

The Negative Influence of Animations Cartoon to Children under Age of 12: A Review

By

Wu, Y (Wu, Yan) [1] & Chen, MB (Chen, Mobai) [2], [3]; Wu, T (Wu, Tong) [4];

Yu XB (Yu, Xiao Bo) [3] ; Li C(Li, Chan) [1]

Author Information

Corresponding Address: Chen, Mobai (corresponding author)

Shandong Univ, Coll Journalism & Commun, Jinan 250000, Shandong, Peoples
R China

Corresponding Address: Chen, Mobai(corresponding author)

Qingdao Univ Sci & Technol, Coll Commun, Qingdao 266000, Shandong,
Peoples R China

Addresses

1. Hunan Normal Univ, Fine Arts Academy, Changsha, 410081, Hunan, Peoples
R China
2. Shandong Univ, Coll Journalism & Commun, Jinan 250000, Shandong, Peoples
R China
3. Qingdao Univ Sci & Technol, Coll Commun, Qingdao 266000, Shandong,
Peoples R China
4. Qingdao Film Acadmy, Qingdao 266000, Shandong, Peoples R China

E-mail Addresses

02604@qust.edu.cn

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Abstract

Research studies indicate that animations cartoon play a vital role in the development of working memory, inhibitory control and many more. However, animation cartoon has a negative influence on children. In this study, we provide a review based on the negative influence of animations cartoon on children under the age of 12. The study revile that children under the age of 12 are still facing the negative influence of television abuse. Television (TV) can be hazardous to some youngsters with media violence's influence on children under the age of 12. By watching violent animation, kids learn to somehow violent are with. For such children, it has an incredible influence, such as displaying it and it was on the field either at the 24-hour centre. Many children are tied to their views and feelings without putting anything they learned in early life into practice. The review also investigates the negative influence of animations cartoon for under 12 children. Where the emergence of global television has accelerated the growth in prominence of virtual worlds. There's increasing competition among video attempting to engage children and implement content necessitating the emergence of future internet negative content of animation videos. Children's views about content animation are influenced by content characteristics including highlight importance, enjoyment, and legitimacy. It analysed the effects of television programs on kids and discovered that kids are great mimics but terrible assessors. Lastly, recommendations have been provided.

Keywords: cartoon, animation, video content, violence graphic

1. Introduction

Ever since the late 1800s, while the original visual effects were shot, animation was a part of filmmaking. A cartoonist is a film composed entirely of graphics rather than actual characters, usually aimed at kids. Cartoons are also defined as films created by recording a series of differing illustrations or images that seem to rearrange as the video is viewed. This is what keeps watchers (mainly kids) hooked to the room. People are going to view such cartoons at television theatres then saw their attribute pictures, which is why animation was originally so fast. Advanced technologies or the growth of the media industry have led to an increase in the amount of media consumed by youngsters (Fan et al., 2021). Animation has been proven to have a significant role in the development of children's executive function (EF), as well as the asynchronous development of EF components such as inhibitory control, working memory, and cognitive flexibility (Ghilzai et al., 2017). According to (Chavan & Naregal, 2021) American, Chinese, and Turkish children watch more than an hour of cartoons every day on occasion. Various articles, including (Kocak & Goktas, 2020), have criticized the manner that children's shows describe kids' civilization, citing the idea that kids are absorbed inside the artwork of animation in their everyday routines. Graphical videos, according to (Onuora et al., 2021), impact children's morals, views, perceptions, and behaviour. Additionally, according to the influence of twentieth-century mass television concept of development evaluation, people describe fact because it is portrayed on visual culture on how much video content they are exposed to. As a result, animation films alter toddlers' perceptions of socio-cultural realities since they feature portrayals of human behaviour like sociological behaviours. Different cultures act with interpretations conducted by having common equivalent viewpoints, though heritage processes allude to behaviour, events, and habits conducted by a set of individuals as society connect collectively (Arhakis et al., 2017).

Whenever young kids watch animation graphics, they form personal link or imagination interrelations with individuals that could be beneficial or bad but are described as influencers or engagements. Whenever toddlers see an animation children and are significantly cooperative, that is, demonstrating mutual behaviour intended to enhance another personality, they really would similar to engage or become like that portrayal (Hassinger-Das et al., 2020). Overly optimistic recognition is the method of claiming to want and taking actions like a unique personality. Furthermore, the negative behaviour of the animation cartoons strengthens the kid's bond with the figure as kids experience deeper feelings about it (Al Owaifeer et al., 2018).

