

Parental Mediation of Children's Video Game Experiences: Iranian Parents' Strategies of Mediation

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Abstract: *Despite tremendous popularity of video games, there have been concerns about their detrimental effects on children. The game rating systems were developed to assist parents in monitoring their children's gaming experiences. This paper explores how parents in Iran, as a society without established media rating systems, control their children's gaming experiences. Mixed methods of semi-structured in-depth interview with 30 parents and survey with 500 parents are applied. Prominent categories of mediation among Iranian parents include: "restrictive mediation" (limiting the amount of time that children spend on playing video games), "instructive mediation" (warning children of negative effects of video games), and "social co-playing" (sitting near children during gaming sessions to check the game content). We also found that parents who are concerned about negative effects of gaming and parents who consider game rating system as essential exert more mediation over children's gaming experiences. Parents with high level of education, mothers, and parents of younger children apply more any of these three types of mediation. Finally, implications for game policy-making and suggestions for future research are provided.*

Keywords: *Video games, parental mediation, Iranian parents, children, game effects, rating system.*

Introduction

Video games have become an essential part of young people's entertainment around the world. It is predicted that overall worldwide revenue for the video game industry will grow from \$60.4 billion in 2009 to \$70.1 billion by 2015 (DFC Intelligence, 2011). According to a report on video games outlook, video game market in the region of Asia-Pacific excluding Japan (APEJ) is expected to more than double from \$11.2 billion in 2010 to be worth \$30.3 billion in 2016 (Dharia, 2012). Despite tremendous popularity of video games, there have been concerns about detrimental effects of playing video games on children. The game industry has developed voluntary rating systems as a response to parents' concerns and legislators' pressure for a government-mandated rating system (Funk, Flores, Buchman, & Germann, 1999). Rating systems in general and game rating systems in specific are provided to serve parents in their role of controlling children's use of media (Schiller, Schultes, Strohmeier, & Spiel, 2010). However, little information exists on how parents monitor their children's game playing experiences with the aid of rating systems (Nikken, Jansz, & Schouwstra, 2007). A limited number of studies measured parents' level of acquaintance with rating systems, amount of parents' control over children's gaming hours, and ease of use of rating systems (Gentile, 2007; Gentile & Anderson, 2006; Gentile & Walsh, 2002; Kutner, & Warner, 2008). In addition, the literature about strategies of parental mediations is mainly dedicated to the United States or European countries. Knowledge about how parents in societies without established local game rating systems control their children is inadequate despite the fact that video games are popular entertainment around the world.

This research is an attempt to explore parental mediation strategies for monitoring children's video game playing in Iranian society. In Iran, similar to most developing countries, parents may not be

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properly informed about game rating systems. Hence, the conditions for monitoring children's media use is poor. It is essential to We can also compare our findings about strategies of parental mediation in Iran with the existing studies to discuss how cultural values of a society influences parent-children relationships in connection with video games. This research is an attempt to explore how Iranian parents monitor their children's video game playing, why specific strategies of mediation are more popular, and how parents' and children's characteristics are associated with parental mediation.

Concerns about Game Effects and the Emergence of Rating Systems

With the emergence of first home video games in late 1970s in American households, there have been public concerns about negative effects of video games on children (Funk et al., 1999). In tandem with public concerns, a strong body of research has explored various aspects of video game effects (Lee & Peng, 2006). Generally, research found that playing violent video games can increase aggressive affect, cognition, behaviour, and thoughts in the environment of experiments and real life (Anderson, 2004; Anderson & Carnagey, 2009; Anderson & Dill, 2000; Bushman & Anderson, 2002; Gentile & Anderson, 2006). Meta-analysis of video game effects also confirmed that playing video games results in aggression, though the effect size is small (Anderson et al., 2010; Ferguson & Kilburn, 2009; Sherry, 2001). Academic findings about negative effects of playing video games, public concerns, and pressure from legislators forced game industry to work on voluntary game rating systems to avoid a government-mandated system (Funk et al., 1999). Video game industry in the U.S.A. created Entertainment Software Rating Board (ESRB) to implement self-regulation (Gentile, 2009). ESRB provides rating symbols that recommend age appropriateness and content description. The age based categories are: Early Childhood (suitable for ages 3 and older), everyone (for ages 6 and older), E+ (for ages 10 and older), Teen (for ages 13 and older), Mature (for ages 17 and older), Adults Only (for ages 18 and older) (Entertainment Software Rating Association, n.d.). There are also more than 30 content descriptors which provide information about the level of violence, sex, objectionable language, and drug usage that are contained in video games.

