

MULTIMEDIA AND CHILDREN IN TURKEY

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Abstract: Multimedia will be regarded as essential tools for children to create their new world. The effects of television on young children's life have been well studied. Television differs, however, from other media, including the movies, in its pervasive impact on children. Children spend more time watching television than any other activity except sleeping. Overall 31% of children spent at least 4 hours a day watching television during weekday and 71.7% during weekend in Turkey. Television's influence on children is a function of the length of time they spend watching and the cumulative effect of what they see. Television may be a cause as well as a solution for many serious childhood problems. Excessive viewing of television has also been linked to aggressive behavior, violence, childhood obesity. On the other hand, television may act as a socializing agent and as a learning tool if the recommendations of American Academy of Pediatrics is learned by pediatricians, parents and broadcasters.

The use of home personal computers in urban residence increased from 3.2% in 1993 to 6.5% by January 1998 in Turkey. Around 20% of computer households reported owning a modem. Internet has been using only for 5 years in Turkey. Nearly 40% of computer households also used CD-ROM equipment. The percentage of schools that have a computer laboratory is only 2.64%. On the other hand, multimedia allows students to move away from a uniform education for everyone to assert individual identity, liberalize education and management. It seems likely that, within the next few years, most of the countries with substantial internet infrastructure will use the internet as the major medium for disseminating information, including information on children. To prepare students for such a world demands that educational systems make the best possible use of all knowledge and technologies currently available.

Multimedia will be regarded as essential tools for children to create their new world. The mass media may be a particularly effective way to reach preschool children and their parents in communities in which poor socioeconomic condition is prevalent and to educate them^{1,2}.

General Information of Multimedia in Turkey

Turkey's population was 56.5 million according to the 1990 census. Turkey has a young population. Overall 33% of the population is under 15 years of age³.

Multimedia-related electronic equipments which were usually seen in the homes of our country are television (86.7%), radio cassette player (76.7%), telephone (57.6%) and video recorder (11.4%) (Table I). Around 2.1% of Turkish households owned computer in 1993. Urban households were more likely to have the convenience of all of these multimedia-related electronic equipment's than rural households³.

Table I: Percentage of Households Possessing Multimedia-related Electronic Equipments, by Urban-Rural Residence, Turkey 1993.

	Urban (%)	Rural (%)	Total (%)
Television	92.8	75.5	86.7
Video recorder	15.6	3.6	11.4
Radio cassette player	79.2	72.2	76.7
Music set	22.0	5.3	16.0
Telephone	68.4	37.9	57.6
Computer	3.2	0.2	2.1
Total number of households	5563	3056	8619

Table II: Time Spend for Watching Television According to Age Group, Turkey, 1995 (%)

Age group	Amount of television viewed per day during weekday			Amount of television viewed per day during weekend		
	1 hr	2-3 hr	≥ 4 hr	1 hr	2-3 hr	≥ 4 hour
5-7 y	19.5	47.0	33.6	12.8	22.8	64.4
8-11 y	13.7	58.4	27.9	2.6	23.6	73.8
12-15 y	11.1	55.3	33.6	3.1	19.9	77.0
16-18 y	15.4	56.4	28.2	5.1	30.8	64.1
5-18 y	14.3	54.7	31.0	5.2	23.0	71.7

Table III: Percentage of Households Possessing Multimedia-Related Electronic Equipment's, Urban Residence, Turkey 1998.

	Urban
Television	96.1
Radio	90.9
Telephone	81.8
Cellular phone	10.1
Pagers	2.5
Computer	6.5
Internet	1.2
Total number of households	4380

Table IV: Total Number of Computers in Schools According to Regions and The Aim of the Usage, 1998

Regions	The Aim of Computer Usage		
	Education	Management	Total
Mediterranean	2573	400	2973
Eastern Anatolia	1473	222	1695
Aegean	3268	1639	4907
East-southern Anatolia	1488	369	1857
Black Sea	3054	515	3569
Marmara	5261	1805	7066
Central Anatolia	4375	944	5319
Total	21492	5894	27386

In 1995 a study was performed to detect the effect of television on family and children in Turkey⁴. It was found that 98% of the families have at least one television and 29.7% of families had at least two televisions. Overall 31% of children spent at least 4 hours a day watching television during weekday and 71.7% during weekend (Table II). Most of children (82%) decided himself/herself the types of programs watched and 58% of parents did not limit their children's viewing time. Interestingly 64.2% of children watched television with his/her family and 15.6% of them watched alone. Only 25.8% of children discussed the content of programs with parents⁴.

