

Phenomenology and predisposing factors of morbid jealousy in a psychiatric outdoor: a cross-sectional, descriptive study

Abstract

Background: Jealousy in a sexual relation has some advantage that it ensures propagation of one's own gene as put by evolutionary psychologists. However, if this belief is based on unfounded evidence it may impair the relationship between partners and may be extremely distressful. Morbid jealousy may present as obsession, overvalued idea, or delusion as one of the symptoms in different psychiatric disorders. Aim: The aim of the study was to find the frequency of patients with morbid jealousy presenting in the Department of Psychiatry of Patna Medical College and Hospital (PMCH), the psychiatric diagnoses of such patients, frequency of different forms of morbid jealousy (obsession, overvalued idea, and delusion). Also, to assess predisposing or triggering factors for jealousy and to assess for suicidality in such patients and their partners. Materials and methods: All patients attending the Department of Psychiatry, PMCH were administered a screening questionnaire and if they qualified they were further administered the operational criteria for morbid jealousy. The psychiatric diagnosis was confirmed with the tenth revision of the International Statistical Classification of Diseases and Related Health Problems: Diagnostic Criteria for Research (ICD-10: DCR). Each patient was then administered a rating scale to quantify the psychopathology. Results: Out of 970 patients who attended outpatient department, 658 patients were administered the screening questionnaire, 174 qualified who were later assessed with the operational criteria for morbid jealousy. Fifty patients who fulfilled the criteria were assessed. The mean age of presentation for both sexes were 36.44 year (SD=13.12 years). Morbid jealousy was found to be twice as common in males as compared in females. Highest prevalence was found among participants who had higher secondary education, belonged to middle socioeconomic status, and having psychiatric diagnosis of schizophrenia followed by depression. Delusional jealousy was the commonest followed by overvalued idea and obsession. A total of 20% of patients reported substance abuse like alcohol, cannabis, nicotine etc. either currently or in the past. Triggering factors found were spouse working away from home, interaction with opposite sex, attractiveness as perceived by the person with morbid jealousy. Females either as patients of morbid jealousy or as partners of a morbidly jealous spouse, carried the higher risk of suicide as compared to males.

Keywords: Obsession. Delusion. Schizophrenia. Depression. Suicide.

Introduction

Jealousy is a common but complex emotion which has dominated mankind for ages. As evolutionary psychologists have suggested that jealousy within an intimate relationship has some advantage. It is the behaviour that ensures the complete and singular possession of one's partner, which allows the dissemination of one's own genes at the cost of those of a true rival.[1] Cultural difference has been found and jealousy within an interpersonal relation is more common in cultures where sexual gratification is allowed within marriage and in cultures which values more on personal property.[2]

Satyajeet Kumar Singh¹, Samrat Singh Bhandari², Pramod Kumar Singh³

¹Senior Resident, Department of Psychiatry, All India Institute of Medical Sciences, Patna, Bihar, India, ²Assistant Professor, Department of Psychiatry, Sikkim Manipal Institute of Medical Sciences, Tadong, Gangtok, Sikkim, India, ³Professor and Head, Department of Psychiatry, Patna Medical College and Hospital, Patna, Bihar, India

Correspondence: Dr. Satyajeet Kumar Singh, Senior Resident, Department of Psychiatry, All India Institute of Medical Sciences, Patna-801507, Bihar, India. satyajeetsingh06@gmail.com

Received: 17 March 2017 **Revised:** 24 March 2017 **Accepted:** 9 April 2017 **Epub:** 26 April 2017

DOI: 10.5958/2394-2061.2017.00008.8

The Oxford Dictionary defines jealous as "Feeling or showing a resentful suspicion that one's partner is attracted to or involved with someone else".[3] This definition indicates that it is a belief in the presence of rivalry that is the key issue and that whether or not such a rivalry truly exists is less important.[4] Many authors believe jealousy as morbid if a person harbours belief or suspicion of infidelity for his/her partner. While other authors say that just belief or suspicion of infidelity is not enough to label as morbid jealousy. What is important is the fear of losing one's partner or losing one's place in partner's affection whether it is sexual infidelity or other deeds which are considered as a sign of loss, and this should cause distress in the jealous person and/or the partner and disrupts the functioning of either or both of them or their relationship.[5] Morbidly jealous person suffers irrational thoughts and may show extreme of behaviour where the dominant theme will be preoccupation with partner's infidelity based on unjustified evidences.[6] Normal person may show jealousy in romantic relationship in response to some evidence but tend to modify the belief as new evidence becomes available and perceives a single rival, but a morbidly jealous person refuses any contradicting evidence and may perceive more than one rival.[7]

