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IMPORTANT ELEMENTS TO ANALYZE THE MANNER OF DEATH OBTAINED FROM THE CRIME SCENE IN SUICIDAL HANGING CASES OCCURED IN BANGALORE CITY – A RETROSPECTIVE STUDY

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crime scene investigation.

KEYWORDS: Hanging, Suicide, Crime Scene, Suspension, Ligature material.

INTRODUCTION

Hanging is one of the most preferred methods for suicide, which occurs due to the constriction of the neck by a ligature material wind around the neck which is suspended from a suspension point¹. As defined by Beck et al, suicide is "A wilful self inflicted life threatening act which has resulted in death"¹. Death by hanging is preferred by many as it is painless and a clean method with out involving blood or destruction to the body.² Suicide is a multidisciplinary object of scientific study with importance in its respective field of investigation.

In India hanging has become the second most commonest and dominating method for committing suicide, especially in adolescent and teenagers. Person prefers hanging more than consuming poison, drowning, self burning and jumping from a

ABSTRACT

Suicide or self destruction occurs through out the world, hanging has become one of the common method in committing suicide. Interpretation by a forensic crime scene expert provides a potential and vital information through reconstructing a undistorted crime scene to analyze and establish the manner of death. A retrospective study on 75 cases between January 2014 to June 2015 revealed Male preponderance (64%) and female (36%), Ratio of 16 : 09. In the present study age group between 26 to 35 (34.67%), were observed in committing suicide. Saree was an

optional and easily accessible ligature material found used by the victims (45.33%). Short suspension was found in (29.33%) cases followed by long suspension (18.67%) cases. Partial hanging was observed in (34%) of the victims followed by complete hanging (13.33%). Death notes are very vital evidence and were available at the death scene (6.67%). This study has proven the hypothesis of observing the importance of the death scene to analyze the manner of death from the crime scene findings in hanging cases. Overall view of this study suggests for an appropriate orientation programmes to improve the quality of the work are necessary to improve the

height to commit suicide.³ Bangalore is one among the cities rapidly growing in India. The float of population to the city from all over the country has become increasing due to the availability of the job opportunities in all the sectors. About 59.6% of pattern of suicide in hanging was adopted in Bangalore city compared with other mega cities.⁴ Readily available materials are used by the person committing suicide in hanging cases, such as saree, veil, different kind of ropes, bed sheet, dhoti, shoe lace; twine thread, etc. There is no age bar for the people committing suicide by hanging. External examination includes a deep observation around the neck for self inflicted wounds, occurs when the person tries to pull the ligature material around the neck.⁵ It is important to visit the death scene in hanging cases to analyze the death when the body is still suspended point (Hitch) by a ligature material to rule out the partial and complete hanging. Nature of suspending body, ligature encircling the neck, duration of suspension, length of ligature material, application of knots are examined.⁶ At the crime scene the contamination of the hand and the disturbed dust at the suspension point should be noted. To ascertain the manner of death in case of hanging the crime scene should be examined carefully for evidence as every death scene is a potential crime scene. The analysis of crime scene in hanging cases can be applied to the physical evidence and trace evidence which can offer a number of corroborating details and useful leads in helping the crime investigations.⁷

Effective forensic analysis of the crime scene in hanging cases depends on the skilful and experience in analyzing the ligature material, ligature suspension, applied ligature knots. Detailed examination from the undistorted crime scene plays a vital role in hanging cases. The value of the evidence at the crime scene or the death scene has increased, considering admissibility in the court of law. Suicide or homicide is always a big question in hanging death. Near one of the victim, deceased out cry homicide in act of hanging alleging the other party for the act. The present retrospective study is carried out to analyze the crime scene related with ligature knot, demographic features, ligature material, ligature mark, external injuries in deaths due to hanging, from the available data of the police records.

METHOD AND MATERIAL

A total of 75 cases were collected in hanging deaths between June 02nd 2014 to 2015 in and around Bangalore city in various parameters deduced into a performa are gathered from the police records of the concerned jurisdiction police station by simple random sampling. The information such as preliminary investigating report of the investigating officer, panchanama, age and gender, photographs, ligature materials, Long and short suspension, type of hanging, death notes and post mortem reports were scrutinized. Physical parameters like locked door or latched from inside or outside, suspension of the body with the ligature material, ligature material used, were assessed from the police records. Usage of furniture to reach the suspension point, complete or partial complete hanging, were collected from the records of the concerned police station. The data are collected in a performa, meeting the objectives of the study. The results are corroborated with the findings of similar studies of both Indian and Foreign authors. The data is later analyzed in a descriptive manner.