In Turkey the percentage of the total number of children's programmes in five channels was found to be 11.53% per week (109 programmes) and the percentage of the total period of children's programmes was 8.15% per week (3,235 min). Violence was found to be present in 62% of all the television programs in 1993⁴.

In 1998 96.1% of urban households owned at least one television (Table III)⁵. Of them, 86% received basic cable and 6% received pay cable, 4% received Cine 5. Survey results showed the use of home personal computers in urban residence increased from 3.2% in 1993 to 6.5% by January 1998. Around 20% of computer households reported owning a modem. Internet has been using only for 5 years in Turkey. Nearly 40% of computer households also used CD-ROM equipment. There is no value for rural areas.

The percentage of schools that have a computer laboratory (one computer for every two students and 20 computers for one laboratory) is 2.64% (1967 schools). Overall there are 21,492 computers for education and 5,894 computers for management in all the schools (Table IV)⁶. The government recently announced

a project to have schools and libraries connected to the internet. Schooling 2001 aims to provide student learning outcomes through integrated computers and bringing world wide information resources to school classroom.

The Influence of Television on Children

After the family, television is probably the most important influence on child development and behavior^{1,4,7,8,9}. Children spend more time watching television than any other activity except sleeping. Low income children spend more time in front of television than others. Television's influence on children is a function of the length of time they spend watching and the cumulative effect of what they see.

Television like a PC can also promote pro-social behavior^{1,8,9}. Television can exert its strongest pro-social influence in the area of learning and cognitive development. "Sesame Street" has created demonstrable increases in children's abilities with simple arithmetic and the alphabet as well as the pro-social attitudes of racial harmony, cooperation, and kindness. In fact, some studies conclude that young disadvantaged children achieve better in school if they watch one to two hours of television per day, although more than this is detrimental to academic performance at all ages.

Academician group, consisting of programmes, pediatricians, psychiatrists, teachers had made broadcast of "Sesame Street" in Turkey in 1989¹⁰. This program was designed to improve educational and instructional benefit to pre-school Turkish children. The preliminary study of "Sesame Street" was carried out in 1991 to investigate the impact of program on preschool education. The proportion of "Sesame Street" watching among studied 147 children was 95% (Table V). Among study population, 88% of children enjoyed "Sesame Street" and wanted to turn on for "Sesame Street". 37% of them watched alone and 52% watched it with family and 9% with friends. Following watching "Sesame Street" 53% of children had started to count numbers and 26% had started to pun and 65% had learned the names of geometrical figures. 34% of children improved their vocabulary.

Television may be a cause as well as a solution for many serious childhood problems^{1,8,11-13}. Excessive viewing of television has also been linked to aggressive behavior, violence, childhood obesity. Because of the amount of time spent in front of television set, television exerts a so called displacement effect, pushing aside more active pursuits like playing outside with friends or reading books. For some children, the world shown on television becomes the real world. Children exposure to television and television violence is a predisposing factor behind half of the violent acts. Centerwall¹¹ also concluded that the introduction

Table V: The Results of the Preliminary Study of "Sesame Street", 1991, Turkey

Children's viewing frequency	
Every day	75%
Every other day	7%
One or two times a week	12%
During viewing	
Imitation	37%
Speaking with characters	13%
Answering questions	68%
Asking questions about subject	34%
Participation with hand movement	11%
Change in behavior following watching "Sesame Street"	
Brushing tooth	45%
Washing hand	33%
Speaking good	34%
Social interactions	27%
Eating behavior	20%
Parents mentioned the difference of "Sesame Street" from other programs	
More enjoyable	35%
More educational	83%
Attractive	26%
No difference	1%

of television in 1950's caused a subsequent doubling of the homicide rate, ie, long term exposure to television is a causal factor behind approximately one half of the homicides committed in the United States. Gortmaker et al.¹³ was reported that the incidence of being overweight were 8.3 times greater for youth watching more than 5 hours of television per day compared with those watching for 0 to 2 hours. Reductions in activity might contribute to the increase in incidence of obesity. Sexual implications are attached to advertising for a broad variety of products, including many that appeal to children¹².