The commonly recognised forms of psychopathology in morbid jealousy: obsessive jealousy, overvalued idea, and delusion of jealousy have been mentioned in literatures. [4,6,8] In obsessive jealousy, the sufferer is afraid of losing the partner and fears that the partner will be unfaithful. Despite knowing that there is no evidence, this thought is recurrent, intrusive, and ego-dystonic which the person tries to resist and is followed by compulsive checking and reassurance from the partner.[6,9] In delusional jealousy, the sufferer accuses their partner of infidelity and does not resist the thought; on the contrary, they continuously try to confirm their suspicions, like constantly enquiring their partner to extract a confession. Such deluded person may try to make or coerce their partner for sex constantly so that they are tired to do the same with any other person. They may regularly check the undergarment, bed sheets for stains of body fluids. The diagnosis is beyond doubt if they suspect their partners with many people or close family members.[8] Morbid jealousy could take the form of an overvalued idea, i.e. an admissible, understandable idea pursued by the affected person, beyond the bounds of reason. The idea is not held back and the conviction is not as intense as delusion, the person generally attaches great importance to investigating and upholding the partner's fidelity at great personal disadvantage and to the distress of the partner.[10]

The prevalence and incidence of morbid jealousy is unknown as no community survey exists mainly because lack of a uniform scientific definition. Reports on morbid jealousy and its different forms (delusional, overvalued idea, and obsessional jealousy) have not found their way into standard psychiatric literature like reference textbooks probably leading to a vicious cycle of under recognition and underreporting and possibly non recognition of symptoms as illness by the partner, shame and guilt associated with jealous thought leading to reluctance to consult psychiatrist. Morbid jealousy has been found to be one of the component of other disorder and its presentation as a single entity is rare. Commonly it is found in organic psychosis especially dysfunction of frontal lobe, paranoid psychosis, alcoholism, schizophrenia, and affective disorder or as a side effect of pharmacological agents.[11-13] There is scarcity of research in India; information regarding different aspect of the morbid jealousy like its magnitude, subtypes, predisposing factors, associated diagnosis, etc. either in clinical or general population is not adequately available. Despite being a state of mind or mental condition that is recognised by mental health clinician as disruptive and clearly pathological, morbid jealousy remains a largely unexplored area of psychopathology.

Aims of present study

Present study was carried out to fill up this gap with following aims:

- 1. To find out the frequency of occurrence of symptoms of morbid jealousy in patients attending psychiatric outpatient department (OPD)
- 2. To find out the relative frequency of its three subtypes, i.e. delusional, obsessional, or overvalued idea of jealousy
- 3. To find out the associated psychiatric illnesses in patients exhibiting morbid jealousy
- 4. To find out factors predisposing to such morbidly jealous feeling.

Materials and methods

Study type and duration

It was a cross-sectional observational study. Duration of the study was one year extending from October 2009 to September 2010 conducted at Department of Psychiatry, Patna Medical College and Hospital (PMCH). All cases were selected from psychiatry OPD who presented with complaints of suspiciousness over character of his/her partner and/or associated abnormal behaviour (e.g. enquiring, interrogation, stalking, keeping watch over the activities of partner, showing verbal or physical aggression over this issue, etc.) as main symptoms, irrespective of psychiatric illness they were suffering.

A total of 970 new, consecutive patients attending OPD were screened. Out of these 970 cases, the issue of jealousy was applicable only to 710 cases who were either married or had a partner. A total of 52 cases were excluded due to various reasons (non-reliability, uncooperativeness, etc.) Ultimately yielding 658 eligible cases. Fifty patients were assessed after they fulfilled all the requisite screening and operational criteria (Figure 1).