Most European countries embraced the game rating system of Pan European Game Information (PEGI) in 2003 to ensure that children play video games that are appropriate for their age. PEGI is somehow different from ESRB with regard to both age categorization and content descriptors. It has six pictograms (violence, fear, nudity, sex, alcohol or drugs, discrimination, and bad language) to describe the game content. The age categories are '3 years and older', '7 years and older', '12 years and older', '16 years and older', and '18 years and older'. By providing content descriptors and age categories, PEGI aims to support parental guidance of children's gaming behavior (Pan European Game Information, n.d.)

Some other non-European countries have developed their own national rating systems. For instance, Japanese game rating system, Computer Entertainment Rating Organization (CERO), was established as a non-profit organization in 2003 (Computer Entertainment Rating Organization, n.d.). Comparison of some popular video games rated by CERO and ESRB illustrates that these two rating systems have different age categorizations for some of the same video games. For example, video games Halo and Halo 2 are rated M (for ages 17 and older) by ESRB, while they are suitable for ages 15 and older in CERO. As another example, Spider Man 2 is rated T (for ages 13 and older) by ESRB, while in Japan it is rated suitable for everyone. The various game rating systems and different age categorizations illustrate different attitudes in each society towards video game contents. Such differences highlight the necessity for other countries to establish local game rating systems based on their cultural and social values. Unlike the above mentioned societies that have established game rating systems, in most developing countries, conditions for monitoring children's gaming experiences are poor. In Iran, parents are not properly informed about age categorization and content descriptors of game rating systems (Kousari, Dowran, & Mehrabi, 2013). Some Iranian young children play violent video games such as first person shootings that may not be appropriate for their age. In Iran, two state-run organizations of "Iran National Foundation of Computer Games" and "Ministry of Culture and Islamic Guidance" are responsible for monitoring reproduction and distribution of non-local video games. Several private companies are licensed to reproduce and distribute western video games for retail. To

get permission for distribution of a video game, the company submits a request form along with a copy of the game to "Video Game Rating Council", consisting of several staff members from the two organizations. The council inspects each video game by checking its videos and photos available in the Internet. In some cases, the council gets the game played to further inspect the game content. The council either admits the game for distribution or announces it as inappropriate. In addition to violent content of video games, deviation from religious and cultural values are also the criteria that the council takes into consideration for evaluation of game contents.

Authorized video games for distribution are labeled with age categorizations of ESRB, PEGI, or the new local game rating system named Entertainment Software Rating Association (ESRA). ESRA was founded in 2009 with the aim of providing "the best age group" for each video game. Best age group is defined in the ESRA website as "the age in which video games do not have mental and behavioral harmful effects on players". ESRA has 6 age categorizations: 3 years and older, 7 years and older, 12 years and older, 15 years and older, 18 years and older, and 25 years and older. Content descriptors in ESRA include seven categories: violence, tobacco and drug, sexual stimuli, fear, religious values violation, the social norms violation, hopelessness (Entertainment Software Rating Association, n.d.). The age categorization and content descriptors are based on Islamic values of Iranian society. For example, video games with the age categorization of 25 years and older may include some minor sexual content that is harmful for young, unmarried players. However, video games that include provoking sexual content like GTA: San Andreas are unauthorized for distribution in Iran. In all, although game rating systems are well established in recent years, we are not sure how parents apply these tools or other strategies to monitor their children's' gaming experiences. In the following section, the literature on strategies of parental mediation for controlling children's media use is reviewed.

Literature on Parental Mediation of Children's Media Use

The literature has explored strategies of parental mediation for different media such as TV and the Internet (Kirwil, 2009; Livingstone & Helsper, 2008; Nathanson, 2001; Valkenburg, Krmar, Peeters, & Marseille, 1999). Research on parental mediation of children's TV viewing identified three categories of mediation: "restrictive mediation" (exerting control on the amount of time children watch television), "evaluative mediation" (commenting on program content and discussing it with children", and "social co-viewing" (watching together and discussing programs in a deliberate, conscious form) (Austin, Bolls, Fujioka, & Engelbertson, 1999). Kirwil (2009) identified two general strategies of parental mediation related to children's use of the Internet: restrictive mediation (regulating children's media use through rule-making) and active mediation (parents' active efforts to interpret and translate media content and messages for their children). Livingstone and Helsper (2008) identified four strategies of parental mediation for monitoring children's use of the Internet in the United Kingdom: active co-use (sitting together in front of the computer while the child goes online and having conversation about the online activity such as interpretive or evaluative comments or guidance), technical restrictions (filtering or blocking certain activities), interaction restrictions (banning social interactions such as e-mail, chat, instant message, social game playing and downloading), and monitoring (checking up on the child's activity, covertly or overtly, after use). A limited number of studies also explored strategies of parental mediation related to children's playing video games. In an internet survey of 765 Dutch parents, Nikken et al. (2007) found that that parents use the game ratings and content descriptors as tools for restrictive and active parental mediation. As reviewed here, most studies on parental mediation of children's media use are conducted in the United States or European countries. This research is an attempt to contribute to existing knowledge by exploring strategies of parental mediation in a society without established media rating systems.

