

## The Demonstration, Encounter and Associations of Violent behaviours in Adolescents attending Educational institutions in a city of Southern India.

Pratima Matli<sup>1</sup>, Suman Nama<sup>2\*</sup>, Sachin Gurnule<sup>3</sup>

<sup>1</sup>Assistant Professor, Department of Community Medicine, Chalmeda Ananda Rao Institute of Medical Sciences, Karimnagar, India

<sup>2</sup> Assistant Professor, Department of Community Medicine, Chalmeda Ananda Rao Institute of Medical Sciences, Karimnagar, India

<sup>3</sup> Statistician, Department of Community Medicine, Chalmeda Ananda Rao Institute of Medical Sciences, Karimnagar, India

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### Abstract

**Introduction:** Violence is a major and growing public health problem across the world. It affects the general well-being, physical and mental health and social functioning of people. Violence by young people is one of the most visible forms of violence in the society and is a leading cause of death worldwide for people aged 15–44 years. This study was devised to estimate the prevalence of violent behaviours and to identify the factors associated with these behaviours in the adolescent students of Vijayawada. **Material and Methods:** A Cross sectional observational study was conducted from March 2015 to November 2017 on 621 adolescent students attending schools and colleges in Vijayawada. Institutions were selected through stratified random sampling. After obtaining permission from the Institutional Ethics Committee of Siddhartha Medical College, Vijayawada and the respective heads of the Institutions, a predesigned, pretested, structured questionnaire customised and adapted from the Youth Risk Behaviour Survey was used to collect data through individual interview by a single unbiased interviewer. Data obtained was analysed using SPSS v15. **Results:** 15.8% (12.4% males, 3.4% females) carried a weapon with intention to injure someone over the last 12 months. 26.4% of the participants had carried a weapon with an intention to injure someone on school property over the last 12 months. 31.1% were involved in a physical fight while 23% had involved in a physical fight on school property. 17.6% participants had been threatened or injured with a weapon. 17.4% adolescents felt unsafe at school or on the way to and from school. 12.2% had been bullied on school property, 10.3% had been electronically bullied. 83.8% had reported being exposed to verbal abuse on different forms of media and 86.5% had viewed physical fights, injuries or killings on various media. 12.6% had sexual intercourse at least once in their lifetime. 16.7% had been subjected to sexual violence while 7.6% had subjected someone to sexual violence. **Conclusion:** Adolescents have several types of violent behaviours, that are repetitive. Hence it is the need of the hour to establish systems for monitoring and surveillance of these traits.

**Key words:** Violence, Adolescents, Physical violence, Sexual violence, Bullying

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### Introduction

Violence is a major and growing public health problem across the world. It affects the general well-being, physical and mental health and social functioning of people. On a macro level, violence affects health systems, economic productivity and social development [1,2]. Violence by young people is one of the most visible forms of violence in the society and is a leading cause of death worldwide for people aged 15–44 years [3]. Individuals who are relatively more aggressive at a given age tend to be relatively more aggressive compared to peers at all stages of life, even though their absolute levels of violence may vary [4]. Violence is preventable, if its traits are identified earlier [5]. Children who have been exposed to intimate partner violence in their families are at high risk for severe and potentially lifelong problems with physical health, mental health, school and peer relationships and disruptive behavior [6]. Adolescents form 1/5<sup>th</sup> of India's population [5]. There is an acute lack of accurate data regarding adolescents and their behaviours, maybe because

adolescence is the healthiest part of a person's life and so the least concentrated area for public health programs. Behaviours that have an immediate impact and continue long into the future are mostly acquired during adolescence. It is also a period of heavy confusion and stress where the individual is trying to establish an identity, choose his/her career, preparing to take up family responsibilities, etc. There is a lot of confusion about dealing with adolescents, whether to treat them as children or adults. Mortality for those aged 10–19 years is now greater than mortality in children aged 1–10 years [7]. Hence it is predictable that there is going to be a sharp upsurge in India, as far as Youth violence is concerned. Prevention of any problem begins with a description of the magnitude and impact of the problem. India shockingly lags behind the rest of the world in the estimation of violence. The present study is an attempt to estimate the magnitude and identify the factors associated with violence in the school going adolescents of Vijayawada.

