

Prevalence of Violent Behavior among Medical Students of Lahore and its Association with Socio-demographic Factors

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ABSTRACT

Background: Violence has been declared a major health issue by World health assembly in 1996. Violence has been associated with mental health problems and factors related to exposure to various forms of victimization. **Objective:** The objective of the study was to find out the prevalence of violent behavior among medical college students of Lahore and its association with socio-demographic factors. **Study Design:** Cross-sectional study. **Settings:** Central Park Medical College Lahore, Pakistan. **Duration:** The duration of the study was six months starting from March 2021 to August 2021. **Methods:** The data was collected from self-structured questionnaire from private medical colleges in Lahore. The reliability of the questionnaire was tested through Cronbach alpha which was 0.84. The questionnaire was designed to collect information on demographic factors, victimization and violence. **Results:** The data was collected from 401 medical students currently enrolled in the medical colleges of Lahore, Pakistan. The mean age of the students participated in the study was 21.23 ± 1.81 years. The prevalence rate of violence in our study was observed as 8%. **Conclusion:** The prevalence of violence was higher among male students. Verbal abuse and hearing insulting words were the most common form of victimization in our society. Physical abuse and verbal abuse were the observed significant factors for violence.

Keywords: Violence, Medical students, Abuse potential.

INTRODUCTION

The World Health Assembly announced violence a major public health issue in 1996. WHO presented the first World Report on Violence and Health on 3rd Oct, 2002.¹ Violence is defined by WHO as 'The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, which either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation.'²

Social factors like poverty and unemployment have a major role in initiating adolescent violence in the form of robbery, rape or simple or aggravated assault.³ Children and adolescents are constantly exposed to acts of violence while watching television or movies.³ This has a significant effect on their behavior which promotes violence. It also leads to gun ownership, being victims of

violence, and early physical abuse.³ Data collected from a South African study conducted in 2000 showed that interpersonal and homicide violence was much higher among males than the global average.⁴

The frequency of violence is different for different regions.⁵ Pakistan is the fifth largest country of the world having the second highest youth population. About fifty-nine million of the population falls in the 15-33 age group. Since violence has been associated with mental health problems, the matter needs to be looked into in detail so that appropriate remedial measures are taken to protect the youth. Large proportion of medical students reported exposure to violence.⁶ This is the age of rapid physical and emotional growth as well as adaptability to social changes.⁷

The study was conducted among students of private medical colleges to assess incidences of interpersonal

violence and how it affects their behavior. The objective of the study was to find out the prevalence of violent behavior among medical college students of Lahore and its association with socio-demographic factors.

METHODS

A cross-sectional study was conducted at Central Park Medical College, Lahore. The data was collected from 401 medical students. The duration of the study was six months starting from March 2021 to August 2021. The minimum sample size was calculated as 370 by assuming 50% prevalence of physical fights among adolescents. Multi-stage sampling technique was used in which at first stage 4 medical colleges were randomly selected from 20 colleges and at second stage a convenient sample of 100 students were taken from each college. Students above the age of 24 years and below 17 years were excluded from the study.

Data was collected by using a self-administered structured questionnaire shared through google docs. The reliability of the questionnaire was tested using Cronbach alpha and was found as 0.84. Consent was taken from each participant before filling the questionnaire.

The questionnaire was designed to collect information on demographic factors, victimization and violence. Participants were asked about age, gender, number of siblings and birth order in the family, parent's working status and educational level, either living with both parents or single parents and residence. Victimization was used to assess the association of violence with experiencing physical abuse, verbal abuse, harassment, beating, hearing insulting works and bullying.

The association of demographic variables with victimization was tested by Chi-square test. The prevalence of violence, physical abuse, verbal abuse, harassment and bullying among medical students was documented. Study participants will be informed about the purpose of the study. Researchers will assure that the data collected would be confidential and used only for the purpose of study.

