

Profile of Medicolegal Cases in the Rural Areas of District Bahawalpur

Talha Naeem Cheema, Altaf Pervez Qasim, Tehreem Abaid, Hira Anjum, Ummara Munir, Qaisar Abbas

ABSTRACT

Objectives: To study the paradigm of medicolegal cases at the rural health care facilities for the purpose of evaluation and future collaboration between various departments in rural area. **Study Design:** Cross Sectional Study. **Settings & Duration:** The study was carried out in the Office of District Medicolegal Officer Bahawalpur. Data was collected from Tehsil Headquarter Hospitals (THQs) & Rural Health Centers (RHCs) covering a span of one year from 1st January, 2017 to 31st December, 2017. **Methodology:** Total 3709 medicolegal cases were included in this study. After perusal of injury statement, police docket & brief history reflected in medicolegal certificates; the observations were recorded in predesigned proforma with special emphasis on patterns of medicolegal cases. **Results:** Of the total 3709 cases; 2688 (72%) were male and 1021 (28%) were females. As regard age distribution is concerned, 297(7.9%) persons were less than 10 years while 1250(33.7%) belonged to 10-25 years, 1221(33%) were of 26-40 years, 640(17.3%) of 41-60 years whereas the age group of more than 60 years involved 301(8.1%) persons. The pattern of medicolegal cases included 250(7%) cases of sexual assault, 100(3%) cases of poisoning, 56(2%) cases of firearms, 2058(55%) cases of trauma by blunt weapons and 1054(28%) were the victims of sharp-edged weapon whereas road traffic accidents (RTAs) involved 183(5%) cases. Stratification with regard to age, gender and health care facility was carried out. **Conclusion:** Medicolegal cases caused by blunt and sharp-edged weapon were most commonly observed in rural areas of district Bahawalpur. The cases of poisoning & unnatural sexual act with males were having serious prevalence in rural areas. True implementation of the existing laws as well as collaboration of Health, Social welfare and Agriculture Department with law enforcing agencies is urgently required to reduce the potentiality of the crimes especially in rural areas.

Keywords: Medicolegal cases (MLCs), Rural areas, Rural Health Center (RHC), Tehsil Headquarter Hospital (THQ)

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Submitted for Publication: 10-01-2018

Accepted for Publication: 11-07-2018

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Citation: Cheema TN, Qasim AP, Abaid T, Anjum H, Munir U, Abbas Q. Profile of Medicolegal Cases in the Rural Areas of District Bahawalpur. APMC 2019;13(1):104-7.

INTRODUCTION

According to law, the word medicolegal denotes to any case of medical ailment, in which doctor or police has raised a suspicion of criminality including suicidal intent.¹ It is a commonly observed practice that cases of scuffle are first reported to police and then they turn up in casualty department. But on the other hand, cases of poisoning are directly dealt in A&E department and the attending physician then report such a case to the concerned police station. Notwithstanding the channel of communication and information, every medicolegal case is thus ultimately reported to police and the investigating officer then issues a docket, which authorizes the casualty medical officer to issue medicolegal certificate of the injured person, which is done under the Modified Continental System of Police inquest.² World Health Organization (WHO) recognizes injury as any harm to human body beyond human tolerance which is caused by acute exposure to physical agents such as mechanical trauma, heat, chemical, electricity or radiation.³ In the last decade of 20th century, 5 million people died due to trauma and injuries. By 2020, this figure is expected to swell to 8.4 million. Major brunt of the situation will be faced by the people having low to middle socio-economic status, amounting to about 90% of the population living in Southeast Asia and Western Pacific Regions.^{4,5}

Like other areas of Southern Punjab, more than twice the number of people reside in rural areas (n=2,496,848) of Bahawalpur as compared to its urban localities (n= 1,171,258).⁶ The culture and norms, the reasons of revenge and violence, the accessible type of weaponry (blunt, sharp or firearms) is somewhat different from the city areas. No reliable data regarding pattern of injuries in the rural area of Bahawalpur is available to date. Nor the numbers of poisoning cases were brought on record in the past. This situation owes to the acute paucity of comprehensive data management system at the level of the Rural Health Centers (RHCs) and Tehsil Headquarter Hospitals (THQs) where the initial medicolegal examination takes place in the rural areas of Bahawalpur. So, the rational of this study is to carefully analyze the authentic data from all such Tehsil Headquarter Hospitals (n=4) and Rural Health Centers (n=08) which will be readily available to the public health providers and law enforcement agencies for further evaluation and planning.

