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Abstract

Background: Daily exposed of children to violence portrayed in videogames and TV shows consider as a general public alarm.

Objective: to determine the prevalence of children's exposure to violent video games and media in a sample of primary school children in Baghdad city.

Methods: study was conducted in Baghdad city during the period from the first of February through December 2015. A multistage probability sampling was adopted to collect 1000 student from 55 primary school. Information about favorite video games played and TV programs shows were taken through direct interview with each child.

Results: the prevalence of playing video games was 94.6%, number of boys who said that they play electronic games was 664 (97.4 % of all boys) and girls 282 (88.7% of all girls) regarding (days of playing games); 64.8 % of the children were playing daily, 2.2% were playing two or three times, 3.7% once a week, 18.5% at weekend, and 8.6% play only during holidays (midyear and summer holiday). Most popular and favorite video games that played by 47.6% of boys was found to be of violent type (Grand Thief Auto GTA, open world action games) while in girls' non-violent, simulation games (Girl games) was found in higher percentage (25.1%). Action movies reported as the favorite TVs scenes in boys and Indian drama series as the most favorites in girls.

More than half of children under study were reported playing violent games and watch violent TV Boys prefer to play violent games more than girls. GTA, Call of duty and counter were their favorite's games.

Conclusion: violent video games and TV programs were prevalent among primary school children.

Introduction

One of the notable changes in social

environment in the 21st century has been the daily living by television, videogames, cell phones (Ray & Jat, 2010) as well as Western

culture, modernism, change in lifestyle and attitudes making media attracted and playing vital roles in the lives of individuals for better or worse particularly in children (Rehman & Sadruddin, 2012).

In Iraq, using internet, mobile phones and electronic media had been play a big part of child daily activities as many Iraqi children

were encouraged to play (video games) as much as they like as become a way to keep the generation away from being killed by bombings that have made the streets perilous, escape from these miseries and build connections based on a shared passion, besides that Television programs are regarded as the viable entertainment to have some fun with friends and stay safe at home, as other hobbies are just too dangerous because of terrorism (Parkin, 2013).

Although video games are designed to be entertaining, challenging, and sometimes educational, most include violent content, in which killing occurs at a high rate (Gentile & Anderson, 2003) this make children in primary school prefer to choose these games to award points for violence against others in order to improve number of scores (Kıran, 2011). Similarity, violence and aggression are often prevalent in most of the cartoons shown on TV (Akpınar, 2004) in which actions of killing and wounding are presented as ordinary acts. In addition, 24 hour broadcasts increase children's TV viewing hours, more TV sets in households, more channels available, increased broadcasting time, greater burden of parents' work with diminished opportunities for interaction with their children leads Children spend more time with television (Nazari et al, 2012, Evans et al, 2011, Jones et al, 2010; Orhan, 1997). A large

proportion of this media exposure includes acts of violence that are witnessed or "virtually perpetrated" (in the form of video games) by young people (American Academy Of Pediatrics, 2001).

Violence in the media whether interactive media forms (Internet, computer
and video games) or passive media forms
(television, movies, videos) (Surgeon
General, 2001) has been growing in popularity
and reaching proportions that are dangerous to
children (Saleem & Anderson, 2012) as it is
described as a risk factor for aggressive beliefs
and behaviors (Nelson, 2012)

It can roughly estimate that about 90% of movies include some depictions of violence, as do 68% of video games, 60% of TV shows, and 15% of music videos (Wilson, 2008).

Nowadays Approximately 90% of children in the U.S. play video games, and more than 90% of those games involve mature content that often includes violence (Campbell, 2015), 29% of gamers are under 18 years (Park, 2014).

Aim of this study is to determine the prevalence of children's exposure to violent video games and media in a sample of primary school children in Baghdad city.

Methods: This cross-sectional study was conducted in Baghdad city during the period

from the first of February to the end of December 2015 on a sample of primary school children age 11-13 years. A sample of 1000 primary school pupils was decided to collect to minimize the influence of chance factors.

The education institution in Baghdad is divided into two main directorates (Al-Karkh and Al-Russafa), each subdivided into three directorates which are again subdivided into sectors, and each sector involves groups of schools, a multistage probability sampling technique was adopted by including all the six directorates, then choosing some sectors from each directorate by a simple random sampling technique (only the sectors within Baghdad city were included) making a total of 55 school (12 for boys, 9 for girls and 34 mixed boys and girls). Only students in fifth and sixth grades were included (to ensure more cooperation and rich outcome), those pupils were collected through a systematic random sampling technique by choosing every other one in each class.

