MATERIALS AND METHODS

This is a postmortem examination based retrospective study conducted at Department of Forensic Medicine, Government Medical College and Hospital, Nagpur. We examined all available files of the death of people in custody through 2001 to 2010. Information collected included age, sex, type of custody, place of death, presence of any associated disease, history of any psychiatric illness, substance abuse, and cause of death.

INTRODUCTION

Death while in custody is a sensitive issue and has potential implications in the society. When such death is unnatural one then the ramifications are wide and ranged from violation of human rights to torture and causing death. Suicide in custody is a well-established problem. Studies conducted in several countries have found an increase in suicide rates in custody over the last five decades.[6] Few studies have reported suicide rates are in excess than the general population.[2,3] Inmate suicide represents a significant correctional health problem in the society and specific interventions are required to prevent these premature deaths. However, for this purpose updated data of mortality pattern in custody are required. Considering India, such data are lacking. The present study was undertaken to assess the trends of suicide in custody and to identify characteristics that can be utilized to prevent such deaths.

ABSTRACT

Background: Studies conducted in several countries have found an increase in suicide rates in custody than the general population.

Aims: The aim was to assess the trends of suicide in custody and to identify characteristics.

Materials and Methods: We examined all available files of the death of people in custody through 2001 to 2010. Information collected included age, sex, type of custody, place of death, presence of any associated disease, history of any psychiatric illness, substance abuse, and cause of death.

Results: A total 173 autopsies was performed out of which 14 cases were of suicide. The mean age was 31.71 years. 71.42% deaths were noted in police lock-ups while 28.57% were recorded in prison. Hanging was the common method of suicide followed by poisoning.

Conclusion: Suicide in custodial setting is preventable problem in India. Preventing suicide in custody needs cooperation and coordination from various agencies.

Key words: Autopsy, custody, death, jail, police lock-up, suicide
RESULTS

A total 173 autopsies was performed during the 10 years period from January 2001 to December 2010 out of which 14 (8.09%) cases were of suicide. The year-wise distribution of the custodial death and suicide is presented in Figure 1.

Age and sex
The study consists of 14 incarcerated people consisting of 13 men and 1 woman. The mean age was 31.71 years [Table 1]. About 78.57% ($n = 11$) death were recorded in the age group of 21–40 years [Figure 2] while one death was noted at the age of 19 years.

Type of custody and timing
Ten deaths (71.42%) were noted in police lock-ups while 4 deaths (28.57%) were recorded in prison [Table 1]. Mean age of individuals who died in police custody was 32 years while mean age of person died in jail was 31 years. Among the people who were in police custody, 7 (70%) had committed suicide within 24 h of the arrest. Among jail inmates, two persons (50%) were convicted and 2 (50%) were temporary prisoners. In case of temporary inmate, 1 had committed suicide within 24 h of confinement.

Methods
Hanging was the common method of suicide ($n = 6, 42.85$%) followed by insecticidal poisoning ($n = 5, 35.71$%) while jumping from height was noted in two inmates (14.28%) and self-stabbing of abdomen in one individual (7.14%) [Table 1].

Place of death/incident
Analyzing the place of death, 7 (50%) died in police lock-ups, 3 (21.42%) died in prison cells, 2 (14.28%) died in court premises and 2 (14.28%) died at other place. Among those who died at other place 1 (7.14%) person flee from police and consumed insecticide near jungle while other stabbed himself while searching the stolen property at his home.

Moment of death/incident
About 50% ($n = 7$) of deaths/incident were recorded in afternoon period while 42.85% were noted in night hours ($n = 6$) and 7.14% in evening hours ($n = 1$).

History and circumstances
Analyzing the history and circumstances, 2 (14.28%) persons had consumed alcohol (mean blood alcohol level 125.5 mg/100 ml), 1 person was in alcohol withdrawal state while one had attempted suicide 2 weeks back in another police lock-up. While evaluating deaths due to hanging, 4 (66.66%) had used bars of cell while 1 (16.66%) each had used window bar and half door of toilet, respectively, to tie the ligature material. Two (33.33%) inmates had used underwear, 2 (33.33%) had used piece of bed-sheet (dari) while 1 (16.66%) each had used lungi and blanket, respectively, as a ligature material.

DISCUSSION

Suicide remains a major public and mental health problem in India. Over 100,000 people die by suicide in India every year. In the last two decades, the suicide rate has increased from 6.4 in 1982 to 10.5 in 2002. In comparison with general population, people in custody have an increased rate of suicide and is of great concern as these people are marginalized population. The data obtained from National Crime Record Bureau, India for the year 2009–2011 regarding inmate suicides in India are presented in Tables 2 and 3. Over these year on an average about 27.48% custodial deaths due to suicides in police lock-ups are recorded. It means in India about one-fourth of the arrested population is at risk and this is of great distress and worrying.