RESULTS

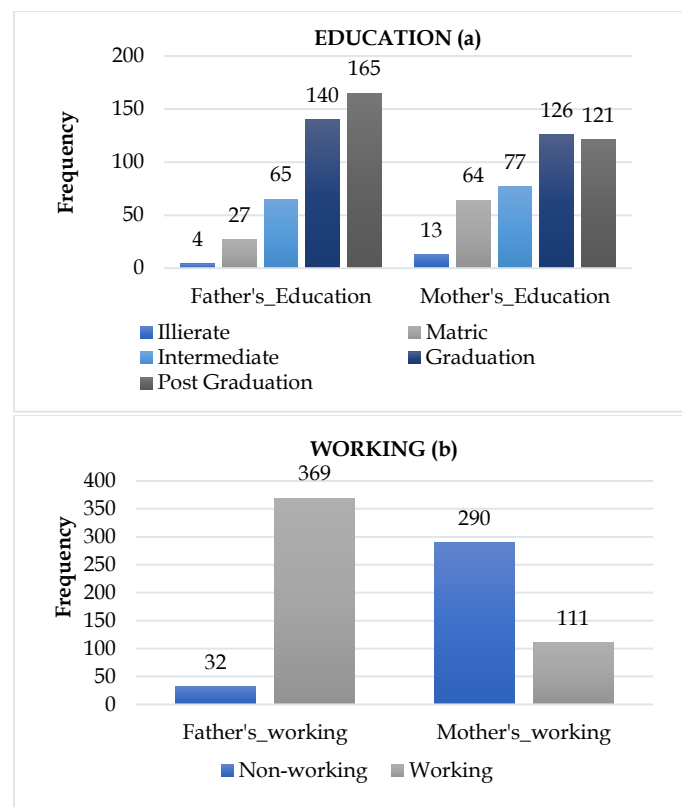
The data was collected from 401 medical students currently enrolled in the medical college. The mean age of the students participated in the study was 21.23 ± 1.81 years. The prevalence rate of violence in our study was observed as 8%. Nearly 45% of the students mentioned that they have become the victim of some kind of violence. Female gender was more susceptible to violence (p -value = 0.018). Violence was more common among medical students with increasing number of siblings (p -value <0.001). All other socio-demographic variables

showed no significant association with violent behavior. (Table 1). Parents of most of the students in the sample were educated (Figure 1).

Table 1: Distribution of demographic factors and its association with victimization

Factors	Categories	n	Percentage (%)	p-value
Gender	Female	245	61.1%	0.018
	Male	156	38.9%	
Birth Order	1	159	39.7%	0.232
	2	111	27.7%	
	3	58	14.5%	
	4	73	18.2%	
No. of Siblings	0	07	1.7%	0.001
	1	31	7.7%	
	2	83	20.7%	
	3	123	30.7%	
	4 or above	156	39%	
Living with	Single Parent	31	7.7%	0.207
	Both Parents	370	92.3%	
Residence	Rural	312	77.8%	0.625
	Urban	89	22.2%	

Figure 1: Educational level and working status of parents



The prevalence rate of violence was 6.98% among female students and 10.25% among male students. About 53.84% of the male students and 38.37% of the female students were became the victim of any kind of violence. Male students experienced more victimization as compared to female students.

More than 50% of the medical students who experienced any type of violence mentioned becoming violent. There was a significant association between becoming violent and experiencing violence. Approximately 97% of the students heard insulting words and later indulged in violence. Nearly 78% of the students mentioned that they had experienced verbal abuse and bullying. A small proportion of the students experienced physical abuse. Most of the students experienced harassment during some time in college. Physical and verbal abuses were also found as significant factor for violence.

