

Assessment of Aggressive Behavior in Children Due To Viewing Violent Cartoons in Selected Schools of Karachi

Neha Arshad¹, Masooma Farhan¹, Aftab Ali¹, Zaeema Ahmer¹

Abstract

Background: Watching cartoons is a common leisure activity among children. Concerns have been raised regarding the potential impact of exposure to violent cartoon content on aggressive behavior. This study aimed to assess aggression among school-going children aged 5–10 years in relation to exposure to violent cartoons in selected schools in Karachi, Pakistan.

Methodology: A descriptive cross-sectional study was conducted in selected private schools in Karachi. A total of 340 children were included. Data were collected through parents using the Buss–Perry Aggression Scale to assess children's aggression levels. Sociodemographic characteristics and cartoon-viewing behaviors were also recorded.

Results: Most participants (96.2%, n = 335) reported watching cartoons, with 56.9% (n = 198) belonging to nuclear families. A majority (79.3%, n = 276) watched cartoons while eating. Boys demonstrated significantly higher aggression levels than girls (p = 0.024). Increased aggression was significantly associated with mimicking cartoon characters (p < 0.001), watching cartoons on YouTube (p = 0.002), living in joint families (p = 0.011), and screen time exceeding six hours per day (p = 0.033). Parental characteristics showed that 40.8% of mothers had secondary education, 46.8% of fathers were privately employed, and most mothers were homemakers.

Conclusion: No direct association was found between cartoon viewing and aggression. However, specific behaviors such as mimicking cartoon characters and excessive screen time were significantly associated with higher aggression levels. These findings highlight the importance of monitoring children's media consumption and behavioral responses.

Keywords: Aggressive behavior; children; cartoons; screen time; media exposure; behavioral outcomes

How to cite this article: Arshad N, Farhan M, Ali A, Ahmer Z. Assessment of aggressive behavior in children due to viewing violent cartoons in selected schools of Karachi. Pak J Public Health. 2026;16(1):23-6.

DOI: <https://doi.org/10.32413/pjph.v16i1.1614>

Copyright © 2026 The Author(s). Published by Health Services Academy. This is an Open Access article under the CC BY-NC 4.0 license.

Introduction

Cartoons played an important role in developing the behaviour of children as they spent their leisure time watching cartoons. Cartoons became a part of their everyday lives, and ultimately they learned to mimic the behaviour of cartoon characters.(1) There were studies that reported that watching violent cartoons at a younger age led to the development of violent behaviour at an older age.(2) This was more evident in boys than in girls.(3)

Children had a receptive mind that was unable to differentiate between the positive and negative aspects of things.(4) The short-term effect was that children who continuously observed violence in certain situations believed that it was the normal way to overcome problems. There was an evolution of the nuclear family system, which led to both parents working, so there was little supervision and guidance for children watching all sorts of content through cartoons.(4) The language and action shown in cartoons were sometimes inappropriate and required appropriate screening by an adult before being introduced to children.(5)

A study conducted in Sri Lanka showed that 80% of children and 65.2% of school-going children watched cartoons, whereas 78% wanted to dress up as cartoon characters. Additionally, 39.9% wished to buy cartoon-related things; 33% of the cartoons showed violent behaviour; 64% of children ignored what parents said while watching cartoons; and 45% became violent when parents switched off the TV, took their phones, or asked them to do homework or other house chores.(6) An Egyptian study reported that more than three-quarters of primary school children were exposed to cartoon violence, and more than half of them had severe levels of aggression.(7)



¹ APPNA Institute of Public Health (AIPH), Jinnah Sindh Medical University (JSMU), Karachi, Pakistan

Correspondence:
Neha Arshad
hijabezehra2015@gmail.com

Submitted: 04-02-2025
Revised: 14-10-2025,
Accepted: 25-12-2025
Published: 28-03-2026

A study conducted in Pakistan about the mental health of children reported that children spent almost all day watching TV, and that affected their mental health.(8) A study conducted in southern Punjab showed that 71% of children enjoyed cartoons that showed some sort of violence; 56% considered fighting heroes as their superheroes; 71% thought killing, destroying, and damaging enemies was normal; 56% mimicked characters they watched; and 47% of parents observed violence in the behaviour of a child after watching violent cartoons.(9)

Television was the most popular medium on which children viewed cartoons. The media was constantly creating new cartoons with violence, and children who were exposed to them faced extreme consequences due to it.(10) The parents also, at times, did not realize how harmful this exposure could be for their children. This study therefore aimed to determine the number of children exposed to violent cartoons and the resultant effect on their behaviour.

