

## Profile of Medico-Legal Cases in Casualty of a Tertiary Care Hospital in Hilly City Of Himachal Pradesh

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### Original Research Article

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**Abstract:** Profiling of Medico legal cases is an integral aspect for the prevention of preventable casualties in future and to study the crime rate in area. The present study attempts to highlight the pattern and profile of medico-legal cases presenting in casualty department of Indira Gandhi Medical College, Shimla. The present study is a retrospective study conducted for a period of one year from 1st Jan 2014 to 31<sup>st</sup> Dec 2014 in which all the 892 medico-legal cases reported to the Casualty department of Indira Gandhi Medical College and Hospital, Shimla , Himachal Pradesh were studied. Data regarding socio-demographic profile, types, mode and time of injury was collected from medico-legal register. The collected data were analyzed and proportions as well as percentages were calculated for relevant variables. Out of 892 cases reported 699 (78%) were males and 193 (22%) were females. Majority of victims (38.7%) were from age group 21 – 30 years and 582 (65.25 %) belonged to urban areas. Road traffic accidents constituted 39.7%, alcohol intake 21.9%, Assault 18.4% followed by poisoning in 8.85 % of cases. Maximum number of victims (42.5%) attended to the casualty between 6 p.m. to 12 a.m. Majority of the medico-legal cases were accidental (69%) in nature followed by assault/homicidal in (21.5%) and suicidal (9.5 %). The present study showed that the maximum number of medico-legal cases is accidental in nature, seen among young male individuals and in urban inhabitants. This study shows the importance of medico-legal responsibilities like examination, proper documentation and certification of medico-legal cases.

**Keywords:** Profile, Medico Legal Cases, Casualty Department, Shimla, Accidental.

## INTRODUCTION

Casualty department is the backbone of every hospital. It deals not only with medical and surgical emergencies round the clock but also deals with a huge number of medico-legal cases which comprises accidents, assaults, burns, poisoning, sudden deaths, operative deaths, suicide, homicide, any suspicious deaths and cases referred from police or court[1].

A medico-legal case is a case of injury or ailment where attending doctor after taking history and clinical examination of the patient thinks that some investigations by law enforcing agencies are essential so as to fix responsibility regarding the case. It is a responsibility of a registered medical practitioner to judge each and every cases properly and in doubtful cases, it is better to inform the police. This saves the

doctor from unnecessary and needless allegations later [2].

Profiling of Medico legal cases is an integral aspect for the prevention of preventable casualties in future and to study the crime rate in area. The present study attempts to highlight the pattern and profile of medico-legal cases presenting in casualty department of Indira Gandhi Medical College, Shimla(H.P.) which not only highlights the value system among individuals in the community but also provides vital data for administrators, health officials, philanthropists, social workers, NGOs to devise strategies in order to reduce these incidences.

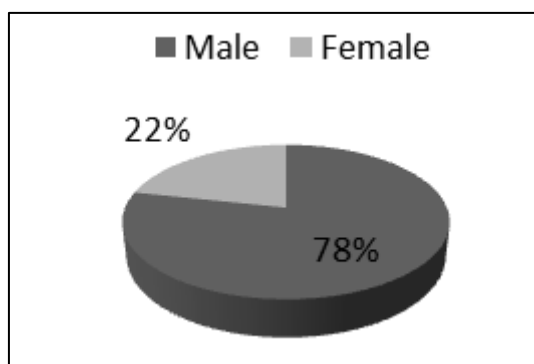
## MATERIALS AND METHODS

The present study is a retrospective study conducted for a period of one year from 1st Jan 2014 to

31<sup>st</sup> Dec 2014 in which all the 892 medico-legal cases attending Casualty department of Indira Gandhi Medical College and Hospital, Shimla, Himachal Pradesh were studied. Individuals from both genders and all age groups with medico-legal perspective were included in study. A proforma was used to note down types of injuries and additional information like the socio-demographic profile, age, mode of injury and time of occurrence was collected from medico-legal register. The collected data were analyzed, observations discussed and compared with other studies.

**RESULTS**

Out of 892 cases studied, 699 (78%) were males and 193 (22%) were females. (figure 1).



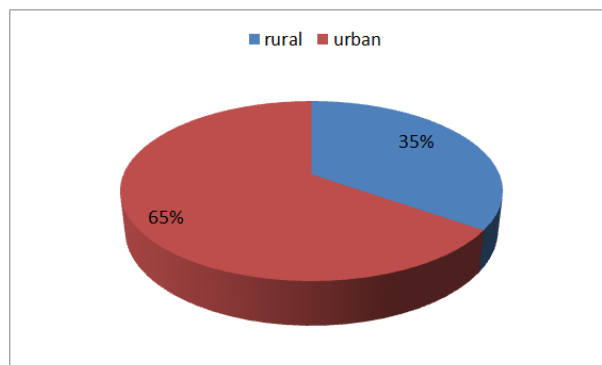
**Fig-1: Gender wise distribution of cases**

Table 1 shows that majority of victims were from age group 21 – 30 years (38.7%) followed by 31 – 40 years (22.30%) and 11 – 20 years (14.8%).