Table 2: Crosstab of factors representing victimization with violence

Victimization	Categories	Violence		Total	p-value
		No	Yes		
Experienced any violence	Not at all	209	14	223	0.000
	Rarely	95	5	100	
	Sometimes	45	7	52	
	Very often	20	4	24	
	Always	0	2	2	
Company of Violent friends	Not at all	326	20	346	0.000
	Rarely	25	6	31	
	Sometimes	10	0	10	
	Very often	7	3	10	
	Always	1	3	4	
Exposed to physical abuse	Not at all	258	18	276	0.000
	Rarely	64	5	69	
	Sometimes	34	6	40	
	Very often	13	1	14	
	Always	0	2	2	
Experienced harassment	Not at all	210	14	224	0.167
	Rarely	72	5	77	
	Sometimes	60	9	69	
	Very often	25	3	28	
	Always	2	1	3	
Experienced verbal abuse	Not at all	98	7	105	0.043
	Rarely	111	6	117	
	Sometimes	108	8	116	
	Very often	41	8	49	
	Always	11	3	14	
Victim of bullying	Not at all	129	7	136	0.097
	Rarely	109	7	116	
	Sometimes	91	10	101	
	Very often	28	5	33	
	Always	12	3	15	
Heard insulting words	Not at all	48	1	49	0.166
	Rarely	120	7	127	
	Sometimes	127	15	142	
	Very often	51	5	56	
	Always	23	4	27	
Have been beaten	Not at all	317	23	340	0.000
	Rarely	35	4	39	
	Sometimes	10	1	11	
	Very often	7	2	9	
	Always	0	2	2	
Total		369	32	401	

The ordinal regression was applied using the experience of any kind of violence as dependent variable with ordinal categories and significant factors being the independent variables. The results of estimates, odd ratios and 95% of confidence interval are given in Table 3. Physical abuse, verbal abuse and beating were the significant factors for being victim. The odds for being victim were high with exposure to physical and verbal abuse.

Table 3: Ordinal Regression of Being Victim with Significant Independent Factors

Factor	B	S.E	P-value	Exp (B)	Lower Bound	Upper Bound
Gender	0.175	0.225	0.437	0.4757	-0.266	0.616
No. of siblings	0.123	0.71	0.082	0.3343	-0.016	0.262
Physical Abuse	0.976	0.151	0.000	2.6530	0.679	1.273
Verbal Abuse	0.718	0.116	0.000	1.9517	0.490	0.945
Company of Violent Friends	0.081	0.162	0.618	0.2202	-0.236	0.398
Have been beaten	0.523	0.188	0.005	1.4217	0.154	0.892

DISCUSSION

Violence is a general social issue that label the most obvious form of juvenile violence manifested in the form of victimization and bullying which can exist irrespective of the socio-economic class, geographic region, and type of teaching institution.⁷

Being victim of violence is a major social and health problem worldwide and needs joint efforts of public health professionals, clinical practitioners, teachers and the public itself to reduce the parent issue.⁸ During the last few decades there has been a dramatic increase in the reported crimes in rural areas and small town.⁸ In our study, the total violence victimization was 44.39%. Other similar studies show rates of victimization ranging from 5-70%.^{9,10}

Gender is found to be significantly associated with violence in our findings. The overall prevalence of violence is 8% in our study. A study conducted in Karnataka; India showed an overall prevalence rate of violence as 27.3% among college students.¹¹ Our study reveals a higher prevalence of violence in male students as compared to female students. Another study reported violence among boys ranging from 13%-23%, whereas it was 4%-11% among girls.¹²

Our study reveals a victimization rate of 53.84% in males and 38.37% in females which is quite high as compared to a study where victimization was reported as 19.3% in

males and 17.4% in females.¹³ Another study reported a non-significant difference in male and female students as being victims of any violence.^{11,14}

In our study, physical abuse came out to be 4% and verbal abuse was 41%. Those who experienced harassment were 7.7% and 54.1% became victims of bullying. Higher rates of physical abuse in the form of pushing and slapping were documented as 23.6% and 18.7% respectively.¹¹ Similar findings were seen in a study conducted by Khawaja (2015) in Pakistan with 33.7% physical abuse.¹⁴ A study conducted in Karachi, Pakistan reported that 50% of the mothers use physical abuse.¹⁴

