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The Relation between Depression and Addiction to Online Games in Kuwait

Abstract

Purpose: The study applies Belongingness theory to examine the influence of addiction to online gaming on depression.
Study design/methodology/approach: A research model is built and a specific instrument designed to collect data. The data have been analyzed using many statistical tools including factor analysis, average variance extracted, composite reliability, and structured equation modeling (SEM) techniques.
Sample and data: The sanple size consists of 526 of online gaming players in the State of Kuwait.
Results: Results verify all study hypotheses. They show that the sense of belonging is positively associated with addiction and that addiction has influential power on two forms of depression.
Originality/value: This research is original by the fact that it explores the impact of online gaming on psychological disorders in the region. This type of research is not fully explored because most existing research studies are directed toward the impact of depression on addiction, and not vice versa. Further, the results show that there can be more than one form of depression.
Research limitations/implications: First, this study is limited because it only covers Kuwaiti population; hence, the results cannot be generalized to other cultures. Second, there are other factors that may enhance total variance of the research model. In terms of implications, being aware of the side effects of overplaying puts responsibility on the player and their family members, especially parents, if they are teenagers or younger. It also urges legislators to develop appropriate legislations to prevent youngsters and millennials from being trapped in addiction disorders.

Keywords: Belonging; addiction; depression.

JEL classification: M5

Introduction

The increasing developments of mobile technologies and online games provide widely rich selections of opportunities and offer many options for people looking for social contacts, especially among youngsters. Technology in general has become a critical part of societies in the world. The adoption of technology has changed morals, legal systems, business economies, and models, as well as the personal and social lives of individuals.

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Nowadays online games constitute a considerable percentage of the latest growth in the media market. Reports expect the revenues of the global (worldwide) gaming market to exceed $180 billion in 2021, thus growing by 30.6% from $137.9 billion in 2018 (Mediakix, 2019). In this market, mobile gaming is projected to reach $106 billion, which will dominate all other sectors of the gaming market (60%).

Despite great offerings in mobile and online games, these programs can pose negative pressure on users that can induce what is scientifically known under different names such as "mobile phone addiction" (Dalvi-Esfahani *et al.,* 2019) or "social online addiction" (Gong *et al*., 2019). This condition is defined as the overuse of games that is not controlled by oneself and parental guidance. Studies show that excessive use of mobile online gaming can cause less sleep with more disturbances (Khan *et al*., 2019), stress (Hawk *et al*., 2019), symptoms of depression (Brunborg & Andreas, 2019), and academic failure (Alnjadat *et al.,* 2019).

Studies also indicate that there are wide ranges of players who may be affected by problematic video game addiction (Bargeron & Hormes, 2017; Hsu, Wen, & Wu, 2009). However, some argue that the "true prevalence of video game addiction is still uncertain" (Hussain *et al*., 2015).

Researchers spend a lot of time trying to answer the question: why do online gamers play so enthusiastically? Online games enable players to interact socially through competitive and cooperative activities among social game communities (Liu *et al.,* 2013). Also, mobile and social network games constitute virtual platforms to bring together players from heterogeneous backgrounds into a unified social virtual reality (Baabdullah, 2018).

Furthermore, scholars have explored and found many motivational factors of video games (Ghuman & Griffiths, 2012; Demetrovics *et al*., 2011) that have resulted in the development of many popular theories such as Self-Determination Theory (SDT) (Deci & Ryan, 2008; Ryan & Deci, 2000) and Belongingness Theory (Baumeister & Leary, 1995). These theories are applied to several domains such as education, health care, and work environment. What is noticeable is that SDT is not applied to the field of gaming motivation (Lafrenière *et al*., 2012). According to SDT, there are two types of motivation: intrinsic and extrinsic. The former refers to the desire to accomplish a task for its own sake (Ryan & Deci, 2000). The latter, on the other hand, refers to the desire to perform an activity as a means to an end. However, scholars criticize SDT in terms of its practical use. According to Altendorf *et al*. (2019), "SDT represents a coherent framework for understanding the process underpinning the development of autonomous motivation, but it does

not provide a concrete and evidence-based approach that can be used by health professionals to create SDT-based interventions".

