

HIGH PREVALENCE OF DELUSIONAL PARASITOSIS IN AN INDIAN SETTING

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ABSTRACT

Epidemiology and the study of subtypes of delusional disorders is a poorly researched area. This study tries to fill this lacuna and provides the evidence contrary to the accepted fact that the persecutory type is the most common subtype of persistent delusional disorder (paranoia). Out of 4234 patients who attended psychiatry outpatient department during the year 1994-1997, 45 patients received the ICD-10 diagnosis of persistent delusional disorder. Charts of these patients were used for the study. The prevalence of delusional disorder and delusional parasitosis were around 1% and 0.5% respectively making delusional parasitosis the most common sub-type in our setting. Patients with delusional parasitosis had significantly lesser education compared to the patients with persecutory or jealous delusions. These observations are explained on the basis of cultural practices and linguistic competence.

Key words : Delusional disorder, delusional parasitosis.

Modern history of delusional disorder dates back to the description of 19 cases of paranoia by Kraepelin. He used the term paranoia for extreme cases with isolated delusional system and paraphrenia for cases lying in between paranoia and dementia precox (now schizophrenia). Kahlbaum in 1863 presaged the modern description of paranoia and paraphrenia by Kraepelin (Lewis, 1970). Kraepelin described 3 subtypes of paranoia, namely erotomania, paranoid jealousy and megalomania. He also mentioned a possible hypochondriac form. In contrast to the equation of paranoia with persecution by English psychiatrist, he did not insist on persecutory content of paranoia (Munro, 1982). Later authors have commented on the extreme rarity of paranoia and some declared that it does not exist. However recent literature supports paranoia as an acceptable diagnosis (Kendler, 1980; Johanson, 1964; Winokur, 1977). Winokur, (1977) used the word delusional disorder and

currently this word replaces paranoia on ICD-10 (WHO, 1992) and DSM-IV (American Psychiatric Association, 1994). Recently somatic type of delusional disorder has been popularized as monosymptomatic hypochondriac psychosis with its three main content being delusion of body odour, infestation delusion and dysmorphic delusion (Munro, 1988).

There is a little research about the prevalence of delusional disorder and the subtypes (Kendler et al., 1989). Earlier studies were done on inpatient population without use of explicit diagnostic criteria. Winokur (1977) reported a prevalence of 0.1 to 0.4% and Kendler (1982) in his review reported 1 to 4% prevalence in inpatient population. Recently a study from Japan done on psychiatric outpatients has found a prevalence of 1.2% (Yamaña et al., 1989). It is a widely accepted fact that persecutory type is the most common sub-type of delusional disorder. Authors of this study were impressed by the frequent occurrence of delusional

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infestation in our setting. One study on delusional infestation from India observed a prevalence of 0.5% in psychiatric outpatient population (Srinivasan et al., 1994). Authors did not find any other study from India on the prevalence and subtypes of delusional disorder. Hence this study was conducted to determine the prevalence of delusional disorder and its subtypes.

MATERIAL AND METHOD

This study was conducted in the Department of Psychiatry of Jawaharlal Institute of Postgraduate Medical Education and Research, Pondicherry. This general hospital is a tertiary care centre, which provides free services to patients. In this department patients are evaluated in detail first by a resident and later by consultant psychiatrist. Diagnosis is given according to ICD-10. All patients who received ICD-10 diagnosis of persistent delusional disorder during the years 1994 to 1997 constituted the study sample. Charts were independently evaluated by two authors and diagnosis was reconfirmed. Using a proforma devised for this study, data on demographic variables, theme of the delusion, age at onset, comorbid conditions, treatment and outcome variables were recorded. Improvement is defined for this study, as significant reduction in the preoccupation over the delusion or absence of conviction. Charts without adequate information or not fitting to the diagnosis were excluded from the study.

The difference between the gender and subtypes of delusional disorder were tested using two tailed t-test and chi-square test. One way ANOVA was used for comparison of the types of delusional disorder. The level of significance was set at $p \leq 0.05$.