Research Purposes

This research is an attempt to explore whether strategies of parental mediation for monitoring children's media use identified in the literature is the same as strategies for controlling children's gaming experiences in Iran. The social context of media use can influence strategies of parental mediation. For example, it is possible that Iranian parents may not regard it as important to consult rating systems for monitoring children's use of media because popular media such as TV and radio are

under the surveillance of the Islamic government. Hence, parents may assume that inappropriate media contents including video games with violent and sexual contents are prohibited for distribution. Contrary to TV watching and the Internet surfing, playing video games may require a lot of time and skills. Hence, some strategies of mediation that are inconvenient may not be popular. The first purpose of this research is to explore Iranian parents' popular strategies for monitoring their children's gaming experiences. The first research question is:

- Q1: What strategies of mediation, if any, do Iranian parents employ in monitoring their children's video game playing?

As discussed by Livingstone and Helsper (2008), questions of parents' frequency of media use, attitudes towards technology, and skills for the use of media can enormously influence strategies of parental mediation for monitoring children's use of the Internet. It is also possible that parents' attitudes towards video games such as whether they consider video games as harmful or as part of children's legitimate entertainment influence parents' strategies of mediation. In addition, parents' attitudes towards game rating systems may be associated with their level of mediation. This research applies an exploratory approach to identify associations between parents' attitudes towards video games and various mediation strategies. Research question include:

- Q2: How are parents attitudes towards video games associated with different strategies of mediation?

Finally, this research is an attempt to explore which parents adopt different forms of mediation for monitoring their children's video game playing. More specifically, we explore how children's age, parents' level of education, and gender are associated with strategies of mediation.

Research Method

To identify the various strategies of parental mediation for monitoring children's video game playing, 30 semi-structured in-depth interviews were conducted with 15 fathers and 15 mothers. To measure the popularity of various strategies of parental mediation and to test correlations between parents' socio-economic status and strategies of mediation, we conducted a survey with about 500 parents from different parts of Tehran, capital of Iran. The interview and survey were conducted in Farsi, the official language of Iran.

Sampling

To recruit parents who have children with the age of 8 to 17 for the interview, we applied convenience sampling. The investigator conducted interview with parents who visited the school to ask teachers or dean of school about their children's school progress and exam results. The interview sessions continued between half an hour to one hour. Two weeks after the analysis of interview data, we prepared the questionnaire and conducted a survey with about 500 parents from different parts of Tehran. To make sure that we include parents with different socioeconomic status to our sample, we applied cluster sampling. First, based on our knowledge about different regions of Tehran, we categorized different schools of Tehran into three socioeconomic regions: north, middle, and south. We chose seven primary schools (students with the age 7 to 12), five guidance schools (students with the age 13 to 15), and five high schools (students with the age 16 to 18) from each of these regions. Then, we chose classes of these schools that have students with the age between 8 to 17 years. We distributed questionnaire sheets among students, and requested them to get them filled in by their parents. After two days of the distribution, we returned to schools and collected questionnaire sheets.

Participants

For both in-depth interview and survey, we recruited parents with at least one boy between 8 to 17 years old. We specifically focused on this age categorization and parents of boys because previous studies found that parents of boys in this age group are more concerned about negative effects of media on their children (Nikken et al., 2007). In addition, playing video games is not quite popular

among girls in Iran. Also, parents of children with the age 18 or above may feel that their children are adult enough, and mediation is not needed. The gender of 500 participants in the survey is almost equal ($M = 48.2\%$, $F = 52.8\%$). Parents' level of education is categorized as (1) low level of education including parents with a degree of primary school, secondary school, or high school (45% of parents); (2) average level of education including parents with a degree of diploma (32% of parents); (3) high level of education including parents with bachelor, master, or PhD degree (23% of parents).