Television is a powerful medium and powerful influence on the life of children⁹. With respect to television, there is much than can be done, as physicians, as citizens, and as parents^{1,7,9,12,14};

- The television industry and the general public might not be sufficiently convinced or aware of the negative impact on children of television violence, yet. Pediatricians should act as educators and persuaders concerning responsible approaches to what is presented on television^{1,7}.

- Community should support legislation making broadcast of high-quality and non-violent children programming a condition of license renewal and seek a revival of legislation mandating at least 1 hour per day of programs of educational and instructional benefit to children^{1,7}.
 - Alcohol, cigarette and toy advertising on television should be eliminated^{7,14}.
 - Local and national pediatrician groups should sponsor parent/child education efforts regarding how to watch television. Parents should be advised to limit their children television watching to no more than one to two hours per day. Families should participate in the selection of the programs that their children watch. Young children sometimes have a hard time knowing what is real and what is not. Parents should watch television with their children and then talk about it after it ends. A poor program might turn out to be a good learning experience if mother or father is here to help child get the right message. The television should not be used as an electronic baby-sitter. Parents should not forget that their own television-viewing habits will often be adopted by their children^{7,9}.
 - Pediatrician have an important role as experts in the child health and development in the prevention of harmful effects of media. Pediatrician should work with broadcasters to stop the promotion of violence during children's programs, family shows and sport telecasts^{7,15}.
 - Pediatrician should continue to urge the television industry to alter the portrayal of sexuality in non-news programing to reflect realistic consequences and responsible behavior and to decrease the association of stimulating sexual messages^{7,12}.
 - Pediatrician should take "television histories" when they see patients with behavior problems, learning problems, poor school performance, or obesity^{1,9}.
- Children programmes should be included in programmes for family viewing¹. Producers should be aware of the Convention on the Rights of the Child Finally the Convention on the Rights of the Child have articles on the role of mass media in child education as well as the articles that protect children from its violent effect.

The Influence of Computer and Internet on Children

Using computer in the future is able to make people work more efficiently. Every student must learn how to use the personal computer. Children are fast learners and become familiar and competent with the new multimedia. The use of computers will increase in educational situations. Multimedia incorporates seeing, hearing and experiencing into the learning process. It will enhance the

development of thinking, learning and computer skills. Today's students need some types of information to be available in formats that are more easily updated than the standard book format. Educational CD-ROM are available so that the child can learn at his/her own place, at school or at home. Internet is a place where children from all over the world can express and share their opinions^{1,2,16,17}.

Internet makes possible for students to²:

- break down barriers, including physical, cognitive, geographical, cultural and economic.
- learn in way that accommodate their own learning styles and kinds of intelligence.
- learn basic skills and all subjects more effectively.
- access and manage information.
- practice and improve communication skills.
- communicate with peers and experts anywhere.
- move beyond memorization to deeper understanding.
- practice working both independently and collaboratively.
- assume greater responsibility as a learner.
- explore and expand intelligence.
- continue learning throughout life.

Multimedia also allows students to move away from a uniform education for everyone to assert individual identity, liberalize education and management. Computers were found to support writing by student with learning disabilities.

Computerized education intervention was found to be useful for improving health status in several areas of care like diabetes mellitus. The children with autism was shown to increase reading and communication skills through an interactive multimedia computer program¹⁸⁻²⁰.

In the last several years the role of internet in disseminating information of all sorts has grown dramatically. It seems likely that, within the next few years, most of the countries with substantial internet infrastructure will use the internet as the major medium for disseminating information, including information on children. This statement is of course only applicable to children in countries with good access to electronic communication equipment. There is a risk that the gap will widen between developed countries and developing countries also with respect to competencies in electronic multimedia competence. Support materials should be developed by educational sectors which provide solutions to equity issues including distances, students with disabilities, economic disadvantage and quality access to information and communication technology. To prepare students for such a world demands that educational systems make the best possible use of all knowledge and technologies currently available. On the other

hand the freedom on the web might expose children to the wonders of vast information and also to potentially undesirable material. So certain safe guards in an attempt should be taken to protect children^{2,17}.

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