

ORIGINAL ARTICLE

Primary Prevention of Aggression Induced by Media Exposure: A Cross Sectional StudyAmbreen Ansar¹, Sadia Nadeem², Amna Sajjad³, Aleena Sohail⁴, Aisha Bukhari⁵, Aima Akhtar⁶**ABSTRACT**

Objective: The purpose of the study was to determine the association between the media exposure and the aggression levels in the students of 13-24 years residing in Wah Cantt.

Study Design: Cross-sectional

Place and Duration of Study: Educational Institutes of Wah Cantt for 1 year from January 2019 to January 2020.

Materials and Methods: The standardized questionnaires i.e., CME-scale & Bus-perry scale were used to measure Media exposure and aggression levels besides basic demographic data. Data was analyzed by using SPSS version 20. Media exposure and aggression exhibited by the students was categorized into low, medium, and high levels.

Results: Majority of students had low or medium levels of media exposure (59.4%) and low or medium aggression scores (84.1%). There was no difference in level of aggression between Males and Females ($P=0.230$). Association of aggression with Media exposure was significant ($P=0.000$) and the Pearson correlation was weakly positive ($r= 0.393$, $p= 0.000$). Although a majority (80.6%) of participants possessed electronic devices, but they were mostly (55.9%) monitored by parents. Hours spent per day on screen were positively skewed with mean hours of 4.58 ± 3.8 .

Conclusion: There was a weak positive correlation between media exposure & aggression. A longitudinal study might be done to assess the possible effect of the cultural and societal values of indulgence in sports and scholarship by the citizens of this area on the levels of media exposure and aggression levels in youth.

Key Words: Adolescent, Aggression, Education, Media, Primary prevention

Introduction

Social psychologists define aggression as behavior that is intended to harm another individual who does not wish to be harmed. Aggression is caused by the thoughts and feeling lying in our subconscious mind.¹ This is the reason why exposure to violent media put children's and adolescent's health and wellbeing at risk. Relationship between exposure to violent media and aggressive behaviors are well explained by general aggression model, externally stimulated aggression and the learned aggression theory.²

In an era of technology, social media plays dynamic

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role in almost every field of life. Through this people can communicate with each other at different platforms. Media exposure is defined as the extent to which audience members have encountered specific messages or classes of messages/media content.³ Media makes remarkable contributions but, regrettably the negative effects of social media cannot be kept far aside. Concerns have been raised that social media deeply impact behaviors and adolescents who are exposed to violent behaviors through media are more likely to participate in violence.⁴ Several news reports of cyber bullying, criminal activity on social media or through it, gang violence and suicide have surfaced and social media appears to fuel these troubling incidents.⁵ The influence of media on psychological development of children is repeatedly documented in literature.⁶ Violent media are defined as "Those that depict intentional attempts by individuals to inflict harm on other, an individual can be non-human cartoon character, a real person or anything in between".⁷ The evidence also reveals that exposure to violent media is associated with physical and psychological problems including aggression, bullying, fear,

depression, nightmares & sleep disturbances.⁸ The problem is not only confined to violent media exposure. Even the excessive recreational use of computer and video games and long screen hours >2-3/day increase the odds of mental health two times.⁹

Pakistani youth is also facing the same threat from media exposure. Social science literature and news blogs are regularly narrating media's advantages and disadvantages and suggesting a change required in media content to create good impact on changing minds. Control to media exposure needs to be promoted and practiced. As an educated community we have to work together to find and eliminate these triggers.¹⁰

To counter these negative consequences protective and mediating factors like parental involvement, parental monitoring, restrictive and active measures taken by the parents¹¹ and as Whitney and Christopher reported that Violent media exposure is not a single or very promising predictor of youth aggression. Their empirical research based on large sample size (n=5133) and a diverse youth group concludes that family and social variables are more influential factors implying that preventive measures targeted at community level like promotion of sports and scholarship among youth might play a very important role.¹²

In lieu of the above evidence by Whitney et al. this research is aimed to explore the effects of social media on aggressive behavior of college students in Wah Cantt. Wah Cantonment is a military city located in the Punjab province of Pakistan, near Taxila 30 km to the north west of Islamabad. According to the 2017 Census of Pakistan, its population is 380,103. The most distinct feature of the town is its very high literacy rate reaching up to 99%. Wah Cantt, having an area of about 35 square kilometers, has the highest number of educational institutes per square kilometer. Apart from many private and government schools up to 12th level, foundations of professional universities have been laid down in past 5 years.¹³ In addition to the educational institutes with big playing grounds there are parks and grounds for hockey, cricket, football, basketball, and athletics as well as the swimming pool and a large golf club.