Procedure

The interview questions are designed to explore four aspects of parental mediation. At the beginning of the interview, the investigator asked parents about their children's "game playing experiences" such as the place of gaming and number of hours children spend on gaming per a typical week. Then, questions narrow down to strategies of mediation. For example, parents are asked about how they check the game content, or how they restrict the amount of time children spend on gaming. Third, the investigator asked questions about parents' attitudes towards the effects of video games. Finally, the investigator asked questions about parents' attitudes towards video game rating systems and content descriptors. Several probes were raised to find associations among parents' attitudes and strategies of mediation. To develop questions for the survey, we applied results of in-depth interviews and the literature findings about strategies of prenatal mediation for monitoring children's media use (Austin et al., 1999; Livingstone & Helsper, 2008; Peter Nikken et al., 2007). The survey questions are divided into four main parts: basic information about parents' and children's characteristics, strategies of parental mediation for monitoring children's video game playing, parents' attitudes towards video game effects, and parents' knowledge about game rating systems.

Data Analysis

The in-depth interviews were recorded with parents' permission. Audio files of interviews were transcribed verbatim. Before the coding of qualitative data, we read through all transcripts to have a general idea of interviewees' mediation strategies and attitudes. Qualitative data analysis consists of two stages: open coding, which is the study of fragments of data; and focused coding, which is selection of the most useful initial codes and testing them against extensive data (Charmaz, 2006). For the open coding, each individual interview was analyzed line-by-line. The initial codes are mainly developed based on strategies of parental mediation, attitudes towards video game effects, and level of familiarity with game rating systems. At this stage, the two authors met regularly to discuss the codes. Then, we started focused coding to synthesize and explain larger segments of data. In focused coding, we searched for the most frequent and significant initial codes to develop the most salient categories of parental mediation and attitudes towards video games. For the analysis of the survey data, we applied SPSS 19 statistical software.

Results

The results of both qualitative and quantitative studies are presented under three sub-sections: popular strategies of parental mediation for monitoring children's gaming experiences, associations between parents' attitudes and strategies of mediation, and associations between demographics and strategies of mediation.

Strategies of Parental Mediation

In the interview, we attempted to verify how Iranian parents employ the various strategies of mediation for monitoring their children's gaming experiences, and why they choose such strategies. The majority of interviewees confirmed that they restrict the amount of time their children spend on gaming because such mediation strategy is quite convenient. Iranian parents seldom attempt to get information about the game content because it takes a lot of time and efforts to know which games are appropriate for their children. Although the government has founded the local game rating system of ESRA, parents are still unfamiliar with game rating systems. Hence, they personally have to check the game content. For example, when we asked interviewees why they just limit the amount of gaming hours instead of monitoring the game contents, they revealed that it is time-consuming to check all the game contents as children play several different games. The father of a 16-year-old boy mentioned that

it takes a long time if he wants to spend time on checking all the games that his son is playing. One of interviewees mentioned that her child himself buys or borrows the game, and she is not able to monitor the game contents beforehand. Majority of interviewees admitted that they just restrict children's gaming hours to make sure that playing video games does not interfere with children's school performance. In Iran, restrictive mediation is kind of depriving children from playing video games regardless of the game content. When we further asked interviewees about children's reactions to such restrictive mediation, they admitted that children usually get upset, especially if it is summer vacation. For example, the mother of a 13-year-old boy mentioned that his son sometimes threatens that he will not help her any more in housekeeping if she does not allow him to play. In western societies, restrictive mediation appears in the form of limiting the type of video games children play because parents can easily search the Internet or check the game box to know more about game content (Nikken et al., 2007). Although Iranian parents can access age categorization and content descriptors of video games through the ESRA website, due to low penetration of the Internet access among Iranian parents, informative tools such as game rating systems are not widely used. We identified a rare subcategory of restrictive mediation as “severe restrictive mediation”, whereby parents strictly reject their children's requests for playing video games for a specific period of time. Parents employ severe restrictive mediation because they are concerned about their children's exam results and mental health. For example, the father of a 12-year-old boy said:

“It happened to me to strictly reject his requests to play the game because he was in his final exam period...As he previously had poor exam results, I prohibited him from playing video games during this time”.

We measured popularity of various strategies of parental mediation for monitoring children's gaming experiences with statements from our qualitative research and items from existing scales of parental mediation for monitoring children's media use (Livingstone & Helsper, 2008; Peter, Nikken & Jansz, 2006). On a five-point scale, we explored parents' levels of agreement or disagreement with various strategies of mediation. Restrictive mediation is measured with 4 items related to "limiting the hours that children spend on gaming", "forbidding children from buying certain video games", "forbidding children from playing certain video games", and "depriving children from playing all video games during certain period of time". Results from the survey with 485 parents confirmed that 86.5% of parents “strongly agree” or “agree” that they resort to restrictive mediation to control children's gaming experiences. However, 54.2% of parents “strongly disagree” or “disagree” that they employ “severe restrictive mediation” for controlling their children's gaming experiences. Loading factors for all these four items are more than 0.30 and the alpha is 0.86.

