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# Mothers' evaluation of cartoons' influence on early childhood children

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## Abstract

The purpose of this study is to investigate mothers' thoughts about the influence of cartoons on their young children. Two hundred twenty three mothers of preschoolers and kindergarteners completed and returned a demographic information form and "Mothers' Evaluation of Cartoons" questionnaire. ANOVAs were computed to examine the effects of demographic characteristics and television related variables on mothers' thoughts about cartoons. Mothers' educational level, children's age, parent-child length of daily television watching and their perception of television affected their thoughts about cartoons' influence on children.

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## 1. Introduction

Cartoons as the most favorite programs of children are among the programs that young children experience from the very beginning of their lives on a consistent basis (Klein & Shiffman, 2006; Erdoğan & Baran, 2008). Due to the pervasiveness of cartoons in children's lives, their influence on children has been examined in terms of many aspects, such as violence, change in play themes and messages conveyed. Violence in general children programs and in cartoons was found (Gunter & Harrison, 1997). An increase in children's choice of super-hero themes in their play is an indication of cartoons' influence, which was reported as a growing concern by teachers and parents (French & Pena, 1991).

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While violent content influences children's behaviors, contents that don't include violent scenes with low-quality educational value may also negatively impact children's attention and cognition. Examining a bulk of studies on media, Schmidt and Vandewater (2008) conclude that television programs' content matters and that quality educational program positively influence children's learning. Children may not fully make a distinction between reality and fantasy (Adak, 2004), and thus they tend to imitate what they see in cartoons (Middleton & Vanterpool, 1999). In fact, children's imitation of positive or negative behaviors is affected by type of programs they watch. Children who mostly spend time viewing educational programs are more likely than children who mostly view entertainment programs to impersonate positive behavior (Rideout & Hamel, 2006). Also, through messages conveyed about physical attractiveness, cartoons have an effect on children's beginning ideas about being pretty or unattractive (Klein & Shiffman, 2006).

In this respect, parents have an important role in diminishing the negative effects of cartoons on children as mentioned above. Parents' thoughts about television in general and cartoons become essential since their television attitudes affect their mediation (Warren, Gerke & Kelly, 2002). Researchers suggest parents use a mix of mediation strategies of shared watching (Samaniego & Pascual, 2007), setting up rules for viewing and discussing content (Aral & Aktaş, 1997; Austin, 1999; Warren et al., 2002). One intriguing thing stated by Austin et al., (1999) is that parents do not watch child-oriented programs with their children but children watch adult programs with their parents. But this co-viewing doesn't necessarily mean that parents discuss the content with their children.

Parents' television attitudes are also influenced by their demographic characteristics. Önder and Dağal (2007) conducted a study for evaluating parents' views on children's television programs and showed that highly educated mothers with a male child perceived television programs more "thought provoking" than mothers in other groups (p.12). How parents' view television may alter their dispositions to use or not to use mediation types for guiding children's television watching. Parents with unsupportive thoughts about television's effect on children's learning are more likely to set boundaries for their children's television viewing. Not all parents perceive television as harmful. On the contrary, parents participating in a focus group study indicated positive perceptions about television as a supportive media for their children's learning (Rideout & Hamel, 2006). Moving from the importance of parents' view about television, this study aims to investigate mothers' thoughts about the influence of cartoons on their children.

## **2. Methods**

In this study, a survey model using questionnaires was employed to examine mothers' thoughts about the effects of cartoons on their children.

### *2.1. Participants*

Participants of this study were from four public preschools and 13 kindergartens that were located in Isparta and Samsun, Turkey. Three preschools and ten kindergarten classrooms located in Isparta and one preschool and three kindergarten classrooms located in Samsun were randomly chosen and included in the study. A total of 350 questionnaires were distributed to mothers by the preschool and kindergarten classroom teachers, and 203 (58%) mothers completed and returned the questionnaires. Frequencies and percentages were calculated for mothers' demographic characteristics and television habits. Twenty-six percent of mothers had an elementary school degree. Mothers with college level education (35.5%) were more numerous than those with high-school level education (23.6%). More than half of the mothers had six-year-old (60.0%) and twenty-eight of them had five-year-old children. Almost seventeen percent of the children watched television on a daily basis by themselves for less than one hour. Thirty-one percent watched for one hour, and another thirty one percent of them watched two hours of television on a daily basis by themselves. Almost half of parents (45.8%) watched television with their children. Sixty-five percent of the mothers perceived television as a necessity, for both entertainment and information.

### *2.2. Instrument*

"Mothers' Evaluation of Cartoons (MEC)" was developed by the second author to measure mothers' thoughts on the influence of cartoons on children. A review of the literature was carried out to create an item pool about mothers'

2003; Önder & Balaban, 2007; Persson & Musher-Eizenman, 2003; Postman, 2004; Stipp, 2003; Tan, et al.,2000; Van Evra, 2004).