This study describes suicidal deaths within the custody in all districts of Nagpur revenue division. Majority of deaths in custody (92.85%) were of males. The less number of suicides among female inmates might be explained by the fact that they are less involved in crime and therefore represent less in number of the inmate population. In the present study, 78.57% deaths were recorded in the age group of 21–40 years. According to the Maryland study, prisoners
Type of custody may have an effect on the suicidal tendency. Few studies had noted increased mortality rate in long-term incarceration while other studies had noted increased suicide rate in short-term custody and police custody.[7,8,9] In India, the prison houses temporary, under-trial and convicted persons as prisoners while police lock-ups have person arrested for offences and for the purpose of interrogation. Each population in these two institutes have proper addressed then it is often accompanied by early offending, psychiatric disorder, substance misuse, and self-harming behavior.[7]

About 2 (14.28%) inmates had consumed alcohol and 1 inmate (7.14%) was in withdrawal state. The depressant effects of alcohol and narcotics and their withdrawal are well recognized. The vigilance similar to general population studies,[12,14] As observed in previous studies, suicidal hanging is facilitated by the bar type of construction of cells ($n = 4$, 28.57%). These bars were utilized by the inmates to tie the ligature material. The common articles such as underwear, bed-sheet (dari), blanket and lungi were used as a ligature material. Elimination of bar type of construction and redesigning of the cell would further reduce the available means of suicide.[9] The vigilance on greater suicidal risks is needed. The use of close-circuit vigilance system may be of some use in such population and installation of such gadgets should be considered. Similarly the police with specializing police custody should be deployed to monitor the inmates and these policing staff should not be involved in other duties so they could carry out their duty with concentration and energy.

Hanging is the most common method of inmate suicide, accounting for 42.85% of suicide in the present study. This method is followed by poisoning (35.71%). This has been seen in numerous prior studies.[2,8,11] The pattern is analogous to general population studies.[12,14] As observed in previous studies, suicidal hanging is facilitated by the bar construction of cells ($n = 4$, 28.57%). These bars were utilized by the inmates to tie the ligature material. The common articles such as underwear, bed-sheet (dari), blanket and lungi were used as a ligature material. Elimination of bar type of construction and redesigning of the cell would further reduce the available means of suicide.[9] The vigilance on greater suicidal risks is needed. The use of close-circuit vigilance system may be of some use in such population and installation of such gadgets should be considered. Similarly the police with specializing police custody should be deployed to monitor the inmates and these policing staff should not be involved in other duties so they could carry out their duty with concentration and energy.

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There are few limitations to the study such as: (1) Retrospective nature of study, (2) small sample size, (3) no socio-cultural, economic and criminal background could be evaluated due to lack of information, and (4) not possible to determine the crude suicide rate and compare them with other population studies. It is difficult to determine suicide rate because of rapid turnover of the population and therefore difficulty in getting the figure.

Corresponding with existing literature, our study identifies some traits of custodial suicide. However, larger studies are...
required to analyze individual risk factors, precursors for such act, environmental factors, and type of custody, period of imprisonment, substance abuse and mental disorder, and empirical significance and interactions of these factors with suicidal behavior. Moreover, psychological studies of such episode (psychological autopsy) might identify more specific and relevant factors for suicidal causation. But for this purpose, accurate and uniform data is required. There is need to create national custody death database. This database will allow for the analysis of multivariate models; an analytical method by which the respective statistical contribution of various factors may be identified. The medical and related professional may utilize the database and help to develop sound protocols so that the incidence of such types of death can be reduced.\[15\]

**CONCLUSION**

Suicide in custodial setting is preventable but neglected problem in India. Preventing suicide in prison or police lock-ups is not primarily a medical matter\[16\] but needs cooperation and coordination from various agencies. There is necessity for all policing staff to take suicidal behavior as a serious but preventable disorder in custodial setting as in any other circumstances. Screening the individuals before putting them behind bars, identifying the important risk factors such as drug and alcohol abuse or mental illness and seeking appropriate medical aid in this regard may reduce the number of such incidents in substantial way. Similarly, the prison or police lock-up environment itself may increase suicide risk.\[17\] Many inmates feel that an agonizing existence is worse than death. Therefore, gradual change in environment may help the individual to acclimatize with the condition and learn to cope with the problems.

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