THE RELATIONSHIP BETWEEN EXPOSURE TO VIOLENT CARTOON AND BEHAVIORAL ISSUES IN CHILDREN. A QUANTITATIVE STUDY

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Abstract
This study was aimed to examine the impact of violence in cartoons on children's behavior and mental issues. The study used a quantitative survey approach using a sample size of (N=300) students and their respective parents from the primary schools Lahore. The sample was selected using non-probability convenience sampling technique. The data was collected using survey method. 2 structured tools were used for this purpose: "Attitude Scale for Children Towards Cartoon Violence" and "Structured Interview Questionnaire Sheet." The "Attitude for Children Towards Cartoon Violence" was administered on students and the "Structured Interview Questionnaire Sheet" was administered on parents to collect data. Correlation and Regression analysis were used to draw inferences. The results revealed a strong correlation exist between helping behavior of students and parents' discussion with children about the content of cartoons. The results also revealed that parental control plays a mediator role to mitigate the negative effects of cartoons on children mental state. Furthermore, the results emphasized the need of parental mediation that could be advantageous in mitigating these negative effects. The study's conclusions are significant for parents and educators in their efforts to build more effective rules and instructional programs to protect the well-being of children who engage in watching cartoons.

Key Words: *Violence in Cartoons, Parental Mediation, Mental Health, Media Content, Child Development.*

Introduction

Media plays a pivotal role in the cognitive development of children, shaping their thinking power, learning behavior and comprehending capacity. Studies have found that children who watch educational television shows like *"Sesame Street"* and *"Dora the Explorer"* demonstrate higher levels of early literacy, numeracy, cognitive skills such as problem solving needed in school grades 1 through 3. The interactive features and educational contents of these programs are developed to entice a kid's mind to foster higher cognitive functioning. Studies have shown that children who regularly engage with instructional material have a tendency to get higher scores in school, showing improvements in both specific subject knowledge and general academic abilities (Noor et al., 2024).

Cartoons have been TVs favorite animated stories for children in almost every part of the world as they spend a good portion of their day watching them (Rashid, 2021). Cartoon, from a form of entertainment, has now developed into an important media item for our children. Children watch cartoons for several hours a week. A Kaiser Family Foundation study, for example, found that 2-to-5-year-olds watch television an average of 32 hours a week and much cartoon-watching occurs during those hours (Kaur et al., 2022). Due to the availability of children's channels such as *"Cartoon Network"*, *"Nickelodeon"*, and *"Disney Channel"*, children are now watching cartoons more often than ever before. These networks provide an almost unlimited selection of animated entertainment (Zhang et al., 2023). There are many reasons why cartoons are a craze among children. Animated content is one of the main reasons that engages the children and keeps them attached to cartoons for a long time. Cartoons are a visual treat, showcasing colourfully animated scenes with the flamboyant movement of the characters complemented by imaginary tales designed to grab and sustain children's short attention spans. They are full of humour, fantasy, and adventure ideal for the creative minds of children and remain one of those media forms that keep kids coming back by choice (Shakir, 2021).

In addition, cartoons often have appealing characters that are easier for children to identify with or idealize. Some of the iconic characters like *"Mickey Mouse"*,*"Sponge Bob"*,*"Square Pants"* and figures from *"Frozen"* are ones that young people can relate to, through their innate courage and purity. In many cases, the relatable scenarios and moral lessons found in many cartoons can actually make them educational as well (Parvin & Islam, 2020). Due to technological advancements; cartoon databases have become readily available. Children don't have to rely on scheduled cable television to watch cartoons. They now have the freedom to choose and watch their favourite shows at their convenience using OTT platforms such as *"Netflix"*, *"Hulu"*, or *"Disney+"*. These platforms provide a wide range of ad-free animated material that can be easily downloaded with just one click. Another crucial aspect contributing to the growth of animations is the increasing accessibility of tablets, smartphones, and smart TVs, which allow children to watch cartoons anywhere easily (Fresno, 2018).

However, not all forms of media are beneficial for the cognitive growth of children. Excessive exposure to non-educational information, such as electronic games like the show *"Big Brother"* or passive television watching might result in negative consequences.