Despite youth, kids teenagers, and toddlers creating interpersonal ties using influencers claim that toddlers have the deepest effective interactions (Al et al., 2018). Moreover, youngsters build lasting relationships, particularly in illustrated animations that are identical to themselves (Höffler et al., 2010). Supportive peer connection is favourably linked with behavioural reality, for those studies, who agree with (Al Owaifeer et al., 2018). The degree under which a TV personality or occurrence is probable to happen inside this physical realm is referred to as social authenticity.

For its power to draw interest, a cartoon is a crucial part of graphic information. Cartoon can hold message listeners' focus while also disclosing the message's specifics. A cartoon is used by performers to enhance certain features of communications and to deliver intended communication. Cartoon has long been considered important, specifically when using images to transmit information to target audiences. Cartoons can evoke emotions in children as well. Performed a study to see how cartoon affects children's emotions depending on whether it's an image or video graphic (Yon et al., 2020). The analysis looks at other study subjects and found that cartoon has a substantial impact on children's behaviour. Study findings suggest that cartoon has a role in eliciting emotional responses in message recipients. According to Al et al., (2018) is an important aspect of animation. Especially because of the vital significance of cartoons in photography, they thoroughly addressed it in fields such as media transmission, animation, film and video, cartoons, and cartoons (Al et al., 2018). Cartoons were usually thought of simply as a light-hearted means of addressing important subjects. Cartoons allow you to transmit concepts to your desired audience in a way that captivates, engages and informs viewers together at the identical moment. Significant matters of concern might be expressed in approaches to help society grasp the particular topic via cartoons. It goes on to say how cartoons provide knowledge as well as an incentive for children to contemplate deeply upon the topics raised by the animation content.

1.1 Contribution

Several research studies have investigated the negative influence of animations cartons among children. In this study, we investigate the negative of animations cartoon on children under the age of 12. The constitution of this review studies include the followings:

1. We provide the existing problem on the negative influence of animated cartoons on children under the age of 12.
2. We review in-depth previous related studies based on the negative of animations cartoons to children.

3. We also provide recommendations to overcome this issue after examining the empirical studies.

2. Related Problem

The dominance of Television (TV) in today's modern world is undeniable. Though televisions were just found in a small percentage of homes somewhere at the start of the nineties, we could today declare that technology and web access are found in practically every home. As a function of these advancements in technology, the contents broadcast on television screens enter homes and impact youngsters, particularly those for whom defensive systems haven't quite developed. According to (Al et al., 2018), each family has one television, and 50 percent of them would have two or more televisions. Children are subjected to the influence of television for much too much in their everyday routine.

3. Metasurvey

In this section, we provide other review related studies based on literature review. Akca Sumengen & Ocakci (2022) conduct a review study a randomized study to assess the efficacy of an education programme using cartoons and comics on illness management in children with asthma(Akca Sumengen & Ocakci, 2022). The goal of this study was to see how an education programme called the Health Promotion Program for Children with Asthma (HPPCA) affected disease control and quality of life in children diagnosed with asthma aged 7 to 11. The programme was created with cartoons and colour-in materials and was based on Nola J. Pender's health promotion model and brain-based learning ideas.

Nugent (2020) investigate new vectors of modern society's socio-political transition and how they are reflected in animation. Modern cartoons have supplanted ancient myths and have begun to broadcast societal norms and their alteration, according to research. The growing importance of horizontal relationships, as well as the rise in the value of the family and the reputational institution, are highlighted as a result of the modern information society's maximum level of transparency (Nugent, 2020). Riwinoto et al. (2015) provide the importance or attention of the audience. Exaggeration action can, unfortunately, take the form of violent incidents. As a result, it may have an impact on the child's psychology and behaviour. The goal of this study was to use neural network technology to create a prediction system for cartoons that could have a negative impact on children (Riwinoto et al., 2015).

In Anwar et al. (2020), the authors determine the effectiveness of using a cartoon animation audio-visual method to teach people how to wash their teeth. This was a pre-experimental study

with a cross-sectional design and one group pre-test post-test. The youngsters in this study were aged 10–12 years old and attended Toddopuli Superior Primary School in Makassar, Indonesia. The choice of answers to the questionnaire question was used to determine the level of expertise about tooth brushing. Using t-paired analysis, the effectiveness of increased teeth brushing knowledge was assessed by comparing mean test scores before and after counselling (Anwar et al., 2020). Düzkaya et al. (2021) investigate the most common invasive treatment for providing intravascular fluid and drugs is intravenous insertion. Children may experience discomfort, worry, and stress as a result of peripheral venous catheterization. The purpose of this study was to assess the pain and terror levels of children aged 6 to 12 years after seeing a cartoon and an instructional video regarding intravenous insertion. Table 1 provide other related studies within the area field (Düzkaya et al., 2021).

