Original Research Paper

Suicidal Hanging: A Prospective Study

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Abstract

The objective of this study was to focus on various factors associated with suicide by hanging at Chennai, India; with a view to identify the areas of intervention. A prospective study was carried out on 65 cases of death due to suicide by hanging which was received by the Institute of Forensic Medicine, Madras Medical College, Chennai, India, during the period of August 2008- July 2009.

In the present study, 84.7%% of the cases were below the age of 40years, time of hanging in 50.8% of the cases was 3am-12noon, place of hanging in 95.5% of the cases was their residence, 92.3% were living with their family and 69.2% were married. Most frequent precipitating factors were marital unhappiness (33.8%), problems associated with organic disease (18.5%) and dowry harassment (16.8%). To reduce the incidence of suicides by hanging, there is urgent need to focus on these factors.

Key Words: Chennai; Suicide, Hanging, Precipitating Factor

Introduction:

Suicide is a major socioeconomic and public health issue worldwide. Hanging is one of the 10 leading causes of death in the world accounting more than a million deaths annually [1]. In India, hanging is second common method of committing suicide after poisoning. Over the past 30 years the incidence of suicide by hanging is on increase, especially among young adults [2]. The fact that 71% of suicides in India are by persons below the age of 44 years imposes a huge social, emotional and economic burden on our society [3]. Its prevention is still a challenging job for public health authorities. A detailed knowledge of various factors associated with suicidal hanging in that particular geographical area is very much necessary to prevent such suicides. Keeping this in mind we conducted a prospective study at Chennai, to focus on the various factors associated with suicidal hanging; with a view to identify the areas of intervention.

Material and Methods:

This prospective study was conducted during August 2008 to July 2009 at the Institute of Forensic Medicine, Madras Medical College, Chennai, India. During this period we received 65 cases of deaths due to suicide by hanging for autopsy.

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We included cases in which the history and scene of crime examination report given by the investigating police officer and history given by the close relatives and friends who attended the inquest were suggestive of suicide by hanging.

Information regarding age, sex, marital status, living circumstances, place and time of hanging, ligature material and ligature points used, any history of alcoholism and drug addiction (details of toxicology report) were collected. We took a detailed history regarding the possible precipitating factors for committing suicide. We also collected information regarding previous illnesses and the treatment pattern.

Results:

In the present study, 65 cases of deaths due to suicide by hanging were studied. In that 52.3% were men and 47.7% were women. The commonest age involved was 21-30yrs, 38.5% of cases. We observed maximum number of suicidal hanging (84.7%) by the persons below the age of 40years. Majority of suicidal hanging by males was in the age group of 31-40 years (21.6%) but in females it was 21-30 years (24.6%) (Table1). At the time of committing suicide, 92.3% of cases were living with their family and 69.2% were married (Table 2). In 95.5% of cases, the place of hanging was at their own residence. Most of the cases (50.8%) hanged themselves during the early hours of the day around 3am-12noon. The most commonly used ligature materials were nylon materials (saree, dupatta, rope) and ligature points were ceiling fans, beams and window grills. The commonest reason for hanging was marital unhappiness (33.8%) followed by organic

disease (18.5%), dowry harassment (16.8%), financial problems (7.7%), failure in exams (6.2%) and psychiatric illness (6.2%). Other rare causes were dispute with parents/children/lover (4.6%), infertility (3.1%) and unemployment (3.1%) (Table3). Suicide note was left behind in only five cases. Post mortem blood investigation does not reveal alcohol intoxication or drug addiction in any of the cases.

Discussion:

In the present study of 65 cases of suicidal hanging, the incidence among males and females was almost equal. In Chennai, significant number of women too commits suicide by hanging. Majority (84.7%) of the victims were below the age of 40years. The incidence among females below the age of 30yrs was on higher side (38.5%) when compared to males (18.4%). High suicide rate among young adults, especially females impose a huge social, emotional and economic burden on our society. Both in developed and developing countries suicides among young seem to be on increase. [4, 5, 6, 7] Stresses associated with marriage, dependency, dowry related problems, interpersonal differences with spouse and his relatives were the major factors in Indian women. [8]

Time of hanging in 50.8% of cases was during the early hours of the day around 3am-12noon and 21.5% in the afternoon i.e., when most of them were either asleep or gone out to work. Very few people hanged themselves in the evening and night hours. This is in contrast to other studies where night time was commonly preferred [5].