There is a gap in current research because it does not explore the relation between the motivation behind game playing and addiction. Additionally, after reviewing many studies on the Gulf region, we have found almost no studies that explore the side effects of online gaming. In addition, after reviewing a large number of studies that deal with depression, many of them treat depression as if it were of one type. In some, however, experts propose different types of depression. Our research aims to fill this gap by following statistical analysis that demonstrates the importance of interactions between depression, belonging, and addiction.

Literature Review and Hypotheses

Belongingness Theory

The literature has shown that researchers rarely find formal theories of motivation that are applied to video games (Beard & Wickham, 2016; Lafrenière *et al.*, 2012; Demetrovics *et al.*, 2011). Although SDT is rarely used in gaming contexts, it can be considered as one important theory that can identify the motivations behind gaming (Lafrenière *et al.*, 2012). SDT emphasizes that there are two types of motivation: *intrinsic* where players play because they enjoy it and explore the virtual world and *extrinsic* where the play is not performed for its own sake, but instead performed to gain an advantage out of playing or avoiding a negative matter (Deci & Ryan, 2008; Ryan & Deci, 2000).

Similarly, Choi & Kim (2004) propose two basic categories of motivational factors: personal and social. Additionally, Hsu *et al.* (2009) identify sub-factors in these two broad categories. They identify 10 factors related to user's online gaming; five elements for personal experience (challenge, fantasy, curiosity, control, and reward) and five elements for social experience (competition, cooperation, recognition, belonging, and obligation).

Along the same path, Belongingness Theory is crucial in understanding the role of interpersonal relationships of individuals and their feelings of belonging with others. Gao, Liu, & Li (2017) define belonging as "the feeling that one is an integral part of the social network community. The theory suggests that humans are strongly affected by the feeling of belonging (Baumeister & Leary, 1995)." The theory also claims that there is a positive relation between the feelings of belonging and positive emotions (Hagerty *et al.,* 1992).

Hsu *et al.* (2009)'s research focuses on identifying the relation between predictors of online gaming and addiction. Among all sub-factors identified, they find that four are most significant (only five factors are statistically significant). These are *curiosity, reward*, *belonging,* and *obligation,* which have the greatest effect on addiction. Furthermore, Hofstede (1983) organizes societies into four dimensions of national culture: individualism versus collectivism, large or small power distance, strong or weak uncertainty avoidance, and masculinity versus femininity. Accordingly, he classifies Kuwait (and most Arab countries) as a collective society with a large power distance. This division lead us to believe that *belonging* is the most powerful effect on addiction compared to other factors. For this reason, the study instrument examines *belonging* as an extrinsic/social exogenous factor that affects addiction.

Belonging refers to "users" sense of affiliation with the community, which is a social need in Maslow's "hierarchy of needs" (Hsu *et al.*, 2009; McLeod, 2007; Maslow, 1943). This definition means that collectivistic individuals are more enthusiastic and prone to overusing online games. Therefore, we hypothesize the following:

H1) Belonging is positively associated with addiction.

Addiction and Depression

The findings of many studies show that there is an association between becoming addicted to the internet and increased levels of depression (Özdemir *et al.,* 2014; Young, 2004; Griffiths *et al.,* 1999; Young & Rodgers, 1998). Also, another group of studies exposes the relation between excessive use of smartphones and depression (Cheever *et al.*, 2018; Capon *et al.,* 2016). Although many studies exist in the field of mobile gaming and depression, still more research is needed according to Wang *et al.* (2019). They think that more work is needed to uncover the deep effects of online and smartphones gaming. Moreover, although publications on internet addiction, smartphones addiction, and online games addiction are overwhelming in the West and Far East, still much more work is needed in the Middle East.