Screening questionnaire for jealousy

- 1. Do you often feel suspicious about character of your partner and need to confirm it?
- 2. Do you think your suspicion is significant?
- 3. Do you remain distressed or have argument or your works get affected due to this suspiciousness?
- 4. Does your relationship with your partner get threatened due to your suspicion?

The questionnaire was formulated by two psychiatrists covering three domains: presence of psychopathology of morbid jealousy, conviction, impairment in occupational life or interpersonal relationship. The psychometric properties were not evaluated for the questionnaire.

Those patients who gave positive response to two or more screening questions and/or felt that it was significant were subjected to further evaluation with the operational criteria of morbid jealousy. The operational criterion is given below:[14]

Operational criteria for diagnosis of morbid jealousy

- 1. Presence of jealousy
- 2. Presence of two or more of following on persistent basis-

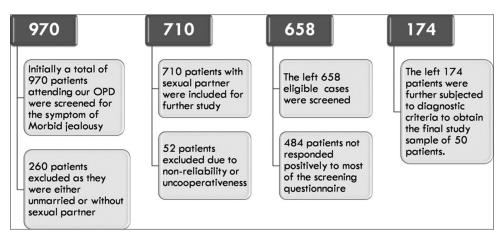


Figure 1: Study design.

- i. Irrational thought and suspicion about partner's fidelity
- ii. Overt behaviour to seek confirmation of the suspicion (e.g. checking, inquisitional cross-checking)
- iii. Intense feeling and affect (e.g. anger, fear, sadness, and guilt)
- iv. Physical and/or verbal violence against spouse or third party.
- 3. The symptom in criterion 1 and 2 causes clinically significant distress in social, emotional, or sexual relationship.

Inclusion criteria

- 1. Patient of age group between 18 and 75 years
- 2. Patient of both sexes and all socioeconomic strata
- 3. Patients with the symptom of morbid jealousy as defined by the operational criterion for this study, any time during last six months
- 4. All patients attending OPD during the specified period irrespective of psychiatric diagnosis and treatment received.

Exclusion criteria

- 1. Uncooperative or poorly communicative patients
- 2. Grossly disorganised or deteriorated patients
- 3. Patients with no reliable informants.

Tools and rating scales

Major tools and rating scales utilised in this study were: 1. Semi-structured socio-demographic proforma

- 2. The tenth revision of the International Statistical Classification of Diseases and Related Health Problems: Diagnostic Criteria for Research (ICD-10: DCR)[15]
- 3. Positive and Negative Syndrome Scale (PANSS)[16]
- 4. Hamilton Rating Scale for Depression[16]
- 5. Young Mania Rating Scale[16]
- 6. Modified Kuppuswamy's Socioeconomic Status Scale.[17]

Ethical consideration

The study was approved by the institutional ethical board. Written informed consent was taken from the patients or their caregiver.

Procedure

In this study, on initial visit of patients, socio-demographic data were collected from each patient on a semi-structured proforma. During writing down of full clinical history of the patient, special attention was given to the following aspects of the case: associated psychiatric diagnosis, threatened and perpetrated violence, presence of potential predisposing factors, family constitution, and substance abuse.

Mental status examination was carried out with attention to know the form of morbid jealousy and its associated psychopathology. All throughout interview process of patients, special care was taken for risk assessment considering risk of suicide in patient and his/her partner. The patients with morbid jealousy were assessed for phenomenology and predisposing factors to them. The rating scales mentioned above were administered to establish diagnosis of co-morbid psychiatric illnesses and assess their severity.

Statistical analyses

Descriptive analysis of the data obtained was done.

Results

Of the 658 eligible cases, 174 cases responded positively to most of the screening questions for jealousy. Out of these 174 cases qualifying the screening questionnaire, 50 patients fulfilled the operational criteria for morbid jealousy.