Table 1. Comparison of other related studies in the same domain: (√: Yes, x: No).

Authors	Year	Review Study	Animations Cartoon	Children Under Age of 12
Akca Sumengen & Ocakci	2022	√	√	x
Nugent	2020	x	√	x
Riwinoto et al.	2015	x	√	√
Anwar et al.	2020	x	√	√
Düzkaya et al.	2021	x	√	√
Our study		√	√	√

In addition, cartoons have an important role. Cartoons were discovered to be valuable and vital aspects of video output as a component of graphics. Cartoons are used in respectively media sources. Cartoons frequently appear in media as well as on media. Cartoons were welcomed as a component of graphics on social sites platforms such as YouTube. Cartoons, according to Liao et al. (2021), are often depending on the viewer's familiarity with the content having presented. Cartooning through the utilization of ridicule or humour to gestures and facial expressions. This could take several formats, including editorials, caricatures, and video movies. The scholars concentrated their efforts on anime films throughout this review (Liao et al., 2021).

Kids probably waste longer periods on television viewing rather than do anything else; Nasir & Rahim (2021) observed that kids in America, Europe, and Eastern Asia viewed 2–3 hours of television each day on typical. Kids were more affected by television than youth. It's certainly

relevant because kids and young people have varied reasons for viewing television (Nasir & Rahim, 2021). Though adults watch a movie for entertainment, kids observe this for understanding and pleasure. Furthermore, more impressionable youngsters attempt to comprehend and yet are impacted either by television shows they see. Behind their own families, television has had the largest strong impact on childhood development. Animations are and perhaps the greatest popular sort of transmission that kids see on television. Animations have been shown to kids on a variety of channels without regard for their beneficial or detrimental elements. Kids' capacity to control their motivations is limited, therefore they might design their violent conduct after that of animated viewers. Because youngsters need and gain control, the developer capitalizes on this urge by creating appealing, powerful, and ambitious television characters who can conquer any challenge using wonderful and endless abilities and use physical force to handle their issues.

4. Kid's Aggressive behaviour and Television Abuse

In this section, we proved the aggressive behaviour of television abuse for children under 12 age. Numerous research on kids' aggression and TV abuse were conducted. Provocation is a very well likely explanation in cognition. Getting on youth is a vital period for brain function; a child needs the opportunity to meet in things both are essential for good growth and functioning. There given circumstances, television can be hazardous to some youngsters with media violence's influence on children's aggressive behaviour (Tanwar & Priyanka, 2016). It could be good for a few other youngsters with different problems. Under most circumstances, most television is generally never seriously destructive nor very good like most kids. Furthermore, animation programs and vital television promote the use of such firearms and violent behaviour as tolerable answers to difficult situations (Liao et al., 2021). With nurturing, the television can lead to permanent dread. Viewers of a TV program, however according to theories, will begin to interpret the universe as only becoming congruent through what individuals are shown on the display.

By watching a violent animation, kids learn to somehow violent are. And despite violent deed depicted in the animation is brief, its impact on a kid is long-lasting. For such children, it has an incredible influence, such as displaying it and it was on the field either at the 24-hour centre. Many children are tied to their views and feelings without putting anything they learned in early life into practice. The shortened investigation reveals much more alarming findings. The importance of such channels, particularly TV channels, in everyday existence has grown in recent years. Aggression necessitates heightened understanding in TV stations including such

films and shows, violent games, musical videos, and cartoons. Many acts of violence and aggressiveness that will be damaging to kids are considered to be depicted on television nowadays. The influence of TV content on the general public has sparked heated discussion within academics. Many of such arguments appear to challenge the harmful influence of TV watch behaviour on the community, particularly within teens and TV kids, in concepts of affecting their thought, perceptions, behaviour, and stress can affect. According to (Nasir & Rahim, 2021), the substance of a TV show can influence the audience's general behaviour and actions. An influence of animation films on children's cognitive evolution" examined animation in which complex traditional gender patterns are seriously portrayed and offered various remedies to the challenge. Discrimination against women is a societal problem that is depicted in several TV shows that represent daily lives. Inequality isn't just a concern observed in original television. In several areas of TV shows shown to individuals, girls are shown as weaker than youths in terms of gender differences (Stiller & Möble, 2018).

