

# Association between Father Parenting Styles and Game Addiction with the Mediating Effect of Aggression among College Students

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## Abstract

**Introduction:** The present study was carried out to examine the association between father parenting styles and game addiction among college students as well as to explore the mediating effect of aggression between them.

**Method:** The design of the research was correlation. A total of 150 participants comprised of boys and girls, with the age range of 17 to 21 years, were recruited through purposive sampling from different colleges of Lahore, Pakistan. The questionnaires used in this study included the Gaming Addiction Scale (Brief version), Parental Authority Questionnaire (short version), and the Aggression Scale. All the hypotheses were tested by using the Pearson Product Moment Correlation Analysis and Mediation analysis through PROCESS.

**Results:** Results revealed that fathers' authoritative style had a negative non-significant association ( $p > .001$ ), while authoritarian and permissive styles had a positive significant association with game addiction ( $p < .001$ ). Aggression had a mediating effect between two father parenting styles and game addiction: authoritarian and permissive.

**Conclusion:** It is therefore concluded that father parenting styles affect the game addiction behavior and aggression plays a mediating role between them. This fact will definitely help parents and psychologists in addressing major reasons behind game addiction.

**Keywords:** Father Parenting Styles, Game Addiction, Aggression

## Introduction

Gaming has been a major activity across the world. Numerous young adults occasionally do not understand the advantages and drawbacks of these entertainment practices. The mental and physical health of teenagers is generally affected by participating in such electronic leisure activities [1]. Digital games are acknowledged as the world's most popular recreational activities. These internet-based games for amusement were performed on web devices. For communication among the people across the world these electronic gaming devices could include anything from simple to advance [2]. Several other people in the world also play games electronically, irrespective of their age, however, young people are mainly engaged in it [3]. The development of game design elements (being interesting, thrilling, and eye-catching) has made young people unintentionally immersed in it [4]. The problem of game addiction is much horrific than substance use. It is yet widespread and uncontrollable all over the world. This is while, famous producers of online video games cautioned the players to avoid their products excessively. This recommendation by the industry of online gaming shows that game users are increasing all over the world. It's also possible that one might know the aspects like: which games are more entertaining than others, length of their time, and their supported characteristics [5]. The "Online Game Disorder" and "Gaming Addiction" have increasingly and rapidly infiltrated the lives of youngsters and have had adverse impacts on the adult population as well. A lot of time is

being wasted in the so-called combating within fabricated challenges and warfare for seeking next higher levels and thus contribute to emotional, mental, and educational difficulties[6].

The idea of parental practices was previously explored by Baumrind in 1971 [7]. The types of parenthood consist of widely developed modes of parental care. Empirical studies demonstrated that parenting practices have a major impact on the growth of a child[8]. Cultures around the world represent different parenting styles. Few cultures extend the authoritative style of parenting, while others want to broaden authoritarian parenting. Surprisingly, Asian families also generally prefer to display three styles of parenting: authoritarian, authoritative, and permissive[9]. The authoritarian style of parenting has low responsiveness with high demands. The authoritative parenthood is associated with high responsiveness and acceptable demands. Permissive parenting is a style having high responsiveness and low demands[10].

It is difficult to define the term aggression in practical terms. Researchers have a general agreement that aggression is an action or behavior intended to consciously harm others[11]. Cognitive (emotional, hostile) and behavior (physical, verbal) characteristics can be explained in aggression. It has adverse effects causing excitement, fear, lack of restraint ability, and problems of mental health in the society[12]. In the outlook of long-standing psychological research, social misbehavior is defined to be aggression within the society[13]. Inadequate behavior might be caused by certain environmental factors. The upbringing of the children matters the most. A person who has come up with various forms of anger may believe that violence and hostility are socially acceptable to others[14].

Many analytical studies have been conducted to explore the above-mentioned variables. Increased parental incoherence in children has fostered increased game playing [15, 16]. Parenting styles and environments considerably influence the behavior of children. Unhealthy parental styles has led to aggressive behaviors[17, 18]. Aggression as a result has led to game addiction. Researchers have reported that aggression has a huge impact and a strong relation with game addiction[19, 20]. It is important to extend the literature with more data to better understand how the father parenting styles and aggression play a role in predicting game addiction. However, only limited research has been conducted on aggression having a mediating effect.

The current study's objective was to explore the association between father parenting styles and game addiction as well as to investigate the mediating effect of aggression between them. After understanding the dynamics of the literature and the implications of relevant variables, two hypotheses were constructed. First, authoritarian and permissive father parenting styles are positively correlated with game addiction. Second, aggression is likely to mediate between authoritarian, permissive father parenting styles and game addiction.

