

The impact of children's TV shows on the intelligence of children in Tehran

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Abstract

Background: Childhood is fundamental in human life. And, children's TV shows are among the essential communication media that affect children. Therefore, the present study addresses the role of Children's TV shows on the intelligence of children in Tehran from the perspective of national media experts.

Methods: The method is descriptive-correlational and applied in terms of purpose. The statistical population includes all national media experts (750 people). According to Morgan's table, two hundred fifty people were selected based on a random sampling method. A researcher-made questionnaire (cultural and emotional intelligence) was used to collect data. The face validity of the questionnaire was confirmed based on experts' opinions. The reliability of the questionnaire was 0.90 based on Cronbach's alpha coefficient. Descriptive statistics (mean and standard deviation) and inferential statistics (chi-square) are used to analyze the data with SPSS.

Results: The results show a significant relationship between children's TV shows and the cultural intelligence and emotional intelligence of children in Tehran. The results also showed that children's shows affected emotional intelligence and cultural intelligence ($p < 0.05$).

Conclusion: It is, therefore, suggested to pay more attention to educational and cultural aspects of children's shows to improve their intelligence and social skills.

Key Words: TV, children's TV shows, cultural intelligence, emotional intelligence.

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1- INTRODUCTION

Childhood is fundamental in human life. Studying childhood means emphasizing well-being, caring, and showing interest. People prepare children well to create the next generation. The child's development is not complete unless his experiences are different in several stages of life. Children form a large group in societies and are influenced by what is presented in the media and communications (1). The focus of these modern media is on providing information with images and sound effects that capture the child's attention and awaken his or her emotions so that he or she is receptive and understanding of what is being presented to him or her (2). Therefore, children have a susceptible mind, and the forces that shape their minds are primarily found in the environment in which they grow up. Psychologists have proven that the child's mind is very fast in obtaining and imitating everything to which it is exposed. Accordingly, TV has played a significant role in children's daily lives and significantly impacts various aspects of the child's life. TV, especially children's shows and cartoons play a vital role in changing children's behavior (3). For example, 8 to 12-year-old children spend an average of 4 to 6 hours a day watching movies, playing games and socializing. Digital media and TV shows bring new experiences that can have advantages and disadvantages for children's minds. This issue is the source of public debate and deserves the careful attention of policymakers and researchers (4). Therefore, children's TV shows are considered one of the most critical media and communication channels.

Children's TV shows are the primary and essential source of the educational process inside or outside the kindergarten because these shows effectively influence the formation of children's experiences (1). In 2020, the latest U.S. National Survey of 1,400 parents, conducted by the

Independent Common Sense Media Association (CSM), found that American children under the age of 2 spend 45 minutes a day in front of TV and children's shows (5). Watching baby TV shows in early childhood varies depending on age. For very young children, these effects are harmful, while for preschool children, it can be constructive, at least in some areas (6). The effects of TV shows on cognitive functions have been evaluated in many longitudinal and cross-sectional studies for more than 20 years and in different age groups (7). Regardless of the specific context or content, most studies have shown that children's time in front of the TV is associated with decreased cognitive function when considering language, focus, or overall developmental characteristics (8). Goyal (2019) also pointed out that watching TV has potentially profound positive and negative effects on children's behavior and their social and mental development (3). Rai et al. (2016) also examined the effect of cartoons on children's behavioral, habitual, and communication changes and showed that watching cartoons had significant effects on children's behavior, which was both negative and positive (9). Khan and Paracha's (2019) research on children's educational TV shows showed that watching educational shows in childhood improved their subjects' academic performance and positively affected their learning behavior, cognition and socialization skills, and emotional and intellectual development (10). Sandra et al. (2002) also stated that TV educational shows improve school readiness, along with the skills and behavioral knowledge necessary to succeed (11). These skills are social and emotional development, oral language development and pre-reading skills, thematic transformation, math skills, and general knowledge. Thus, today children grow up in a technological environment that includes an element of daily visual stimulation that has become an

essential part of the human experience. Almost all new media, including radio, TV, computers, and the Internet, have potentially positive and negative effects on children (12). Research to date has shown different effects of screen time on intelligence-related cognitive abilities (13, 14).

Emotional intelligence is a vital life skill developed to some extent through social interaction. However, TV media can jeopardize essential aspects of child development through vital displacement and social interaction (15, 16). Emotional intelligence is defined as a set of mental abilities that allow a person, both internally and interpersonally, to identify and effectively regulate emotional states accurately and to use emotions to plan, motivate, and achieve goals (17). In particular, emotional intelligence consists of four essential skills:

- a) Emotional perception, which refers to the recognition and expression of individual emotional states.
- b) Emotional integrity which is the use of emotion to facilitate thinking;
- c) Emotional perception, which involves understanding the causes, processes, and consequences of one's feelings and those of others. And finally,
- d) Emotional management, or the skill of regulating emotions in oneself and others to achieve specific goals (18).