### Material & Methods

A Cross sectional observational study was conducted from March 2015 to November 2017 on 621 adolescent students attending schools and colleges in Vijayawada. Institutions were selected through stratified random sampling. After obtaining permission from the Institutional Ethics Committee of Siddhartha Medical College, Vijayawada and the respective heads of the Institutions, a predesigned, pretested, structured questionnaire customised and

\*Correspondence

**Dr. Suman Nama**

Assistant Professor, Department of Community Medicine, Chalmeda Ananda Rao Institute of Medical Sciences, Karimnagar, India

E-mail: [dmpr1985@gmail.com](mailto:dmpr1985@gmail.com)

adapted from the Youth Risk Behaviour Survey[8] was used to collect data through individual interview by a single interviewer. Data obtained was analysed using SPSS v15.

**Results**

621 adolescents in the age group ranging between 10 to 19 years participated in the study. The Socio demographic profile of the study participants is given in Table 1.

**Table 1: Profile of the study participants**

Characteristic of the study participants		Frequency (%)
Age	Early adolescence (10 – 14 years)	151(24.3)
	Middle adolescence (15 – 17 years)	261(42)
	Late adolescence (18 -19 years)	209 (33.7)
Sex	Female	254 (40.9)
	Male	367 (59.1)
Socio economic status	Class 1 (Upper)	249 (40.1)
	Class 2 (Upper Middle)	145 (23.3)
	Class 3 (Middle)	106 (17.1)
	Class 4 (Lower Middle)	105 (16.9)
	Class 5 (Lower)	16 (2.6)
Type of Institute	Government	300 (48.3)
	Private	321 (51.7)
Parental monitoring	No monitoring	14 (2.3)
	Minimal monitoring	149 (24)
	Moderate monitoring	277 (44.6)
	Good monitoring	181 (29.1)
Total		621 (100)

**Physical Violence**

**a) Prevalence:** In the 12 months before the study–15.8% students had said they carried a weapon with intention to injure someone, majority were in the late adolescent age group. 26.4% carried a weapon with an intention to injure someone on school property. 31.1% (25.1% males, 6% females) of the study participants were involved in a physical fight. 23% participants had involved in a physical fight on school property. 17.6% participants had been threatened or injured with a weapon. 17.4% adolescents said they felt unsafe at school or on the way to and fro from school. 20.9% of the participants had been in a physical fight that needed medical attention. 12.2% (9.7% males, 2.6% females) of the study participants had been bullied on school property. 10.3% of the study

participants (7.6% males, 2.7% females) had been electronically bullied through emails, social media, mobile phones, etc. All forms of physical violence were more in the late adolescent age group (16 to 19 years)

**b) Determinants:** Physical violence is associated significantly ( $p < 0.05$ ) with grade of study, type of institute, parental monitoring, socio-economic status and Body Mass Index, alcoholconsumption, smoking, using narcotics, being bullied at school, exposure to violence in media, clinical depression, severe depression, exposure to family violence and exposure to community violence. Bullying and Electronic Bullying was not associated with grade of study, type of institute, parental monitoring, socio - economic status or Body mass index.

**Table 2: Physical Violence and associated factors**

	Been in a physical fight		Total	Test Statistic	P value
	Yes	No			
Ever had alcohol	No	47(7.6)	381(61.4)	$\chi^2 = 63.47, df = 1$	< 0.01
	Yes	74(11.9)	119(19.2)		
	Total	121(19.5)	500(80.5)		
Ever smoked	No	34(5.5)	394(63.4)	$\chi^2 = 57.48, df = 1$	< 0.01
	Yes	61(9.8)	132(21.3)		
	Total	95(15.3)	526(84.7)		
Ever used narcotics	No	6(1)	422(68)	$\chi^2 = 30.876, df = 1$	< 0.01
	Yes	22(3.5)	171(27.5)		
	Total	28(4.5)	593(95.5)		
Bullied at school	No	36(5.8)	392(63.1)	$\chi^2 = 18.78, df = 1$	< 0.01
	Yes	40(6.4)	153(24.6)		
	Total	76(12.2)	545(87.8)		
Exposed to verbal abuse in media	No	78(12.6)	350(58.3)	$\chi^2 = 3.885, df = 1$	0.06
	Yes	23(3.7)	170(27.4)		
	Total	101(16.3)	520(83.7)		
Exposed to physical violence in media	No	68(11)	360(57.9)	$\chi^2 = 6.57, df = 1$	0.011
	Yes	16(2.6)	177(28.5)		
	Total	84(13.5)	437(86.5)		
Clinical depression in the past year	No	114(18.4)	314(50.6)	$\chi^2 = 31.73, df = 1$	0.01