The instrument had three sections. The first section had items about demographic features of educational level, age of children and television watching. The second section included items related to the mothers' thoughts about cartoons' effects on children. The items were rated on a 5-point Likert scale and ranged from "Never" to "Always." Experts in early childhood education and communication reviews provided evidence for instrument's content validity.

After conducting a pilot study, item-total correlations, coefficient alphas, factor analysis and correlations were used to determine the instruments' reliability. Principal component factor analysis using varimax solution was used to examine construct validity of the instrument. Factors with eigenvalue greater than one were determined and factors with item loadings of below .40 were deleted from the inventory. The instrument originally had 37 items and as a result of above procedures, only 23 items were considered to be appropriate. The factor analysis yielded three factors: *supports learning*, *diverts children from real life* and *contains biases*. The subscale of *supports learning* ( $\alpha=.81$ ) measures mothers' thoughts on how cartoons contribute to children's learning. The subscale of *diverts children from real life* ( $\alpha=.78$ ) includes items related to how cartoons influence children's general functioning in real life. Samples of items in this subscale are problems being solved with unrealistic ways and exposing them to unreal scenes, events and symbols. *Contains biases* subscale ( $\alpha=.76$ ) measures preconceived notions towards different issues, such as occupations and people with special needs. The measure's overall Cronbach Alpha Coefficient is  $\alpha=.82$ . Table 1 presents factor loadings for each of the items.

Table 1. Varimax factor Structure of the Mothers' Evaluation of Cartoons (N=203)

Items	Factor Loadings		
	1	2	3
<b>Mothers' Evaluation of Cartoons</b> (alpha= .82)			
<b>Factor 1: Supports Learning</b> (alpha= .81)			
Teaches effective problem solving.	.70	-.17	-.07
Gives information about different people and cultures.	.70	.01	.01
Teaches helping, sharing and empathy.	.68	.06	-.16
Supports literacy skills.	.67	-.13	.04
Supports learning by presenting issues about real life.	.65	.05	-.08
Historical and scientific facts are reflected correctly.	.56	-.09	-.01
Teaches rules related to social life.	.55	-.02	-.13
Reflects features of our culture, such as dressing style.	.54	-.27	.08
Content of cartoons are age and developmentally appropriate.	.51	-.10	.00
Helps children obtain knowledge about events and objects that they may not experience in daily life.	.51	.16	.20
Helps children discover new interest areas and occupations.	.43	.15	.35
<b>Factor 2: Diverts children from real life</b> (alpha= .78)			
Problems are solved in unrealistic ways in cartoons.	-.07	.72	-.20
Problems are solved by using power.	-.17	.71	.03
Contains negative emotions, such as fear and aggressiveness.	-.14	.67	.36
Punishment of bad cartoon characters encourages the idea of violence.	-.00	.63	.26
Includes imaginary contents.	.02	.69	.09
Creates mistrust in children.	-.08	.47	.39
Reduces children's communication with their family members or adults.	-.29	.46	.21
Impacts the way children play.	.14	.42	.09
<b>Factor 3: Contains Biases</b> (alpha= .76)			
Contains biases towards occupations.	-.03	.04	.78
Includes biases towards people with disabilities or people who look different.	-.05	.11	.76

Contains biases toward people from different income groups.	.04	.14	.65
Eigenvalues	4.74	3.58	1.88
% of variance	20.62	15.59	8.17

Statistically significant correlations were present among the subscales. “*Diverts children from real life*” negatively correlates with *supports learning* ( $r=-.15, p<.05$ ) and positively links with *contains biases* ( $r=.37, p<.01$ ). The scale of MEC positively correlated with the first ( $r=.33, p<.01$ ), second ( $r=.68, p<.01$ ), and third factor ( $r=.81, p<.01$ ). Also, mothers’ mean scores are higher in the subscale of *contains biases* ( $\chi=3.66$ ) than the subscales of *supports learning* ( $\chi=2.79$ ) and *diverts children from real life* ( $\chi=2.74$ ).

### 2.3. Data analysis

Data analysis included descriptive statistics and a series of analysis of variance (ANOVA). ANOVAs were calculated to examine the influence of independent variables on mothers’ thoughts about cartoons’ influence on children.

## 3. Results

Results of the study demonstrated that mothers’ thoughts about cartoons’ influence on children was affected by their educational level, children’s age, parent-child length of daily television watching and their perception of television. Children’s length of daily television watching, mothers’ weekly news and magazine watching was not found to be statistically significant on their views about cartoons.

ANOVA results revealed a statistically significant difference between mothers’ education level and their view of cartoons’ influence. Post hoc tests using Tukey were conducted to identify which educational levels were statistically different. Mothers’ with college degrees thought that cartoons *support learning* more than mothers’ with elementary and high school degrees [ $F(3.199)=7.093, p<.000$ ]. Also, mothers with elementary degrees viewed cartoons as *diverting children from real life* more often than mothers with college and above college degrees. Mothers with high school degrees considered that cartoons *divert children from real life* situations more often than mothers with college degrees [ $F(3.199)=10.418, p<.000$ ]. There were no statistically significant interaction between mothers’ education level and the subscale of *contain biases* [ $F(3.199) = .667, p>.05$ ].

