviours characteristic of a deity, duration of less than 1 hour, fatigue at the termination of the trance, normal behaviour in the interval between trances, onset before age 25 yrs. low social class status, poor education level and prior witnessing of a trance. Differences in culture clearly influence almost all mental disorders; depression takes a very different form in china resembling what used to be called neurasthenia, with a verity of somatic symptoms predominating more than the guilty ruminations seen in the West. [9]

The dissociative episodes usually are understood as idioms of distress, yet they are not viewed as normal. That is, they are not a generally accepted part of culture and religious practice that may often involve normal trance phenomena, such as trance dancing in the Balinese Hindu culture. In Indian possession syndrome, the affected individuals suddenly begins speaking in an altered voice with an altered identity, usually that of a deity recognizable to other through this voice, a person may refer to himself or herself in the 3rd person. The affected person’s ‘spirit’ may negotiate for changes in the family environment or become agitated or aggressive. Possession syndrome typically occurs in a recently married woman who finds herself uncomfortable or un welcome in her mother in-law’s home. Such individuals usually are unable to directly express their discomfort. [10] In fact many patients with possession symptoms do not come for treatment, as their symptoms are often considered culturally permitted ways of expressing distress. In India, a significant number of patients of trance and possession disorders usually first reach the ‘faith healers’ and it is only when the faith healers efforts fail to ameliorate the condition, the patients seek psychiatric help. [6] And particularly in rural areas, possessed individuals may even be accorded respect by the community. [11]

It is interesting that the most common form of dissociative disorder in the West is dissociative identity disorder, which is the experience of fragmentation of individual identity. In the east the disorder involves possession by an outside spirit, deity or other entity. Given the greater socio centric organization of culture in the east, it makes sense that the dissociative problem would take the form of an inducing outside identity, where as in the west, the disorder takes a form of competing internal identities. Never the less, some have proposed that possession trance and multiple personality disorder arose on the basis of similar histories of child abuse and the use of dissociation as a defence mechanism. [12]

There is an ongoing WHO longitudinal epidemiological study on mental health in Chittoor district by the department of psychiatry, S.V.R.R Hospital, Tirupati as part of a World Mental Health Survey (WMH survey) in 25 countries in the world. This study is an attempt to throw some light on the possession disorder in rural India.

Aims and objectives:

To assess the prevalence of ICD-10-RDC diagnosable possession disorder in the revenue district of Chittoor district, Andhra Pradesh, India.

MATERIALS AND METHODS:

The present study was conducted by department of psychiatry at S.V.R.R Government General Hospital, Tirupati, Andhra Pradesh, India during from November 2003 to October 2004.

Sample: The sample was selected from the revenue district of Chittoor, Andhra Pradesh. This selection was based on the guidelines adopted in another ongoing WHO Longitudinal Epidemiological study on mental disorders in the department of psychiatry, S.V.R.R.Hospital, Tirupati.

Procedure: Probability sampling design was employed in this study. As such the sample in the sampling frame has known and non-zero chance of being selected in to the survey sample. Sampling was done only in rural areas using probability proportional to size (PPS). Sampling frame included 100% of the rural population in the district. No religion or area is excluded from the sampling frame.

Stratification: The process of stratification is done by which the population is divided into subgroup or strata. The strata chosen are a) Revenue division and mandals based on geography, administrative jurisdiction and presence of health facility. b) Rural areas based on the level of urbanization. Four revenue division of Chittoor (Divisions A) Tirupati (Division B), Madanapalli I(IVision C) and Madanapalli II(Division D). Each revenue division is bifurcated into rural and urban based on census 2001. Among 65 mandals each given the share based on probability proportional to size selecting the villages from each mandal randomly.

Multiple cluster selection: A cluster is a naturally occurring unit or grouping within the population; it is a unit per which
the administrative level has clear, non overlapping boundaries E.g.; Villages panchayats

**Multistage stratified cluster sampling:** Strata – Revenue division and mandal: Cluster – Primary sampling unit (Panchayat). 1/5 th of the total number of PSU cluster are randomly selected into the sample. PSU sizes to each stratum may vary. So the PSU’s are selected based on probability proportional size.

**Probability sampling:** Probability proportional to size: The weighted probabilities of clusters (PSU) are run into a computer programme (a PPS algorithm) which then randomly chooses PSU’s.

\[
\text{Probability Selection Cluster A} = \frac{\text{Population (Cluster A)}}{\text{Total Population (All Clusters)}}
\]

Grand total of population 2001 = 37, 35,319.