	Yes	96(15.5)	97(15.6)	193(31.1)		
	Total	210(33.8)	411(66.2)	621(100)		
Considered suicide in past year	No	64(10.3)	364(58.6)	428(68.9)	$\chi^2 = 28.34, df = 1$	0.01
	Yes	65(10.5)	128(20.6)	193(31.1)		
	Total	129(20.8)	492(79.2)	621(100)		
Exposure to family violence	No	317(51)	111(17.9)	428(68.9)	$\chi^2 = 27.28, df = 1$	0.01
	Yes	102(16.4)	91(14.7)	193(31.1)		
	Total	419(67.5)	202(32.5)	621(100)		
Exposure to Community violence	No	234(37.7)	194(31.2)	428(68.9)	$\chi^2 = 13.31, df = 1$	0.01
	Yes	75(12.1)	118(19)	193(31.1)		
	Total	309(49.8)	312(50.2)	621(100)		

**c) Frequency of Violent Behaviour:** In the 12 months before the study - 8.7% of the students had carried a weapon with an intention to injure for at least one day, 10.2% of them had done it on more than 1 day. 11.7% students had carried a weapon with them on school property at least for one day, 14.7% had done so on more than 1 day. 17.7% of the participants had been in a physical fight on at least 1 day while 4.7% involved in a physical fight on more than 1 day. 12.7% had been in a physical fight on at least one day on school property, 10.4% on more than 1 day. 11.4% of the study subjects reported being threatened or injured with a weapon at least once, while 6% reported being threatened more than once. 17.4% students said they felt unsafe at or on the way to school – 8.9% felt so on at least one day.

**Sexual Violence:** 12.5% of the adolescents had a sexual exposure. 7.7% said they were between the ages of 10 to 14 when they first had intercourse. Majority of the participants who had intercourse had not used any contraceptive, while 4.5% had used condoms. 16.7% of the subjects said they were forced to touch someone's private parts or

have intercourse against their will. 7.6% of the participants revealed that they had forced someone against their will to sexually gratify them. Sexual violence is associated significantly ( $p < 0.05$ ) with alcohol consumption, smoking, using narcotics, being bullied at school, severe depression and exposure to family violence.

**Family and Community Violence:** In the last 12 months – 54.3% of the participants had seen verbal disagreement between the adults at home. 32.5% had seen their family members indulge in physical fight. 20% witnessed their family members threaten or injure each other with a weapon. 50.2% had witnessed violence in their communities in form of physical fights or threatening or injuring with weapons.

**Violence in Media:** A significant association ( $p < 0.05$ ) was found between the exposure to violence on media and views regarding violence, response in anger, tobacco and alcohol usage and carrying weapon with intention to injure and actual involvement in physical fight among the study participants.

**Table 3: Association between exposure to violence on media and other factors**

Association between Exposure to Violence on Media with -	P value
Parental monitoring	0.272
BMI	0.532
Views about violence in media	0.012
Response in anger	0.006
Difficulty in concentration, somatisation symptoms, mental problems	0.158
Ever had alcohol	0.006
Ever smoked	0.011
Carried Weapon with intention to injure	0.02

## Discussion

In the present study, 15.8% participants including 3.4% females said that they carried a weapon with intention to injure someone over the last 12 months. 26.4% of the participants had carried a weapon with an intention to injure someone on school property over the last 12 months. 17.4% adolescents felt unsafe at school or on the way to and from school in the past 12 months. 31.1% of the study participants including 6% females, were involved in a physical fight over the past 12 months. 23% participants had involved in a physical fight on school property over the past 12 months. 17.6% participants had been threatened or injured with a weapon over the past 12 months. 16-19 years age group experienced more aggression than 20-26 years age group. These findings are in consensus with YRBS 2015 survey[9] of United States of America which found that on at least 1 day in the recent 30 days, 16.2% of students had carried a weapon, 5.3% of students had carried a gun, 4.1% of students had carried a weapon (e.g., a gun, knife, or club) on school property, 6.0% of students had been threatened or injured with a weapon (e.g., a gun, knife, or club) on school property one or more times during the 12 months before the survey, 22.6% of students had been in a physical fight one or more times during the 12 months before the survey, 2.9% of students nationwide had been in a physical fight one or more times in which they were injured and had to be treated by a doctor or nurse, 7.8% of