In addition, given that today's generation of children spends more hours watching TV than in the past, options on TV are overgrowing, exposing them to new ideas, different cultures, and diverse information that was not previously available. This has made a fundamental difference in the childhood experience or culture. Any change in children's behavior and value system, in turn, will change the future of society (3). From this point of view, it can be seen that children's TV shows are

shaping their cultural intelligence. Cultural intelligence is a new form of intelligence related to different cultural environments. Thomas (2015), as quoted by Zecevic et al. (2020), defines cultural intelligence as the ability to enable effectiveness in intercultural interactions (19). Cultural intelligence is divided into four sections: metacognitive (strategy), cognitive (knowledge), motivational (emotional), and behavioral. These four dimensions create skills that enable the individual to better adapt to life in a cultural context other than the origin because they enable the individual to predict the attitudes and behaviors expected and desired for a specific culture (20, 21). Also suggest that a short TV show period may benefit Thai children's emotional and social well-being, especially if the show is educational. Nabi and Robin (2022) addressed whether digital media harms children's emotional intelligence (22). They showed no significant relationship between the child's emotional intelligence and the use of screens, although reading had a positive relationship with the child's emotional intelligence. Van Deursen et al. (2015) found no relationship between emotional intelligence and every day or problematic smartphone use (23). Parker et al. (2008) identified a negative relationship between adolescents' emotional intelligence levels, Internet addiction, abuse, and problematic playing (24). Ahuja and Kumari (2009) examined the nature and extent of the relationship between long hours of video shows and emotional intelligence among adolescents and showed that the relationship between emotional intelligence and video shows was more robust in boys than girls (12).

In general, watching TV replaces other activities such as reading, reduces children's interest in reading, reduces language skills, makes children mentally lazy and inattentive, and restrains their imagination. In addition, a significant

portion of the time children spend on this activity may be a cause for concern (25). This study is that a large number of studies have reported the harmful effects of children watching television on outcomes such as obesity, inactivity, attention problems, aggression, and sleep patterns (6). However, the evidence is considerably ambiguous in the important area of cognitive development. Some research has shown that watching non-educational TV shows is harmful to school readiness and children's cognitive outcomes, but other research has shown that educational television shows are beneficial. Several empirical studies have shown that children who watch episodes of educational television immediately make progress in the field of education.

Other empirical studies have shown that children who watch non-educational television shows have detrimental effects (26). We now know that television and children's shows reduce social interaction in the real world and reduce the opportunity to practice skills related to emotional intelligence (i.e., emotions, comprehension, and management) and the comprehensive set of skills associated with it. However, it is not yet certain that television shows can affect children's cultural and emotional intelligence. In this regard, on the other hand, in the importance of research, it can be said that children show interest in television shows presented in the form of stories and using attractive sound and images due to their particular attention span, and learn from these programs. Children's selective attention is attracted to stimuli in terms of sound and image, which can indicate the importance and necessity of the subject of the present study. Despite these concerns, there is still no clear evidence of how they use media, such as children's television shows, so that they may not impair the development of emotional and intelligence-related skills. Accordingly, to identify the role of children's television

shows on the intelligence of children, in the present study, the role of these programs on children's intelligence will be examined from the perspective of national media experts. Considering the increasing exposure of children to television and based on the above-mentioned issues, we seek to find out whether child television programs can affect children's emotional intelligence and cultural intelligence.

2- METHOD

This cross-sectional study follows a descriptive-correlational approach, focusing on experts' perspectives. The population of this study included 750 national media experts. According to Morgan's table, 250 people were randomly selected as the research sample, due to the dispersion of the statistical population. With 15% probability of defects, 300 questionnaires were distributed among the sample. In this study, to measure intelligence, a researcher-made questionnaire with 43 questions was used; 20 items were related to emotional intelligence, which included the components of social awareness, self-awareness, relationship management, and self-management. There were also 23 other items related to cultural intelligence that included cognitive, metacognitive, motivational, and behavioral intelligence components. The test answers are also set on a 5-point Likert scale (strongly agree, agree, somewhat disagree, and strongly disagree). The face validity of the questionnaire was reviewed by ten professors and experts and confirmed after corrections. The reliability of the questionnaire based on Cronbach's alpha coefficient for the general questionnaire was 0.90. As for the subscales, Cronbach's alpha reliability was 0.92 for the emotional intelligence questionnaire, and 0.89 for the cultural intelligence. Descriptive (mean and standard deviation) and inferential (chi-square test) statistical methods were used to analyze the data using SPSS 24.

