Mosul Journal of Nursing

www.mjn.mosuljournals.com

Impact of using electronic games on psychological domain of adolescents quality of life in Kirkuk secondary schools

Article information
Article history:
Received July 6, 2020
Accepted September 6, 2020
Available online October 25, 2020

DOI: 10.33899/mjn.2020.167035, ©2020, College of Nursing, University of Mosul.
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Abstract

Objectives: to identify the impact of using electronic games on psychological domain of adolescents quality of life and find out relationship between socio demographic variables and psychological domain

Methods: A descriptive study conducted among 300 adolescents using electronic games and the data collected by using questionnaire contain the sociodemographic characteristics and 9 items related to psychological domains.

Results: most of adolescents whom using electronic games were males and at age between (15-16) years and most of them from moderate level of socioeconomic status. They had poor level of psychological status when evaluated, the mean was (1.82).

Conclusion: increase using of video games had negative effect on quality of life (psychological domain).

Recommendation: it's important to follow up of adolescents quality of life and encourage them to using physical activity and social relationship and decrease using the video games

Key words: Impact, Using electronic games, Psychological domain, Adolescents, Quality of life

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Introduction

Video game addiction is an unofficial term used to describe unhealthy, compulsive participation in various forms of video games. The American Psychiatric Association (APA) is considering making this condition a diagnosable mental disorder called Internet gaming disorder.[1]

Since Internet games became widespread in the 2000s, Internet game usage has experienced rapid growth among both youth and adults. According to a report by the Entertainment Software Association (ESA), 155 million Americans play video games, of which 42% play video games regularly. In 2015 alone, American game consumers spent more than US$22.41 billion on game content, hardware, and accessories.[2]

There are many types of video games, and there are many reasons to play video games. Gaming to avoid negative feelings and gaming for fun or for social reasons should be distinguished. Indeed, "weekday online gaming for more than five hours a day, in combination with an avoidance motivation, was associated with an increased probability of depressive symptoms", whereas "the probability of ill health decreased when gaming was for fun or had social motives".[3]

Adolescence is a period of remarkable psychosocial and neural development. Many life-long health habits are established during adolescence, making it a window of opportunity for health promotion. One way to promote adolescent health is through mass and social media campaigns. Although some health media campaigns that target adolescents are effective in changing health-relevant cognitions and behaviors, there is considerable room for improving these outcomes. Recent advancements combining neuro-imaging tools and health persuasion have suggested key neural mechanisms underlying behavior change and retransmission of health-relevant ideas and norms in adults.[4]

The psychological factors associated with Internet Gaming Disorder (IGD) need to be understood. IGD can be considered a behavioral addiction and has been found to be related to a number of psychological and health problems, including depression, social anxiety, fatigue, loneliness, negative self-esteem, and impulsivity. IGD co-occurs with various psychiatric conditions and can lead to a range of negative outcomes. For example, IGD can cause social problems such as lower academic achievement. In addition, IGD shares many similarities with other addictions, such as substance use disorder.[5,6,7]

Internet gaming disorder (IGD) contributes to poor quality of life (QOL) and cognitive dysfunction and is increasingly recognized as a social problem in various countries. However, no evidence exists to determine whether QOL and cognitive dysfunction stabilize after appropriate management. Internet gaming disorder (IGD) is defined as an excessive and prolonged Internet gaming pattern that causes cognitive and behavioral problems and is generally conceptualized as a behavioral addiction that includes core components of addictive behaviors, progressive loss of control over gaming, tolerance, and withdrawal symptoms. Quality of life (QOL) is associated with a stronger sense of community and better emotional, physical, and material well-being. The patients with IGD show high levels of loneliness, depression, and compulsiveness relative to non addicts, who have relatively low levels of loneliness, depression, and compulsiveness, patients with IGD have poor QOL relative to that of healthy controls (HCs).[8]

In male adolescents, incidence of symptoms of IGD was similar before and after the age of 15. Symptoms of IGD were significantly associated with decreased quality of life in males aged 15 and more, even when adjusting for depression, economic conditions, and parental support, and with a smaller effect in males aged under 15. In female adolescents, incidence of symptoms of IGD was similar before and after the age of 15. It was not significantly associated with decreased quality of life in females under and over 15, when

adjusting for depression, age, economic conditions, and parental support.[9]

Methods

Descriptive study design among 300 adolescent whom using electronic games at the at secondary schools. They are selected by using non probability sampling (convenience sample). The researcher communicate with the sample by using Google classroom.