RESULTS

The study on 75 cases between the January 2014 to June 2015 was conducted to analyze the manner of death from crime scene findings in hanging death mode from the police records of the concerned jurisdiction police station in and around Bangalore city. The detailed report is described in the respective tables, to show the analyzed differences in data which was collected.

Figure.No1. Showing the Pie chart indicating the distribution of gender in hanging death

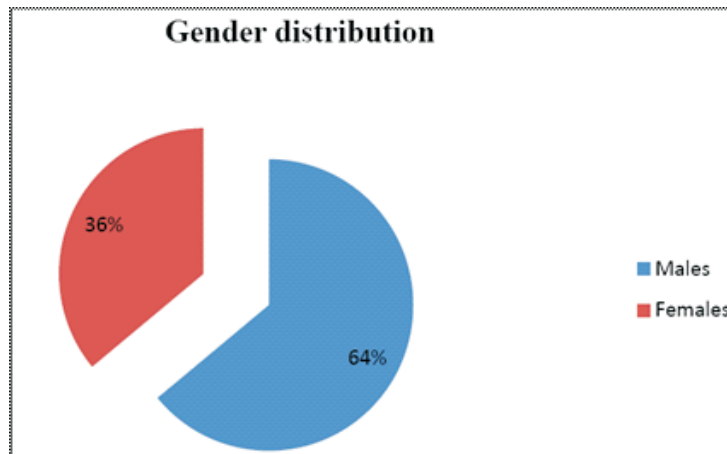


Figure no.1, shows the distribution of genders in hanging cases, male 48 (64%) dominated female 27 (36%).

Figure No.2, Graph showing the distribution of the age of the victims in hanging cases

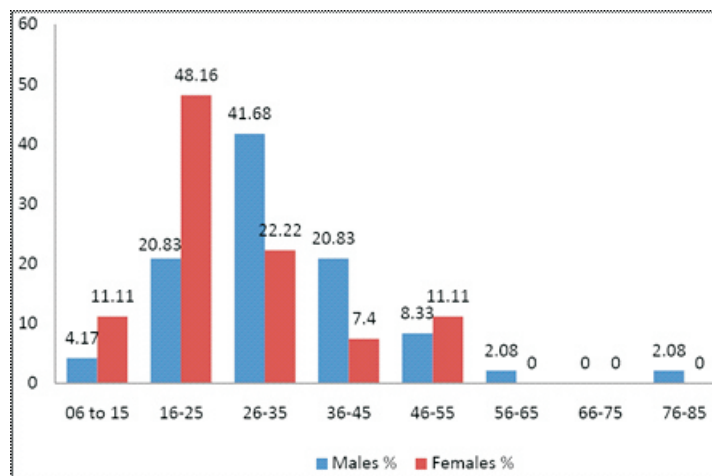


Figure no.2., shows the distribution of victims divided into 07 age groups in hanging deaths. 05 (6.67%) individuals were found in the age group between 06 to 15 year, consisting 02 males (4.17%) and 03 (11.11%) female victims. 23 (30.67%) individuals in the age group between 16 to 25 consisting of 10 (20.83%) males and 13 (48.16%) females were found. 26 individuals (34.67%) age group between 26 to 35 years consisted 20 (41.68%) and 06 (22.2%) females. In the age group between 36 to 45, 12 individuals were found consisting of 10 males (20.8%) and 02 (7.40%) females. 04 (8.3%) males and 03 (11.1%) females were present among the age group between 46 to 55. No cases were observed in the age group between 66 to 75. In the age group between 76 to 85 consisted 01 (2.08%) male victim was available.

Figure No. 4., Bargraph showing the distribution of the ligature material in hanging cases