3- RESULTS

The descriptive statistics and demographic characteristics of the research sample showed that 62 people (24.8%) were in the age group of 30-30 years, 82 people (32.8%) in the age group of 30-30 years, 49 people (19.6%) in the age group of 40-40 years, 29 people (11.6%) in the age group of 40-45 years and 25 people (10%) of the sample in the age group of 45 years and above. Also, 95 individuals (38%) were men, and 141 (56.4%) were

women. Finally, 116 (46.4%) of the sample had a bachelor's degree, and 127 (13.9%) a master's degree. Forty-two people (53.2%) had watched Uncle Pourang's show, and 9 (11.4%) had not watched it. Forty-two people (53.2%) had watched the Futile show, and 9 (11.4%) of the sample had not watched it.

The following are the descriptive statistics of the experts' perspectives regarding the research variables.

Table-1: Descriptive statistics of the experts' perspectives regarding the research variables

Variable	Mean	Std.	Min	Max	Status
Cognitive intelligence	2.87	0.676	1	4.6	medium
Metacognitive intelligence	2.57	0.656	1	4.6	low
Motivational intelligence	2.84	0.671	1	4.2	medium
Behavioral intelligence	2.61	0.672	1	4.4	low
Social Awareness	2.91	0.685	1	5	medium
Self-awareness	2.70	0.669	1	5	medium
Relationship Management	2.75	0.549	1	4.89	medium
Self-management	2.65	0.6	1	4	medium
Cultural intelligence	2.72	0.539	1	3.75	medium
Emotional intelligence	2.76	0.509	1.25	4.31	medium

According to the research findings, childrens' levels of cognitive intelligence, motivational intelligence, social awareness, self-awareness, relationship management, self-management, cultural intelligence, and emotional intelligence were estimated to be moderate from the perspective of experts, and the levels of

their metacognitive and behavioral intelligence were estimated to be low. Then, to investigate the relationship between children's TV shows and the cultural and emotional intelligence of children in Tehran from the perspective of national media experts, the chi-square test was used.

Table-2: Chi-square test results on the relationship between children's TV shows and children's cultural intelligence from the perspective of national media experts

Cultural intelligence and its components	Chi-Square Tests			Symmetric Measures	
	Chi-square	Dof.	Sig.	φ	Sig.
Cultural Intelligence	24.492	4	0.000	0.543	0.000
Cognitive	2.496	2	0.287	0.101	0.287
Metacognitive	22.906	4	0.000	0.476	0.000
Motivational	11.255	4	0.021	0.298	0.021
Behavioral	19.448	4	0.000	0.388	0.000

Based on the results, the chi-square statistics concerning the relationship between children's TV shows and cultural intelligence is 24.492, and the significance level of the test is 0.000, which is less than 0.05 ($\alpha=0.05$, Sig <0.05). Therefore, from the point of view of national media experts, there is a significant relationship between children's TV shows and the cultural intelligence of children in Tehran. The results also showed a significant

relationship between Children's TV shows and metacognitive intelligence (Sig =0.000), motivational intelligence (Sig=0.021), and behavioral intelligence (Sig=0.000) of children (Sig=0.001); However, from the point of view of national media experts, there is no significant relationship between children's TV shows and their cognitive intelligence (Sig=0.287).

Table-3: Chi-square test results on the relationship between children's TV shows and children's emotional intelligence from the perspective of national media experts

Chi-Square Tests			Symmetric Measures		
Emotional intelligence and its components	Chi-square	Dof.	Sig.	ϕ	Sig.
Emotional Intelligence	36.104	4	0.000	0.657	0.000
Cognitive	25.683	4	0.000	0.551	0.000
Metacognitive	31.352	4	0.000	0.606	0.000
Motivational	10.77	4	0.029	0.208	0.029
Behavioral	0.776	4	0.954	0.053	0.954

Based on the results, chi-square statistics concerning the relationship between children's TV shows and intelligence is 36.104, and the significance level of the test is 0.000, which is less than 0.05 ($\alpha=0.05$, Sig<0.05). Therefore, the null hypothesis has been rejected, and it can be said with 95% confidence that from the point of view of national media experts, there is a significant relationship between children's TV shows and their emotional intelligence. Considering the value of coefficient ϕ (0.657), the dependence on children's TV shows and the emotional intelligence of the studied children is high. The results also revealed a significant relationship between Children's TV shows and their social awareness (Sig=0.000), self-awareness (Sig=0.000), and relationships (Sig=0.029) in Tehran. However, from the point of view of national media experts, there is no significant relationship between children's

TV shows and their self-management (Sig=0.954).

4- DISCUSSION

TV is a very effective medium for entertainment. The importance of children's TV channels is overgrowing due to the combination of technology and threats associated with new media technologies. TV media must be more effective for children to learn. Children's TV shows can help transfer academic lessons, resilience, and self-fulfillment knowledge. Therefore, the present study addressed the effect of Children's TV shows on children's intelligence.