The second popular strategy of parental mediation is labeled “instructive mediation”, referring to parents' critical comments on children's playing video games. In this mediation strategy, parents provide either positive or negative comments on effects of media use (Austin et al., 1999). Iranian parents mainly discussed with their children about the negative aspects of video games, especially relationship between playing video games and poor exam results. Several interviewees mentioned that when they realize that their children are so immersed in playing video games, they become concerned and warn them of detrimental effects of playing video games excessively. Parents employ instructive mediation in two main occasions; first, when a parent realizes that the child is playing the game for a long time; second, when parents receive information from the public media such as national TV or radio that playing video games has negative effects on children. In these two occasions, parents become concerned and advise their children not to play video games. For example, the mother of a child indicated that when she heard the news that a child died in South Korea for excessive gaming, she had a serious talk with her son about effects of excessive gaming.

The father of a 14-year-old boy also said:

“It happened to me to discuss with him about negative effects of video games on his mental abilities and behaviors... I was really concerned when I watched a TV program about video games”.

We measured instructive mediation strategy with three items related to "warning the child about negative effects of gaming", "telling that games are just fantasy", and "critically analyzing the game content". The results of the survey indicates that 46% of parents "strongly agree" and 31% "agree" that they employ instructive mediation to control their children's playing video games. The loading factors for all these three items are more than 0.30 and the alpha is 0.72.

The third popular form of mediation is labeled as "social co-playing", conceptualized as the extent to which parents stay near their children or play with them to make sure that the content of the game is safe. We found that the majority of Iranian parents seldom play video games because they do not feel to be good at playing. For example, the mother of a 10-year-old boy mentioned that she played the game only one time to make sure the content is not harmful for her son, however:

"I didn't have a good performance. I guess I am not suitable for playing video games...I don't want to disturb him by being a bad player."

Children also may not like playing video games with their parents because parents are not skillful. For example, the father of a 15-year-old boy mentioned that the kind of games his son plays requires a lot of skills, and he is concerned that he may fail to succeed. The father of a 15-year-old boy also revealed "Young people may not like inviting us to join for playing because they think that we are not skillful. Some parents mentioned that they are too busy to spend time on playing video games for monitoring the game content. For example, the father of a 12-year-old boy confirmed that he has to work until evening, and he would feel tired to spend time on playing video games.

However, several parents mentioned that they stayed near their children during a gaming session to make sure children were not playing inappropriate video games. For example, the father of a 10-year-old boy mentioned:

"I ask my son to play the game in the living room instead of his personal room because I can easily check the content of the game and his behaviors".

Few parents mentioned that they occasionally ask their children to talk about the story of the game. In this case, they can get more information about the game content. For example, the mother of an 11-year-old boy stated:

"If I see that my son has got a new game, when he is playing, I sit near him, and I ask him to talk about what he is supposed to do in the game."

We measured social co-playing mediation with four items such as "staying nearby when the child is playing", "monitoring the screen of the computer or TV set when the child is playing", "playing the game together based on child's request", and "playing the game based on parent's requests". The results of the survey confirmed that the majority of parents (89.6%) strongly disagree or disagree that they play video games to monitor their children's gaming experience. It is more popular to exert social co-playing mediation by staying near the child or checking the gameplay. 21 % "strongly agree" and 48.3% "agree" that they employ social co-playing mediation by staying nearby their children. Loading factors for all these four items are more than 0.30 and the alpha is 0.64.

Finally, we realized that a limited number of parents do not feel a strong urge to limit the amount of time that their children spend on gaming. Some parents mentioned that they even didn't feel like checking the game content to see what kind of game children are playing. We labeled this type of mediation strategy as "laissez faire", conceptualized as parent's reluctance to control the amount of gaming time or the game content. Parents employ "laissez faire" mediation strategy not because they are so busy that they cannot monitor their children's gaming experiences. Indeed, parents with this strategy of mediation believe that video games are for entertainment, and the fantasy world of the

game cannot have harmful effects on children. For example, the father of a 16-year-old boy mentioned that his son is adult enough to play any game that he wants. He continued:

"Even video games that are prohibited in Iran for violating values of the society can be played by children without having adverse effects on them... If they are gradually exposed to all kinds of video games, they will become immune to adverse effects".