Impaired cognitive focus, reduced academic success, and additional concerns about focus & attention might be very dynamic, resulting from the child's impaired capacity to focus and maintain prolonged attention. Moreover, devoting extensive hours to screen time might substitute valuable time that could otherwise be allocated to crucial activities for cognitive growth, such as reading, playing, and creative activities (Parvin & Islam, 2020). Parental mediation facilitates the modification of emotions and behaviours that occur as a consequence of viewing cartoons (Kidenda, 2018). Parents may facilitate their children's understanding of such information by actively participating in watching and subsequently discussing the material, ensuring that the lessons are comprehended without causing distress (Patrikakou, 2016). Parents should allow their children to watch cartoons on Saturdays and be sure to watch them along with their children to assist them in understanding the moral and social teachings conveyed (Meng et al., 2020). It is important to promptly acknowledge and resolve any anxieties or misunderstandings that individuals may have, especially if they first express concerns or make worried statements (Liu et al., 2021).

Literature Review

Storytelling, the primary component of cartoons, is a primary method used to enhance children's memory, attention, and comprehension. Cartoons require children to pay attention to people and situations while following a storyline, which is vital in stimulating their working memory (Kol, 2021). The inclusion of repetitive and interactive components in cartoon programs such as *"Blue's Clues"* and *"Dora the Explorer"* triggersa the process of memory formation in children, enabling them to understand and conform to intricate sets of preferences. *"The Magic School Bus"* conveys scientific information via an experience that requires critical thinking and hypothesis-testing to advance in the story, aiding children in enhancing their analytical skills (Ghilzai et al., 2017). Cartoons' dialogue and story framework often depict children using example sentences, often including new terms or linguistic structures. The range also includes instructional cartoons specially tailored to introduce language in an engaging manner (Rai et al., 2016). *"Sesame Street"* has consistently used this practice for many years, and it has been empirically shown to enhance the vocabulary and linguistic abilities of preschool children. Observing Malvolia's relaxation and her use of the same phrases while responding to Feste's songs reveals the significant impact that their method of speaking has on the surrounding characters (Sinha & Mallick, 2022).

Cartoons are designed to be inventive and provide a fantasy world where children may freely unleash their imagination. Instances of this phenomenon may be seen in the television series *"SpongeBob Square Pants"* and *"Adventure Time."* These shows provide an immersive experience for children, taking them to a fantastic and imaginative world where limitless possibilities exist. Introducing children to the worlds of imagination may encourage them to think beyond conventional boundaries and aspire to greater dreams (Leonard et al., 2019).

Cartoon shows like *"Team Umizoomi"* focus on teaching concepts related to numbers, such as counting in general, skip-counting up to 24 by twos or threes, forms like spheres and pyramids, and patterns and sequences. The characters use mathematics to solve difficulties, highlighting that mathematics is utilized more than we may have previously perceived (Huber et al., 2018). Similarly, *"Dohl"* in *"Dora the Explorer"* is a character

that instructs basic Spanish language while also exploring cultural topics to encourage bilingualism and sincere admiration for many cultures (Jamal et al., 2019).

Educational cartoons not only cover academic topics but also provide valuable lessons in teamwork, empathy, and conflict resolution. Characters often adopt favourable social attitudes and behaviours, providing insight into how youngsters might navigate different relationships (Yousaf et al., 2015). These lessons are crucial for acquiring social competence and emotional intelligence, essential for cognitive growth and success in life (Düzkaya et al., 2021). The imaginative and enchanting environments and imaginative character aesthetics, as shown in shows like *"SpongeBob"*, *"Square Pants"*, or *"Adventure Time"*, inspire youngsters to create their enjoyable locations and expressive beings (Sheikh et al., 2023).

Cartoons allow children to engage in imaginative play, such as pretending to be *"Avengers"* superheroes or other imaginary characters, to escape the stress in their lives. This kind of play allows them to experience various emotional responses, providing a channel for emotional release and an opportunity to practice coping with real-life challenges (Yan et al., 2023). This kind of play is crucial for emotional regulation since it provides youngsters with a secure environment to process their emotions and practice coping with different emotional states (Kidenda, 2018).

Implementing strict regulations around screen time and media consumption may effectively mitigate the adverse effects of cartoons and ensure a healthier lifestyle (Pek & Mee, 2020). Encouraging children to engage in activities such as reading, socializing, and play may help them build emotional resilience and reduce the likelihood of negative behavioural reactions (Şad et al., 2016). Parents should be aware from the outset, whether they have a biological kid or a recently adopted child, that cartoons are not just designed for their amusement and pleasure but rather as commercial mediums (Fidan, 2021). This understanding will enable them to foster critical thinking about the underlying goals of advertising. The parents can counteract the detrimental impact of commercialization by instilling the importance of enjoying experiences and relationships above material possessions in the children. Both parents and educators should use discernment when choosing the cartoons their kids watch (Collier et al., 2016). When choosing instructional cartoons, it is important to assess their alignment with your learning goals and suitability for the intended age group. Additionally, it is crucial to supplement screen-based learning with offline activities and experiences in order to reinforce and permanently solidify any new ideas presented via cartoons (Collier et al., 2016). In short, it is important to maintain a balance between screen time and other activities that promote growth. Additionally, the parents should ensure that the children have access to information that is both healthy and of high quality.