The questionnaire composes of two parts: 1st sociodemographic characteristics (age gender and socioeconomic status) 2nd the psychological domain consisted of 9 items constructed to the study objectives by content validity (panel of experts) and Cronbach's alpha reliability (0.77)

The questionnaire has been scored and rated on three levels likert scale, (3) points for the yes and (2) point for the almost and (1) points for the No. The quality of life assessed by cutoff point (1.00) due to scores (1,2 and 3) respectively: (1-2) = poor level, and (2.01-3) = good level.

There are reverse items in the questionnaire. The psychological life domain includes items (1,2,3,5,6,9). In reverse items (1) points for the yes and (2) point for the almost and (3) points for the No. The data analyses by SPSS version 23

Results

Table (1) distribution of the study sample by their demographic characteristics (n=300)

Variables		Frequency	Percent
Gender	Male	215	71.7
	Female	85	28.3
	Total	300	100
Age	15-16	165	55
	17-18	120	40
	19-21	15	5
	Total	300	100
Socioeconomic status	Low	43	14.3
	Moderate	171	57
	High	86	28.7
	Total	300	100

This table shows that, 71.7% of adolescents using electronic games were males, 55% of them at age (15-16) years, and 57% of mode3rate level of socio economic status

Table (2) distribution of adolescents response to psychological life domain of quality of life

No	Items	Yes		Almost		No		MS	Ass
		f	%	f	%	f	%		
1	Worried about R	147	49	78	26	75	25	1.76	P
2	You feel lonely R	151	50.3	71	23.7	78	26	1.75	P
3	You feel depressed for no reason R	154	51.3	74	24.7	72	24	1.72	P
4	Control your nerves	109	36.3	75	25	116	38.7	1.97	P
5	You are very nervous R	132	44	84	28	84	28	1.84	P
6	A simple command that frustrates you R	145	48.3	76	25.3	79	26.3	1.78	P

7	Adapts to good things quickly	98	32.7	70	23.3	132	44	1.88	P
8	You are calm	99	33	87	29	114	38	1.95	P
9	Feel annoyed and bored R	154	51.3	79	26.3	67	22.3	1.71	P
Grand mean and standard deviation		**1.82±0.239**			**Assessment**			**Poor**	

R=reverse, f=frequency, %=percent, MS=mean score, Ass= assessment, P=Poor (1-2), G=Good (2.01-3)

This table shows the adolescent response to the psychological life domain of quality of life, the finding indicate they had poor level of quality of life for all items of this domain.

Table (3) ANOVA for the adolescents age and their psychological domain of quality of life

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
Psychological life	Between Groups	.109	2	.055	.951	.388
	Within Groups	17.065	297	.057		
	Total	17.175	299			

There is no significant differences between adolescents age and their psychological domain quality of life domains

Table (4) ANOVA for the adolescents gender and their psychological domain of quality of life

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
Psychological life	Between Groups	.003	1	.003	.060	.807
	Within Groups	17.171	298	.058		
	Total	17.175	299			

There is no significant differences between adolescents gender and their psychological domain of quality of life

Table (5) ANOVA for the adolescents socioeconomic status and their psychological domain of quality of life

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
Psychological life	Between Groups	.145	2	.072	1.262	.285
	Within Groups	17.030	297	.057		
	Total	17.175	299			

There is no significant differences between adolescents socioeconomic status and psychological domain of quality of life

Discussion

Regarding to adolescent gender in table (1), 71.7% of adolescents using electronic games were males. Dolatabadi, et al., (2013) found that males more than females, 51.6% for male and 48.4 for female.[10] de Oliveira et al., (2017) found that 57% of adolescents were males.[11] Dirandeh et al., (2015) found that males more than females this finding in same line of the present study.[12] Saquib et al., (2017) found that the adolescents gender was 50.7% for male and 49.3 for female.[13] This finding supported our finding.