The "laissez faire" mediation strategy is measured based on parents' disagreements to employ restrictive and instructive mediation strategies. The results of the survey indicates that only 5.4% of parents strongly agree or agree that they employ "laissez faire" as a mediation strategy.

In all, Iranian parents employ four strategies of mediation to monitor their children's experiences of playing video games. Restrictive mediation in the form of limiting the amount of time that children spend on gaming is the most popular strategy of parental mediation because parents do not access informative tools to conveniently inspect the game content. Instructive mediation in the form of warning children about negative effects of video games is also quite popular. TV and Radio programs about negative effects of video games can stimulate parents to employ more the instructive mediation. However, it is possible that if parents always talk about negative aspects of gaming, children get upset. Social co-playing in the form of playing video games for critical evaluation of the game content is not popular among Iranian parents because they feel that they are not good players. However, some parents stay near their children during a gaming session to check the game content. Finally, the "laissez faire" mediation is the least popular strategy because the cultural and religious values of the society urge parents to feel in charge of control their children's media use.

Parents' Attitudes towards Video Games and Strategies of Mediation

We explored parents' attitudes towards video game effects and game rating systems, and measured how attitudes influence the level of mediation. Most interviewees revealed concerns about negative effects of gaming on their children. For example, the father of a 14-year-old boy mentioned that he was "concerned" that playing video games decrease his son's abilities to concentrate on his lessons. The mother of a 10-year-old boy indicated that she is worried that playing violent video games may influence his son's behavior and make him aggressive in real life. In majority of cases, parents expressed concerns about negative effects of gaming on children's school performance and exam results.

We measured parents' attitudes towards negative effects of video game on children's behaviour, attitude and health with 16 items from the literature (Cronbach's alpha =0.91) (Nikken et al., 2007). Results of the survey show that 45% of Iranian parents "strongly agree" and 32% "agree" that playing video games can have detrimental effects on children. To test correlation between parents' attitudes about negative effects of video games and their level of mediation, we applied Spearman's correlation coefficient test. As the results in table 1 illustrate, parents who are more concerned about negative effects of video games employ more the various strategies of mediation to monitor their children's gaming experiences. Although very few of Iranian parents have mild views on negative effects of video games, we found that parents with milder views on negative game effects make lower use of restrictive and active mediation (p-value = .006).

Table (1): Relationship between parents' attitudes on game effects and level of mediation

		Concerns about game effects	Parent's Level of Mediation
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Spearman's rho	Concerns about game effects	Correlation Coefficient	1.000	.200(**)
	Parent's Level of Mediation	Sig. (2-tailed)	-	.003
		N	485	485
		Correlation Coefficient	.200(**)	1.000
		Sig. (2-tailed)	.003	-
		N	480	480

** Correlation is significant at the 0.01 level (2-tailed).

We explored parents' attitudes towards video game rating systems such as age categorization and content descriptors. Most interviewees revealed that they are “eager” to know more about game rating systems as it can be a convenient way for supervising children's gaming experiences. For example, the father of a 13-year-old boy mentioned that game rating systems can be helpful for him because he is busy to spend time on personally finding information about the game content. We measured parents' attitudes towards age categorization and content descriptors of game rating systems with 4 items from the qualitative research: "age categorization/content descriptors of game rating systems is helpful, I consult game rating systems to monitor my child's gaming experiences, I need to be informed about useful tools for monitoring my child's gaming experiences" (Cronbach's alpha =.89). About 75% of parents "completely agree" and 19% "agree" that video game rating systems are useful tools for monitoring children's gaming experiences. To test correlation between parents' needs for game rating systems and their level of mediation, we applied Spearman's correlation coefficient test. As the results in table 3 illustrate, parents who are more in need of game rating systems employ more the various strategies of mediation to monitor their children's gaming experiences.

Table (2): Relationship between parents' attitudes about game rating systems and level of mediation

			Parents' level of mediation	Significance of game rating systems
Spearman's rho	Parents' level of mediation	Correlation Coefficient	1.000	.177(**)
		Sig. (2-tailed)	.	.008
		N	480	480
	Significance of game rating systems	Correlation Coefficient	.177(**)	1.000
		Sig. (2-tailed)	.008	.
		N	480	480

** Correlation is significant at the 0.01 level (2-tailed).

In all, Iranian parents are quite concerned about detrimental effects of video games on their children's school results, mental health, and real life behaviors. Tests of correlation revealed that parents who are more worried about negative effects of video games employ more the various strategies of mediation to control their children's gaming experiences. Iranian parents also revealed that they are highly in need of game rating systems as it helps them to more conveniently monitor their children's gaming experiences.