Many definitions of addiction can be found in the literature. For example, Goodman (1990) defines addiction as a "process whereby a behavior, that can function both to produce pleasure and to provide relief from internal discomfort, is employed in a pattern characterized by (1) recurrent failure to control the behavior (powerlessness) and (2) continuation of the behavior despite significant negative consequences

(unmanageability)". In addition, researchers have examined many extensions of addiction, such as technology addiction, smartphone addiction, and alcoholic addiction. For example, technology addiction refers to "a maladaptive and obsessive pattern of technology use behaviors that conflicts with one's normal functioning or other important activities" (Gong *et al.*, 2019; Sers *et al.*, 2011). In general, addiction is an excessive use with the inability to prevent oneself from further use.

As we have noted above, smartphones and social media programs impose negative pressure on users that may induce what is scientifically known as "mobile phone addiction" (Dalvi-Esfahani *et al.*, 2019) or "social online addiction" (Gong *et al.*, 2019) if overused and not controlled by oneself. Studies show that excessive use of online gaming can cause less sleep and more disturbances during it (Khan *et al.*, 2019), stress (Hawk *et al.*, 2019), symptoms of depression (Brunborg & Andreas, 2019), and academic failure (Alnjadat *et al.*, 2019). In general, heavy use of online gaming results in physiological, mental, and social health problems among many age groups.

Some argue that the "true prevalence of video game addiction is still uncertain" (Hussain *et al.*, 2015). However, a large sector of studies shows that in the field of online gaming there is a high probability that players may be affected by problematic addiction (Bargeron & Hormes, 2017; Hsu *et al.*, 2009). A respected number of papers confirm the relation and correlation significance between technology overuse and personality disorders that decrease the value of life.

Depression is known to have deep negative effects on individuals. Studies have shown that depression affects people's health as well as their economic standards. Strulik (2019) states "Based on studies from happiness research, depression is conceptualized as a drastic loss of utility and value of life". However, the relation between online gaming addiction and depression receives relatively little attention (Hussain *et al.*, 2015). Furthermore, studies that explore the relation between online gaming and addiction in the Arab world are scarce compared to other parts of the world. For this reason, I propose the following hypothesis:

H2) Online gaming addiction is positively associated with depression.

Figure 1: Shows my Study Research Model

Research Methodology and Statistical Analysis

Scale Development

We generate items for the study variables from different sources. First, items for *belonging* from Hsu *et al.* (2009) are used. Second, items for addiction come from Khazaal *et al.* (2018). Finally, 21-items for depression from the Beck Depression Inventory scale in Beck *et al.* (1996) are employed. All items are measured on a 5-item Likert scale that ranges from 1 (Strongly Disagree) to 5 (Strongly Agree).

Data Collection and Sample

In order to examine our conceptual model, we conducted an online survey among online gaming players in Kuwait. Before beginning the formal data collection stage, a pilot study on 20 online gamers was conducted to make sure the instrument was understandable and free of any fuzziness. After that the online gaming communities were asked to participate in the project. This stage resulted in refining many items according to the feedback we had received from participants.

The questionnaire was divided into two parts. The first part asks for respondents' personal data. The second part is the research model that comprises three subsections: online gaming addiction predictors, addiction, and depression.

The questionnaire was distributed to college level students since there are millennials who are most attracted to online gaming. Also, two sections of student information systems were asked to help us to distribute questionnaire to their friends and family members who are also gamers. A total of 536 responses was obtained; 10 responses were deleted because the participants' answers were not engaging. Thus, we were left with 526 effective responses. Table 1 shows the frequencies of the study data.

The Cronbach's reliability coefficient alpha shows acceptable consistency in the instrument (84%). The distribution of gender in the sample is 30% male