In this way 253 rural PSU’s were selected randomly. Table1 depicts the population distribution in Chittoor district.

**Table1. Population distribution in Chittoor district**

<table>
<thead>
<tr>
<th>Division</th>
<th>Primary sampling unit</th>
<th>Population 2001 Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chittoor</td>
<td>77</td>
<td>875703.7</td>
</tr>
<tr>
<td>Tirupati</td>
<td>54</td>
<td>614314.1</td>
</tr>
<tr>
<td>Madanapalli 1</td>
<td>98</td>
<td>1106140</td>
</tr>
<tr>
<td>Madanapalli 2</td>
<td>24</td>
<td>266456</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>253</strong></td>
<td><strong>2862614</strong></td>
</tr>
</tbody>
</table>

The rural sample collected as 21 % of panchayat 39 and 9 % respectively from Madanapalli division 1 and division 2 and 31 % of Chittoor Division. After the panchayats were selected, the researcher visited the area and collected the data. Our study involved medical person with psychiatric background directly in case identification and diagnosis. Male and female population of all age groups, residing in the said area during the study period comes under the domain of the study.

**Key persons:** The identification of cases was made through personnel inquiry and interviewing “Key Personnel” who are well aware with the individual’s major health problems due to their socio political proximity. This was based on the presumption that the key personnel in the village are likely to be aware of any major deviations in health status of the people in the locality and would be preferred for advice and modalities of intervention. The key person is sarpanch, other village leader, health worker or a teacher available at the time of visit. The statistical method used was mainly descriptive.

**RESULTS:**

The total of 306 key persons was constituted by sarpanches, village leaders, health workers and teachers. The Sarpanches 182 (59.5%) are the people representative functioning in the local panchayat (PSU). The village leaders constituted 75 (24.5%) in number and teachers 27 (8.8%).

In this study, 364 cases were diagnosed based on the methodology of inquiry of key personnel in the community, followed by interviewing personnel like parents, spouse, in-laws and other relevant close contacts of the subject of the study with adequate documentation, with the help of detailed clinical history and the above said documentation an attempt was made to diagnose possession disorder as per ICD-10 RDC.

Among the 7, 61,297, population, 364 cases were diagnosed by the above with a prevalence rate of 0.048 % or 48 per 1, 00,000 population. Considering the large scale population under the study, it may be appropriate to project this prevalence rate for the entire rural population of Chittoor District which is about 28, 62,614 (about 1369 cases in the total districts).

Table 2 depicts the distribution of the cases sex wise. Among 364 cases male were 66(18.13%) and females 298(81.18 %), showing the over whelming prevalence rate of possession disorder among females. Women particularly rural background with deep rooted cultural and religious ethos this preponderance seems justified.

**Table: 2 Sex of the subjects**

<table>
<thead>
<tr>
<th>Sex</th>
<th>Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>66</td>
<td>18.13</td>
</tr>
<tr>
<td>Female</td>
<td>298</td>
<td>81.18</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>364</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 3 shows the distribution of cases among age groups. The group wise distribution is as follows. In the group i.e. < 25 yrs 41(11.26 %) cases; among 26-35yrs 201 (55.21 %); 36 and above 122 (33.5%) were documented, showing less prevalence in younger and aged. The middle years showed proneness for possession disorder with all their stressful middle age years.

**Table: 3 Age of the subjects**

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 and below</td>
<td>41</td>
<td>11.26</td>
</tr>
<tr>
<td>26-35</td>
<td>201</td>
<td>55.21</td>
</tr>
<tr>
<td>36 and above</td>
<td>122</td>
<td>33.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>364</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

The Figure 1 shows age wise distribution of first episode of possession disorder. Out of 364 cases 45 (12.37 %) cases had first possession episode before the age of 18 years,
95 (26.1%) ages between 18 and 25 yrs, 179 (49.18%) fall between 25 and 35 yrs, 40 (10.98%) between 35 and 45 yrs, and only 5 (1.37%) got their first onset after the age of 46 yrs. The lowest age of first onset was found to be 10 yrs, and highest age of first onset was 48 yrs. Here 179 (49.18%) Cases had their first onset between ages 25-35 yrs.

Figure 1 Age at onset of symptoms of possession disorder

The marital status is reported in table 4. As high as 329 (90.38%) cases, were married and living with spouses. The unmarried consists of 22 (6.04%) and widowed 13 (3.57%) members and found no divorces.