Study instrument: A questionnaire form was developed by the researchers and was revised and validated by the scientific committee in the Department of Family and Community medicine at Mustansiriya University. It included data about some demographic characteristics of the sample and details about the electronic games devices. Then Similar to (Anderson & Dill's, 2000) approach,

participants were asked to name their three favorites video or computer games and three favorites television shows (cartoons, movies, programs, series etc.) rating from the most favorite to the least one. For each named media product, participants were asked to rate how frequency (how many days) did he or she plays these games or watch these TV programs in the last seven days.

Data collection was collected in two interrupted periods because of the summer holiday 1st period from 28th February to 23rd April 2015 while the second period started from 26th of October to 30th December 2015, visiting school was done on daily basis (four days per week) by visiting two schools everyday (one in the morning shift and the other in afternoon shift) from (8 AM to 4.30 PM). The number of schools included was 55 (governmental schools).

Data collection was done on basis of group questioning by collecting each five pupils together in a separate room with the presence of their social guidance, the idea was to encourage them understand and answer the questions and to insure the consistency of their answers then face-to-face interview for each pupil was done separately. The interview took (15-20 minutes) for each pupil, 20-25 student were interviewed per day.

Statistical analysis:

Analysis of data was carried out using the available statistical package of SPSS-22 (Statistical Packages for Social Sciencesversion 22). Data were presented in simple measures of frequency, percentage.

Results

From a sum of 55 primary schools, a total sample of 1000 pupils (68.2% boys and 31.8% girls) was collected; of those, 43.6% age 11 years old, 42.6 % age 12 years and 13.8% were 13 years old, 56.3 % were in the fifth grade and 43.7% were in sixth grade. In respect to the occupation of father, 97.1% employers were and 40.8% completed university, while 74% of the mothers were non employers (house wives) and 36.5% completed the primary level of education. Concerning exposure to video games; the number of boys who said that they play electronic games was 664 (97.4 % of all boys) and girls 282 (88.7% of all girls) regarding (days of playing games); 64.8 % were playing daily, 2.2% were playing two or three times, 3.7% once a week, 18.5% at weekend, and 8.6% play only during holidays (midyear and summer holiday). It was found that 6.4% of the children did not have any electronic device, while among those had; 55.1% had smart phones, 32.4 % had tablets, 33.2% had play station, 26.4% had lap tops and 14.8% for

Xbox with majority of children had one game device. (Table 1)

Figure (1) revealed that the most popular and favorite video games played by 47.6% of children was found to be of violent type (Grand Thief Auto GTA, open world action games), followed by 42% for Clash of Clans (strategic, non-violent games), 18.2% for Call of Duty (violent, first person shooter) and 17.8% for FIFA(non-violent, simulation game), other games were played in varying proportions, while in girls' non-violent, simulation games was found in higher percentage as Girl games; showed to play in 25.1% followed by Subway 33.3% and 19.3% for Barbie.

Figure (2) showed children favorite TV programs, 31.3% of boys reported action movies as their favorites TVs scenes, Indian drama series and Ben 10 reported nearly at the same percentage followed by horror movies while 19% of girls reported Indian drama series as the most favorites TV shows then spongy pop cartoons and Turkish drama series nearly the same percentage and followed by Disney films and Kids movies.

Table (2) demonstrated that 57.5% of children under study were reported playing violent games, 42.5 % were nonviolent game players and the others 13.5 % were not play during the week as well as the percentages of

children exposed to violent media were higher than those non exposed (65.5% versus 34.5%). number of boys playing video games during a week was (616); 76.3 % of them were used to play violent games and 23.7% were not, while the number of girls playing video games was (249); 89.2% of them did not play violent games and only 10.8% reported to play similarity boys showed to exposed to TV violent more than girls (83% versus 28%)

Table (3) reveals the types of violent games which played among the children under study, the most favorites one was GTA (blood and gore, nudity, mature rating game) which played in 47.6% of boys and 4.9% of girls. Second favorite games for boys was Call of duty (blood and gore, strong language, M rating) followed by counter (blood and gore, M rating). In girls second favorites violent games was Zombies (crude humor and blood, M rating) followed by counter.