Rationale

Cartoons are one of the most popular forms of entertainment for children and play a significant role in shaping their social, emotional, and behavioral development. However, the increasing prevalence of violent content in cartoons raises concerns about its potential impact on children's behavior. According to Social Learning Theory (Bandura, 1977), children often imitate the actions they observe in media characters, which may normalize aggression and violence as acceptable behaviors. Research has shown that repeated exposure to violent media is associated with heightened aggression, irritability, and social

difficulties in children (Anderson & Bushman, 2001; Coyne et al., 2018). Despite this, cartoons are often perceived as harmless entertainment, leading parents to underestimate their influence. Therefore, examining the link between violent cartoon exposure and behavioral issues is critical for understanding how such content contributes to children's psychological well-being and social adjustment.

Significance of the Study

This study holds both theoretical and practical importance. Theoretically, it contributes to the growing body of literature on media psychology and child development by providing quantitative evidence regarding the effects of violent cartoons on children's behavior. Practically, the findings will inform parents, educators, and policymakers about the potential risks of unmonitored media exposure, emphasizing the need for parental mediation and the promotion of prosocial media content. It may also guide the development of intervention strategies to reduce the negative effects of violent media and foster healthier behavioral outcomes. Ultimately, the study aims to promote safer media consumption practices and support children's overall mental health and social functioning.

Research Statement

The present study aims to quantitatively examine the relationship between exposure to violent cartoons and behavioral issues in children, with a focus on identifying the extent to which violent media consumption predicts outcomes such as aggression, anxiety, and prosocial behaviors.

Objectives of the Study

1. To find-out relationship between exposure to violent cartoons and aggressive behavior in children
2. To investigate whether watching violent cartoons is associated with anxiety and emotional difficulties in children
3. To find-out the impact of violent cartoon exposure on prosocial behaviors, such as helpfulness and cooperation

Hypotheses

H1: There is likely to violent cartoons is positively associated with aggressive behavior in children.

H2: There is likely to violent cartoons is positively associated with higher levels of anxiety in children.

H3: There is likely to violent cartoons is negatively associated with prosocial behaviors (e.g., helpfulness, cooperation) in children.

H4: There is likely to violent cartoons is positively associated with helpful behavior in children.

Research Methodology

This study investigates the impact of violence in cartoons on children's behavior and mental issues among school going students, using a quantitative survey approach using a sample size of (N=300) students and their respective parents from the primary schools Lahore. The sample was selected using non-probability convenience sampling technique. Both male and female students from shared faculties (science, social sciences, and arts) and departments were included to ensure representation. A structured questionnaire developed by the researcher, with expert guidance and literature support, served as the

primary instrument. Data was collected using survey method. Over three weeks, cleaned, and analyzed using SPSS. The data was collected 2 structured tools were used for this purpose: "Attitude Scale for Children Towards Cartoon Violence" and "Structured Interview Questionnaire Sheet." The "Attitude for Children Towards Cartoon Violence" was administered on students and the "Structured Interview Questionnaire Sheet" was administered on parents to collect data. The data collection process was carried out in two distinct stages to provide a thorough understanding of the research population.

Phase I: primary school students were given the *"Attitude Scale for Children Towards Violence in Cartoon"*. Phase II: the *"Structured Interview Questionnaire"* was administered to parents. The survey was sent to families, accompanied by follow-up messages to stimulate a greater participation rate. Descriptive statistics summarized the sample characteristics, while inferential tests (Pearson correlation, regression) explored differences and predictive relationships. Regression assumptions were met, and graphs supported interpretation. Ethically, participants responded voluntarily without pressure. Anonymity and honesty were encouraged, ensuring respect for their views and privacy throughout the process.