The findings of this study could be used to develop strategies to minimize the negative effects of violent media on children's behaviour, such as limiting exposure to violent media or providing alternative forms of entertainment, and to develop interventions to promote healthy development and reduce the risk of negative outcomes associated with exposure to violent media. Parents could use this knowledge to make informed decisions about what type of media their children were exposed to. Educators could also use this knowledge to develop age-appropriate media literacy programs that taught children to critically evaluate the media they consumed.

Methodology

This descriptive cross-sectional study was conducted to assess the relationship between violent cartoons and aggressive behavior in school-going children from August to September 2024. The study included 360 children from two selected private schools in Karachi, Pakistan. The sample size was calculated using the OpenEpi calculator with an error margin of 5%, a confidence level of 95%, and an anticipated aggression frequency of 33%, based on a previous study conducted in Indore, India. (11) A non-probability convenience sampling technique was employed to select the sample, which comprised children studying in elementary classes (grades 1-5), both girls and boys, whose parents consented to participate by filling out the questionnaire. The exclusion criteria included children with learning disabilities, slow learners, mentally disabled, physically handicapped, or those on psychiatric medication as reported by teachers/parents. Data was collected using a structured questionnaire distributed through the children's homework diaries, which the parents filled out and returned to the school. The research team then collected the questionnaires from the school office. The questionnaire included three sections: demographic information, viewing habits of cartoons, and the Buss and Perry aggression questionnaire.(12) This internationally validated tool was translated into Urdu and pilot

tested, containing 15 items scored on a Likert scale from 1 (never) to 5 (very frequently), measuring physical aggression, verbal aggression, anger, and hostility. Additionally, the questionnaire included sections with yes or no questions to gather categorical data on various aspects of the children's behavior and viewing habits. The definitions used for school-going children, aggressive behavior, and violent cartoons were referenced to ensure clarity and consistency in this study. Data analysis was performed using SPSS version 23. Descriptive statistics summarized the demographic information, and chi-square tests (or fisher's exact test where applicable) was used to assess the association between independent variables and aggressive behavior. Regression models were applied to establish significant associations, with a p-value of <0.05 considered statistically significant.

Results

Table 1 displays the sociodemographic characteristics of the study participants.

Table 1: Socio demographic details of study participants (n=348)

Variables	n %
Age (years)	
5-7	137(39.4%)
8-10	211(60.0%)
Sex	
Male	179(51.4%)
Female	169(48.6%)
Class of child	
Kg-2	237(68.4%)
3-5	111(31.9%)
No of sibling	
0-3	224(64.4%)
4-6	114(32.8%)
>6	10(2.9%)
Mother's education	
Primary	103(29.6%)
Secondary	142(40.8%)
Graduate	86(24.7%)
Postgraduate	17(4.9%)
Father's education	
Primary	81(23.3%)
Secondary	146(42.0%)
Graduate	98(28.2%)
Post graduate	23(6.6%)
Mother's profession	
Government job	17(4.9%)
Private job	23(6.6%)
Business	18(5.2%)
Housewife	290(83.3%)
Father's profession	
Government job	109(31.3%)
Private job	163(46.8%)
Business	76(21.8%)
Type of family	
Nuclear	198(56.9%)
Joint	150(43.1%)

Figure 1 showed the cartoon related factor in which 96.2 % (n=335) study participant watch cartoon. 79.3% (n=276) had eating habit while watching cartoon and 85.3% (n=297) involve in physical activity.

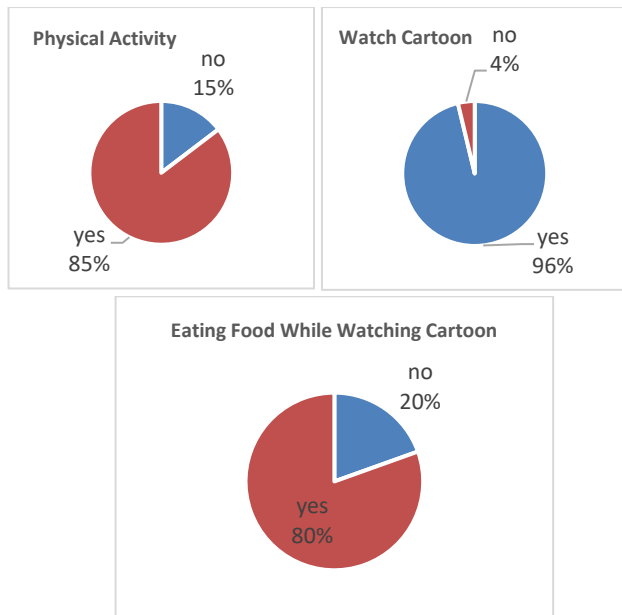


Figure 1: Cartoon related factors among study participants (n=348)

Table 2 shows the relationship between aggression and socio-demographics, and cartoon-related variables. Boys had more aggression than girls (p-value=0.024). Fathers who had business had a significant impact on children’s aggressive behavior (p-value=0.014). Additionally, children who mimicked cartoon characters (p-value=0.000) and children who used YouTube for content watching were more aggressive (p-value=0.002). Furthermore, children who had screen time more than six hours had a significant relation with aggression (p-value=0.033). Lastly, children who lived in joint families were more aggressive (p-value=0.011).