In addition, animations in kids' television programming were analysed. Animations were noticed as conveying equality tropes behind their simple veneer, containing numerous incorrect signals. Female roles, particularly in animations before 1980, were depicted as having a smaller standing in terms of demographics than straight actors. Personalities in the story were much numerous and appeared in the show constantly. Males got given priority. Kids socialized to skewed equality portrayals from an early child. But there's been some progress in the depiction of female personalities, this issue could be said to be resolved. Inequality in animations is concerning although it is unavoidable for youngsters who do not identify the relationship between both fact and opinion to adopt equality. Almost all of the unfavourable visuals shown on television are in reality actual sources. The portrayal of female actors in aggressive roles in the workplace can help to reduce misconceptions. Publishers' proper control of this issue may also aid youngsters in making wise decisions. Animation conflict and aggressiveness in youth" looked at the research on the impact of animation violence on young people's violent conduct. It started with a review of the studies on kids and teenage attitudes of violent content. Such impacts of aggression and gore on abusive attitudes are then examined at various stages of life. The relevance of the existence (or lack) of comic aspects in cartoon aggression is discussed within every area. Furthermore, the prospective impact of change is evaluated via our evaluation. Furthermore, a possible technique for minimizing animation violence's harmful impact on children is discussed.

5. Negative Influence of Animations Cartoon

This section provides the negative influence of animation cartoons on children under the age of 12. The emergence of global television has accelerated the growth in prominence of virtual worlds. Increasing rivalry among video attempting to engage children and implement content necessitated the emergence of future internet negative content of animation videos. Children's views about content animation are influenced by content characteristics including highlight importance, enjoyment, and legitimacy. This same television will be at the frontline of signals that convey facts and thoughts to children while also providing fun with amusement and violent behaviour (Tahir Mahmood et al., 2020). If the kid doesn't always seek out the content, it is up to him to supply information on the activities that happen in his environment, as well as concepts and knowledge influence of human minds. Television has been the most widely used form of mass media since it gives viewers a variety of different and aural sensations as well as a diverse variety of traditional and digital life tales. And is the most significant household equipment that functions as a method of communication with the wider world. Until otherwise stated, youth use television inside, while walking on the sidewalk, meals, aeroplanes, trains, vehicles, recreation centres, and schools. TV has always come in the regulation of parents, lawmakers, early childhood care specialists, and methods of communication regarding the possible impacts of TV on audiences' behaviours, especially kids, even before the 1950s (Naab & Schwarzenegger, 2017).

Moreover, several studies have established the impact of video animation cartoons on kids' mental, psychosocial, intellectual, and behavioural reactions. Throughout terms of the influence of children's TV exposure on aggression and problem behaviours, dramatic play and originality are also important. It analysed the effects of television programs on kids and discovered that kids are great mimics but terrible assessors. According to the research, animation films have observable effects on kids including that can encourage kids to global develop their perspectives and establish foreign views (Pulimeno et al., 2020). Especially non-concepts and beliefs are rapidly influencing kids' opinions and experiences concerning traditional duties, sexual behaviour, self-appearance, and motivation in flash animations. It's because young kids are at a point in their development where visuals and sensations from various places contribute including how individuals create their reality (Paais & Pattiruhu, 2020).

6. Discussion

Studies will describe the results of research that experiment with the effects of television programs on kids. Mary & Akinyi, (2010) prove that the opinion that somehow a 50% number of respondents may be several is desirable, this would be a decent response percentage towards the negative influence of animation cartoons on children. Thirty of them were improperly completed and had results from the inability by more than 25%. Ascertain concerns were connected to everyone else there was a requirement for constancy in participating in the interview, they remained deleted but not utilized for evaluation (Mary & Akinyi, 2010).

However, the influence from those Euro-American attitudes, conceptions, and interpretations on Nigerian youngsters who enjoy famous television products may be seen in their reactions to Tom and Jerry. The above connections could be invisible to the naked eye toward the neutral viewer, and although observations revealed also that two Disney symbols are cultural icons, artwork values and principles, and encouragement to effects of watching videos in Malaysia, even though neither of such personalities represents the kids they get on basis. It's precisely Tom and Jerry who are idealized Eurozone whites, and their absence from those video programs may give youngsters the sense that black children could also be superheroes.