Table 1
Demographics

Demographic Variable	Levels	Frequencies	Percentage
Gender	Male	156	29.8
	Female	369	70.2
Social Status	Married	157	29.8
	Bachelor	343	65.2
	Separate	14	2.7
	Widow	8	1.5
Academic Background	High school or less	150	28.5
	Two years	84	16
	4 years college	225	42.8
	Graduate	65	12.4
Father's academic background	High school or less	150	28.5
	Two years	84	16
	4 years college	225	42.8
	Graduate	65	12.4
Mother's academic background	Highschool or less	178	33.8
	Two years	85	16.2
	4 years college	225	42.8
	Graduate	38	7.2
Age	Less than 14	5	1
	14-18	42	8
	18-22	249	47.3
	22-26	59	11.2
	26-30	44	8.4
	30-40	65	12.4
	40-50	43	8.2
	50+	19	3.6
Family monthly income	500KD or less	42	8
	500-1000KD	69	13.1
	1000-1500KD	91	17.3
	1500-2000KD	112	21.3
	2000-3000KD	88	16.7
	3000+	120	22.8

(frequency = 156) and 70% female (frequency = 369). The marital status is 29.8% married (frequency = 157), 65.2% single (frequency = 343), 2.7% separated (frequency = 14), and 1.5% widowed (frequency = 8). Other demographic items are also presented in Table 1.

Statistical Analysis

Many tools were used to test the validity and dependency of the instrument and data collection procedures. "Data reduction through a factor analysis test was used at the beginning because of its validity in removing redundancy that might exist between questions within dimension: and to reveal any patterns that might exist between questions" (Aladwani, 2012). Table 2 shows the factor loadings of the study items.

Table 2 clearly shows that not all items are viewable. The reason is that questions that lack reliability and lack explanation for the reasonable variance

Table 2
Factor Analysis Loadings of Study Items

	Belonging	Depression 2	Addiction	Depression 1
CESD12				.897
CESD16				.890
CESD17		.845		
CESD18		.820		
CESD19		.819		
CESD20		.805		
GADD13			.826	
GADD14			.796	
GADD15			.825	
BEL5	.809			
BEL6	.855			
BEL7	.891			
BEL8	.844			

were removed. The Principal Component Analysis with a varimax rotation (eigenvalue greater than one and factor loadings greater than 0.5) (Kaiser, 1958) was used. Accordingly, the results show that there are two different types of depression, which we call *depression 1* and *depression 2*. Figure 2 shows the new (modified) research model.

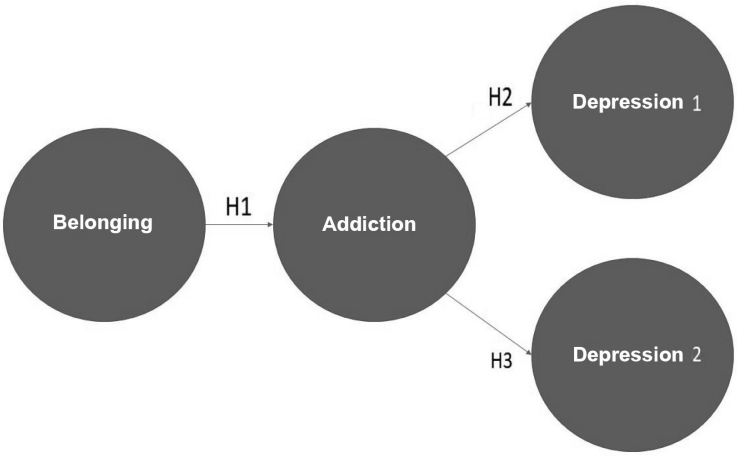

Figure 2: Modified Study Research Model.

Table 3
Explained Variance and Reliability of Study Measurements

Factors	Reliability Coefficient	Variance Explained
Depression 1	86%	87.7%
Depression 2	90.5%	77.8%
Addiction	89.3%	82.4%
Belonging	92.1%	80.89%

Table 3 shows the explained variances and reliability. The table indicates that all of the variances in the measurements are above 60%, and that the reliabilities are above 70%, which is recommended by Hair *et al.* (2010).

Fitness of conceptual model and latent constructs validation

The Lisrel 8.54 software was used to test the fitness of the conceptual model. Table 4 presents the goodness of fit. Statistically, Table 4 clearly supports that the research model is satisfied and verified statistically (Hair *et al.*, 2010).