With this background we expect the levels of media exposure and aggression in youth of Wah Cantt to be

lower than what is found elsewhere. This study was aimed to measure the levels of media exposure and aggression among youth residing in Wah Cantonment and quantify the association between these two.

Materials and Methods

A descriptive cross-sectional study was conducted in Wah Cantonment from Jan 2019 to Jan 2020 on a sample of 323 students -95% level of confidence and expected proportion to be 70%- after taking permission from IRB of WMC. All the male & female students ranging from 13-24 years of age residing in Wah cantt were included using convenient sampling. The study participants were contacted either directly or through school/college teachers who were in contact of all the researchers. Students not resident of Wah cantt but studying in this area were excluded. All the researchers explained the study objectives and questions in the questionnaires to school/college teachers they knew personally who then provided us the time & opportunity to reach the different cohort of students, take their informed consent and collect the data. The university students were contacted directly via various social contacts. After taking informed consent and ensuring anonymity and confidentiality questionnaires were filled by the researchers in English. As English is the medium of teaching in all schools and colleges of Wah Cantt so there was no need to translate the questionnaire. It comprised of three parts; demographic information, media exposure measured by using content-based media exposure scale (c-me scale)¹⁴ an 8-item inventory for measuring anti-social and risk behavior content and 9 neutral filler items; Buss-Perry Aggression Scale to measure level of aggression.¹⁵ Data was analyzed using SPSS version 20. Descriptive statistics was calculated for all the variables. The association between levels of aggression and levels of Media exposure was tested using chi-square test keeping alpha at 0.05.

Media exposure was categorized into: High exposure = those scoring from 32 to 40, Medium exposure =those scoring between 24-31 and Low exposure = those scoring <23. Total score was 85 on CME-scale but the items on anti-social and risk behavior content had maximum score of 40. The aggression levels were also categorized into 3: High aggression = those

scoring 80% or more on Buss-Perry scale, medium aggression = those scoring between 60-80% and Low aggression = those scoring 60% and below.

Results

Age of the students ranged from 13 to 24 years and mean was 18.3±3.1 and half of population was male. Eighty-point six percent (n=258) students owned electronic device mobile being the most common possessed by 68% (n=217) students followed by mobile & laptops 27% (n=86) students. Fifty-five-point nine percent students (n= 179) were monitored by their parents for media content. Total hours spent on screen were positively skewed with mean duration of 4.58± 3.89 hours & skewness =2.53 ± 0.139. Overall, the levels of both aggression and media exposure were low among youth of Wah Cantt in both genders.

Table I: Age and Gender-Wise Distribution of Aggression Levels and Media Exposure Levels in Wah Youth (N= 372)

Variable	Frequency n (%)		P value	Frequency n (%)		P value
	Males	Females		Adolescents 13-17yrs	Adults 18-24 yrs.	
Aggression level			0.230			0.000
High	31(19.3)	20(12.6)		31(22.8)	20(10.9)	
Medium	78(48.4)	79(49.7)		93(68.4)	64(34.8)	
Low	52(32.3)	112(35)		12(8.8)	100(54.3)	
Media exposure			0.027			0.000
High	62(38.5)	68(42.8)		124(91.4)	6(3.3)	
Medium	31(19.3)	14(8.8)		10(7.4)	35(19)	
Low	68(42.2)	77(48.4)		2(1.5)	143(77.7)	

Association of aggression with media exposure was statistically significant ($\chi^2= 63.446$, $df=4$, $p= 0.000$) and Pearson correlation was positive ($r=0.393$, $p=0.000$). Aggression was also positively correlated with hours spent on electronic devices ($r=0.125$, $p=0.028$).