Discussion

Violence in the media has been more discussed issue for several decades now. With the development of technology an increasing number of media formats are reaching the general public and in particular children. (Song & Anderson, 2001). Since children have a strong passion for video games, cartoons, wresting, boxing, videos and other programs that possess characters that move

fast, there is a considerable likelihood that they will be exposed to large amounts of violence. (Olarotimi et al, 2014). In Iraq, an insecurity prohibits children from going out and practice outdoors activities, the first choice for children to spend the leisure time is by enjoying television, movies, video games, cell phones, and computer games (Al-Obaidi et al, 2009). It found that more than half of children used smart phones to play games. In Iraq the mobile has emerged as an essential security gadget for families for checking on the safety of their members, especially schools and university students, when they are outside their homes or are late in returning (Dewachi, 2006), this made most of parents buy a mobile phone for their children and this allow children use it to play games during leisure Children from higher income households, may have more than one device.

Some children (38.7% and 42.8%) reported to have the electronic device or TV in their bed rooms this give a possibly that they are out of control and can play any games or watch any programs at any time and may stay awake at night enjoying media while their parents sleep. Report of Kaiser Foundation (2010), showed that 75% of American children have games devices in their bedrooms while that of New Of com research (2014) shows that the availability of games devices in bed rooms of children in the

United Kingdom was 41%. As well as results reveal that 42.8% of the children under study have TV in their bed rooms compare to 68% in American children (Vandewater et al., 2007) and 78% in Portuguese children (Ramos et al., 2011).

The effects of having a television in a child's bed room are alarming sign, because parents are less able to monitor what is seen by their children; and are less able to have consistent rules for children's media use (Gentile & Walsh, 2002).

Similar, the presence of game devices in bedrooms may enhance the child to play any games without parenteral monitoring and he / she are ready to spend all the night playing games.

The current study reported that 94.6% of children playing video games, concerning gender differences; 97.4 % from total number of boys and 88.7% from the whole girls found to play video gams. This means that the majority of children declared playing video games and only 5.4% declared not playing video games at all as well as 64.8% showed to play video games every day, evident that playing video games is one of the most popular activities for children at these ages. Lenhart et al., 2008 found that; the heaviest use of video games by American children was in the 11-14 years age group. In a survey of electronic games, Olsen et al.,

2007; reported that 98% of children at 11-14 years played video games. It supposed that during these age children defining themselves through environment, friends, and media. (Ferguson, 2010). In addition, at these ages, children learn to handle emotions such as fear, frustration and rejection communicating with peers through a variety of methods. Oslen (2010) found that children play for several emotional reasons (get funs, excitement, relaxation, and coping with anger) or to compete and enjoy "the guns and other weapons" with friends and to win playing.

According to Sheff (2001), part of the attraction to video games is that most video games contain a new challenge that creates a need to continue playing, and there is a constant pressure to continue playing to compete with other players' high scores. Other possible reasons for the time children spend playing video games could be attributed to the growing number of video game genres that attracts more players (Surette, 2002).

There is a clear demarcation line between the preferences of boys and girls for favorite video games, as shown in the current study that favorite video games for boys were of violent type; Grand Thief Auto Series (shooting, killing, fighting, blood and gore, strong language, sexual content, use of drugs and alcohol followed by non-violent types of game; Clash of Clans (strategy game) while

favorites video games for girls were girls' games (clothing, fashion, cooking, hair style) and subway (simulation). more than half video game players preferred to play violent games with preference of these games in boys more than girls. This is consistent with the findings from others which reported that boys play and prefer violent games more than girls (Funk et al, 2004). The idea behind "these games" attractive for boys as stated by Block & Crain (2007), DeVane & Squire (2008) that violent game players enjoyed the simulated aspect of the game as an opportunity to behave in a manner not possible in the real world. Ferguson (2011) argued that historically boys have enjoyed vicarious violence, in a variety of contexts. Boys typically enjoy playing with toy soldiers, playing war games, and watching wrestling matches as well as, the attraction to violent themes presented in video games seems to be part of normal development for boys (Przybylski et al 2010).