After validating and verifying the model for goodness of fit, further testing is needed for the latent constructs of validity and reliability. The Cronbach's reliability test presumes the unidimensionality of the constructs, which is not always true. According to Hair *et al.* (2010), "This is why further analysis through construct composite reliability is needed to ensure the existence of the internal

Table 4
Goodness of Fit Statistics

Measurements	
Normed Fit Index (NFI)	0.98
Non-Normed Fit Index (NNFI)	0.98
Parsimony Normed Fit Index (PNFI)	0.78
Comparative Fit Index (CFI)	0.98
Incremental Fit Index (IFI)	0.98
Relative Fit Index (RFI)	0.97
Critical N (CN)	196.55
Root Mean Square Residual (RMR)	0.05
Standardized RMR	0.05
Goodness of Fit Index (GFI)	0.93
Adjusted Goodness of Fit Index (AGFI)	0.90
Parsimony Goodness of Fit Index (PGFI)	0.63

consistency in the measurements per each construct. Thus, the composite reliability can be calculated as follows'':

$$Composite Reliability = \frac{\Sigma\ (standardized\ loadings)^2}{(\Sigma Standardized\ loadings)^2 + \Sigma|error|}$$

In addition, a measure for reliability was needed at this stage. According to Al-Dosiry *et al*. (2012), ''the variance extracted is used to evaluate the overall amount of explained variations accounted for by the construct''. Thus, variance extracted can be computed as follows:

$$Variance\ extracted = \frac{\Sigma\ (standardized\ loadings)^2}{\Sigma(Standardized\ loadings)^2 + \Sigma|error|}$$

Based on this equation, Table 5 shows the results of these two tests (variance extracted and construct composite reliability), in addition to the R^2 coefficient of determination.

Table 5
Variance Extracted and Construct Composite Reliability Tests

Construct	Construct composite reliability (recommended above 50%)	Average variance extracted (AVE) (recommended above 70%)	R^2
Belonging	93.9%	79.5%	---
Addiction (ADD)	91.3%	77.9%	0.39
Depression 1 (DEP1)	88.5%	79.5%	0.08
Depression 2 (DEP2)	92.87%	76.5%	0.23

Another test to validate and emphasize the importance of the research model is the Discriminant Validity (DV_{xy}) test (recommended equal or less than 0.85). This test is to ensure there is no existence of overlapping among the study measurements. According to Abbas (2013), "In other words, the questions that are used in the survey should not be overlapped where one question can measure two or more items. The discriminant validity test is acceptable as long as the result is less than or equal to 0.85". Thus, the DV_{xy} is computed as follows:

$$DV_{xy} = \frac{Corr(x_1 y)}{\sqrt{rel_x * rel_y}}$$

Table 6 shows the discriminant validity test results of the research model.

Path analysis and verification of proposed research model

Table 6
Discriminant Validity Test Results (recommended 0.85 or less)

		BEL	ADD	DEP1	DEP2
Belonging	BEL	1			
Addiction	ADD	0.669349	1		
Depression 1	DEP1	0.318007	0.511481	1	
Depression 2	DEP2	0.513937	0.825116	0.385964	1

In the next step, the significance of the connections between the study constructs in the research model was tested.

Table 7 presents the path coefficients between the latent constructs. All three hypotheses are significant. Figure 3 shows the path analysis of the research model.

Table 7
Path Analysis of Research Model

	Path Coefficient (gamma)	Standard Error	t_{value}	p_{value}	Significance
Belonging → Addiction	0.62	0.04	18.1232	0.000	Sig
Addiction → Depression1	0.46	0.05	11.8817	0.000	Sig
Addiction → Depression2	0.76	0.04	26.8191	0.000	Sig