## Method

A correlational research design was used to examine the

correlation between father parenting styles and game addiction among college students. The sample was recruited through a purposive sampling strategy which was comprised of N=150 adolescents from different colleges of Lahore, the second-largest city of Pakistan. The sample size was calculated through G.Power Analysis. The inclusion criteria of the participants were that they should have been within the age range of 17 to 21 years, playing games for a minimum of three hours a day from six months, and with apparently good physical and mental health. An equal number of girls and boys were selected. Initially, N=190 participants were approached, from which N =150 participants met the inclusion criteria and consented for participation.

The tools used in this study were as follows:

**Demographic Sheet:** The researchers developed the demographic sheet for the participants to gather demography related information. The sheet included age, gender, and the structure of a family etc. Table 1 shows the samples' basic demographic characteristics of the present study.

**Gaming Addiction Scale (GAS):** The scale was founded in 2009 by Lemmens, Valkenburg, and Peter. It is a brief scale with seven items to evaluate the amount of adolescent gaming addiction. The scale ranged from never (1) to very often (5). There were seven conditions of criteria: Tolerance, relapse, salience, withdrawal, conflict, and modification of mood. The 7-item gaming addiction scale was strongly reliable with the Cronbach alpha of .86[21]. The Cronbach alpha for the GAS was .87 in the present study.

**Parental Authority Questionnaire (PAQ):** A brief version of Baumrind's parental practices was developed in 1991 by Buri with 20-items [22]. The reduced items fit better than the long version scale having 30-items. There was sufficient internal consistency and validity in the brief version. The authoritative and authoritarian subscales had good reliability with a Cronbach alpha of .75 and .72 whereas the permissive subscale's had reliability with a Cronbach alpha of .65[23]. In the current study, Cronbach alpha of the authoritative scale was .75, the authoritarian scale was .90, and the permissive was .80 having good to excellent internal reliability.

**Aggression Scale:** The aggression scale was developed by Buss and Warren in 2000. The 34-items questionnaire can be administered from 9 year old to 88 year old individuals to assess aggressive tendencies[24]. The aggression scale had excellent reliability (.94) in this study. Permission for using the assessment tools was granted from the respective authors. The data collection permission was also taken from college principles and authorities for allowing data collection from students. Teachers were requested to allocate time in class for data collection. The researcher debriefed the students about the nature of the research. After signing an informed consent, questionnaires were administered. The participants were informed that their individual information would be kept confidential. Participants were thanked; however, no monetary rewards were

offered. After collecting the data, an analysis was done.

**Table 1. Demographic Characteristics of Participants (N = 150)**

Demographics	f (%)
Gender	
Male	70 (50)
Female	70 (50)
Residence	
Home	147 (98)
Hostel	3 (2)
Psychological Illness	
No	150 (100)
Physical Illness	
Yes	20 (13)
No	130 (86)
Family System	
Nuclear	114 (76)
Joint	36 (24)
Father Relation with participants	
Healthy	126 (84)
Unhealthy	24 (16)
Birth Order	
First	60 (40)
Middle	57 (38)
Last	33 (22)
Siblings Relation with participants	
Healthy	122 (81)
Unhealthy	4 (3)
No sibling	24 (16)
Hours of game playing	
3 hours	34 (23)
4 hours	73 (49)
More	43 (28)
Duration of game playing	
From 6 months	74 (49)
From 9 months	76 (51)

Note: F=Frequency, %= Percentage.

**Results**

The Statistical Package for Social Sciences (SPSS 21) was used for descriptive statistical analysis and Pearson Product-Moment correlation.

The descriptive analysis calculates the reliability, means, standard deviations, and minimum to maximum scores. Table 2 shows the results having all scales with good reliability.

Table 3 shows that all the variables were correlated. There was a negative and non-significant association between the authoritative father parenting style with game addiction (N=150,  $p > .05$ , one-tailed). Both styles of father permissive and authoritarian had a strong and statistically significant relation with game addiction (N=150,  $p < .05$ , one-tailed) (N=150,  $p < .01$ , one-tailed), respectively. Also, the outcomes explored that the association between aggression and game addiction was also significantly positive (N=150,  $p < .01$ , one-tailed).

The PROCESS macro of SPSS for mediation analysis was used to evaluate the meditational function of aggression between father parenting styles and game addiction. Three models were evaluated step by step.

Table 4 indicated that the father's authoritative style had a non-significant impact on aggression having a variance of 2% (B=.62, SE=.45,  $p > .05$ ) and game addiction had highly predicted aggression with a variation of 13% (B=.079, SE=.018,  $p < .001$ ). Father authoritarian style had been a major direct impact on aggression with a difference of 33% (B=1.9, SE=.23,  $p < .001$ ) and game addiction with 14% variability predicted aggression (B=.04, SE=.02,  $p < .05$ ). The father's permissive style had a direct impact on aggression with the variability of 28% (B=2.9, SE=.37,  $p < .001$ ) and the aggression variable had significantly predicted game addiction having a variation of 10% (B=.07, SE=.02,  $p < .001$ ).