In addition, considering the quality of kids as an infant in their initial periods, the importance of investing however at a phase in practising kids to depict and handle data, including using the right techniques in conformity with the provisions of neurocognitive initiatives to enhance their sensory attention and rate of data fair portrayal, including technological tools and cartoon initiatives, artwork. Numerous perspectives on the influence of cartoons on training and learning have evolved in recent years, and particular concepts well about the influence of the medium on the viewers were produced to demonstrate literature on the effect of video on kids, and several paths have formed:

1. Serious influence: The above research findings looked there at the influence of immediate television on a kid obtaining a tv signal directed at him, as well as the benefits and drawbacks of the statement's topics on the kid's behavioural patterns, as well as his conversation with others, but without consultations to confirm and convey it.
2. Practical influence: This research looked at the practical effects of television, particularly cartoons, on kids. Because this impact is the consequence of participation with cartoon activities and audiences, the kid absorbs the content and utilizes it in its

behaviour. Those behaviours in various settings could appear to be distinguished by their signal, including good and bad. Looking at animated film activities as the real origin of effects is not ethical nor impartial for there is a key to effective by a complex web of various contextual forces that can also affect the kid, such as parents and friends.

7. Recommendation

The following suggestions were made as a result of the study:

1. Kids receive limits upon whether animated films they may observe; the fewer the ideal. Keeping TV through a kid's room is a good idea. The house is the ideal location. Discuss anything your kid observes on interactive shows when you observe them along.
2. Children really shouldn't make the mistake of assuming that over graphic programs are safe. The undercurrent of promiscuous identity and romantic themes in anime films is neglected and unrecognized by observers and families. This must be taken into account since cartoon animations have evolved into an entity within which the community educates youngsters and instils ideas.

8. Conclusion

In conclusion, this study has provided a review based on the negative influence of animations cartoons on children under 12. However, animation cartoon has a negative influence on children. The study indicates that children under the age of 12 are still facing the negative influence of television abuse. Television (TV) can be hazardous to some youngsters with media violence's influence on children under the age of 12. By watching violent animation, kids learn to somehow violent are with. For such children, it has an incredible influence, such as displaying it and it was on the field either at the 24-hour centre. The review also investigates the negative influence of animations cartoon for under 12 children. Where the emergence of global television has accelerated the growth in prominence of virtual worlds. There's increasing competition among video attempting to engage children and implement content necessitating the emergence of future internet negative content of animation videos. Lastly, children are members of the community, thus the general impacts of technologies such as cartoon animation on the community have an impact on their lives which need to be given due consideration.

Reference

- Akca Sumengen, A., & Ocakci, A. F. (2022). Evaluation of the effect of an education program using cartoons and comics on disease management in children with asthma: a randomized controlled study. *Journal of Asthma*, 1–13.
<https://doi.org/10.1080/02770903.2022.2043358>
- Al, A. M., Mohammed, S., Ahmed, A., Taisan, A., Mousa, A., & Ahmad, S. I. (2018). *The effect of a short animated educational video on knowledge among glaucoma patients*. 805–810.
- Al Owaifeer, A., Alrefaie, S., Alsawah, Z., Taisan, A., Mousa, A., & Ahmad, S. (2018). The effect of a short animated educational video on knowledge among glaucoma patients. *Clinical Ophthalmology, Volume 12*, 805–810. <https://doi.org/10.2147/OPHTH.S160684>
- Anwar, A. I., Zulkifli, A., Syafar, M., & Jafar, N. (2020). Effectiveness of counseling with cartoon animation audio-visual methods in increasing tooth brushing knowledge children ages 10–12 years. *Enfermería Clínica*, 30, 285–288.
<https://doi.org/https://doi.org/10.1016/j.enfcli.2019.07.104>
- Arhakis, A., Athanasiadou, E., & Vlachou, C. (2017). Social and psychological aspects of dental trauma, behavior management of young patients who have suffered dental trauma. *The Open Dentistry Journal*, 11, 41.
- Chavan, S., & Naregal, P. (2021). Effectiveness of cartoon animation video on pain during venepuncture among 3-6 year old children. *Sri Lanka Journal of Child Health*, 50(2), 299–305. <https://doi.org/10.4038/sljch.v50i2.9577>
- Düzkaaya, D. S., Bozkurt, G., Ulupinar, S., Uysal, G., Uçar, S., & Uysalol, M. (2021). The Effect of a Cartoon and an Information Video About Intravenous Insertion on Pain and Fear in Children Aged 6 to 12 Years in the Pediatric Emergency Unit: A Randomized Controlled Trial. *Journal of Emergency Nursing*, 47(1), 76–87.
<https://doi.org/https://doi.org/10.1016/j.jen.2020.04.011>
- Fan, L., Zhan, M., Qing, W., Gao, T., & Wang, M. (2021). The short-term impact of animation on the executive function of children aged 4 to 7. *International Journal of Environmental Research and Public Health*, 18(16).
<https://doi.org/10.3390/ijerph18168616>