METHODOLOGY

Study Design: Cross Sectional Study.

Settings: Office of the District Medicolegal Officer, Bahawalpur by examining the data of all medicolegal cases conducted at

Tehsil Headquarter Hospitals (THQs) & Rural Health Centers (RHCs).

Duration: One year, 2017.

Methods: A total number of 3709 cases from rural areas of District Bahawalpur were analyzed covering a period of one year i.e. from 1st January, 2017 to 31st December, 2017. Data were collected by non-probability consecutive sampling for all the medicolegal cases

those reported in the THQ Hospitals and RHCs accompanied by Police docket. The cases, brought in dead and presented without police docket, were excluded from the study. A proforma was prepared to note down the types / pattern of medicolegal cases in view of the observed injuries along with perusal of the police docket / FIR, in case of all poisoning & sexual assault cases.

Data was analyzed on SPSS version 20. Frequency and percentage were calculated for gender, type of medicolegal case including sexual assault and poisoning. Effect modifiers like age, gender, health care facility was controlled through stratification.

RESULTS

Total 3709 cases were analyzed during the study period of one year from 01-01-2017 to 31-12-2017. Injured range from less than 10 years to more than 60 years. Most common group involved in medicolegal cases was 26-40 years of age (36%) in males and 11-25 years (43%) in females (Fig.1). A male predominance involving 72% of medicolegal cases is depicted in (Fig.2) whereas (Fig.3) revealed that the injuries caused by blunt trauma were the most common type of medicolegal cases involving 55% person while firearm injuries accounted for the least common tool found in 2% only. Stratification with regard to gender was presented in (Fig.4) while stratification with regard to health care facility was shown in Table-1.