Almost 90% (45 out of 50) of cases were in the age group of 18-48 years (Table 1). The mean age of presentation for both sexes was 36.44 year (SD=13.12). Mean age of presentation for males was 38.97 years (SD=13.26). Mean age of presentation for females was 31.06 years (SD=15.63). Morbid jealousy was found to be twice as common in males (68%) as compared in females (32%). Most of the patients were married males with average age of presentation 41.23 years. Highest prevalence was found among participants who had higher secondary education, belonged to middle socioeconomic status, and having psychiatric diagnosis of schizophrenia followed by depression.

Subtype analysis revealed that delusional jealousy (76%, N=38) was the commonest followed by overvalued

idea (14%, N=seven) and obsession (ten per cent, N=five). Delusional subtype of morbid jealousy (76%, i.e. 38 out of 50) was most commonly associated with schizophrenia, bipolar mood disorder, and substance abuse disorders. The other two subtypes, i.e. overvalued idea and obsession was more common with depression (Table 2).

A total of 20% (N=ten) of patients reported substance abuse like alcohol, cannabis, nicotine etc. either currently or in the past.

Multiple factors were responsible for the abnormal belief of the participants about the fidelity of their partner. On detailed clinical interrogation, most of them reported partner's interaction with opposite sex, occupation and activities away

Table 1: Socio-demographic characteristics

Characteristics	N (%)
Age (in years)	
18-28	15 (30)
29-38	16 (32)
39-48	14 (28)
49-58	2 (4)
59-69	2 (4)
69-78	1 (2)
Sex	
Male	34 (68)
Female	16 (32)
Marital status	
Married	43 (86)
Unmarried	7 (14)
Educational status	
Illiterate	11 (22)
High school	8 (16)
Higher secondary	21 (42)
Graduate	10 (20)
Psychiatric diagnosis	
Schizophrenia	17 (34)
Depression	15 (30)
Substance abuse disorder	10 (20)
Bipolar mood disorder	3 (6)
Others	5 (10)

from home or in his/her absence from partner's vicinity, and partner's attractiveness (Table 3).

Females either as patients of morbid jealousy or as partners of a morbidly jealous spouse, carried the higher risk of suicide as compared to males (Table 4).

A total of 96% (N=48) of patients showed/reported overt behaviour to confirm their suspicion about the fidelity of their partners. When individual types of overt behaviour were considered, enquiring (questioning) followed by checking, were the most common utilised by patients suffering from any subtypes of morbid jealousy.

Discussion

The frequency for the occurrence of the symptom of morbid jealousy in our psychiatric outdoor was found to be 7.59%. This indicates that it is not a rare entity. It is usually found as a prominent and associated symptom of different psychiatric illnesses. Few isolated case reports are available and investigation had been done to know its association with specific type of psychiatric illness. For example, Shrestha *et al.*[18] reported its frequency of occurrence to be high, particularly with alcoholism (about 35% in males and 31% in the females). But, this is not the case with the present study. We have found its frequency of 7.59% in all types of patient irrespective of psychiatric illness.

In our study, 32% of cases were in the age group of 29-38 years, 30% in the age group of 18 to 28, 28% in the range of 39 to 48 years, and rest ten per cent in the range of 49 to 78 years. So, 90% of cases were in the age group of 18 to 48 years. The mean age of presentation for the symptom of morbid jealousy in males and females were 39 and 31 years respectively. This result is in accordance with the previous findings.[11,19,20]

We found that the symptom of morbid jealousy is more common in males (68%) and in married participants (86%). Our result is in accordance with the finding of Silva *et al.*,[19] who reported morbid jealousy to be present in 85% of 20 patients' samples they studied, were married and 70% were males (Table 5).

Morbid jealousy was more common (60%) in educated participants who attended intermediate level or university and this is in congruence to finding of previous study.[20] It was also found to be more common in participants belonging to middle socioeconomic status (60%) and lowest in upper socioeconomic status (34%).