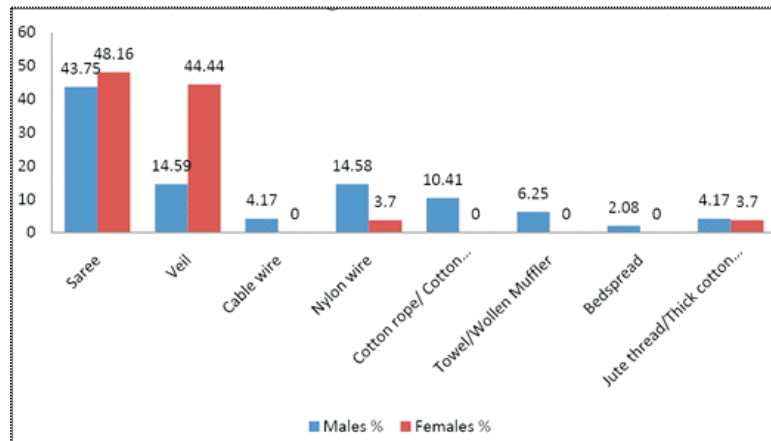


Figure no.4., shows the distribution of different types of ligature material among 75cases, 21(43.75%) cases of male and 13 (48.16%) female victims used saree as a ligature material. Veil was used among 07 (14.59%) male and 12 (44.44%) females. Ligature materials such as cotton rope, dhoti, and silk dhoti was used by males in 05 (10.41%)cases only. Materials such as towel, woollen muffler was used by males in 03 cases (6.25%) followed by 01 case (2.08%) of a male victim who has used bed spread. Materials such as Jute thread, thick cotton thread (Lada) was used in 02 males (4.17%) and 01 female (3.70%). Hard ligature material such as cable wire was used by the males in 02 cases (4.17%) and not in females, followed by nylon wire which was used by male in 07 cases (14.58%) and 01(3.70%) case was observed in female in the available police reports in hanging cases.

Figure No.6., Bargraph showing the distribution of hanging in hanging deaths

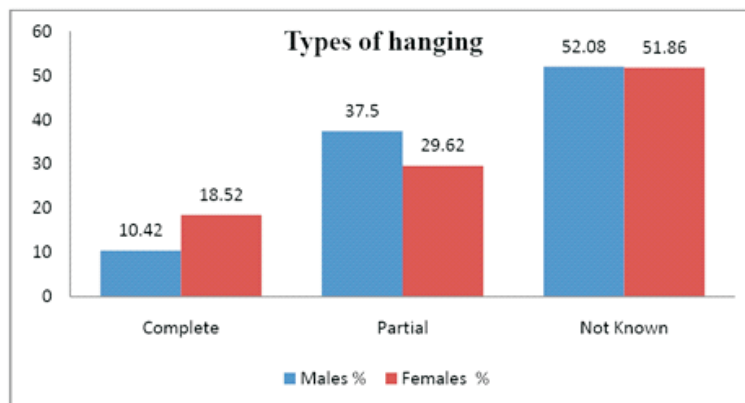


Figure no. 6., shows the distribution of different types of hanging was noted in the police records. 05 (10.42%) of males represented complete hanging comparing with 05 cases of females (18.52%). Partial hanging was seen more in both the genders where as male victims were 18 (37.5%) more comparing with the female victims in 08 cases (29.62%). It was also observed that the victim's body were brought down in 25 cases (52.08%) of male victims and 14 cases in female victims (51.86%).

Figure No.7., Bargraph showing the distribution of different type of suspensions in hanging deaths

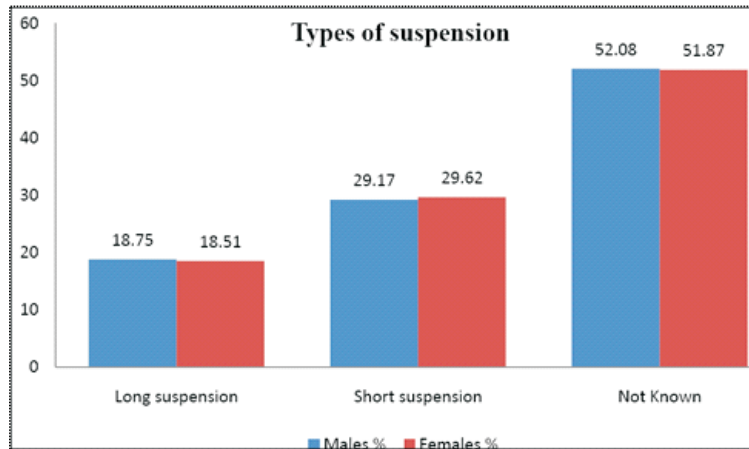


Figure no. 7., shows the distribution of suspension of ligature material in hanging cases. It was observed that the male victims showed 09 cases (18.75%) and female victims of 05 cases (18.51%) of long suspension in hanging cases. In short suspension hanging cases male victims were 14 (29.17%) comparing with the female victim of 08 (29.62%) cases, followed by the bodies brought down from the suspension points were noted in 39 cases (52%) in males and 25 (52.08%) and 14 (51.87%) in female victims in hanging cases according to police records.