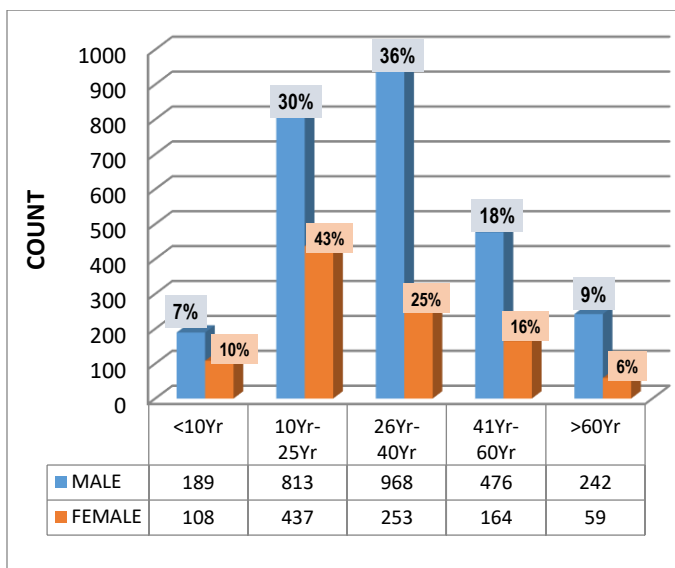


Figure 1: Distribution of Age in relation to Gender

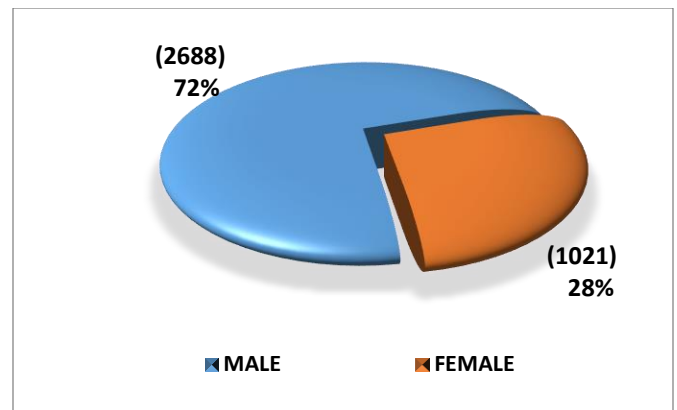


Figure 2: Gender Distribution in Medicolegal Cases

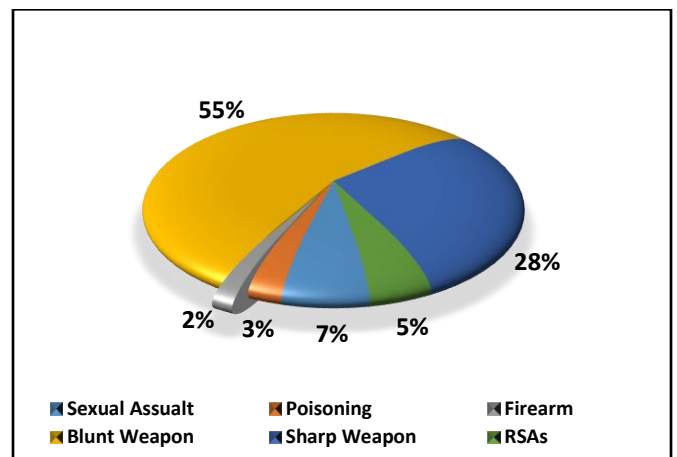


Figure 3: Pattern of Medicolegal Cases

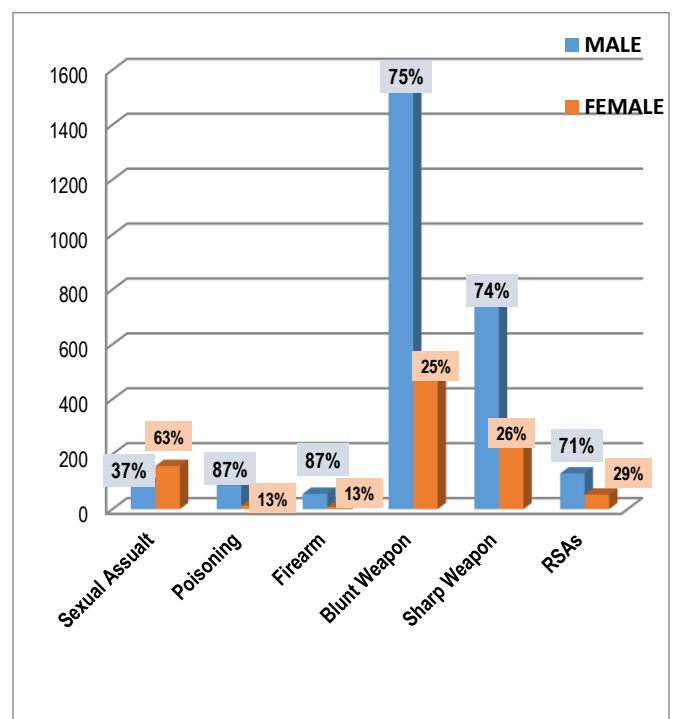


Figure 4: Pattern of Medicolegal Cases with regard to Gender Distribution

Table 1: Distribution of Cases with regard to Health Care Facility in Rural Areas of District Bahawalpur

Health Facility	Total Cases		Sexual Assault		Poisoning		Firearms		Blunt Weapon		Sharp Edged Weapon		Road Traffic Accidents	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
THQ Hospital, Ahmadpur, east	399	322	12	46	0	1	1	0	235	202	138	68	13	5
THQ Hospital, Hasilpur	535	128	24	21	80	0	7	0	242	53	165	45	17	9
THQ Hospital, Khairpur Tamewali	221	133	6	27	0	1	15	0	136	71	53	31	11	3
THQ Hospital, Yazman	338	196	2	37	1	7	9	1	199	71	108	68	19	12
RHC, Chani Goth	60	31	0	7	0	1	0	2	37	14	18	5	5	2
RHC, Mubarik Pur	129	38	14	2	1	1	4	0	69	23	38	12	03	0
RHC, Uch Sharif	302	0	16	0	4	0	5	0	149	0	114	0	14	0
RHC, Dera Bakha	62	0	1	0	0	0	0	0	50	0	10	0	1	0
RHC, Khanqah Sharif	425	128	7	4	0	0	6	5	301	70	88	40	23	9
RHC, Lal Sohanra	51	15	2	3	0	0	5	0	33	4	6	3	5	5
RHC, Qaim Pur	102	28	5	10	0	2	0	0	43	6	35	2	19	8
RHC, Head Rajkan	64	2	4	0	1	0	4	0	48	2	7	0	0	0
Total	2688	1021	93	157	87	13	56	08	1542	516	780	274	130	53
	72%	28%	37%	63%	87%	13%	87%	13%	75%	25%	74%	26%	71%	29%