One study revealed verbal abuse, physical abuse and bullying, significantly associated with psychological stress. Increased risk of violent behavior, like verbal or physical abuse, injury from fights and bullying was associated with psychological stress.¹⁴ Physical and verbal abuse among males was slightly higher than in females.^{15,16,17} A study conducted in Istanbul, Turkey reported verbal abuse as 70% in females and 66% in males.¹⁵ Our study shows verbal abuse of 41% which is less than other studies reporting rates of 57% and 65% conducted in Karachi, Pakistan and Karnataka India.^{11,14} Verbal abuse from parents or family members was 15.4%, 4.2% from peers and 13.8% from teachers as reported by Nair (2009) Kerala, India.¹⁸ A figure of 62% verbal abuse was reported as used by mothers in Karachi.¹²

In our study, approximately 12% of students reported that they often become victim of bullying and 34% never ever had become. In a study conducted in Pakistan, becoming victims of bullying was reported as 41.4%. Bullying behavior was seen as a cause of psychological stress in a study done in Istanbul.¹⁸ We found that being victims of bullying has insignificant association with being violent. Seven public and private schools were surveyed for bullying and peer victimization from five districts of Pakistan, including Lodhran, Rahim Yar Khan, Bahawalpur, Faisalabad, Multan, Thatta, and Nawabshah. 26.6% children reported being bullied at school and 17.9% away from school.¹⁹ Cyberbullying is also a modern form of verbal abuse.²⁰

More studies need to be conducted in Pakistan to find out reasons of violence as well as to know the different forms of violence. Students should be encouraged to actively participate in the supervision and prevention of victimization.

CONCLUSION

Physical abuses, verbal abuse, company of violent friends are the factors that significantly contribute to violence. Hearing insulting words and exposure to verbal abuse are the most common forms of victimization in our society. Verbal abuse significantly associates with

becoming violent. Beating and company of violent friends are the factors that are significant for violence. We found a small proportion of medical students who experienced these two factors in our study.

LIMITATIONS

The private medical colleges were randomly selected at the first stage. About 20% of the colleges were taken which was although a good representation.

SUGGESTIONS / RECOMMENDATIONS

Several other personality characteristic such as aggression, anger and introvert nature can also be observed and its association with violent behavior can be checked.

CONFLICT OF INTEREST / DISCLOSURE

None

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REFERENCES

1. Krug EG, Mercy JA, Dahlberg LL, Zwi AB. The world report on violence and health. *The Lancet*. 2002 Oct 5;360(9339):1083-8.
2. Mercy JA. Violence and mental health: perspectives from the World Health Organization's World Report on Violence and Health. *International Journal of Mental Health*. 2003 Mar 1;32(1):20-35.
3. DuRant RH, Cadenhead C, Pendergrast RA, Slavens G, Linder CW. Factors associated with the use of violence among urban black adolescents. *American journal of public health*. 1994 Apr;84(4):612-7.
4. Otwombe KN, Dietrich J, Sikkema KJ, Coetzee J, Hopkins KL, Laher F, Gray GE. Exposure to and experiences of violence among adolescents in lower socio-economic groups in Johannesburg, South Africa. *BMC public health*. 2015 Dec;15(1):1-10. Khawaja S, Khoja A, Motwani K. Abuse among school going adolescents in three major cities of Pakistan: is it associated with school performances and mood disorders?. *JPMA: The Journal of the Pakistan Medical Association*. 2015;65(2):142.
5. Swain P, Singh P. Assessment of the level of knowledge and practice towards road traffic safety among male adolescents in urban slums of delhi. *International Journal of Research-Granthaalayah*. 2020 Jun 4;8(5):165-72. Daane DM. Child and adolescent violence. *Orthopaedic Nursing*. 2003 Jan 1;22(1):23-9.
6. Hussain MM, Naveed S, Waqas A, Shamim R, Ali F. Exposure to violence and its association with symptoms of aggression: A cross sectional study among medical students of Karachi, Pakistan. *JPMA: Journal of the Pakistan Medical Association*. 2019 May 1;69(5):654-8.
7. Faria CD, Martins CB. Violencia escolar entre adolescentes: condiciones de vulnerabilidad. *Enfermeria Global*. 2016 Apr;15(42):157-70.
8. Jeong S, Kwak DH, Moon B, San Miguel C. Predicting school bullying victimization: Focusing on individual and school environmental/security factors. *Journal of criminology*. 2013 Jul 10;2013.