Figure No.8., Piechart showing the door closed / opened at the scene in hanging death

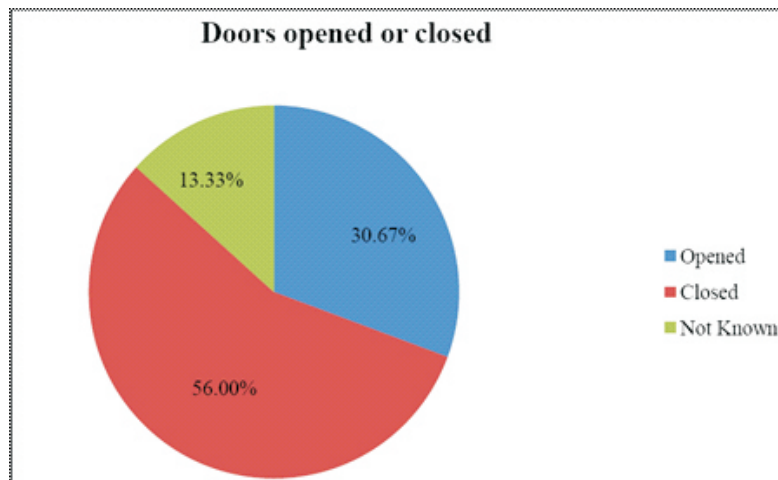


Figure No. 8., shows that the maximum number of doors were latched from inside in 42 cases (30.67%) by the victim before committing suicide by hanging. It was also observed that door were opened in 23 cases (30.67%) while the victim committed suicide followed by the door closed or opened were not known were observed in 10 cases (13.33%) as per the records which were available from the concerned jurisdiction police stations.

Figure No.9., Piechart showing the death notes available at the crime scene in hanging cases

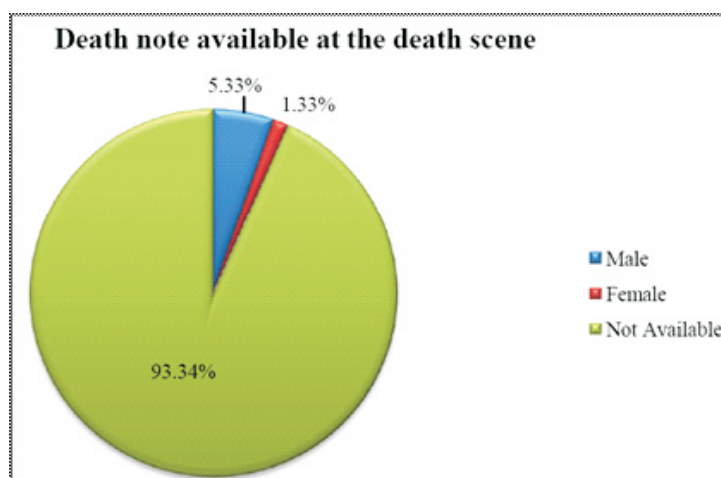


Figure no.9., shows that the death notes were available at the crime scene which was collected by the investigating officer of the concerned jurisdiction. It was observed that total in 05 cases where the victims had written the death notes, 04 males (5.33%) and 01 female (1.33%) death notes were available at the crime scene in suicide cases by hanging.

DISCUSSION

Considering a wide range of investigative techniques through efficient methods, applying intelligence at the crime scene or scene of death becomes important in searching the appropriate evidences to minimise the likelihood of miscarriage of justice. The present retrospective study on the analysis of the manner of death from the crime scene findings in 75 hanging cases has revealed that the convenience of the location and the minimal requirement of material have made the victims to adopt hanging as a method to commit suicide.

From the present study the majority were male victims (64%) followed by 36% of female victims. Similarly, a study was reported on suicide in China by Pitchard, which reveals that the rate of men committing suicide is three times greater than women victims.⁸ In contrast to the present study, a study reported by Ahmad et al shows 58.62% female victim dominane out of 145 cases, compared with 41.37% male victims.⁹

The present study shows the majority of victims belonged to the age group between 26 to 35 years (35%), followed by 16 to 25 years (31%). The reasons found were depression due to unemployment, health problems, family problems and love affairs. The remaining 34% of victims belonged to the other age groups. A similar study on hanging cases conducted in Ahmadabad Region by Patel, A. P and et al., on 320 hanging cases shows the highest incidents occurred in 32.98% victims aged between 21 – 30 years, majority of them were males with a ratio of 1.5:1 against the females.¹⁰ 41.4% of victims were observed in a study conducted by Sharija et al¹¹ and N.Vijayakumari (84.7%)¹² shows the majority of the victims belonging to the age group between 21 to 35 years due to the depression developed by frustration from family tension, health problems and socioeconomic problems.