DISCUSSION

The most common affected age group was 26-40 years for males (Fig-1) due to the fact that across the globe this is the most active group of socialization and earnings, henceforth bears hatred and revengeful feelings of the fellow people.^{7,8} In rural areas females before their marriages used to play an active role in farming and cultivation, therefore the most common group affected is 11-25 years which is younger than males. Moreover, most of the sexual assault cases are also prevalent in this age group. Patra et al⁹ and Rehman et al¹⁰ observed similar tendency of involving 11-20 years of age in female sexual assault victims.

The overwhelming majority of the victims (72%) were males (Fig-2). This predominance of males has been attributed to the fact that the males in our country normally work outside the home and are primary income earners in the family leading to greater male exposure to trauma and thereby can develop conflict of interest leading to hatred and revenge feelings. Similar higher incidence of medicolegal cases among males has been found by Malik et al¹¹ and Burq et al¹² with male predominance of 81% in both cases. In our study 9% increase in female MLCs can be attributed to the fact that rural population is a low-income class causing anxiety, depression & other mental illnesses culminating into increased violence on females¹³. This study recognizes that amongst the medicolegal cases, blunt weapon contributed 55% while firearm cases added only 2% to the total (fig.3). These results are comparable to Malik et al¹¹ reporting 33% blunt injuries and 4% firearm injuries in medicolegal cases at Rawalpindi. An increase in blunt injuries & fall in firearm related cases in rural areas of Bahawalpur are due to easy availability of wooden batons and hatchet compared to firearms. A high prevalence of sexual assault in rural areas also documented in other studies^{9,14-17} denotes to illiteracy among rural females along with poverty and weaker socio-economic sections. The findings of our study are in contrast with those of a local study conducted by Tariq et al¹⁸ reporting the incidence of sexual assault in 44.45% female

inhabitants of rural areas as compared to 55.55% belonging to urban settings in thickly populated city of Faisalabad. The slight increase of sexual assault cases in urban areas may be attributed to the fact that a number of women from rural areas / suburbs coming to the city for the purpose of employment & are relatively weaker to defend themselves from the incidence of sexual assault especially at their workplace. As regard cases of road traffic accidents are concerned; our study concluded that RTAs participated to only 5% of the cases which is contrary to Siddappa et al¹ (RTA=47.73%) & Malik et al¹¹ (RTA=40%) This is because only RTA of medicolegal nature which reported to police were included in study as compare to those who calculated all RTA cases in which the attending physician and the patient has given history of such an accident. Table.1 revealed some striking figures regarding male victims of sexual assault. At THQ Hasilpur (n=24) and RHC Mubarikpur (n=14), male victims of sexual assault have surpassed the number of female victims. One plausible explanation can be more restrictions on females in the adolescent age group and increased tendency towards buggery in males of these areas. Similarly, cases of poisoning in rural areas of Bahawalpur are more common in males involving 87% victims. This may be attributed to the fact that Bahawalpur district is a cotton growing area and there is abundance of pesticides during summer season which is solely under the control of males.



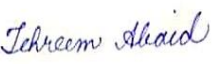


CONCLUSION

Blunt and sharp weapon injuries remained most common type of medicolegal cases in rural areas, so the rural health care facilities should be well equipped to deal with such cases. Sexual assault and poisoning cases in males are also recognized as most differentiating part of the study. Proper enactment of the relevant laws is the need of day. Health, Social welfare and Agriculture Department should collaborate with the law enforcing agencies to curb the menace of pesticide related poisoning cases.

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