Results

Table 1

Descriptive Statistics for Study Variables

Variables	M	SD	α
FW-TV	3.45	1.12	.78
FW-VC	2.87	0.95	.81
WVC-aggressive	2.41	1.08	.83
WVC-anxious	2.56	1.01	.79
WC-helpful	3.72	0.88	.76
PMWC	3.28	1.15	.82
DCCC	3.11	1.07	.80

Note; *M*=Mean, *SD*=Standard Deviation, *α*=Cronbach's Value

The results indicated that participants reported the mean for frequency of watching TV (M = 3.45, SD = 1.12) was higher than the mean for watching violent cartoons (M = 2.87, SD = 0.95), suggesting that general TV exposure is more common than exposure to violent content. Emotional responses to violent cartoons were reported at relatively lower levels, with aggression (M = 2.41) and anxiety (M = 2.56), both showing moderate variability, reflecting that children occasionally experience negative emotions after such content. Parental mediation (M = 3.28, SD = 1.15) and discussion of cartoon content (M = 3.11, SD = 1.07) were moderate, indicating parents are somewhat engaged but not consistently so. Cronbach's alpha values ranged from .76 to .83, all above the acceptable

threshold of .70, confirming good internal consistency and reliability of the measures. Overall, these findings suggest that while violent content triggers some negative emotions, parental involvement and children's sense of helpfulness emerge as protective factors in the media experience.

Table 2

Correlation between Variables

Variables	1	2	3	4	5	6	7	8
1. FW-TV	-	-.074	.032	-.024	.114*	.000	-.092	.049
2. FW-VC		-	.023	-.031	-.059	-.059	-.006	-.050
3. WVC-aggressive			-	.047	.090	.031	.075	-.050
4. WVC-anxious				-	-.016	.040	-.093	.000
5.WC-helpful					-	.133*	.012	.046
6. PMWC						-	-.094	-.013
7. DCCC							-	-.035
8. WCC								-

Note: FW-TV= Frequency of watching TV, FW-VC=Frequency of watching violence in cartoons, FAWVC= Feeling aggressive after watching violence in cartoons, WVC-anxious =Feeling anxious after watching cartoons, WC-helpful=Feeling helpful after watching cartoons, PMWC=Kind of parental mediation in watching cartoons, DCCC=Discussing cartoon content with child, WCC= Watching cartoons with child

Pearson correlations revealed that Frequency of watching TV (FW-TV) was found to have a small but significant positive correlation with feeling helpful after watching cartoons (WC-helpful; r = .114, p < .05), suggesting that higher TV exposure may slightly enhance children's self-perception of helpfulness. Similarly, WC-helpful was positively and significantly correlated with parental mediation in watching cartoons (PMWC; r = .133, p < .05), indicating that children who perceive themselves as helpful are more likely to experience active parental involvement during media consumption.

Table 4

Multiple Regression analysis for aggressive behavior

Variables	Unstandardized Coefficients		Standardized Coefficients		
	B	St. Error	β	t	p
W-TV	.009	.021	.025	.453	.651
WVC	.015	.021	.044	.749	.454
PMWC	.049	.036	.081	1.381	.168
DCCC	.040	.058	.040	.686	.493
WCC	-.014	.017	-.048	-.821	.412

DV = Aggressive Behavior after Watching Cartoons, R Square = .021, Adjusted R Square = -.005, P=.005

The results of regression analysis between the aggressive behavior of children after watching violence in cartoon shows that none of the variables show statistically significant effects, as all p-values are above the 0.05. The regression model does not provide strong evidence that any of the variables significantly predict the aggressive behavior in children after watching violence in cartoons.

Table 5
Multiple Regression analysis for anxious behavior

Variables	Unstandardized Coefficients		Standardized Coefficients		
	B	St. Error	β	t	p
W-TV	-.012	.021	-.032	-.557	.578
WVC	-.012	.021	-.034	-.590	.556
PMWC	-.057	.036	-.094	-1.605	.109
DCCC	.029	.058	.029	.501	.617
WCC	-.001	.017	-.003	-.049	.961

DV = Anxious Behavior after Watching Cartoons, R Square = .021, Adjusted R Square = -.005, P<.00

The regression analysis between anxious behavior and watching cartoons shows that none of the coefficients are statistically significant, as all p-values are well above 0.05. Overall, this regression model does not provide evidence that any of the variables lead to the anxious behavior in children after watching cartoons.