Table 5 demonstrated that aggression played a non-significant mediating role among father authoritative style and game addiction, whereas there was a significant mediating effect of aggression among remaining father styles (Authoritarian, permissive) and game addiction.

**Table 2. Descriptive Statistics and Internal Consistency Analyses N=150**

Variable	K	A	M	SD	Min-Max
FPS(Authoritative)	7	.75	22.36	3.67	2.84-3.50
FPS(Authoritarian)	7	.90	20.7	6.01	2.60-3.55
FPS(Permissive)	6	.80	15.03	3.78	2.27-2.873
Aggression	34	.94	74.5	20.58	1.48-3.23
Game Addiction	7	.87	24.7	4.746	2.707-.807

Note: FPS = Father Parenting Style; K = No of items; M = Mean; SD= Standard Deviation; Min- Max = Minimum and Maximum

**Table 3. Relationship between Father Parenting Styles, Game Addiction and Aggression N = 150**

I	Variables	I	II	III	IV	V
I	Game Addiction	-	-.13	.35**	.19*	.32**
II	FPS Authoritative	-	-	-.26**	.25**	.11
III	FPS Authoritarian	-	-	-	.46**	.58**
IV	FPS Permissive	-	-	-	-	.54**
V	Aggression	-	-	-	-	-

Note: FPS= Father Parenting Style.\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

**Table 4.** Direct Pathways between Father Parenting Styles, Game Addiction, and Aggression (N=150)

	Game Addiction		Aggression	
	B	SE	B	SE
FPS. Authoritative	-.21*	.10	.62	.45
Aggression	.079***	.018		
FPS. Authoritarian	.19**	.07	1.9***	.23
Aggression	.04*	.02		
FPS. Permissive	.04	.11	2.9***	.37
Aggression	.07***	.02		

Note: b=Co-efficient, SE=Standard Error, FPS= Father Parenting Style

**Table 5.** Indirect Effects of Father Parenting Styles on Game Addiction via Aggression (N=150)

	Game Addiction		95% CI	
	SE	B	UL	LL
FPS. Authoritative	.11	-.16	.05	-.37
FPS. Authoritarian	.08	.33	.40	.16
FPS. Permissive	.12	.27	.44	.05

Note: FPS = Father Parenting Style, SE=Standard Error, b=Co-efficient, UL=Upper Limit, LL=Lower Limit.

## Discussion

The present research found an association with father parenting styles and game addiction having a mediating effect of aggression in college students. The results indicated that father parenting styles, game addiction, and aggression are inter-related. The current study sustains previous findings of the above-mentioned literature. According to the first hypothesis of this study, authoritarian and permissive father parenting styles are positively correlated with game addiction which is strongly supported by empirical data. According to the prior data, increased incoherence in parental practices led to excessive gaming behavior [15, 16]. The behavior of children depends heavily on parental styles and environments. Unhealthy parenting increased the aggressiveness in children [17, 18]. Aggression is also related to unhealthy parental practices, this again has been proved through literature. According to studies, addiction to games is directly related to permissive and authoritarian father parenting styles and aggression [15, 16, 18, 20]. According to the second hypothesis, aggression is likely to mediate between authoritarian, permissive father parenting styles and game addiction. The current study revealed that aggression found to be a significant mediator between father parenting styles and game addiction. However, the prior research findings showed that aggression partially mediated the relationship between permissive and authoritarian parenting styles of father and gaming addiction and can be supported by cultural context [25].

## Conclusion

The study concluded that there is a relationship between the styles of father parenting, aggression and game addiction. Unhealthy parental practices i.e. authoritarian and permissive can lead to aggression followed by game addiction. The findings indicated that aggression acts as a mediator between unhealthy parenting and game addiction. However, limited literature was available regarding aggression as a mediator. Therefore, this study paves the way to fill the gaps and become a fruitful addition to the

available literature. This may help to understand the phenomenon of game addiction and the impact of inconsistent father parenting styles on game addiction and personality traits like aggression. The findings explored that permissive and authoritarian parenting styles lead to increased game addiction behavior as well as aggression which also contributed to it. The whole research guides parents to learn about the various parenting styles that lead to game dependence behavior among adolescents. This study may guide therapists about the idea that inconsistent parental practices and traits like aggression are linked to game addiction and can be handled through psychotherapy, behavior modification, and counseling. Moreover, appropriate parental guidance plays a key role in mitigating the adverse effects of aggression and game addiction. Psychological and family-related issues can be resolved which are brought up via parental practices and aggression.

## Conflict of Interest

The authors declared no conflict of interest.

## Ethical Approval

The whole procedure carried out in this study was according to the ethical standards of the institutional research committee and the 1964 Helsinki Declaration along with their amendments. In addition, an informed consent was obtained from all the participants included in the study.

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