Wang et al., (2014) found that 50.5% of the sample were females and 49.5% males this

result not consisted with the present study findings.[14]

55% of them at age (15-16) years. Dolatabadi, et al., (2013) found that adolescents aged 12-15 years old.[10] Wang et al., (2014) found that adolescents age at mean 14 years old.[14] Dirandeh et al., (2015) found that the mean of adolescents age was 13 years.[12] This result not consisted with our finding. de Oliveira et al., (2017) found that the average age was 15 years (SD = 1.12, ranging be-tween 14 and 18).[11] Saquib et al., (2017) found that the mean of adolescents age was 15.3 years.[13]

Most of adolescent families from moderate level of socioeconomic status. Dolatabadi, et al., (2013) found that The majority of studied population (46.6%) reported the level of their family income as moderate level.[10] Wang et al., (2014) found that 69.1% of boys and 58.4% of girls from medium level of economic status.[14] This findings in same line of the present study result.

In table (2), adolescents had poor level of psychological life domain of quality of life. Most of them were worried, fell lonely, depressed, and very nervous, simple command that frustrates them and fell annoyed and bored. The grand mean of psychological life domain was 1.82 at poor level of assessment (1-2). Saquib et al., (2017) found that 54% of adolescent using video games had psychological distress.[13] This result in same line of the present study.

Dolatabadi, et al., (2013) found that adolescent had good psychological life quality of life.[10] Dirandeh et al., (2015) found that the behavior and mental status of most of the students were in normal range.[12] This finding not agree with our finding.

BAŞ (2018) found that there is low self-efficacy, anxiety, low self-esteem, incoordination and shyness were found in adolescents with digital gaming addiction. Game addiction also emerges as a cause of depression, social phobia and anxiety disorder. Gaming addicts were identified as individuals who thought of aggressive behavior, psychological stress, falling in sleep quality and suicidal thoughts and less satisfaction in life. Violent games, especially violent games of adolescents, can lead to psychosocial problems such as aggression, loneliness, depression, tendency towards violence, isolation, lack of attention. This finding in same line of the present study.[15]

The results of Wang et al., (2019) revealed that adolescent with mobile game addiction had higher self-reported depression, social anxiety and loneliness.[16] This finding support our study

There is no significant deference between the psychological domain and the adolescents age gender and socio economic status.

Gorji et al., (2019) found that there are significant statistical relationship between adolescents gender and psychological domain of quality of life.[17] This finding not consisted with our finding.

Conclusion

Using of electronic games had effect on the psychological status of adolescent they are fell worried, depressed, lonely, nervous and angry. There is no significant deference between the psychological domain and the adolescents age gender and socio economic status.

Recommendation

All parents need to rationalize children's use of electronic games, provided that the period of their use be from one to two hours a day with the presence of parents. People who play video games, must keep fit and exercise. Encourage leisure time in social activities with family members and friends in the neighborhood

References

BAŞ, Ö. G. (2018). The investigation of the relationship between psychological and behavioral findings and digital game dependency in adolescents. Atlas International Referred Journal on Social Sciences, 4(9): 492-498.

