



ORIGINAL ARTICLE

Forensic jurisprudence of violence: Examining cause and consequence.

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ABSTRACT... Objective: To highlight etiology of violence and what remedial measures can be adopted to alleviate law and order scenario. **Study Design:** Retrospective Observational study. **Setting:** Medicolegal Clinic of Emergency Department, Mayo Hospital Lahore. **Period:** January 1st 2024 to 31st December 2024. **Method:** A Retrospective observational study was conducted of cases reported in medicolegal clinic of Mayo Hospital Lahore in year 2024, including all physical assault, sexual assault and poisoning cases. Age, gender, occupation and educational status were the prime variables which were included in the study. Data was analyzed in IBM SPSS version 26.0 with cross tabulation and Pearson-Chi Square test was applied for significance value and correlation. **Results:** Total number of cases reported were 2233, of which 78.2% were male and only 21.8% were female, and 89.2% were of age of majority and 10.8% were of less than 18 years of age. Crime cases reported in the summer peaked up to 72% with a decline of violence tendency in the winter season with only 28% criminal activity. Pearson Chi-Square and Likelihood Ratio depict strength of association between categorical variables suggesting a stronger association of adults and violence with labor class most inclined to be aggressive followed by job oriented personnel. An extremely low p-value of 0.000 shows statistical significance of association. **Conclusion:** Violence is an unspoken unwelcome element of human life yet it needs to be addressed for remedial purposes. Education of the masses and awareness regarding the aftermath of a temporary bout of outburst can have lasting impact over one's life especially the medicolegal, police and court proceedings which can have multiple burdens over an already busy lifestyle of any individual.

Key words: Violence, Physical Assault, Medicolegal, Emergency, Resources.

INTRODUCTION

Violence, an excessive use of power and force which comes in many forms including verbal abuse, physical assaults, sexual violations, gender based trauma and domestic violence. Physical infliction of harm is by use of multiple weapons like blunt means, sharp edge weapons and firearms, resulting in lacerations, incised wounds and terminal ballistic injuries respectively.¹ These violent activities can be committed by any of gender, age group and socioeconomic strata. Among other variables, age factor has its limits regarding commission of violence as criminal can either be of legal age of majority i.e. 18 years or more or can be a minor i.e. less than 18 years. However, a significant point to be highlighted here is that any child of less than of 7 years cannot be apprehended legally as a criminal as per statute law of Pakistan Penal Code (Act XLV of 1860).² Next

significant point of consideration is educational status of individual which is emphasized by argument that illiteracy is main incentive of crime commission³, followed by occupational cadre in which it is speculated that job oriented people are less prone towards violent tendencies than labor class and businessmen.⁴ Finally, domestic violence is an unspoken yet a major chunk of brutality, in which female are main stream victims either they are full time working women, part time workers or domestic housewives.⁵ Last but not least is the seasonal impact on violence activities which is more inclined towards summer rather than winter season.⁶

Physical morbidity and mortality is a major sequel of violence which not only puts a socioeconomic brunt not only on individual himself but also on government sector resources.

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Impact of physical damages leading to psychological implications along with extra burden of legal system having lasting complications with at times no compensatory outcome either financial or legal is main sequel.⁷ However, this research paper addresses only forensic aspect of physical injuries as to highlight causative factors of violence and medical aspect of law regarding provision of justice.⁸ Injuries suffered by victim range from trivial bruises to extensive lacerations including fractures requiring prolonged healthcare, hospitalization and rehabilitative measures.⁹ This not only handicaps an individual from pursuing his daily routine of life to earn his livelihood, at times causing chronic disabilities but also scars him resultant to mental torture suffered at hands of assailant. This post-traumatic stress enhances anxiety and depression consequentially resulting in lack of concentration, delusions with bouts of overreaction.¹⁰ Eventual link of violence cascade is varying coping mechanisms of which most damaging is substance abuse which starts as a harmless maneuver for physical pain management in course of time ending up as addiction.¹¹

Medical professionals examine physical evidence, such as wounds, injuries, and biological materials, to determine cause of death or injury, which is essential for legal proceedings and can help identify patterns and trends in violent crime.¹² Further addressing sequel of violence are factors which eventually leads to either criminal proceedings or civil litigation against perpetrators to seek compensation for damages, including medical expenses, lost wages, pain and suffering, and emotional distress. Domestic violence cases are pursued in Family courts with cases of divorce, child custody, and visitation rights. All these issues play a undesirable unwanted role in victim's life with lasting impact.¹³

Eventually coming to outcome and utilization of study, is to address steps regarding analysis of medico-legal implications of violence, with a comprehensive approach. After adequate medical intervention, strengthening law enforcement efforts to deter violence and hold perpetrators accountable. All of this is only possible when a statistical analyzed data is available vide research

to better understand causes and consequences of violence to inform evidence-based policies and interventions.¹⁴ Economic hardship, resource scarcity, social and political instability are interconnected factors that contribute to this problem in a third world country like Pakistan.¹⁵

