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# AN AWARENESS ON ONLINE GAMING ADDICTION AND ITS IMPACT ON PHYSICAL HEALTH AMONG UNDERGRADUATE STUDENTS IIUM KUANTAN CAMPUS

Siti Hazariah Abdul Hamid<sup>1</sup>  
Ahmad Firdaus Kamaruddin<sup>2</sup>  
Mohammed Rasheedan Ellin<sup>3</sup>  
Romdzati<sup>4</sup>

<sup>1</sup>Department of Special Care Nursing, International Islamic University Malaysia (IIUM), Malaysia,  
(E-mail: shazariah@iium.edu.my)

<sup>2</sup>ParkCity Medical Centre, Kuala Lumpur Malaysia,  
(Email: a.firdaus.k@gmail.com.)

<sup>3</sup>Faculty of Medicine and Health Sciences, University Malaysia Sarawak (UNIMAS), Malaysia,  
(E-mail: emrasheedan@unimas.my)

<sup>4</sup>Faculty of Medicine and Health Sciences, Universitas Muhammadiyah Yogyakarta, Indonesia,  
(E-mail: romdzati@umy.ac.id)

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**Abstract:** *Movement Control Order (MCO) in Malaysia and many parts of the world to break the chain of COVID-19 pandemic led to the student involvement in social media in particular online gaming. This study is aimed to determine the level of awareness on online gaming addiction & its association on physical health among undergraduate students in one of public university in Pahang Malaysia. This cross-sectional study was conducted among 244 undergraduate students from February to June 2023. The data were analysed by using Mann Whitney and Kruskal Wallis Test. The result shows that undergraduate students in this study have a good awareness of online gaming addiction and a good impact on physical health. There is a significant difference between addiction level on online gaming and impact on physical health. However, level of awareness has no significance different from the addiction level of the undergraduate student IIUM Kuantan. There is no significant association between socio-demographic background with the awareness on online gaming addiction and its impact on physical health. As a conclusion, it is deemed necessary to review current addiction level on online gaming instead of their awareness on online gaming addiction & physical health to the students and to ensure their professional readiness in the future. The university authority needs to address and be aware of gaming addiction that affects students' physical and mental health. Initiatives are needed to support and help students overcome and avoid this issue to improve their health performance.*

**Keywords:** *Online gaming, gaming addiction, physical health.*

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## Introduction

The COVID-19 pandemic phase has significantly disrupted normal activities globally. Stay-at-home mandates and quarantines have increased the use of digital entertainment, particularly online gaming including esports viewing and video game streaming especially among young people. The US-based telecommunication provider reported about 75% increase in online gaming activity coinciding with initial stay-at-home directives (Shanley, 2020). Besides, with fast development of mobile technology, many functions of desktop computers have been transferred to mobile devices like iPad and smartphone for the case for game applications (Wang et al., 2019). Mobile video games refer to games played by either single or multi players via online mobile devices. These games are particularly popular when they can be downloaded for free (e.g., “freemium games,” but customers may pay for the extra features (Su et al., 2016). The latest China Internet Network Information Center's (CNNIC, 2018) report revealed that the growth rate of mobile online games has reached 9.6% and adolescents are the main user group. Computer games are also the most popular in modern societies and they target a variety of people of different ages. The addiction to the competition and excitement of the games as it a recreational program for today's teenagers. These groups mostly focus on reaching a higher level of the game and they seem to immerse in the game so much and this separates them from their surroundings. The global digital media market has consistently been growing, with gaming accounting for the biggest share of market revenues. Currently, there are an estimated 1 billion online gamers worldwide with China, South Korea, and Japan having the biggest online gaming reach among the population. (J. Clement, 2022). This is primarily attributed to the impact of the COVID-19 pandemic, as a widespread lockdown compelled individuals to stay at home. This has also increased the reliance on digital entertainment and online gaming for both leisure and social interaction.

The #PlayApartTogether was the initiative by the World Health Organization (WHO) since 2020 to promote gaming for socialization, stress reduction and providing a source of entertainment during times of isolation. Although online gaming can be a healthy coping strategy for the majority, it can also pose risks to some vulnerable individuals. Among the risks are social isolation, online harassment and bullying, addiction and overuse, overspending for in game purchases, age-inappropriate content and unhealthy lifestyle patterns. Thus, balanced and effective approaches to gaming during the COVID-19 pandemic are needed to support physical and psychological well-being (King et al., 2020). The Movement Control Order (MCO) implemented by the Malaysian government on 18 March 2020, has posed challenges for students across country in attending traditional physical. This is primarily due to the Standard Operating Procedure (SOP) set up by the government to manage and contain COVID-19 cases. The classes were replaced by online platforms such as Google Meet, Skype, Microsoft Team and Zoom application. There has been an increased concern among scholars on ‘cyberloafing’ where the students use internet for personal activities during classes.