Parents' Characteristics and Strategies of Mediation

To identify which parents employ the various strategies of mediation, we measured correlation between demographic information including "parents' level of education, parents' gender, and children's age" and "the level of mediation". To measure correlation between parents' level of education and various strategies of mediation, we conducted analysis of variance (ANOVA). The comparison of the mean of the variance in table 4 illustrates that parents with graduate degree employ the various strategies of mediation more than other parents. However, we didn't find significant difference among parents with lower level of education in terms of the level of mediation (p-value= 0.231).

Table (3): Correlation between Parents' education and the level of mediation

Educational Level	N	Mean	Std. Deviation	Std. Error
Primary School	45	2.7000	.51640	.08165

Guidance School	56	2.3750	.71880	.17970
High School	49	2.6667	.70711	.23570
Diploma	110	2.7714	.45592	.05449
Undergraduate Degree	121	2.7901	.46680	.05187
Graduate Degree	80	3.0000	.43292	.47892
Total	461	2.7376	.50802	.03417

We measured correlation between parent's gender and level of mediation through t-test. The result in table 4. (P-value= 0.007) confirms that mothers apply more the various strategies of mediation.

Table (4): Correlation between Parents' gender and the level of mediation

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Parent's Level of Mediation	Female	244	2.811	.384	.0360
	Male	237	2.649	.491	.0475

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower		Upper
Level of Mediation	Equal variances assumed	11.90	.001	2.73	219	.007	.161	.059	.045	.27
	Equal variances not assumed			2.71	200.61	.007	.16187	.059	.044	.27

This finding is in accordance with the literature findings that mothers in Europe are significantly more involved in active mediation and restrictive mediation (Nikken & Jansz, 2006).

We measured correlation between children's age and the level of mediation through Spearman's correlation coefficient. As the findings in table 5 confirm ($r = -0.185$, $p\text{-value} = 0.006$), parents of younger children have higher level of mediation.

Table (5): Correlation between children's age and the level of mediation

		Children's age	Level of mediation
	Children's age	Correlation Coefficient	1.000
		Sig. (2-tailed)	.006
		N	460
Spearman's rho	Level of mediation	Correlation Coefficient	-.185(**)
		Sig. (2-tailed)	.006
		N	467
		Level of mediation	1.000

** Correlation is significant at the 0.01 level (2-tailed).

In all, parents with high university degrees such as master or PhD are more concerned about game effects on children, and they employ more than other parents the various strategies of mediation. As mothers in Iranian society are primarily responsible for monitoring children, it sounds reasonable that there is strong correlation between gender and the level of mediation. Finally, since parents are more concerned about media effects on younger children (Abelman, 2001), it is clear that parents of younger children employ more the various strategies of mediation.

Discussion

In this research, we discussed how Iranian parents resort to the various strategies of mediation to monitor their children's gaming experiences. We made an attempt to illustrate associations between

popular strategies of mediation and the conditions of video game playing in Iran. Restrictive mediation, conceptualized as limiting the amount of time children spend on gaming, is the most popular strategy of mediation among Iranian parents for three reasons. First, as Iranian parents are not properly informed about game rating systems, instead of inspecting the game content and its suitability for their children, they merely impose limitation on the amount of time that children spend on gaming. Second, parents, especially fathers in Iran are busy with life duties, and they may not have enough time to personally look into the game contents or surf the Internet for guidance. Therefore, they prefer to resort to restrictive mediation as a most convenient strategy of mediation. Finally, since the Islamic government of Iran is responsible for supervising the content of most media such as TV and radio, parents may feel secure that video games with inappropriate content are not authorized to be distributed in the society. Therefore, they do not care to check the suitability of video games according to their children's age. However, a lot of video games that are announced unauthorized by the "Video Game Rating Council" for distribution in Iran like The Sims Series, Grand Theft Auto, Battlefield 3, etc are easily available in the illegal market.

Instructive mediation, defined as parents' critical comments on children's gaming experiences, is the second popular strategy of mediation among Iranian parents. Parents mostly warn children of detrimental effects of gaming because they are concerned that playing video games can negatively influence children's exam results, mental health, and real life behaviors. Contrary to the findings of the literature that Western parents discuss about positive effects of gaming on their children as well (Nikken & Jansz, 2006), most Iranian parents have negative attitudes towards game effects. Parents' views are mainly informed by the public media such as national TV and radio. As video games are children's legitimate entertainment, parents' negative attitudes towards video games and severe mediation strategies can result in relationship gap and arguments among family members.