**Table-1: showing age and gender distribution of the victims**

Age group	M	F	Total	percentage
0-10	18	08	26	2.9%
11-20	95	37	132	14.8%
21-30	283	62	345	38.7%
31-40	161	38	199	22.3%
41-50	80	25	105	11.8%
51-60	41	15	56	6.3%
61-70	14	05	19	2.1%
71-80	06	01	7	0.7%
81-90	01	02	3	0.3%
Total	699	193	892	100 %

Figure 2 showed that the urban victims constituted 582 (65.25 %) and the rural victims were 310 (34.75%).



**Fig-2: Distribution of cases according to Geographical area**

Table 2 showed that the road traffic accidents constituted 39.7%, alcohol intake 21.9%, Assault 18.4% followed by poisoning in 8.85 % of cases.

**Table-2: Showing types of injuries of the victims**

Type of Injuries	No. of Cases (n=892)	Percentage
Alcohol	196	21.9%
Road side accidents	354	39.7%
Animal Bite	04	0.44%
Poisoning	79	8.85%
Burn	24	2.7%
Domestic V	19	2.1%
Assault	164	18.4%
Fall	30	3.36%
Gun Shot	03	0.34%
Sexual Assault	08	0.9%
Miscellaneous	11	1.23%
Total	892	100%

Table 3 showed the time of attending to the casualty. As shown maximum number of victims attended to the casualty between 6 p.m. to 12 a.m. (42.5%)

**Table-3: Distribution of cases according to time of reporting to casualty**

Time	No. of Cases (n=892)	Percentage
12 am – 6 am	148	16.5%
6am – 12 pm	120	13.5%
12 pm – 6 pm	245	27.5%
6 pm – 12 am	379	42.5%
Total	892	100%

Present study observed that the majority of the medico-legal cases were accidental (69%) in nature followed by assault/homicidal in (21.5%) and suicidal (9.5 %) of cases. (Table 4)

**Table-4: Distribution of cases according type of cases**

Manner	No. of Cases (n=892)	Percentage
Accidental	616	69%
Homicidal Assault	192	21.5%
Suicidal	84	9.5%
Total	892	100%

## DISCUSSION

In the present study it was observed that most of the victims were males (78%). Our findings are consistent with study conducted by Trangadia MM *et al.* [3] (males 72.77%), Hussaini SN *et al.* [4] (males 74.03%), Yattoo GH *et al.* [5] (males 74.03%). The predominance of males over females may be attributed to the male dominance in the society and males who work outside to earn their daily bread are more vulnerable, while females usually stay at home and look after the house hold work.

In present study majority of victims (38.7%) from age group 21 – 30 years followed by 31 – 40 years (22.30%) and 11 – 20 years (14.08%). Similar results were also obtained by Trangadia MM *et al.* [3], Hussaini SN *et al.* [4], Yadav A *et al.* [6]. Result shows that the people of the most active and productive age group involve themselves in outdoor activities so they are more prone to accidents.

It was observed that urban victims constituted 582 (65.25%) and the rural victims were 310(34.75%). Similar findings were also observed by Hussaini SN *et al.* [4]. The studies which were conducted in the rural areas differ from the present study. Increasing number of population in the city and increase in the slum areas drastically within the last few years, lack of good roads and less safety measures among people, more number of falls due to industrial mishaps, construction works and fall from buildings constitute more number of medico-legal cases in urban areas in and around Shimla.

In the present study road traffic accidents constituted 39.7%, alcoholism 21.9 and assaults constituted 18.4% cases. The findings of our study are consistent with the studies conducted by Trangadia MM *et al.* [3], Yattoo GH *et al.* [5] where road traffic accidents constituted majority of medico-legal cases. Poor road condition prevailing for a decade in both urban and rural areas, increasing population in the city day by day contributes maximum number of road traffic accidents.

Maximum incidence of medico-legal cases took place between 6 p.m. to 12 a.m. (42.5%) because in this time of day people engage themselves maximally into their activities. This is consistent with study conducted by Trangadia MM *et al.* [3], Yattoo GH *et al.*

[5]. In the present study majority of the medico-legal cases were accidental (69 %) in nature followed by assault/homicidal (21.5%) and in suicidal (9.5%) of cases.

## CONCLUSION

The present study showed that the maximum number of medico-legal cases is accidental in nature, seen among young male individuals and in urban inhabitants. This study not only shows the load of medico-legal cases in a tertiary care hospital but also shows the need of public awareness to take medical attention for a comfortable outcome, seeks the importance of medico-legal responsibilities like examination, proper documentation and certification of medico-legal cases. Engaging medico-legal expert in a casualty or giving training to the medical officers to carry out medico-legal works safely and scientifically can definitely decrease the issues of negligence cases in a developing country like India. Such incidences can be prevented by giving proper education, awareness and training of safety standards by administrators, health officials, social workers and NGOs to the general population.

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