students had been in a physical fight on school property one or more times during the 12 months before the survey and 5.6% of students had not gone to school on at least 1 day during the 30 days before the survey because they felt they would be unsafe at school or on their way to or from school. It is apparent in the present study that older adolescents are more involved in physical violence than younger adolescents. Similar physical violence findings were also found in Sharma et al[10] study conducted on 5476 participants in which 17.7% of the youth has high mean aggression score with males on the higher side than females and with higher scores in older adolescents. The present study shows the prevalence of different aspects of physical violence to be much higher when compared to similar studies by Swain et al[5], Deb et al[11], Munni et al[12] from across India. The reason could be that the other studies had conducted research on populations who were in early adolescence. On careful observation, it is apparent in the present study that older adolescents are more involved in physical violence than younger adolescents. If the study population is individually dissected and compared with the populations of similar age groups from the above studies, the results are almost the same or marginally higher. Current study notes that 12.2% of their study participants including 2.6% females had been bullied on school property in the past 12 months. 10.3% of the study participants including 2.7% females had been

electronically bullied through emails, social media, mobile phones, etc in the past 12 months. In YRBS 2015 survey[9] of United States of America, 15.5% of students had been electronically bullied, being bullied through e-mail, chat rooms, instant messaging, websites, or texting, during the 12 months before the survey. 20.2% of students had been bullied on school property during the 12 months before the survey. The higher incidence of electronic bullying in YRBS report may be attributed to the ease of access and widespread usage of electronic devices in United States compared to Southern India. Note worthy in the current study is that though Bullying and electronic bullying are comparable to countries like United States, they were not associated with grade of study, type of institute, parental monitoring, socio economic status or Body mass index.

Sharma et al[10] study acknowledged that physical abuse in childhood, substance abuse such as alcohol and tobacco, negative influence by peers, violence in the family, academic disturbances, psychological problems (like attention deficit-hyperactivity disorder, suspiciousness, loneliness, mood disturbance), negative childhood experience and TV and media as the risk factors of the youth aggressions. Similarly, a study by Barboza et al[13] in USA in 2007, proposed that bullying is high in children who watch television frequently, lack support by teachers, those who have themselves experienced bullying, those attending schools in disturbed environments and those children whose parents have no high expectations on their academic performance. The results of this study also lend support to the contention that bullying arises out of deficits in social support systems that mediate bullying behaviour irrespective of the student's racial/ethnic characteristics, parental income levels and media influences. 83.8% adolescents had reported being exposed to verbal abuse on different forms of media and 86.5% had viewed physical fights, injuries or killings on various media. The present study's observations are in agreement with the studies done by UNESCO[14] and Munni et al[12]. UNESCO[14] studied 5141 school children aged 12 years in 23 countries across the globe, who spent an average of 3 hours daily watching Television, to assess the impact of violence depicted in media and to identify the association between media- and the actual experiences of children hailing from high and low aggression environments. The inference was drawn that the children living in high aggression environments were more exposed to similar aggressive messages in the media than those children hailing from a less violent neighbourhood[14]. Munni et al [12] in 2002 resounded similar observations in 1500 high school students of Chandigarh that 98.4% had viewed physical fights on media, 95% viewed fights with weapons, 48.6% has witnessed robbing/mugging, 86.7% had witnessed shooting/stabbing and 6.3% had viewed someone being killed on media. Of these, 13% students self-reported violent behaviours and 60% had been involved in physical fights more than one time per week. The offenders of violent acts were largely those who enjoyed watching highly action and violence-oriented content in television and movies and also watched them for a longer duration of time ( $P < 0.001$ ). Though the present study also successfully established association between exposure to violence on media and views regarding violence, response in anger, tobacco and alcohol usage and carrying weapon with intention to injure and actual involvement in physical fight among the study participants. But no relationship could clearly be established between exposure to violence on media and the behaviour and psychological difficulties of children or their ability to concentrate and make decisions. Those adolescents witnessing violence and those who are themselves victims of violence in their homes or communities, are more likely to resort to displaying violence themselves[15]. The present study showed prevalence of exposure to violence in the community as 50% which is comparable to that of 60% prevalence in study reported by Finkelhor et al[16]. Present study lends evidence to the fact that Exposure to violent behaviour of family members, has profound influence on the response of adolescents in situations that rouse their anger. Also,