Table 2: Relationship between aggression and socio demographic and cartoon related variables (n=348)

variables	Aggression		P-value *
	Yes n (%)	No n (%)	
Gender			
Male	69(40.1)	103(59.9)	0.024
Female	46(29.1)	112(70.9)	
Mother’s education			
Primary	29(29.6)	69(70.4)	0.299
Secondary	46(33.6)	91(66.4)	
Graduate	34(43.0)	45(57.0)	
Post graduate	6(37.5)	10(62.5)	
Father’s education			
Primary	24(30.0)	56(70.0)	0.323
Secondary	44(32.6)	91(67.4)	
Graduate	37(39.4)	57(60.6)	
Post graduate	10(47.6)	11(52.4)	
Father’s profession			
Government job	27(26.7)	74(73.3)	0.014
Private job	53(34.0)	103(66.0)	
Business	35(47.9)	38(52.1)	
Mother’s profession			
Government job	9(56.2)	7(43.8)	0.054
Private job	3(13.6)	19(86.4)	
Business	2(12.5)	14(87.5)	
Housewife	101(36.6)	175(63.4)	

variables	Aggression		P-value *
	Yes n (%)	No n (%)	
Mimic cartoon			
Yes	67(54.7)	54(44.6)	0.000
No	43(21.3)	159(78.7)	
Cartoon channel			
Cartoon network	23(26.7)	63(73.3)	0.002
Disney world	8(21.1)	30(78.9)	
Netflix	4(66.7)	2(33.3)	
YouTube	77(39.3)	119(60.7)	
Time of watching cartoon			
Less than 1 hour	40(27.0)	108(73.0)	0.033
2-3 hour	58(40.6)	85(59.4)	
4-6 hour	10(34.5)	19(65.5)	
>6 hour	4(66.7)	2(33.3)	
Type of family			
Nuclear	57(30.2)	132(69.8)	0.011
Joint	58(41.1)	83(58.9)	

Discussion

This study was about understanding aggressive behavior in Karachi’s school-going children. As school going children are young individuals who are susceptible to falling prey to the content they watch on media, hence this study was conducted to understand this impact. In this study, boys were found to be more aggressive than girls. This is similar to a study done in United States in 2003 in that study, boys had higher tendency of aggressiveness than girls. (13)

Present study showed that 83.0% study participants’ mother were homemakers and it showed a relationship with aggression. However, this is in contrast to a study conducted in Egypt in 2011 that concluded that working mother’s children are more aggressive because they are exposed to life stress, low supervision, low social support and harsh discipline. (14) In the present study, majority of study participant’s father were doing a business and it had a relationship with aggression. However this is in contrast to a study conducted in Haryana India in 2021 that stated that children whose father’s profession is from labor class were more aggressive.(15)

Most of study participants in this study lived in a joint family system and it had a relation with aggression. However, this is in contract to study conducted in Pakistan in 2021 stated that adolescents who live in nuclear families are more aggressive than the ones living in a joint family. (16)

This study showed that most children mimic cartoons, which showed a relationship with aggression. A study conducted in Indore India in 2016 had similar results and stated that most study participants also mimicked the cartoons they watched on screen resulting in high levels of aggression. (11) Present study also showed that watching cartoons for more than six hours had a significant relationship with aggression. A study conducted in Iran in 2015 showed similar results that reported that more than two hours of screen time resulted in aggressive behavior in children because it increased the chances of children bullying one another. (17) Another finding that came from this study was that majority of study participants used YouTube for watching

cartoon content and it had a significant relationship with aggression. This is similar to a study conducted in Pakistan in 2019 that concluded that children who watched YouTube videos and cartoons had higher chances of developing aggression, unhealthy mental growth and sleeping disorders. (18)

The present study has several strengths. It included a good sample size with appropriate statistical analysis and used an internationally validated Buss and Perry aggression tool. Despite its strengths, this study has certain limitation as well. The present study included only included participants from selected schools, which was insufficient to allow for result generalization. Furthermore, the present study did not take into account children in rural areas so there might be differences of results in that setting.