METHODS

It is a retrospective observational study with analytical longitudinal design in retrospect. The study was conducted after approval of the ethical review ERB Letter: Reference No: 78/RC/KEMU Dated 23.12.2023, in the medicolegal clinic of emergency of Mayo Hospital Lahore under the supervision of Head of Department of Forensic Medicine and Toxicology King Edward Medical University, Lahore, Lahore. Sampling technique applied was non-probability consecutive sampling technique which involved every patient who met the selection criteria reporting to medicolegal clinic of Mayo Hospital Emergency, Lahore which was the study center for research. The sample size was based on the number of victims reporting in the emergency medicolegal department for injuries examination for the year 2024, from January 1st to December 31st. Variables values collected were cross tabulated in IBM SPSS 26.0 and Pearson-Chi Square test was applied to evaluate the p value and correlation among the variables.

RESULTS

Total number of cases reported in the medicolegal clinic of the emergency department in Mayo Hospital Lahore were 2233. On Gender analysis it was observed that 1746 (78.2%) reported cases were male and only 487 (21.8%) cases were female.

Out of total reported cases 1992 (89.2%) cases were of 18 years and more than 18 years of age i.e., legal age of majority while 241 (10.8%) cases fell into the "Minor" category of less than 18 years of age.

Annual statistics show the tendency of crime throughout the year with 1598 crime cases reported in the summer season were 72% with a decline of fight aptitude in the winter season

showing 635 (28%) reported cases.

By combining the occupation and age data, we can gain further insights, adult laborers group is likely to be involved in accidents, workplace disputes, or health-related issues.

Further statistical analysis showed a high tendency of females being subjected to domestic violence with 349 (16%) cases of female victims of domestic violence as compared to only 81 (3.6 %) of the afflicted males.

Frequency	
Major (18 years and plus)	1992 (89.2%)
Minor (less than 18 years)	214 (10.8%)
Total	2233 (100.0%)

Table-I. Age

Frequency	
Male	1746 (78.2%)
Female	487 (21.8%)
Total	2233 (100.0%)

Table-II. Gender

DISCUSSION

Violence is an unnatural part of human nature that has loads of unwelcoming consequences. It is about time to have a meticulous, thorough investigative exploration of the issues leading to a rampage of physical assaults and brutality in accordance with medicolegal procedures having subsequent complications of health, society and law. The economic suffering leading to financial crisis along with physical debilitation and psychological anguish is a chain reaction that leads to further deterioration of the entire system including health, law and society.¹⁶

Occupation							
		Job	Business	Labor	Student	Domestic	Total
Age	Major	483	288	669	142	410	1992
	Minor	11	3	53	154	20	241
Total		494	291	722	296	430	2233

Table-III. Age, occupation cross tabulation

	Value	df	P-Value
Pearson Chi-Square	614.967*	4	0.000
Likelihood Ratio	438.718	4	0.000
N of valid cases	2233		

Table-IV. Chi-square tests

*0 cells (0.0%) have expected count less than 5. The minimum expected count is 31.41.

Occupation							
		Job	Business	Labor	Student	Domestic	Total
Gender	Male	461	288	667	249	81	1746
	Female	33	3	55	47	349	487
Total		494	291	722	296	430	2233

Table-V. Gender occupation cross tabulation

	Value	df	P-Value
Pearson Chi-Square	1119.670*	4	0.000
Likelihood Ratio	1002.463	4	0.000
N of Valid Cases	2233		

Table-VI. Chi-square test

*0 cells (0.0%) have expected count less than 5. The minimum expected count is 63.46.

History	January	February	March	April	May	June	July	August	September	October	November	December	Total
Physical assault	88	82	109	125	148	148	107	137	125	135	90	104	1398
Self-inflicted	0	0	0	1	0	5	0	3	0	0	0	0	9
Unnatural sexual offences	0	0	0	0	0	0	1	0	1	0	1	0	3
Rape with minor	0	3	2	1	2	5	4	1	4	1	2	8	33
Sodomy with minor	5	5	2	1	4	1	5	0	3	1	3	5	35
Male accused of rape	5	0	1	5	7	4	4	5	5	2	2	3	43
Male accused of sodomy	0	1	6	0	4	1	0	0	1	0	0	2	15
Domestic violence	16	16	25	30	39	36	31	36	23	14	18	24	308
Road traffic accident	4	12	5	4	15	12	8	6	11	6	4	7	94
Sodomy with adults	4	4	5	4	3	0	1	3	3	2	2	5	36
Rape with adults	5	2	4	2	2	2	9	3	4	3	3	7	46
Alcohol intake	19	15	18	10	9	9	10	13	16	10	30	21	180
Poisoning	3	0	1	0	1	2	0	5	0	0	0	0	12
Dacoity	0	2	0	0	2	0	1	0	1	0	0	0	6
Abduction	0	0	2	7	0	0	0	1	0	2	1	2	15
Total	149	142	180	190	236	225	181	213	197	176	156	188	2233

Table-VII. History month cross tabulation

	Value	df	P-Value
Pearson Chi-Square	306.307	154	0.000
Likelihood Ratio	289.882	154	0.000
N of Valid Cases	2233		

Table-VIII. Chi-square test

132 cells (73.3%) have expected count less than 5. The minimum expected count is .19.