RESULTS

During the 4 year study period, 4234 patients received psychiatric diagnosis. After excluding 4 cases from analysis, 45 (1.06%) cases were diagnosed as persistent delusional

TABLE 1
GENDER AND SUBTYPES OF DELUSIONAL DISORDER

Type	Males(%)	Females(%)	Total(%)
Somatic	11(24.4)	10(22.2)	21(46.7)
Jealous	9(20)	5(11.1)	14(31.1)
Persecutory	6(13.3)	4(8.8)	10 (22.2)
Total	26(57.8)	19(42.2)	45(100)

TABLE 2
AGE, AGE AT ONSET AND EDUCATION AND SUBTYPES OF DELUSIONAL DISORDER

	Somatic	Jealous	Persecutory	Total
Onset (mean & S.D)	42.8(18.5)	33.4(5.8)	37.3(12.5)	38.7(14.7)
Age (mean & S.D)	44.6(18.5)	37.8(5.7)	40.1(12.6)	41.4(14.4)
Education (mean & S.D)	4.6(3.8)	7.7(4.9)	10.2(4.2)	6.8(4.8)*

* Significant. (F=6, df=2, $p < 0.01$)

disorder. Male to female gender ratio was 1.3:1. Most of the patients (93%) were Hindus by religion. Table 1 shows gender and frequency of subtypes of delusions. There was no correlation in the frequency between these two ($X^2 = 0.51$, $df=2$, non-significant). Gender differences in age at onset ($t=0.8$, $df=43$) and age at presentation ($t=0.54$, $df=43$) were not significant. One way ANOVA did not show significance in age at onset ($F=1.85$, $df=2$) and age at presentation ($F=0.99$, $df=2$) but education in years showed significant group difference ($F=6.0$, $df=2$, $p < 0.01$) as shown in the table 2.

Comorbid conditions commonly encountered were skin or ear problems in 30% of patients with delusional infestation and depressive symptoms in patients with persecutory delusions. More than 60% of patients had moderate to good improvement with different antipsychotics (haloperidol, trifluoperazine, pimozide and risperidone). Most common delusional content was infestation (46%) followed by jealousy (31%) and persecution (22%).

No cases of grandiose or erotic delusion were found. Out of the patients who came for follow up, more than two thirds of patients had reported improvement.

DISCUSSION

Winokur (1977) reported a prevalence of 0.1 to 0.4% and Kendler (1982) in his review reported 1 to 4% of delusional disorder in psychiatric inpatients. One study from Japan (Yamada *et al.*, 1998) has found 1.2% prevalence in outpatient population. Our data is consistent with these reports but we did not find higher prevalence in female gender as reported in these two studies. Grandiose and erotic delusions were not seen in this study. This is consistent with extreme rarity of these types of delusional disorders (Jonathan & Segal, 1989).

The most important finding of this study is that delusional infestation was found to be the most common subtype of delusional disorder. To the best of our knowledge this is the first report of such an observation. A recent review on delusional infestation (Peggy *et al.*, 1995) reads, "it is indeed an uncommon condition seen by psychiatrists with an estimated prevalence of 7 cases per 10,000 psychiatric admissions." In our psychiatric population the prevalence of delusional parasitosis is 0.5% though our data is from the outpatient population. An earlier study of delusional parasitosis from India (Srinivasan *et al.*, 1994) has found strikingly similar prevalence of 19 out of 4200 outpatients. Higher number of such patients is unlikely to be only due to increased awareness and referrals to psychiatrist by physicians. It is probable that the prevalence of delusion itself is higher in this region.

Several patients reported infestation of body orifices specially the ears and eyes. This may be attributed to the hindu religio-cultural beliefs, which attaches special significance to the 9 body orifices in the personal quest for physical mental and spiritual purity. These religious beliefs are reinforced by native healers who "specialize" in removing "insects" from ears (Srinivasan *et al.*, 1993). In fact, the local treatment for dental caries (known as dental infection by worms) is the removal of the worms through the ears. These beliefs are more common in patients coming from low socioeconomic status. In this regard, our observation of low level of education in

patients with delusional infestation is of interest. It appears that patients with low socioeconomic status and low education easily accept culturally prevalent beliefs and hold it with conviction and in some people it reaches delusional proportions. Patients in developing countries are known for somatic presentation of psychiatric illness (e.g. somatisation, conversion disorder and catatonia are common in developing countries). Varma (1982) proposed that high level of linguistic competence leads to binding of intense anxiety in psychosis, leading to delusions (usually, persecutory). Low level of competence leaves anxiety unbound and results in catatonia. It may be possible that low education associated with low linguistic competence leads to a somatic focus for a delusion.

It is a widely held view that pimozide is a specific antipsychotic for delusional disorders. Our finding of good results with other antipsychotics is consistent with the currently growing literature on the treatment and outcome of delusional disorders. Delusional disorders may not be so resistant to therapy as thought earlier. It is well known that culture plays a major role in modifying the expression of the illness. Further studies are required from other parts of India and other developing countries to explore the diversities across cultures, which can lead to better understanding of delusions and psychiatric disorders. Information on management and outcome of delusional disorders is also the need of the day.

This study carries all the limitations of a retrospective study. Our results on prevalence may not be generalisable to mental hospitals or to the community. Our conclusions on improvement of patients were impressionistic and based on the observations of the treating psychiatrists rather than the use of specific instruments.

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