Games addiction may result harm with possibility will lead to games disorder. Gaming disorder is defined in the 11th Revision of the International Classification of Diseases (ICD-11) as a pattern of gaming behavior (“digital- gaming” or “video-gaming”) characterized by impaired control over gaming, increasing priority given to gaming over other activities to the extent that gaming takes precedence over other interests and daily activities, and continuation or escalation of gaming despite the occurrence of negative consequences (World Health Organization, 2022, Sally Hopkins, 2022). Addiction to online gaming and playing it excessively with its competitive nature will lead to physical and psychological distress. Physical issues include eye fatigue, blurry vision,

lower back pain, tension headache, wrist pain, hand pain, and poor posture while gaming. Psychological issues include depression, anxiety, apathy, uncooperative attitude, tense, sleep disturbances, mental distress, aggressive affect and behaviors, distress in social life, and emotional disturbances (Palanichamy et al., 2020). Clinical distress and impairment in sleeping habits were reported to be associated with gaming disorder. Results indicated that over half the research participants reported poor sleep quality (Altintas et al., 2019). It was reported that psychological and mental distress symptoms, such as depression, anxiety, and social phobia were observed in youth who pathologically played video games. Fast paced and challenging games stimulate aggressive thoughts, and increase frustration and anger (Stevens et al., 2021). For example, Goh et al., (2019) reported that players of DOTA 2, a popular multiplayer online battle arena game where the players control the unique characters with specific abilities had lower self-esteem and poorer psychological well-being. Games addiction is also harmful due to the chances to gamble. In a study conducted in Norway, there is a positive relationship between scores on problematic gaming and later scores on problematic gambling (Molde et al., 2019). Gambling among students is the main concern as they do not yet have any income other than sponsorship from parents, scholarships and any study loan. Spending much money on gambling will lead them to face difficulty in living hence will lead to emotional depression, stress and the worst, suicidal attempt. This indicates that online gaming carries both advantages and detrimental effects on its users. The potential harm outweighs the benefits. This study determines undergraduate students' awareness of online gaming and its impact on physical health.

## Literature Review

There are three points discussed in the literature review.

### Online Gaming During COVID-19 Pandemic

Due to school closures, limited extracurricular activity, and social distancing during the COVID-19 pandemic, adolescents spend more time at home, and it led to an increase in time spent in online gaming. The environment of the pandemic induced an increase in internet usage, which may increase the risk of developing addictive behaviors in young people that persist throughout their lifespan (Kim & Lee, 2021). A study from China reported that problematic gaming was a significant mediator of a relationship between psychological distress and time spent on internet related activities during the COVID-19 pandemic (Kim & Lee, 2021). According to the interaction of the person affect cognition execution (I-PACE) model, addiction develops from the interaction of the context (isolation and stress due to the pandemic), personal reaction (playing games on the internet to reduce stress and feel relieved), and consequences (neural changes, habituation, and compulsion) of repeated behaviors (Kim & Lee, 2021). During the COVID-19 pandemic, playing games on the internet in moderation was viewed as a coping mechanism to reduce stress. However, there was a possibility of excessively playing games on the internet as isolation and social distancing severely limit available activities to reduce stress which in turn accelerates the development of addictive behavior into a 'later stage' of addiction (Kim & Lee, 2021). The impact of the pandemic on online gaming addiction may be greater for young people in South Korea due to a very high proportion of gamers as high as 91.5% among the adolescent population. The results of the nationally representative survey conducted by the Korea Creative Agency (2020) indicated that more than half of young people confirmed that the time spent playing games on the internet increased during the COVID-19 pandemic (Kim & Lee, 2021). Excessive internet usage has been known as an indicator of behavioral addiction since the conceptualization of internet addiction.

### **The effects of Online Gaming Addiction on Health**

Mobile gaming addiction is the constant and repetitive form of mobile game playing actions that could affect physical health, mental health, spending behaviors, interpersonal issues, and many others. The majority of young people turn to mobile gaming to cope with stress or to spend their leisure time with friends online. This behavior however could turn into addiction if it is uncontrolled (Zakaria & Adnan, 2022). The effect of mobile gaming addiction is not only limited to physical health and sleep health but could also heavily affect the mental wellbeing of players and their social interactions with other people. Amongst the effects is low social competence. Young adults face social difficulty when engaging with certain situations as they are slower to adapt or reflect on their social mistakes (Zakaria & Adnan, 2022). An individual's well-being and self-esteem would be highly impacted as most players would prefer to stay online and avoid physical contact with other people. Moreover, players would also experience low life satisfaction as their overall quality of life would be affected (Zakaria & Adnan, 2022). Gaming addiction was frequently associated to be the cause of lower academic performance where players who spend less time playing mobile games perform better academically than players who played more games. Thus, these effects further highlight the importance of tackling the issue and potential effects that mobile gaming addiction might cause towards young adults (Zakaria & Adnan, 2022).