Table 2: Types of psychiatric illness with different subtypes of morbid jealousy

Associated psychiatric illnesses	Delusional (%)	Overvalued idea (%)	Obsessional (%)
Schizophrenia (17)	17 (100)	0 (00)	0 (00)
Depression (15)	7 (47)	5 (33)	3 (20)
Substance abuse disorder (10)	10 (100)	0 (00)	0 (00)
Bipolar mood disorder (3)	3 (100)	0 (00)	0 (00)
Others (OCD, GAD, dementia, diagnosis not clear) (5)	1 (20)	2 (40)	2 (40)
Total (50)	38 (76)	7 (14)	5 (10)

OCD=Obsessive-compulsive disorder, GAD=Generalized anxiety disorder

	0		
Predisposing factors	No. of patients (%)	Males (%)	Females (%)
Partner attractiveness	3 (6)	2 (67)	1 (33)
Partner occupation away from home	4 (8)	1 (25)	3 (75)
Partner interaction with opposite sex	18 (36)	14 (78)	4 (22)
Multiple factors	25 (50)	17 (68)	8 (32)

Table 4: Suicide risk in participants with morbid jealousy and their spouse

Suicide risk present (%)	No suicide risk (%)
20 (59)	14 (41)
11 (69)	5 (31)
3 (19)	13 (81)
24 (71)	10 (29)
	present (%) 20 (59) 11 (69) 3 (19)

Table 5: Marital	status of	nationts with	morhid	iealousv	,
	status or	patients with	morbiu	jeaiousy	

Marital status	Silva e <i>t al.</i> [19] (n=20) (%)	Present study (n=50) (%)	
Married			
Male	60	60	
Female	25	26	
Unmarried			
Male	10	8	
Female	5	6	

In the present study, it was observed that schizophrenia (34%) was the commonest associated diagnosis with the symptom of morbid jealousy, followed by depression (30%), substance abuse disorders (20%), bipolar mood disorders (six per cent), and others (ten per cent). Last mentioned entity includes various psychiatric illnesses like obsessivecomplusive disorder (OCD), generalized anxiety disorder (GAD), dementia, or mental condition in which diagnosis remains unclear. Findings of current study is in sharp contrast from that of Soyka et al. [11] According to their published result, delusion of infidelity was most frequent in organic psychosis (seven per cent), paranoid disorder (5.6%), alcoholism (6.7%), and schizophrenia (2.5%); while in affective disorder, jealousy could be found only in 0.1%. Possible explanation could be that our study was done in Indian psychiatry setup where most cases were purely functional as the caregivers prefer first vising other clinical specialty due to associated stigma and lack of psychiatric treatment, and as such the possible organic cases get admitted in other clinical branches before getting referred to psychiatry.

Past studies about morbid jealousy of European countries and in the western context indicate organic psychosis to be most frequently associated with morbid jealousy. Our study indicates schizophrenia and other psychiatric illnesses to be most frequently associated with morbid jealousy. What can be the possible reason for this difference? To the best of our estimate, the scenario of psychiatric practice in India is different from European and other western countries. In India, even people suffering from pure psychiatric illness do not visit the right clinician that is psychiatrist due to lack of awareness and associated social stigma. Person with brain tumour who develop morbid jealousy is not expected to be taken to a psychiatrist in Indian setup. Such patients most likely visit other clinicians like general physician or neuro-physician rather than a psychiatrist. So, while working in the Department of Psychiatry in a medical college like PMCH, which is a tertiary healthcare centre of the state, expecting and calculating association of morbid jealousy with organic vs functional psychiatric illnesses can vary.

Present study results show among the different subtypes of morbid jealousy, delusional jealousy (76%) were the commonest followed by overvalued idea (14%) and obsession (ten per cent). Literature is scarce related to the frequency of different subtypes of morbid jealousy and so our results cannot be compared with any previous finding.

A major proportion of the participants in this study, with morbid jealousy were abusing substances currently or in the past. The substances were alcohol, cannabis, and nicotine. Many previous studies report higher rates of substance abuse of morbidly jealous individual and its association particularly with alcoholism[14] and also reported with amphetamine, cocaine.[21]

We found that among the participants with different psychiatric diagnoses, morbid jealousy was provoked or exacerbated if the partner was attractive, if the spouse interacted with opposite sex, or if they were working in different place. Most of the patients with morbid jealousy showed multiple overt behaviours like inquisitional enquiring, checking, stalking, spying on partner, etc. to confirm their doubt. If individual types of overt behaviours were considered, enquiring (questioning) followed by checking, were the most common form of overt behaviour utilised by patients suffering from any subtypes of morbid jealousy. Spying and stalking were common in delusional participants and those with obsession.