The results showed a positive and significant relationship between watching children's TV shows (Uncle Pourang and Fitileh) and Tehran children's cultural intelligence and emotional intelligence, from the perspective of media experts. The analysis results also showed that the dependence on children's TV shows and

components of cultural intelligence of children in Tehran was moderate or low, and the dependence of children's TV shows on emotional intelligence and some of its components were desirable. It can be concluded that from the point of view of national media experts, children's TV shows have a significant effect on the emotional intelligence of children, in contrast to their cultural intelligence. These results are somewhat consistent with those of Goyal (2019), Rai et al. (2016), Khan and Paracha (2019), and Intusoma et al. (2013), showing that children's TV shows could have an impact on children (3, 9, 10, 27). It is inconsistent with Nabi and Robin (2022), who didn't find any significant relationship between the child's emotional intelligence and the use of TV screens. To explain the results, children's TV shows have become one of the factors in the social development of children in recent times. They may be very effective and guiding because they contribute to developing children's concepts, desires, values, and behaviors. They also help form an educational message for children through the transmission of sound, images, and movement, which helps develop children's abilities as much as possible and improves children's emotional and cultural intelligence. In addition, the impact of children's TV shows can occur at different levels, such as the impact on knowledge and behavior, change of beliefs and attitudes, and the formation of ideas and perceptions. Watching children's TV shows can help mental and emotional development. It gives the child knowledge, education, skills, and information, motivates learning, transmits public awareness (3), promotes conceptual and abstract thinking, helps change behaviors and attitudes, and improves children's intelligence.

Optimal TV educational shows convey the concept of reading, numbers and scientific information, and social skills to others. In

addition, children's educational shows improve the psychological, emotional, and cognitive needs of children, provide entertainment, shape the fun of humor, create a constructive attitude of joy and enhance the multidimensional development of children in this world, help emotional and behavioral development, and can ultimately improve emotional and cultural intelligence. Supper et al. (2021) manifested that the time of watching TV is not directly or indirectly related to reading progress (25). In particular, intrinsic motivation and inattention are not associated with mediating variables in child-parent interactions. However, the frequency of reading leisure time is negatively related to the amount of time spent watching TV. However, in this regard, Christakis et al. (2004) demonstrated a consistent pattern of a negative association between watching TV before the age of 3 and adverse cognitive consequences at 6 and 7 (6). The inclusion of broad controls for parents' preferences, abilities, and investments in their children's cognitive development and intelligence suggests that these relationships may be direct or indirect. Children who spend more time watching TV may spend less time on other activities, such as playing imaginatively, interacting with adults, etc., that are not conducive to their cognitive development and intelligence. In this regard, Goyal (2019) stated that watching TV shows may negatively affect children (3). It may put children in inactive roles or cause them to avoid reading, playing, exercising, studying, reducing real social interaction, and creating antisocial or aggressive and destructive patterns for imitation.

Perhaps the adverse effects of TV can probably be attributed in another direction. One of these possibilities is through the effect of intense visual and auditory stimuli of TV on the development of children's brains, which is very fast in the

early years. The notion that early exposure to this media can have adverse consequences on processing has also been around. Therefore, the high-quality content available on TV and the management methods of watching TV to maximize its potential benefits for children is, thus, suggested. Parents can also control the TV watching time and content. They can guide children in choosing age-appropriate shows because children are susceptible to age. Their mind is growing, and they can make elementary perceptions. Children cannot distinguish between fantasy and reality. They think that what is shown in the cartoons is real, so parents should be careful to watch their children. Also, children's TV shows should be designed in collaboration with educational experts, producers, and academic researchers. Governmental and non-governmental organizations should be involved in launching educational TV. In this regard, Rai et al. (2016) stated that children are just like clay and are molded according to the environment in which they grew up (9). It is clear that TV shows automatically become part of this environment, which affects the growth and development of the child.

4-1. Limitations of the study

A limitation of this study is the sample of children in Tehran. The role of children's TV shows on children's intelligence in other cities can be investigated in further studies, and the results can be compared with those of the present research.

5- CONCLUSION

In general, it can be mentioned that because television shows affect the child's intellectual development and behavior, children should be encouraged to watch TV shows that do not harm them in this regard, and television programs should be prepared in such a way that make children more prosperous and enhance their cognitive development. The results of the

present study can be effective for parents, school educators, television producers, etc., in helping the development of students' intelligence and intellectual competencies. It is also suggested that qualitative methodologies, especially by the implementation of the grounded theory, be used in future research in the field. It is also suggested that further studies examine the effect of children's television shows on their reading and learning progress.

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