With respect to the influence of children’s age on mothers’ assessment of cartons, there was a statistically significant difference between mothers with five and six years old children. Post hoc results showed that mothers with six-year-old children considered that cartoons *divert children from real life* [ $F(2.200)=4.203, p<.05$ ] more often than mothers of children five years of age. There were no statistically significant findings among children’ age and the subscales of *support learning* [ $(2.200) = .097, p>.05$ ] and *contain biases* [ $F(2.200) = 1.868, p>.05$ ].

Moreover, statistically significant ANOVA results were obtained when examining the effect of length of child and family member’s daily television watching. Post hoc analysis indicated that mothers who watched television with their children for one hour and for two hours more often viewed cartoons as *diverting children from real life* [ $F(2.200) = 6.879, p<.05$ ] than mothers who watched television with their children for less than an hour in a day. There were no statistically significant interaction among the length of child and family member’s daily television watching and two dependent variables; *support learning* [ $F(2.200) = 1.996, p>.05$ ] and *contain biases* [ $F(2.200) = 1.121, p>.05$ ].

According to the results on perception of television, mothers who perceived television as a necessity and entertainment thought that cartoons *support learning* [ $F(2.200) = 6.770, p<.05$ ] more than mothers who viewed television as informative only, as well as, the mothers who thought of television as a necessity, entertainment, and informative. Similarly, mothers who perceived television as informative reported that cartoons *divert children from real life* [ $F(2.200) = 5.505, p<.005$ ] more than mothers in other groups. Mothers’ perception were not related to *contain biases* [ $F(2.200) = .072, p>.05$ ].

Statistically significant results were not found among children’s length of daily television watching by themselves, the length of mothers’ weekly news watching, and the length of mothers’ magazine watching and their evaluation of cartoons’ influence on their children.

#### 4. Conclusion

Primary purpose of this study was to examine mothers' thoughts about the effects of cartoons on their children. Results indicated that mothers' educational level, children's age, length of daily co-viewing television and mothers' perception of television were linked to their thoughts about cartoons' influence.

Statistically significant differences were found among mothers with different educational levels in the subscales of *support learning* and *divert children from real life*. Mothers' with college degree were more likely to consider that cartoons *support learning* compared to mothers' with elementary and high school degrees. Similarly, mothers' with above college degree did not think that cartoons *divert children from real life* while mothers with elementary and high school thought so. Taken together, mothers with higher education level had more positive thoughts about cartoons than mothers with lower education level. This result is congruent with Önder and Dağal's (2007) finding in that parents with higher education level believed that television is thought provoking for children. This result contrasted with the findings of studies focusing on parents' impact on their children's television viewing. These studies did not find a link between parents' education level and their impact on children's television watching (Öztürk & Karayağız, 2007; Yalçın et al., 2002). This inconsistent result may be explained with Warren et al.'s (2002) suggestion that studying parent mediation approaches helps to interpret the effects of demographic features' influence on television watching better.

Another finding of this study was about the effect of children's age on mothers' assessment of cartoons. Mothers of children six years of age considered that cartoons *divert children from real life* more often than mothers with five years old children. It is possible that since six years old children are closer to first grade, their parents may not find some of the fantasy related contents of cartoons as relevant to children's learning. However, this issue should be explored in more detail.

With respect to the effect of mothers' co-watching, mothers who watched television with their children for one hour and for two hours viewed cartoons as more *diverting children from real life* than mothers who watched television with their children for less than an hour in a day. As both parents and children are exposed to television for multiple hours, parents may see more television-related imitations in their children's behaviors. Actually, parents' unsupportive thoughts about television may lead children of those parents to less television watching as pointed out by Rideout and Hamel (2006).

Results about mothers' perception of television were significantly linked with the subscales of *supporting learning* and *diverting children from real life*. Congruent with research (Rideout & Hamel 2006), mothers who perceived television as a necessity and entertainment thought that cartoons *support learning* more than mothers in other groups. These mothers may see television as an essential tool to have in home environment. Mothers who perceived television as informative reported that cartoons *divert children from real life* more than mothers in other groups. It is possible that mothers in the informative group use television in general as a source of getting information, and thus consider cartoons as lack of informative content about real issues.

By taking all of the findings into account, this study makes an important contribution to the literature on parents' thoughts about cartoons. Parents' thoughts have an important role in what children are exposed in general media and cartoons. Therefore, like parents' participation in any other early childhood activity, their involvement in cartoon viewing by using a mix of mediation strategies should be encouraged and studied more in detail. This study is limited to mothers' thoughts about cartoons. Future studies may focus on mothers, fathers and siblings' television habits and thoughts about general television programs and activities that they do as a family. This way, factors affecting young children's television viewing can be better understood.

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