Conclusion

It was concluded that there is no direct link between aggression and watching cartoons but it is evident that children who mimic the cartoon they see on screens tend to be more aggressive. Furthermore, the data showed gender disparity especially with boys having higher levels of aggression as compared to girls. Aggressive children had mothers who were homemakers and fathers had business and they were residing mostly in joint families. Most of the study participants had screen time of greater than six hours and the popular medium of watching cartoon content was YouTube.

Acknowledgement: Authors wish to acknowledge parents who took time out to complete the questionnaire and be a part of the study.

Ethical Approval:

This study was approved by Ethical Review Committee/Institutional Review Board (IRB) of Karachi Jinnah Sindh Medical University.

Ref. No. JSMU/IRB/2024/861 Dated: 02-07-2024

Data Availability: Data supporting the findings are available upon reasonable request.

Financial support and sponsorship: None declared.

Conflict of interest: Authors declare no conflict of interest

Authors' Contribution:

NA: Wrote the first draft, designed the questionnaire and collected data

MF: Literature search, designed the questionnaire and collected data

AA: Designed the questionnaire and collected data, wrote the results.

ZA: Designed the study and analyzed the data.

All authors approved the final manuscript.

References

- Kadhim NA, Abbas NF. The construction of racism in cartoon films: a critical discourse analysis. *Arab World Engl J.* 2023;14(2).
- Yan W, Mobai C, Tong W, Xiaobo Y. The negative influence of violence graphic animations cartoon to children under age of 12: a review. *J Leg Ethical Regul Issues.* 2023;26:1.
- Aluja-Fabregat A, Torrubia-Beltri R. Viewing of mass media violence, perception of violence, personality and academic achievement. *Pers Individ Dif.* 1998;25(5):973-89.
- Susanu N. Violence, the effect of cartoons on the child's emotional development. *New Trends Psychol.* 2022;4(1).
- Ghilzai SA, Alam R, Ahmad Z, Shaukat A, Noor SS. Impact of cartoon programs on children's language and behavior. *Insights Lang Soc Cult.* 2017;2:104-26.
- Wijethilaka TS. Effect of cartoons on children. *J Ilm SriLanka Univ Moratuwa.* 2020.
- Abdelbaseer Mahmoud D, Mahmoud Zaki M, Ahmed Mostafa H. Correlation between cartoon violence, aggressive behavior and psychological well-being among primary school children. *Egypt J Health Care.* 2022;13(1):1232-51.
- Sultan F, Hasan Z. Parental perception about western cartoon on child's mental health in Pakistan. *Pak J Rehabil.* 2020;9(2):48-53.
- Mahmood T, Iftikhar U, Bhatti MA. Impact of violent cartoons on the behaviour of children: a case study of South Punjab. *J Bus Soc Rev Emerg Econ.* 2020;6(2):689-702.
- Odukumaiya EI. Cartoons influence towards violence and aggression in school age children in Nigeria [dissertation]. Famagusta: Eastern Mediterranean University; 2014.
- Rai S, Waskel B, Sakalle S, Dixit S, Mahore R. Effects of cartoon programs on behavioural, habitual and communicative changes in children. *Int J Community Med Public Health.* 2017;3(6):1375-8.
- Buss AH, Perry M. The aggression questionnaire. *J Pers Soc Psychol.* 1992;63(3):452-9.
- Huesmann LR, Moise-Titus J, Podolski CL, Eron LD. Longitudinal relations between children's exposure to TV violence and their aggressive and violent behavior in young adulthood: 1977-1992. *Dev Psychol.* 2003;39(2):201-21.
- Amin FM, Behalik SG, El Soreety WH. Prevalence and factors associated with aggression among preschool age children at Baraem Bader Nursery School in Al-Asher 10th of Ramadan city, Egypt. *Life Sci J.* 2011;8(4):929-38.
- Verma R, Kumar G, Yadav RK, Chayal V, Kalhan M, Bhalla K, et al. Association of psychosocial factors with aggression among school going rural adolescents in Haryana. *J Family Med Prim Care.* 2021;10(10):3720-4.
- Khan S, Meher Z. Sibling relationship and expression of anger among the children of working women. *Pak J Physiol.* 2021;17(2):38-41.
- Kelishadi R, Qorbani M, Motlagh ME, Heshmat R, Ardalan G, Jari M. Relationship between leisure time screen activity and aggressive and violent behaviour in Iranian children and adolescents: the CASPIAN-IV study. *Paediatr Int Child Health.* 2015;35(4):305-11.
- Siddiqui A. A critical look at YouTube videos: causing behavioral change among children. *SSRN Electron J [Preprint].* 2019. Available from: <https://ssrn.com/abstract=3453417>