Table 4: Marital status of subjects

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>239</td>
<td>90.38</td>
</tr>
<tr>
<td>Un Married</td>
<td>22</td>
<td>6.04</td>
</tr>
<tr>
<td>Widowed</td>
<td>13</td>
<td>3.57</td>
</tr>
<tr>
<td>Total</td>
<td>364</td>
<td>100</td>
</tr>
</tbody>
</table>

DISCUSSION:

The study resulted in diagnosing 364 cases of possession disorder according ICD-10RDC, in a large rural population of 7,61,279 in 253 villages of Chittoor district. A point prevalence of 0.048% is obtained for the disorder and this is defiantly low when compared to few earlier studies. In Kota [13] study prevalence rate of 2.76% reported in a rural population, in a semi urban-population in Srilanka [14] a prevalence rate of 0.52% was reported. In Thyavana Study [15] it was reported as 3.7%. In another study in northern Srilanka the prevalence rate was found to be 7%. [16] If life time prevalence is considered, this figure would have gone up, but that was not the intention of this study. Despite being a very small prevalence, if we project it for the whole district population it turns out to be still a big number, indicating nearly 1369 individuals are suffering from the problem. The money, time and energies expended by the family members towards management of these chronic sufferers seem to be enormous. The prime objective of this study was intended to find out how frequent this possession disorder is in our rural community. It is very well known that local epidemics are experienced sporadically in a particular socio cultural context are in a particular community. But this study is intended to look at overall prevalence and how it is being handled in the community. The prevalence projection of this study do not tally with our hospital statistics, as SVRR Govt, General Hospital being the only fully fledged, tertiary level referral hospital for psychiatric illness covering two are more such districts. The department had managed four cases of possession disorder out of 55 conversion disorder patients in the total new outpatient registration of 2807 from August 2003 to July 2004.

The possession disorder was found to be more prevalent among females as the study showed preponderance with 81.1% when compared to males 18.9%. This is in accordance with other studies and understandable as this suppressed, over stressed gender with entwined religious rituals is more prone.

More vulnerable are group was found to be 25-35 yrs (55.21%) and least was below 25 yrs (11.26%) (Table 3).This is probably due to the major life changes like education, marital adjustments and occupation with all their stresses added to life. The cross roads to life seem to be triggering factor for the onset. Bulk of these cases (90.38%) were married and living with spouse, lowest frequency being widowed (3.5%) and middle was unmarried (6.04%) (Table 4). Women enter into new environment with marriage. Maladjustment with in-laws plays havoc on their psyche. These stressful life events may be contributing to the higher frequency in married.

Limitations:

The study should have covered each and every individual of the target population; as such house to house survey would have been more appropriate. The cases were traced out by enquiry method through the key persons, is more of second hand information and certain cases could have been missed. The enquiry should have included somatoform disorders as a whole, as some cases might have had co-morbidity. Repeated interviewed would have throw some light on stressor and secondary gain, but in this study, only a screening interview was done. Among key persons the sarpanches, were over represented than the health workers by chance. As such randomized selection of key persons would have been a better option. The influence of key person on the affected family was not systematically assessed.

Strengths of the study:

Our sampling method was good. We used ICD-10 RDC, which is a robust diagnostic criteria frequently used for research purpose. Mental health professionals personally attended all the patients who are diagnosed as possession disorder.

CONCLUSION:

Our study covered 7,61,297 rural population in 253 village panchayats spread over 65 mandals in Chittoor district. A total of 364 cases were identified fulfilling the ICD-10 RDC for possession disorder, with a point prevalence of 0.048%. Possession disorder was more common in females, in the
25-35 year age group and in married subjects. Majority of them had their first episode in third decade.

The possession disorder is frequently seen in few underdeveloped communities in Telangana, Rayalaseema and even in other parts of India. Many of these patients get ‘barbaric treatment’ by getting them admitted in the so called “homes for mentally ill”. They are socially ostracized and sometimes even beaten to death because of the primitive belief in witchcraft. The inadequate psychiatric training to under graduate medical students and paramedical staff must be properly addressed. Mental health professionals have the responsibility to educate and bring about attitudinal change not only in the community at large, but even in the medical fraternity. Indian National Mental Health Program (NMHP) recommends IEC (Information Education and Communication) activities aiming at educating the health professionals, paramedical staff (especially, basic health workers) and the community regarding various aspects of mental disorders.

Acknowledgements: Nil

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