The risk of suicide (current suicidal ideation and/or previous suicidal attempt or gestures) with the symptom of morbid jealousy is quite high as seen in our study. Both the patient and his/her partner carry such risk. A total of 31 participants (62%) reported such suicidal behaviour. Out of 16 female patients, 11 (69%) reported suicidality and out of 34 male patients, 20 (59%) reported suicidality. Not only patients but also partners (27 out of 50, 54%) of a morbidly jealous spouse reported significant suicidal behaviour. Out of 34 female partners of morbidly jealous male spouses, 24 (71%) reported suicidal behaviour and out of 16 male partners of morbidly jealous female spouses, only three (19%) reported suicidal behaviour. Thus, our result clearly demonstrates a higher incidence of suicidality in females either as patient or as a victim of morbid jealousy. According to Shepherd, [22] suicidal ideation (80%) is not uncommon in morbid jealousy, given the association with depression and substance misuse. In a UK population, Mooney [23] found that 70% of morbidly

jealous individuals had made suicide attempts. Where jealousy gives rise to fatal violence against the partner, this acting out may be followed by suicide.[24]

Conclusion

Our study findings suggest that morbid jealousy is a common psychiatric symptom with significant impact over personal, social, and occupational functioning of an individual. It is particularly more prevalent in males of middle age, middle socioeconomic status, and intermediate level of education. Also, the rate of substance abuse and suicide prevalence is higher in morbidly jealous people as compared to normal population. Although schizophrenia ranks one as co-morbid psychiatric diagnosis, almost any psychiatric illness can be associated with symptom of morbid jealousy. Among its three subtypes (delusional, obsessional, and overvalued idea), delusional subtype is particularly more severe in all aspects (for example association with schizophrenia, higher substance abusing potential, higher suicide rate, greater prevalence of violence against partner, etc.). Many factors can trigger or exacerbate the symptom of morbid jealousy, but partner interactions with opposite sex and spouse working in a different place with less frequent meetings are important factors. Greater number of females either as patient or as partner of morbidly jealous individual expressed their feeling of suicide.

The present study of psychiatric profile of the cases of morbid jealousy is of utmost importance in the sense that morbid jealousy is commonly seen as a symptom in clinical practice and a major cause of discord and hostility between couples. Morbid jealousy is just a manifestation rather than a diagnosis. It may take the form of a delusion, an obsession, or an overvalued idea, alternately combinations of these.

Morbid jealousy has the potential to cause immense suffering to both partners within a relationship and to their family. It carries with it a risk of serious violence and suicide. Undoubtedly, early identification and treatment is essential to prevent serious harm.

Limitations of the study

- Though a sample size of 50 appears good but still large size sample is required to make the results more reflective of and applicable for general population.
- Psychometric properties of the screening questionnaire were not assessed.
- The presence of a control group for studying the pattern of psychiatric morbidity in psychiatric patients without morbid jealousy would have helped in more correct evaluation of morbid jealousy associated psychiatric morbidity.
- Cases of morbid jealousy reporting to our OPD which is a tertiary centre of care may not be reflective of the symptom of low intensity jealousy prevalent in general population.
- In our study, there was no provision or methods to eliminate the impact of cultural influence on presentation of symptom of morbid jealousy.
- The overall frequency of morbid jealousy in our study

may be underestimation of the real, because of secretive and stigmatising nature of the symptom of morbid jealousy.

Future directions

- A multidisciplinary study on larger sample size of prospective nature with more elaborate research for predisposing and causative factors would be desirable.
- We need to develop and frame well accepted and fixed diagnostic criteria for early identification of the symptom of morbid jealousy and for establishing the diagnosis.
- Despite being a common symptomatology associated with different psychiatric illnesses, its three subtypes still remain undiagnosed. Recognition of its three subtypes is of paramount importance. Their relative frequency should be established in future studies.