Social co-playing, defined as staying near children or playing with them to make sure that the content of the game is safe, is the third popular mediation strategy among Iranian parents. Contrary to Western parents that play the game with their children to forge strong bond of relationship with them and monitor the game content (Nikken & Jansz, 2006), Iranian parents seldom play video games with their children. Parents' lack of gaming skills deters them to engage in social co-playing. Children also do not like playing video games with their parents as they prefer to engage in competition and social interaction with their peer groups during a game play. However, Iranian parents mostly employ social co-playing by asking children to play the game in living rooms and monitoring the content of the game during children's gameplay sessions. In all, social co-playing is not a popular strategy of mediation for monitoring children's gaming experiences in Iran because it takes a lot of time and efforts. Finally a very limited group of parents employ *laissez faire* mediation, which refers to situations that parents neither limit children's time of gaming nor check the game content. Parents who employ *laissez faire* mediation believe that their children are adult enough to consume all sorts of media contents. They even believe that as video games occur in fantasy worlds, they cannot have detrimental effects on children. It seems that parents of older children are fine to employ *laissez faire* mediation. However, given that Iranian parents feel responsible for raising their children properly due to religious and social values of the society, a very limited number of parents are in agreement with the strategy of *laissez faire* mediation.

The results of our correlation analysis is in accordance with previous findings about relationship between parents' demographic information and mediation patterns of children's media use (Abelman, 2001; Livingstone & Helsper, 2008; Peter. Nikken & Jansz, 2006; Peter Nikken et al., 2007). For example, Livingstone and Helsper (2008) found that parents saw themselves as mediating their child's Internet use less as the child gets older. We found that parents of younger children employ the various strategies of mediation more than parents' of older children. Similar to Nikken et al.'s (2007) findings, Iranian mothers were more involved in various forms of mediation.

Based on the findings of this research, we can provide several suggestions to media and game policy-makers and parents in Iran and other similar societies. First, it is essential that media policy makers develop local game rating systems. Differences among game rating systems in different societies such

as Japan and the U.S.A. confirms that each society can have different attitudes and level of tolerance towards game contents such as sex, violence, alcohol and drug, gambling, etc. It possible that parents in Islamic countries reveal more concerns about video games that include sex, alcohol use, and violation of religious values. Therefore, local game rating systems should be developed based on cultural values of the society and parents' concerns. Second, given that playing video games is the legitimate entertainment for all children, public media specially national TV and radio should be cautious not broadcast merely negative aspects of video games. We found that parents who are more concerned about detrimental game effects resort to sever strategies of mediation such as instructive and restrictive mediations to have more control over their children's gaming experiences. Parents' strict regulation of children's gaming can result in conflicting views and relationship gap in the family. As research found that playing video games does not necessarily result in detrimental effects (Williams & Skoric, 2005), and video games are helpful for “social interaction”, “diversion” and “competition” (Sherry, Lucas, Greenberg, & Lachlan, 2006), it is essential that parents and media policy believe in positive effects of gaming as well.

Parents need to be properly informed about video game rating systems and appropriate strategies of mediation for monitoring children's gaming experiences. For example, we found that social co-playing in the form of asking children to play the game in living room can be a friendly and efficient mediation strategy. In the U.S.A., several programs are founded such as “training retailers”¹, “increasing the knowledge of parents through Parent-Teacher Association” and “broadcasting TV programs”² to inform parents. Previous research confirmed that such limited number of programs cannot be enough in the U.S.A. for increasing parents' knowledge (Gentile & Walsh, 2002). It is essential that media policy makers employ several effective methods to properly inform parents.

Finally, it is helpful that media policy makers target mothers and parents of younger children in their programs for increasing parents' knowledge about effective strategies of mediation. As we found, such group of parents are more concerned about game effects, and they are more interested in obtaining information about game rating systems. Also, given that parents with low level of education have little surveillance on their children's gaming experiences, it is essential that media-policy makers try to increase such parents' knowledge about how to monitor their children's gaming experiences. Given that strategies of mediation for monitoring children's gaming experiences can be dependent on the social context of media use, further studies in other societies are needed. For societies with newly founded game rating systems such as Iran further research is needed to measure the level of consistency between parents' perceptions of game contents and scales of rating systems. Future research can also explore what kinds of content descriptors are more important for parents in different societies.

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¹ www.pta.org/ne_press_release_detail_1163547309281.html

² www.esrb.org/about/news/12072006.jsp

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