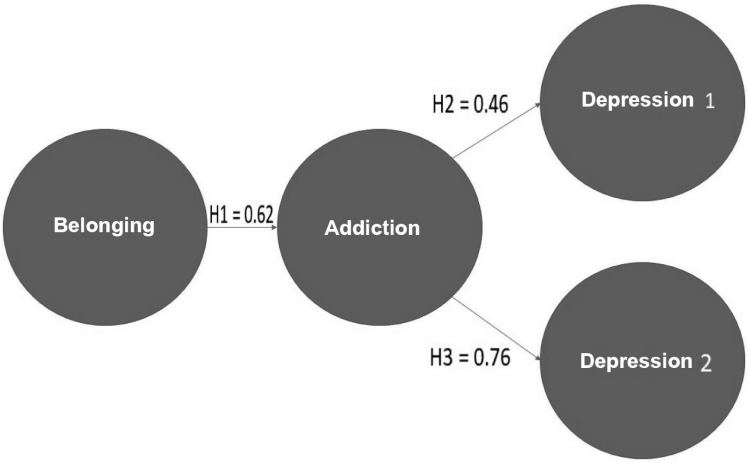

Figure 3: Path Coefficients of Study Research Model.

After identifying the latent constructs and verifying the research model, we examined whether the interaction effects between the latent constructs and the demographical variables had any significant effect on the two dependent variables: depression 1 and depression 2. Table 8 shows the Univariate Analysis of Variance tests between the dependent variables: depression1, depression2, demographical variables, and addiction.

Table 8
Multivariate Analysis of Variance

	Depression 1 Sig.	Depression 2 Sig.
Social Status	0.000	---
Mother's Aca Back.	---	0.014
Age	0.000	0.033
Addiction	---	0.000
Gender * Academic Background	0.007	0.044
Mother's Aca. Back. * Addiction	---	0.036
Mother's Aca. Back. * Age	---	0.004
Aca. Back. * Age	0.05	---
Age * Addiction	0.000	---
Social Status * Addiction	0.000	---
Father's Aca. Back. * Age	0.024	---
Social Status * Age	0.000	---

Results and Discussion

The results show that all study hypotheses (H1, H2, H3) were verified. The findings show that the effects of online gaming in Kuwait are similar to those of other parts of the world. The relation between a sense of belonging and its influence on the factor addiction in the field of online gaming is also investigated. Furthermore, the effects of addiction on different types of depression are examined. The results have many implications.

First, the sense of belonging was found to positively influence addiction. This finding is similar to those of other studies such as Hsu *et al.* (2009), who identified 11 predictors of motivation, among which belonging had the most influential social effect on addiction. This is what we hypothesized for a society like Kuwait where the sense of belonging occupies an essential role in individuals' feelings.

Second, although studies treat depression as one type, it was found in this study that depression can belong to different categories. According to Neu *et al.* (2001), " It is of interest to investigate whether there are time-related differences in cognitive functions characteristic of different kinds of depressive diagnoses, and therefore whether such differences might help to distinguish between types of depressive disorder" (p. 237). However, the literature review shows that most research models of online gaming and smartphones treat depression as a single category.

Third, the results indicate that addiction has an influential effect on both types of depression, which is in line with studies in countries worldwide such as Japan (Seki *et al.* 2019), Turkey (Özdemir *et al.*, 2014; Akin & İskender, 2011), China (Han, Geng, Jou, Gao, & Yang, 2017), Malaysia (Foroughi *et al.*, 2019), USA (Young & Rogers, 1998) and in different fields of technology and applications such as internet addiction (Seki *et al.*, 2019; Zhang *et al.*, 2008), online gaming (Hussain *et al.*, 2015), and social media (Foroughi *et al.*, 2019).

Fourth, in this region of the world researchers rarely publish in the field of online gaming. This research fills this gap by examining the negative effects of online gaming addiction on Kuwaiti youngsters and on Kuwaitis in general.

Implications and Conclusions

This study provides a few theoretical implications. First, although previous studies have examined factors that influence depression as a single type, this study shows that there are different kinds of depression that may affect people in different dimensions.

Second, the research model's hypotheses have significant implications for users. Users should be aware of the negative effects of overuse of online gaming and be aware that the need for socialization through the feeling of belonging may lead to addiction and depression if too much time is spent playing online. Therefore, if online game habits begin to interfere with work, social life, study, or personal emotions, users should note that they are in a negative state and should, therefore, reduce their online presence.