References

- 1. Daly M, Wilson M, Weghorst SJ. Male sexual jealousy. Ethol Sociobiol. 1982;3:11-27.
- 2. Harris CR. The evolution of jealousy. Am Sci. 2004;92:62-71.
- English Oxford Living Dictionaries. Jealous [Internet]. Oxford University Press; 2017 [cited 2017 Apr 13]. Available from: https://en.oxforddictionaries.com/definition/jealous
- Kingham M, Gordon H. Aspects of morbid jealousy. Adv Psychiatr Treat. 2004;10:207-15.
- 5. De Silva P. Jealousy in couple relationships: nature, assessment and therapy. Behav Res Ther. 1997;35:973-85.
- Cobb JP, Marks IM. Morbid jealousy featuring as obsessivecompulsive neurosis: treatment by behavioral psychotherapy. Br J Psychiatry. 1979;134:301-5.
- Vauhkonen K. On the pathogenesis of morbid jealousy with special reference to the personality traits of an interaction between jealous patients and their spouses. Acta Psychiatr Scand Suppl. 1968;202:2-261.
- Batinic B, Duisin D, Barisic J. Obsessive versus delusional jealousy. Psychiatr Danub. 2013;25:334-9.
- 9. Hoaken PC. Jealousy as a symptom of psychiatric disorder. Aust N Z J Psychiatry. 1976;10:47-51.
- 10. Sims A. Symptoms in the mind: An introduction to descriptive psychopathology. 2nd ed. London: WB Saunders; 1995.
- Soyka M, Naber G, Völcker A. Prevalence of delusional jealousy in different psychiatric disorders. An analysis of 93 cases. Br J Psychiatry. 1991;158:549-53.
- Graff-Radford J, Whitwell JL, Geda YE, Josephs KA. Clinical and imaging features of Othello's syndrome. Eur J Neurol. 2012;19:38-46.
- Georgiev D, Danieli A, Ocepek L, Novak D, Zupancic-Kriznar N, Trost M, *et al.* Othello syndrome in patients with Parkinson's disease. Psychiatr Danub. 2010;22:94-8.
- 14. Michael A, Mirza S, Mirza KA, Babu VS, Vithayathil E. Morbid jealousy in alcoholism. Br J Psychiatry. 1995;167:668-72.
- 15. World Health Organization. The ICD-10 classification of mental and behavioural disorders: diagnostic criteria for research. Geneva: World Health Organization; 1993.
- Sajatovic M, Ramirez LF. Rating scales in mental health. 2nd ed. U.S.: Lexi-Comp; 2003.
- 17. Mahajan BK, Gupta MC. Textbook of preventive and social medicine. 2nd ed. New Delhi: Jaypee Brothers; 1995.
- Shrestha K, Rees DW, Rix KJ, Hore BD, Faragher EB. Sexual jealousy in alcoholics. Acta Psychiatr Scand. 1985;72: 283-90.
- Silva AJ, Ferrari MM, Leong GB, Penny G. The dangerousness of persons with delusional jealousy. J Am Acad Psychiatry Law. 1998;26:607-23.
- 20. Kala AK, Kala R. Psychotic jealously: A phenomenological study. Indian J Psychiatry. 1981;23:237-41.
- 21. Knox D, Zusman ME, Kaluzny M, Sturdivant L. Attitudes and behavior of college students toward infidelity. Coll Stud J.

- 2000;34:162-5. 22. Shepherd M. Morbid jealousy: Some clinical and social aspects
- of a psychiatric symptom. J Ment Sci. 1961;107:688-704.
 23. Mooney HB. Pathologic jealousy and psychochemotherapy. Br J
- Psychiatry. 1965;111:1023-42.
 West DJ. Murder followed by suicide. London: Heinemann; 1965.

Singh SK, Bhandari SS, Singh PK. Phenomenology and predisposing factors of morbid jealousy in a psychiatric outdoor: a cross-sectional, descriptive study. Open J Psychiatry Allied Sci. 2017;8:129-35. doi: 10.5958/2394-2061.2017.00008.8, Epub 2017 April 26.

Source of support: Nil. Declaration of interest: None.