Significant associations were found between aggression levels and student's education, father's education & occupation, parental monitoring. Whereas media exposure was significantly associated with all these independent variables as shown in table 2.

Discussion

Literature proves that media provokes violent behavior in youth, and it leaves deep psychological impacts on their minds. Authors have highlighted various protective factors against Violent media exposure¹¹ but very few highlighted the effect of cultural background, peaceful societies, and non-

Table II: Measure of Association between Aggression Score (Dependent Variable) and Independent Predictors Besides Media Exposure

Variables	P value (Aggression level)	P value (Media Exposure)
Mother's education	0.604	0.402
Father's education	0.010	0.000
Mother's occupation	0.07	0.003
Father's Occupation	0.004	0.000
Parental monitoring	0.000	0.000
Student's education	0.000	0.000
Monthly income	0.680	0.003

violent, non-punitive behaviors of adult; a type of primordial prevention, in shaping behaviors.¹⁶ Both the levels of media exposure and aggression were low in majority of students in our sample which could be attributed to above-mentioned factors in Wah Cantt. This cultural value, very much unique to this geographical location, has a profound effect on thinking patterns and goal setting process of the youth. Unlike most of the cited literature^{6,17}, there were lower aggression scores strongly associated with lower media exposure in this study most probably related to the context in which this youth was brought up.

According Khurana & Padilla-Walker understanding certain aspects helps to predict the aggressive behavior at an adult age, one of which is less interaction of children with parents.¹¹ Padilla-walker et al. in their latest study reported controlled media exposure especially maternal monitoring can bring about decrease in aggression.¹⁷ Highly literate maternal population i.e., 81.9% in our sample along with majority of them being i.e., 87.8% housewives should also have contributed to low levels of aggressions and media exposure but unexpectedly children of working mothers had significantly lesser aggression & media exposure levels and maternal education was not associated with either aggression or media exposure. Fathers, however, seem to have important role in shaping children's behaviors in our culture. Higher the education of father lesser are the aggression & media exposure scores in children. These results correlated well with the findings of

Jaynes & Rebecca.¹⁸

A three year longitudinal study reports an association between viewing relational aggression on TV and exhibiting it in the future, even when controlling for existing levels of multiple forms of aggression.^{6, 19, 20, 21} But parental monitoring can mediate these effects positively as proved in meta reviews.²² Parental monitoring in our context was 35.9% and was positively correlated with hours spent on ED, and negatively associated with Aggression & media exposure scores.

Although cross sectional study design has hampered the complete understanding of interplay of various factors in shaping aggression among youth but in the context of Wah Cantt it can be postulated that the significant associations could be due to strong bonding and increased level of interaction between parents and their children, leading to close surveillance of the activities of children which controls any addiction to media exposure. Another limitation was the students themselves answering the questions for aggression which might not provide the authentic results because aggression is predominantly determined by observation and the reported media exposure could have been confirmed by the parents & teachers. Behavior is a complex combination of physical, psychological, and physiological dimensions in human beings. It is defined as “the internally coordinated responses (actions or inactions) of whole living organisms (individuals or groups) to internal and/or external stimuli, excluding responses more easily understood as developmental changes”.^{23, 24} It is important therefore to conduct physical, neurophysiologic, behavioral, cognitive, and environmental studies to understand the inter relationship between students' behaviours and contextual factors. Among other non-negotiable risk factors like poverty was not the case in our sample⁽²⁵⁾.

There is a deep and subtle relationship between aggression and its social & genetic predictors. All these factors open new research areas in our unique educational culture. It would be interesting to see the role of these factors in media and aggression equation in a community with such low levels of aggression.

Conclusion

The levels of aggression and media exposure are

both low in our society. There is a positive correlation between the two variables. The role of the cultural and societal values of indulgence in sports and scholarship by the citizens of this area on youth behaviors should be studied in a longitudinal study to confirm the association. The primary prevention model in vogue at Wah Cantonment i.e., may contain some positive lessons which could be implemented to lessen the evil of media exposure and hence aggression levels in youth in extended societies.

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