Choi, S. W., Kim, H., Kim, G. Y., Jeon, Y., Park, S., Lee, J. Y., Jung, H., Sohn, B., Choi, J. S., & Kim, D. J. (2014). Similarities and differences among internet gaming disorder, gambling disorder and alcohol use disorder: A focus on impulsivity and compulsivity. *J. Behav. Addict, 3*:246–253

de Oliveira, M. P., Cintra, L. A., Bedoian, G., Nascimento, R., Ferré, R. R., & Silva, M. T. (2017). Use of Internet and Electronic Games by Adolescents at High Social Risk. Trends in Psychology,25(3):1185-1200

Dirandeh, E., Sohrabi, M., Dirandeh, A., Kaghazloo, L., Hajihashemi, Z., & Pouriran, R. (2015). The effect of video games on teenagers' behavior and performance: A cross-sectional study in Tehran. Social Determinants of Health, 1(3):120-127

Dolatabadi, N. K., Eslami, A. A., Mostafavi, F., Hassanzade, A., Moradi, A. (2013). The relationship between computer games and quality of life in adolescents. J Edu Health Promot,2:1-20.

Gorji1, N. M., Qorbani, M., Nikkho, F., Asadi, M., Motlagh, M. E., Safari, O., & Arefirad, T. (2019). Association of screen time and physical activity with health-related quality of life in Iranian children and adolescents. Health and Quality of Life Outcomes, 17:1-11

Hellström, C., Nilsson, K. W., Leppert, J., & Åslund, C. (2015). Effects of adolescent online gaming time and motives on depressive, musculoskeletal, and psychosomatic symptoms. *Upsala J. Med. Sci. 120*, 263–275

Lim, J., Lee, J. Y., Jung, H. Y., Sohn, B. K., Choi, S. W., Kim, Y. J., & Kim, D.J. (2016). Changes of quality of life and cognitive function in individuals with Internet gaming disorder A 6-month follow-up. *Medicine, 95*:50

Männikkö, N., Billieux, J., & Kääriäinen, M. (2015). Problematic digital gaming behavior and its relation to the psychological, social and physical health of finnish adolescents and young adults. *J. Behav. Addict.4*:281–288

Na, E., Lee, H., Choi, I., & Kim, D. J. (2017). Comorbidity of internet gaming disorder and alcohol use disorder: A focus on clinical characteristics and gaming patterns. Am. J. Addict. 26:326–334

Pei, R., Kranzler, E. C., & Suleiman, A. B. (2019). Promoting adolescent health: insights from developmental and communication neuroscience. *Behavioural Public Policy. 3*(1):47–71.

Phan, O., Prieur, C., Bonnaire, C., & Obradovic, I. (2020). Internet Gaming Disorder: Exploring Its Impact on Satisfaction in Life in PELLEAS Adolescent Sample. Int. J. Environ. Res. Public Health, 17(1), 3

Rettner, R. (2019).Video Game Addiction Becomes Official Mental Disorder in Controversial Decision by WHO. Live science. https://www.livescience.com/65580-video-game-addiction-mental-health-disorder.html

Rho, M. J., Lee, H., Lee, T. H., Cho, H., Jung, D. J., Kim, D. J., & Choi, I. Y. (2017). Risk Factors for Internet Gaming Disorder: Psychological Factors and Internet Gaming Characteristics. *International journal of environmental research and public health, 15*(1), 40.

Saquib, N., Saquib, J., Wahid, A. W., Ahmed, A. A., Dhuhayr, H. E., Zaghloul, M. S., … Al-Mazrou, A. (2017). Video game addiction and psychological distress among expatriate adolescents in Saudi Arabia. Addictive Behaviors Reports, 6(June), 112–117

Wang, C., Chan, C. L., Mak, K. k., Ho, S. Y., Wong, P. W., & Ho, R. T. (2014). Prevalence and Correlates of Video and Internet Gaming Addiction among Hong

Kong Adolescents: A Pilot Study. the Scientific World Journal 2014:1-9

Wang, J. L., Sheng, J. R., & Wang, H. Z. (2019). The Association Between Mobile Game Addiction and Depression, Social Anxiety, and Loneliness. Front. Public Health 7:247.