Third, although this point should be understandable for adult people, youngsters may lose control over themselves and enjoy playing because of the sense of belonging generated according to Belongingness Theory (Baumeister & Leary, 1995). Thus, parents have ethical and educational responsibilities to monitor their kids and direct them to do their playing under parental control. This control will help youngsters as well as adults to keep their offline relationships with family and friends healthy (Gao *et al.*, 2017). Also, Table 8 clearly shows that the mother's academic background and the age of a player interactively affect depression 2, and the father's academic background and the age of a player interactively affect depression 1. In other terms, depending on the player's age and the academic background of his/her parents, depression may increase accordingly.

One limitation of this study is that the sample was collected from Kuwait, which is only one Arab country. Although there are many similarities between Gulf and Arab countries, the results cannot be generalized until other comparative studies are carried out in other countries in the region. Second, the research model's fitness can be further improved by applying new influential factors found in other studies. Thus, the research model can be explored by adding other factors.

In conclusion, this study offers a modified research model that uses Belongingness Theory. It is found that belonging crucially affects addiction. Depression is explored and is found to have two different types that the players of online games go through. Interestingly, addiction significantly affects both of them.

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الملخص

العلاقة بين الاكتئاب والإدمان لممارسي الألعاب الإلكترونية على الإنترنت بدولة الكويت

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هدف الدراسة: يرمي هذا البحث إلى دراسة قدرة نظرية الانتماء Belongingness Theory في شرح تأثير الانتماء على إدمان الألعاب الإلكترونية على الإنترنت، ومن ثم التأثير غير المباشر على حالة الاكتئاب التي تصيب المدمنين على هذه الألعاب.

تصميم/منهجية/طريقة الدراسة: لقد صممنا أداة بحث خاصة لجمع البيانات. وتم تحليل البيانات ومراجعتها باستخدام مجموعة من الأدوات الإحصائية، مثل تحليل المعاملات وغيرها.

عينة و بيانات الدراسة: نموذج البحث تم اختباره من خلال عينة، بلغ حجمها 526 شخصاً ممن يمارسون ألعاب الكمبيوتر على الإنترنت.

نتائج الدراسة: تشير نتائج الدراسة إلى أن جميع فروض الدراسة قد تم التحقق منها واختبارها؛ فقد وجدت الدراسة أن الانتماء له تأثير مهم ومؤثر على الإدمان، كما وجدت أن الإدمان هو بدوره يؤثر بصورة قوية في نوعين من أنواع الاكتئاب.

أصالة الدراسة: يعد البحث من الدراسات الأولى في مجاله؛ من حيث تطبيق تأثير كثرة اللعب أونلاين على الحالة النفسية، وهذه العلاقة لم تُدرس بالشكل الكافي حيث إن جميع الدراسات السابقة – أو على الأقل أغلبها – تمحورت حول تأثير الاكتئاب على الإدمان. كذلك وجدت الدراسة أن الاكتئاب ليس شكلاً واحداً، بل متعدد وعلى أكثر من نوع.

حدود و تطبيقات الدراسة: لم تتوسع الدراسة لتغطي أكثر من دولة الكويت، وهذا يجعل عينة الدراسة محدودة بالحدود الجغرافية والثقافية للمجتمع الكويتي. بالإضافة إلى ذلك هناك عوامل أخرى تؤدي دوراً مهماً في التأثير على طبيعة مستخدمي ألعاب الفيديو أونلاين. وللدراسة عدة تطبيقات عملية ونظرية؛ من التطبيقات العملية الانتباه إلى أن التأثير السلبي لكثرة اللعب أونلاين يحمّل جميع الأطراف المسؤولية سواء اللاعب نفسه أو الأهل والمقربون إن كان اللاعب صغير السن ولا يعلم الآثار السببة الكبيرة الناجمة عن الإدمان على هذه الألعاب. كذلك من التطبيقات المهمة التفات الدولة والمشرعين في مجلس الأمة إلى هذه الآثار السلبية لإيجاد تشريعات تحمي الأطفال والبالغين منها.

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