The once productive element of society becomes an economic burden with loss of job having a deleterious impact on not only the victim himself but also the family dependent on him.¹⁷

Total number of cases reported in the medicolegal clinic of the emergency department in Mayo Hospital Lahore were 2233. On Gender analysis it was observed that 1746 (78.2%) reported cases were male and only 487 (21.8%) cases were female. Out of total reported cases 1992 (89.2%) cases were of 18 years and more than 18 years of age, hence falling under the legal age of majority while 241 (10.8%) cases fell into the "Minor" category of less than 18 years of age. Annual statistics show the tendency of crime throughout the year with 1598 crime cases reported in the summer season roaring up to 72% with a decline of fight aptitude in the winter season showing 635 reported cases amounting up to only 28%. By combining the occupation and age data, we can gain further insights, adult laborers group is likely

to be involved in accidents, workplace disputes, or health-related issues. Followed by adult business owners as this group may face legal issues related to contracts, partnerships, or financial disputes. Finally followed by Students in age less than 18 years, this category suggests potential issues related to bullying, cyber bullying, or academic stress. Further statistical analysis showed a high tendency of females being subjected to domestic violence with 349 (16%) cases of female victims of domestic violence as compared to only 81 (3.6 %) of the afflicted males. These figures of 16 % of all the reported cases is only the tip of the iceberg as most of the gender based violence cases go unreported due to either family pressure or fear. Overall, the data indicates a diverse range of factors contributing to medicolegal cases, including occupational hazards, interpersonal conflicts, and societal issues. A deeper analysis, potentially involving qualitative research, could provide more specific insights into the underlying causes of these cases.¹⁸

Addressing the issue as an indigenous matter of contention includes a complex interplay of variables such as poverty, scarcity leading to violence. Pakistan, like many developing nations, struggles with composite relationship between poverty, limited resources, and violence. High poverty rates, particularly in rural areas, force individuals and families to resort to desperate measures, including criminal activities. This is followed by income inequality i.e. contrast between rich and poor can fuel resentment and social unrest.¹⁹ Limited Opportunities leading to lack of education and employment opportunities, especially for youth is a major cause of frustration and disappointment. The resource scarcity and competition faced due to water scarcity, particularly in arid regions, can lead to conflicts between communities and individuals.²⁰ The most heinous portrayal is hideous face of extremism and terrorism where presence of such extremist groups can disrupt social order and fuel violence exacerbated due to weak, ineffective governance, corruption, and lack of accountability contributing to a breakdown of law and order.²¹ Finally, the most unspoken, unattended aspect of cultural and social norms is honor killings and gender-based violence continue to plague Pakistan society.²²

These findings underscore need for comprehensive strategies to address multifaceted issue of crime and violence. Some potential interventions include, Community-based programs implementation to promote peace, conflict resolution, and social cohesion.²³ Secondly a law enforcement initiative for strengthening efforts to deter crime and ensure swift justice.²⁴ Thirdly public awareness campaigns to raise awareness about the legal consequences of violent behavior and the importance of seeking help when needed. Finally, provision of mental health services to individuals experiencing distress or trauma.²⁵

CONCLUSION

Violence although unavoidable element of society can be significantly reduced if, established cause effect relationship, be analyzed and masses made aware of not only the damages of the physical harm but also of aftermath turmoil.²⁶ In

Lahore, Pakistan, medicolegal clinics are buzzing with physical battery and assault, sex crimes including rape and sodomy along with poisoning cases.²⁷ The cost of medicolegal procedure, the financial burden of healthcare, the relentless follow up of police and finally legal pursuit in the courts of law are disastrous repercussive echoes of the violence that haunt the victim for the rest of his life.²⁸ Comprehensive hectic reformative measures is need of hour including not only education but deployment of strict law and order as fear of punishment is main deterrent in violence commission.²⁹

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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1	Ahmad Raza Khan: Conceptualization of project.
2	Farah Waseem: Literature search.
3	Khalid Mahmood: Data collection.
4	Fariha Tariq: Statistical analysis.
5	Aatiqa Abbass: Drafting, revision.
6	Muhammad Javed: Writing of manuscript.