9. Sinkkonen HM, Puhakka H, Meriläinen M. Bullying at a university: students' experiences of bullying. *Studies in Higher Education*. 2014 Jan 2;39(1):153-65.
10. Beran TN, Rinaldi C, Bickham DS, Rich M. Evidence for the need to support adolescents dealing with harassment and cyber-harassment: Prevalence, progression, and impact. *School Psychology International*. 2012 Oct;33(5):562-76.
11. Masthi NR, Manasa AR. An exploratory study on violence among the college students in Urban Bengaluru, Karnataka, India. *Indian journal of public health*. 2019 Oct 1;63(4):380.
12. Nansel TR, Overpeck MD, Haynie DL, Ruan WJ, Scheidt PC. Relationships between bullying and violence among US youth. *Archives of pediatrics & adolescent medicine*. 2003 Apr 1;157(4):348-53.
13. Daane DM. Child and adolescent violence. *Orthopaedic Nursing*. 2003 Jan 1;22(1):23-9.
14. Khawaja S, Khoja A, Motwani K. Abuse among school going adolescents in three major cities of Pakistan: is it associated with school performances and mood disorders?. *JPMA. The Journal of the Pakistan Medical Association*. 2015;65(2):142.
15. Alikasifoglu M, Erginoz E, Ercan O, Uysal O, Albayrak-Kaymak D. Bullying behaviours and psychosocial health: results from a cross-sectional survey among high school students in Istanbul, Turkey. *European journal of pediatrics*. 2007 Dec;166(12):1253-60.
16. Timpka T, Spreco A, Dahlstrom O, Jacobsson J, Kowalski J, Bargoria V, Mountjoy M, Svedin CG. Suicidal thoughts (ideation) among elite athletics (track and field) athletes: associations with sports participation, psychological resourcefulness and having been a victim of sexual and/or physical abuse. *British journal of sports medicine*. 2021 Feb 1;55(4):198-205.
17. Bermon S, Adami PE, Dahlström Ö, Fagher K, Hautala J, Ek A, Anderson C, Jacobsson J, Svedin CG, Timpka T. Lifetime Prevalence of Verbal, Physical, and Sexual Abuses in Young Elite Athletics Athletes. *Frontiers in sports and active living*. 2021 May 31;3:152.
18. Nair MK, Rajmohan K, Remadevi S, Nair SM, Ghosh CS, Leena ML. Child disciplining practices in Kerala. *Indian pediatrics*. 2009 Jan 1;46(Suppl):s83-5.
19. Naveed S, Waqas A, Shah Z, Ahmad W, Wasim M, Rasheed J, Afzaal T. Trends in bullying and emotional and behavioral difficulties among Pakistani schoolchildren: a cross-sectional survey of seven cities. *Frontiers in psychiatry*. 2020 Jan 17;10:976.
20. O'Reilly M, Dogra N, Whiteman N, Hughes J, Eruyar S, Reilly P. Is social media bad for mental health and wellbeing? Exploring the perspectives of adolescents. *Clinical child psychology and psychiatry*. 2018 Oct;23(4):601-13.