The present study on ligature materials such as saree, rope, dupatta, cotton thread, jute thread etc., used for committing suicide were easily available to the victim. Majority of the victims preferred as a soft ligature material such as saree, veil and dupatta. Males (43.75%) and (48.16%) female victims preferred saree as a ligature material. Similar study was reported conducted on 60 hanging cases by P.B.Waghmore reveal that the most common ligature material used by the victims were dupatta in (38.33%), followed by saree in (13.33%).¹⁵ A study by Sharija et al shows the preference given to the saree, shawl, lungi etc by 48.6% of the victims.¹¹

In 48% of cases, showed complete hanging, in 52% cases type of the hanging was not known as the relatives had brought down the body of the victim’s. In the present study the distribution of complete hanging represented 10.42% male victims followed by 18.52% of female victims. Partial hanging was observed in 37.5%

male victims compared with 29.62% of female victims. 52.08% of male victim's bodies followed by 51.86% female victim's bodies were brought down by either by relatives or neighbours according to the police records. Similar study reported on the type of hanging by Olive Bennewith et al shows 52.4% of complete hanging and 23.5% of partial hanging, 17 A report by Vipul Namdeorao Ambade et al, shows the non availability of ligature material during the forensic examination in hanging cases. It was brought by the attenders victim or the police person later, if it was necessary only.¹³

Suspension type was observed in 48% cases and 52% cases were not examined. Long suspension was observed in 18.75% of males and 18.51% of female victims. Saree, bed sheet, nylon rope, cotton rope were used for long suspension. Furnitures were used by the victims to approach the suspension point as per the police records as the distance of the short suspension points were easily approachable. In the present study short suspension was observed in 29.17% of males and 29.62% of female victims. Ligature materials used for short suspension were found to be veil, cotton thread, jute thread or cable wire and saree, materials capable of sustaining the weight of the victim body along with the height of the victim, Majority of the cases were partial hanging. In 52% cases male victim of 52.08% and 51.87% of female victim body were brought down by the relatives or by the neighbours. A similar study conducted by Ashok Kumar Samantha shows the majority of male victims utilizing rope as a ligature material (Hard) is 46.67 % hanging cases.¹⁴

The suspension point known as hitch point was observed only in 30.67% and in 69.33% was not known. According to the police records photographs of the suspended ligature material from the suspension point with a knot was observed macroscopical in few cases. In few cases ligature material was observed still suspending from the suspension point. The present study reveals long suspension and short suspension on the basis of the measurement of a ligature material measured from the suspension point to the knot situated on the nape of the neck. A similar retrospective study conducted by Ian Godard on hanging cases revealed the standard measurements of ligature material is 4 to 9 feet for long suspension and less than 4 to 9 feet for short suspension.¹⁵

Strong determination of the victim choosing indoor leading to the commitment was observed in the present study. Room doors were locked from inside by the victims in 56%, doors were found opened in 30.67% of the cases. According to the witness statements it was observed that doors were either opened or either closed in 13.33% cases.

Suicide note is a mode of communication, message of expression from the person who intends to commit suicide, expressing the psychological understanding of an individual motivation to commit suicide, can be found on the victims body, on a piece of paper, on the floorings, on the walls at the death scene or crime scene. Deaths notes were observed very few cases, collected by the investigating officer from the death scene. Death written notes by 5.33% of male and 1.33% of female victims before committing suicide were found at the death scene. Similar study conducted by N.Vijayakumari et al. ¹²

CONCLUSION

Suicide by hanging has become the commonest and rapidly growing method adopted by the people to commit suicide when compared with the other methods. The present study exposes the important elements to analyze the manner of death obtained from the crime scene in suicidal hanging cases in and around Bangalore city. According to the study majority were the male victims. The age group between 26 to 35 years were the highly adopted when compared with the other age group. Time and location to commit suicide seems to be associated with the absence of support, supervision and the family conflict. Saree, an easily available and accessible ligature material to suspend from the ceiling fan, common ligature material to the suspension point. Partial hanging cases were resulted in majority when comparing with the complete hanging cases. In most of the cases victims were brought down at the death scene by the relatives or by the friends resulting in distortion of the death scene. Doors of the room was latched from inside by the victim, door has to be break opened for the further examination at the death scene as per the police report.

Suicide note was observed occasionally in very few cases, revealed the expressions of the victims conveying the message. By this study it has been proven the hypothesis by observing the importance of the

death scene to analyze the manner of death from the crime scene findings in hanging cases. Appropriate orientation programmes to improve the quality of the work is necessary.

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