It was identified that 31.3% of boys watched action movies that contain (fighting, blood and use of weapon) as their favourite TV programs and 19% of girls watched Indian drama series. This suggests that boys watch violent TV program more than girls do this is supported by a previous research which confirmed that boys prefer to watch action movies more than any other types of movies (Arnett, 2007). The reason behind that,

television is becoming gender-stereotyped with age. These increased exposures to stereotypic information are likely to influence stereotypic conceptions about gender roles. Boys' preferred television shows involved more violence than did those of girls (Morgan & Shanahan, 1997) further, Mayer (2003) supposed that girls are more attracted to media programs that allow social interaction, simulation and are less attracted by action-oriented formats which provide less social interaction.

It can be concluded from this study that violent video games and TV shows are prevalently seen by Iraqi primary school children with boys more involved in playing these games and watching violent contents.

Parents should monitor video games and their contents as well as television programs contents that

children are watching or playing and kept children's bedrooms free from video games devices and

TVs. As well as parents should Select educational games, prosocial games instead of violent one enhance other activities such as drawing, painting, sporting, playing musical instrument, carving and share them in house works to spend their leisure times

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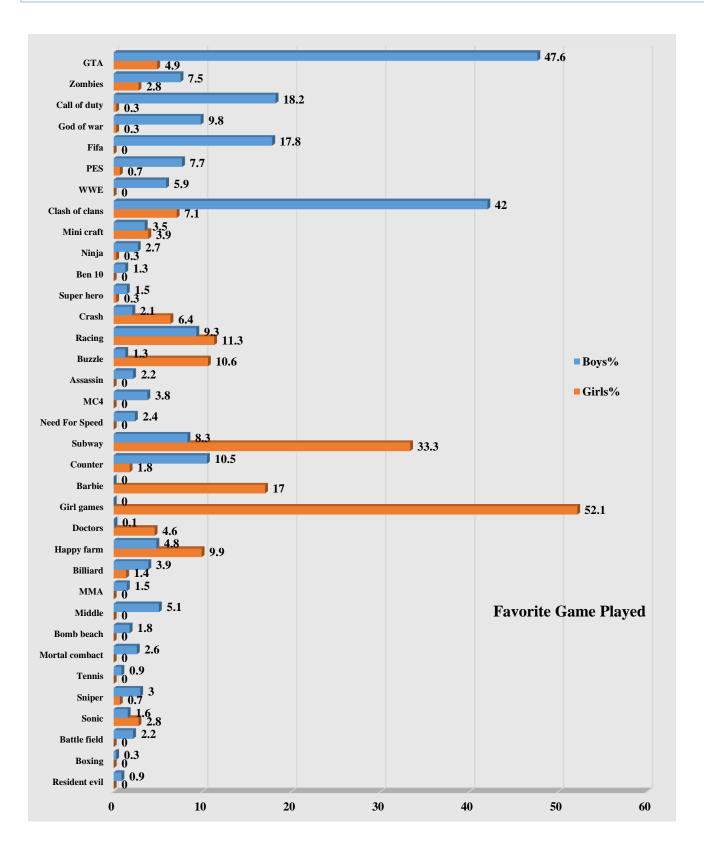
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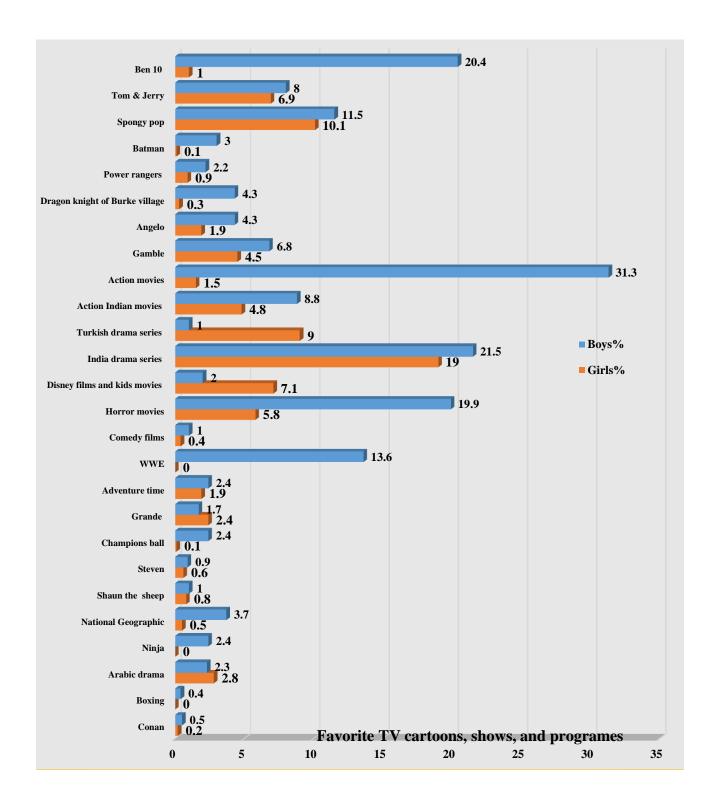
Table 1: Demographic characteristics of the sample