The most commonly used ligature materials were nylon materials (saree, dupatta and rope) and ligature points were ceiling fans, beams and window grills. In another study done by B.R. Sharma et al. (2008) dupatta was the commonly used ligature material by females, whereas saree was used by males [5, 9]. Easy availability of these materials widely makes restriction very difficult. Hence to prevent suicides by hanging we should identify the various precipitating factors and focus on its prevention.

At the time of committing suicide, majority (92.3%) of cases was living with their family and the place of hanging was their residence. We observed that 69% of them were married and living to-gather, 6% were either divorced or separated. The main precipitating factor in majority of the cases was marital unhappiness (34%). This correlates with the above fact. Similar observation has been reported in other studies as well [3, 6, 10, 11]. Competitive life, increased aspiration, financial instability, lack of meaningful relationships, inability to solve interpersonal problems was the main contributing factors. In India, breakdown of joint family system which provided emotional and social support system is also an important factor for family dysfunctions. [13] Conflicts relating to marriage like dowry harassment (16.8%) which is one of the major social evil in our country also had a crucial role. [6, 11]

Organic illness was also an important precipitating factor (18.5%) next to marital unhappiness. In our study, chronic abdominal pain, cardiac disease, epilepsy and cancer were frequently associated with suicidal hanging. This observation is consistent with other studies. [10, 11] Association with psychiatric illnesses was just 6.2%. One was a case of schizophrenia and other was a case of chronic depression. But in developed countries, psychiatric illnesses were the common precipitating factor. [6, 13, 14] Inability to take proper treatment due to financial problems, poor prognosis, concerns of debility, fear of posing a burden to loved ones were the reasons for committing suicide. Here the treating doctors, nurses, other health care professionals and family members have to play a crucial role. Identifying the depressed patients and treating them will prevent many suicides.

Among the 7 cases of suicidal hanging in the age group of 11-20yrs, in 4cases (6.2%) the precipitating factor was failure in school examinations. It is a tragic and preventable public health problem all over the world [5, 11]. High competition among school children, high expectation from parents and teachers, inability to attain their goals are the main reasons for such suicides. In contrast to other studies, the incidence of suicidal hanging due to financial problems (7.7%), unemployment (3.1%) and infertility (3.1%) were very less.

Conclusion:

The high incidence of suicidal hangings among young adults, especially females imposes a huge socioeconomic burden on our society. Private nature of hanging and easy availability of ligature materials and ligature points makes prevention of suicide by hanging a difficult task. Marital unhappiness, problems associated with organic illnesses and dowry harassment are the main causative factors for suicidal hangings at Chennai. Family members, friends, teachers, healthcare professionals especially psychiatrists have to play a major role in primary and secondary prevention of suicidal hangings. Also a change regarding social practices and perceptions in India will prevent most of the suicides.

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Table 1: Distribution of Suicidal Hanging Cases by Gender and Age Groups

Age groups (yrs)	Gender				Total	
	Male		Female			
	No.	%	No.	%	No.	%
<20	3	4.5	9	13.9	12	18.4
21-30	9	13.9	16	24.6	25	38.5
31-40	14	21.6	4	6.2	18	27.8
41-50	4	6.2	1	1.5	5	7.7
51-60	2	3.1	1	1.5	3	4.6
61-70	1	1.5	-	-	1	1.5
>70	1	1.5	-	-	1	1.5
Total	34	52.3	21	47.7	65	100

Table 2: Marital Status of Victims of Suicidal Hanging

Marital status	No.	%
Married	45	69.2
Single	13	20.0
Widowed	03	4.6
Separated	02	3.1
Divorced	02	3.1
Total	65	100

Table 3: Reason Given at the Inquest for Committing Suicide

Reason for suicide	No.	%
Marital unhappiness	22	33.8
Organic disease	12	18.5
Dowry harassment	11	16.8
Financial problems	05	7.7
Psychiatric illness	04	6.2
Failure in school exams	04	6.2
Dispute wit parents/children/lover	03	4.6
Infertility	02	3.1
Unemployment	02	3.1
Total	65	100