significant association could be established between adolescents involving in physical fights, weapon carrying and similar violent behaviour with their exposure to both Family and Community Violence from the current study. In the present study, exposure to Family and Community violence has been found to be also associated significantly with clinical depression, severe depression. Somatisation symptoms were associated with exposure to family violence but not community violence contrary to the finding of Fairbrook[17]. Exposure to family violence is also associated with the adolescents' decision making and concentrating abilities while exposure to community violence seems to have an uncertain association. Exposure to family violence also seems to be significantly associated with meeting out sexual violence in the adolescents of the present study while exposure to community violence does not. The present study found that 12.6% participants had sexual intercourse at least once till now in their lifetime of which 2.1% were females. 16.7% had been subjected to sexual violence while 7.6% had subjected someone to sexual violence. These findings are well supported by the Debet al[18] study (2012) on 320 school students of 8th and 9th grades of Tripura state in India, which revealed that 18.1% of students experienced sexual violence. Similar reports were also made by the Dunne et al[19] study (2009), that which revealed that 20.2% children in India experienced sexual violence at-least one time. The current study findings are in line with the study of Patel and Andrew (2001)[20] on high school students in Goa, India, which found that one-third of the children surveyed had experienced some form of sexual abuse, and these individuals had significantly poorer academic performance, poorer mental and physical health, greater substance abuse, poorer parental relationships and higher rates of consensual sexual behaviours than their non-abused counterparts[20]. The present study findings about the sexual violence in adolescents is also supported by the review study made by KG Santhya et al in 2014, on the health of adolescents and youth in India, where they found that 1 in 7 (14%) adolescent boys/young men and 4% of adolescent girls/young women had pre-marital sex, among sexually experienced unmarried girls, 18% had a forced pre-marital sexual encounter and condoms ever used by just 27% and 7% of sexually experienced boys and girls respectively and consistent condom use by 13% boys and 3% girls[21]. NFHS III Data (2005-06) profile of youth in India also supported the findings of the present study. According to the NFHS III, among never married (unmarried) youth, 12% of men and 1% of women reported having sexual intercourse[22]. The observations in the current study with respect to exposure to sexual violence correlate with the national-level study done in 2006-07 undertaken by the Ministry of Women and Child Development[23] in 12,447 children, belonging to 13 states to assess the prevalence of sexual abuse in children. The survey reported that 21% of respondents acknowledged experiencing severe sexual abuse like rape, sodomy, fondling, or exposure to pornographic material. The study suggested that the high incidence of physical abuse could be a result of the patriarchal nature of society, poor parenting skills, dysfunctional families, existing domestic violence in families, vulnerability of children outside their home environment including on the street, at work or in educational institutions. Further in-depth interviews would be required in order to agree or disagree with the factors associated with sexual violence as voiced in the above study, as these elements were not an inbuilt objective of the present study.

#### Conclusion

From the above findings and elaborate discussions, we can conclude that adolescents have several violent behaviours, that are repetitive and have the potential to become established personality traits. Hence it is the need of the hour to establish systems for monitoring and surveillance of these traits. Baseline and follow up surveys for all institutional adolescents on a regular basis, preferably annually, similar to the YRBS survey should be brought into practice in India in order to estimate accurate prevalence of Violence and identify any

trends or patterns in severity of violence. Efforts to be made to establish a well-defined and sustainable surveillance system that monitors violence in adolescents from all the levels of the community. Training of health personnel is required, to sensitize them towards the broader concept of violence and make them efficient in identifying and providing required support physically and mentally when they come across various violence traits. It is necessary to remember that Violence is not a one-time event, but a public health problem that can be diffused through active and continued preventive efforts from early ages in life, by the involvement of all the members of the community.

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