- Ghilzai, S. A., Alam, R., Ahmad, Z., Shaukat, A., & Noor, S. S. (2017). Impact of Cartoon Programs on Children ' s Language and Behavior. *Insights in Language Society and Culture*, 2, 104–126.
- Hassinger-Das, B., Brennan, S., Dore, R. A., Golinkoff, R. M., & Hirsh-Pasek, K. (2020). Children and screens. *Annual Review of Developmental Psychology*, 2, 69–92.
- Höffler, T. N., Prechtel, H., & Nerdel, C. (2010). The influence of visual cognitive style when learning from instructional animations and static pictures. *Learning and Individual Differences*, 20(5), 479–483. <https://doi.org/10.1016/j.lindif.2010.03.001>
- Kocak, O., & Goktas, Y. (2020). The effects of three-dimensional cartoons on pre-school children ' s conceptual development in relation to spatial perception. *International Journal of Early Years Education*, 0(0), 1–18. <https://doi.org/10.1080/09669760.2020.1814213>
- Liao, S., Widowati, R., & Hsieh, Y. (2021). Technology in Society Investigating online social media users ' behaviors for social commerce recommendations. *Technology in Society*, 66(May), 101655. <https://doi.org/10.1016/j.techsoc.2021.101655>
- Mary, B., & Akinyi, C. (2010). *An Investigation of the Impact of Animated Cartoons on Children in Nairobi*. May, 169.
- Naab, T., & Schwarzenegger, C. (2017). Why ageing is more important than being old: Understanding the elderly in a mediatized world. *Nordicom Review*, 38(s1), 93–107.
- Nasir, N. F. W. M., & Rahim, H. A. (2021). Phonological Nativisation of Malaysian English in the Cartoon Animation Series “ Upin and Ipin : The Helping Heroes .” *ESTEEM Journal of Social Sciences and Humanities*, 5(1), 149–160.
- Nugent, E. R. (2020). The Psychology of Repression and Polarization. *World Politics*, 72(2), 291–334. <https://doi.org/10.1017/S0043887120000015>
- Onuora, C., Obasi, N. T., & Ezeah, G. H. (2021). *Effect of dramatized health messages : Modelling predictors of the impact of COVID-19 YouTube animated cartoons on health behaviour of social media users in Nigeria*. <https://doi.org/10.1177/0268580920961333>
- Paais, M., & Pattiruhu, J. R. (2020). Effect of Motivation, Leadership, and Organizational Culture on Satisfaction and Employee Performance. *Journal of Asian Finance, Economics and Business*, 7(8), 577–588.

<https://doi.org/10.13106/JAFEB.2020.VOL7.NO8.577>

- Pulimeno, M., Piscitelli, P., & Colazzo, S. (2020). Children's literature to promote students' global development and wellbeing. *Health Promotion Perspectives, 10*(1), 13.
- Riwinoto, Prasetyaningsih, S., & Miranto, C. (2015). The estimation of cartoons effect on children's behavior based on exaggeration action by using neural network. *2015 International Conference on Information Technology Systems and Innovation (ICITSI)*, 1–5. <https://doi.org/10.1109/ICITSI.2015.7437715>
- Stiller, A., & Mößle, T. (2018). Media use among children and adolescents with autism spectrum disorder: A systematic review. *Review Journal of Autism and Developmental Disorders, 5*(3), 227–246.
- Tahir Mahmood, Urwah Iftikhar, & Muhammad Ahsan Bhatti. (2020). Impact of Violent Cartoons on the Behaviour of Children: A Case Study of South Punjab. *Journal of Business and Social Review in Emerging Economies, 6*(2), 689–702.
<https://doi.org/10.26710/jbsee.v6i2.1212>
- Tanwar, K., & Priyanka. (2016). Impact of Media Violence on Children's Aggressive Behaviour. *Indian Journal of Research, 5*, 241–245.
- Yon, M. J. Y., Chen, K. J., Gao, S. S., Duangthip, D., Lo, E. C. M., & Chu, C. H. (2020). An introduction to assessing dental fear and anxiety in children. *Healthcare, 8*(2), 86.