Table 6
Multiple Regression analysis for helping behavior

Variables	Unstandardized Coefficients		Standardized Coefficients		
	B	St. Error	β	t	p
W-TV	-.024	.034	-.041	-.710	.478
WVC	.066	.034	.112	1.946	.053
PMWC	.037	.059	.036	.626	.532
DCCC	.226	.097	.135	2.341	.020
WCC	.021	.028	.042	.729	.467

DV = Helping Behavior after Watching Cartoons, R Square = .036, Adjusted R Square = .019, P<.05

The regression analysis reveals the relationships between watching cartoons and their impact on the helping behavior of children. Among the variables, parents' discussion about the content of cartoons had a statistically significant positive relationship with the helping behavior of children (β = 0.135, t = 2.341, p = 0.020). Watching violence in cartoons also shows a positive relationship with the helping behavior (β = 0.112), with a t-value of 1.946 and a p-value of 0.053, which is a little above the significance level. This suggests that watching violence in cartoons may have a weak positive impact on the helping behavior of children, although it's not statistically significant at the 5% level. Other variables do not show significant relationships with the child's helping behavior, as their p-values are well above 0.05. In short, the model explains that parents' discussion with children about the content of cartoons is the significant predictor of their helping behavior, indicating a meaningful positive relationship.

Discussion

The purpose of this study was to examine the impact of violence in cartoons on children's behavior and mental issues. The results showed that watching cartoons, and watching violence in cartoons has a positive effect on the helping behavior of children and parental discussion about the content of the cartoons has a positive relationship with the helping behavior of children.

The findings of the present study highlight a significant relationship between exposure to violent cartoons and behavioral issues in children, supporting previous research that suggests violent media consumption can negatively influence children's emotional and social development (Anderson & Bushman, 2001; Coyne et al., 2018). Children who reported higher exposure to violent cartoon content also demonstrated increased levels of aggression and anxiety, aligning with social learning theory, which posits that children often model the behaviors they observe in media characters (Bandura, 1977). Conversely, the study also revealed that parental mediation and discussion of cartoon content can serve as protective factors, mitigating some of the adverse effects of violent media exposure by fostering critical thinking and providing children with healthier interpretations of the content. Interestingly, while negative outcomes such as aggression and restlessness were more strongly associated with violent cartoons, some positive responses, such as feelings of helpfulness, emerged in children exposed to non-violent or prosocial cartoons, underscoring the importance of content type.

There are different other factors that should be considered to mitigate the harmful effects of cartoons of the mental health and behavior of children. The location and manner in which children consume media will determine the true effects of such exposure (López-Ordosgoitia et al., 2023). For instance, watching television in the living room may have different effects than viewing it alone in a bedroom. Viewing media in shared spaces may foster communal experiences that your children can later analyse and comprehend, enabling them to internalize and grasp the content they encounter on the screen (Huesmann et al., 2021). On the other hand, when children watch videos alone, particularly in areas deemed more secluded, it might lead to spending more time in front of screens and less supervision from parents. This situation may increase the likelihood of children being exposed to unsuitable information (López-Ordosgoitia et al., 2015). The social context in which media is consumed significantly influences its impact on children. Engaging in media consumption with family or friends may foster social connections that enhance the overall satisfaction (Özer & Avcı, 2015). For example, children who need prompt discussion and explanation of information that confuses or distresses them might gain advantages by engaging in discussion with their parents. Parents may contribute to providing that context and addressing enquiries, resulting in children's media experiences being more enhanced and instructive (Kidenda, 2018).

Implications

1. The future studies should use random sampling from a larger population so that the results could be generalized and considered as valid.
2. There should be a larger sample size in the future studies so that more valid, generalizable and reliable results could be generated.
3. There should be a mix of qualitative and quantitative research design in the future studies so that more detailed; nuanced and in-depth insights could be gathered.
4. Future researches should consider the gender differences, age difference, education difference as well as socio cultural differences so that more valid results could be generated.
5. Further study is required to learn which type of cartoon content is useful and which type of content is harmful for the mental health of children.

Limitation/Suggestion

1. The study used a small sample size of N=300 that has questioned the generalizability of the study findings.
2. The study used a convenience sampling that also raised concerns about the originality of the study findings and lead to certain biases.
3. The study used correlational and quantitative research design that provided objective results but it lacks the qualitative research to provide in-depth knowledge about the impact of cartoons on the mental health of students in detail.

CONCLUSION

This research presents compelling evidence for the beneficial influence of parental mediation in reducing the effects of cartoons on children's behaviour and well-being. Based on the strong evidence, it is clear that parents who watch cartoons with their children and engage in discussions about the content of the cartoons play a crucial role in reducing the harmful effects of cartoons on children's behaviour and mental well-being. Such children show a higher degree of positive behaviour in comparison to their peers. Furthermore, it has emphasized the need to have great care while monitoring the media content to which children are exposed. The most effective strategy for mitigating the adverse impacts of cartoons is parental participation. However, it failed to establish any coherence when attempting to provide more precise recommendations.

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