Demographic characteristics	ample	No	%
Sex	Boys	682	68.2
	Girls	318	31.8
Age in years (By date of birth)	11	436	43.6
	12	426	42.6
	13	138	13.8
Grade	Fifth grade	563	56.3
	Sixth grade	437	43.7
Father employment	Employed	870	97.1
	Not employed	26	2.9
Father's highest level of education completed	Illiterate	18	2.0
	Primary	207	23.1
	Secondary	305	34.0
	College	366	40.8
Mother employment	Employed	253	26.0
	Not employed	719	74.0
Mother's highest level of education completed	Illiterate	52	5.3
	Primary	355	36.5
	Secondary	294	30.2
	College	271	27.9
Exposure to video games	Boys (682)	664	97.4
	Girls (318)	282	88.7
Days (per week) of playing n=946	Every day	613	64.8
	2 Days a week	21	2.2
	3 Days a week	21	2.2
	Once a week	35	3.7
	At weekend	175	18.5
	In holidays	81	8.6
	Do not play n=1000	54	5.4
Exposure to TV	Boys	682	68.2
	Girls	318	31.8
Days of watching	Schooling day	976	97.6
	At weekend	966	96.6
	In holidays	995	99.5
Types of electronic device children have:*			
Play-station Play-station		312	33.3
Xbox		139	14.8
Tablet		324	32.4
Smart phone		516	55.1
Lab-top		247	26.4
Number of electronic devices	1	492	52.6
	2	316	33.8
	3	103	11

4	20	2.1
5	5	.5



Prevalence of exposure to violent video games and media among primary school children in Baghdad city The favorite's video games for boys and girls



Favorites TV cartoons, shows and programs for boys and girls.

Table 2: The characteristics of exposure to violent videogames and media.

_	O		
Violent games and media exposure		No	%
Playing violent games (n=865)	Yes	497	57.5
	No	368	42.5
	Do not play *	135	13.5
Exposure to media violence	Yes	655	65.5
	No	345	34.5

		Boys (n=616)		Girls (n= 249)	
		No	%	No	%
Playing violent games	Yes	470	76.2	27	10.8
	No	146	23.7	222	89.2
	Do not play **	66	9.7	69	21.7
Exposure to media violence n=1000	Yes	566	83.0	89	28.0
	No	116	17.0	229	72.0

^{*}Not play during the week (including 54 children were never play at all and 81 children that play only in midyear and summer holidays)

Table (3) Types of violent games played by the children under study:

Name of games	Types	Boys *		Girls **	
		No.	%	No.	%
GTA	Open-world action game	316	47.6	14	4.9
Zombies	Animated Blood	50	7.5	8	2.8
Call of duty	First person shooter	121	18.2	1	0.3
God of war	Action adventure game	65	9.8	1	0.3
WWE	Wrestling simulation game	39	5.9	-	-
Ninja	Action fighting	18	2.7	1	0.3
Ben 10	Action adventure	9	1.3	-	-
Superhero	Action adventure	10	1.5	1	0.3
Assassin	Action adventure with fighting	15	2.2	-	-
MC4	First person shooter	25	3.8	-	-
Counter	First person shooter	70	10.5	5	1.8
MMA	Fighting game	10	1.5	-	-
Middle	Action	34	5.1	-	-
Mortal combat	Fighting Game	17	2.6	-	-
Sniper	Third person shooter	20	3	2	0.7
Battle field	first person shooter	15	2.2	-	-
Boxing	fighting game	2	0.3	-	-
Resident Evil	Survival horror action	6	0.9	-	-

Total no. of boys playing video games =664 Total no. of boys playing video games =282