### **Physical Health and Online Gaming Addiction**

Many studies reported the link of physical health deterioration with the prolonged usage of mobile devices. Undeniably, the easy access to mobile devices had also made it easier for mobile gaming addiction to happen. Players were heavily engaged with the games that they started to prolong the use of mobile devices, and this started to affect their physical health conditions. Smartphone usage has been reported to cause increased neck and back pain, visual impairments, and migraines. Longer usage of mobile phones than two hours every day had increased in lower back, neck, and shoulder pain among young people (Mustafaoglu et al., 2021). A study by Howie found that young people had greater mean head, trunk, and upper arm angles while using a mobile device compared to watching television (Howie et al., 2017). Excessive use of mobile devices was also found to be commonly associated with optical problems in young adults. Another study also associates prolonged device use such as smartphones and tablets with increased obesity risk due to lesser physical activity (Kenney & Gortmaker, 2017). The decline in physical activity or sedentary behavior would create an energy imbalance that might lead to obesity (Martínez-Ramos et al., 2018). Excessive mobile gaming also significantly impacts sedentary behaviors in young adults. It was found that 56.2% of Malaysian young people spend more than three hours daily sitting to play games online (Zul Kamal & Wok, 2020). This means that Malaysian young adults engage daily and spend more of their time online which also means that they are prone to mobile gaming addiction and the negative side effects on their physical health, mental health, interpersonal relationships, and quality of life. This study aims to assess the awareness of online gaming addiction and its impact on physical health and to identify the association between the sociodemographic background with the awareness of online gaming addiction and its impact on physical health among undergraduate students in one of the public universities in Pahang Malaysia.

### **Method**

This cross-sectional study uses a self-administered questionnaire adopted from previous study by Zakaria & Adnan (2022) that collects information regarding sociodemographic characteristics and physical health factors that impact online gaming. The questionnaire consists of five sections which are section A which related to sociodemographic background

data (gender, year of study and faculty) while section B requires participants to answer 10 questions on addiction level to playing games online. Section C consists of 12 questions on awareness on online gaming addiction towards young people and section D consist of 11 questions on the impact of online gaming addiction to physical health and their sleep pattern. The questionnaire grades according to five-point Likert scale that ranges from ‘strongly agree’, ‘agree’, ‘average’, ‘disagree’ and ‘strongly disagree’ and ‘never’, ‘rarely’, ‘average’, ‘often’, ‘always’. Undergraduate students from International Islamic University Malaysia, Kuantan Campus were randomly selected for this study. This study was approved by Kulliyah of Nursing Postgraduates Research Committee (KNPGRC) and IIUM Research Committee (IREC). Informed consent was obtained from the participants. All the participants assured that the information given to the researcher was protected as confidential. The participants have the right to refuse participation and withdraw consent at any time.

## Results

### Demographic Background

Majority of participant were from year 4 students, with 118 participants (48.4%), 41 participants (16.8%) from Year 3 students, 32 participants (13.1%) from year 2 students, 28 participants (11.5%) from Year 1 students and 25 participants (10.2%) from Year 5 students. Out of 244 participants, 144 (59%) were female while the rest were male. There are 98 participants (38.8%) from Kulliyah of Nursing, 33 participants (13.5%) from Kulliyah of Science while the rest from Kulliyah of Allied Health Science, Kulliyah of Medicine, Kulliyah of Pharmacy, Kulliyah of Dentistry with participants 31 students (12.7%), 30 students (12.3%), 29 students (11.9%), 28 students (11.5%) respectively.

**Table 1: Socio-demographic Background**

Demographic Background	Frequency (n)	Percentage (%)
<b>Gender</b>		
Male	100	41
Female	144	59
<b>Year of Study</b>		
Year 1	28	11.5
Year 2	32	13.1
Year 3	41	16.8
Year 4	118	48.4
Year 5	25	10.2
<b>Kulliyah</b>		
Kulliyah of Nursing	93	38.1
Kulliyah of Medicine	33	13.5
Kulliyah of Dentistry	29	11.9
Kulliyah of Pharmacy	28	11.5
Kulliyah of Science	30	12.3
Kulliyah of Allied Health Science	31	12.7
<b>Average time exposure on online gaming in a day</b>		
Less than 1 hour	143	58.6
2 to 3 hours	90	36.9
4 to 5 hours	9	3.7
More than 6 hours	2	0.8

## Level of Awareness on Online Gaming Addiction Among Undergraduate Students

**Table 2: Level of awareness on online gaming addiction**

Awareness	Frequency, N (%)				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
It is reassuring to know about online gaming addiction towards my personal health-related condition	3 (1.2)	4 (1.6)	45(18.4)	95(38.9)	97(39.8)
It is very helpful to see health-related information on online gaming addiction	2 (0.8)	2 (0.8)	29(11.9)	101(41.4)	110(45.1)
The information on online gaming addiction is very helpful for me to make health-related decisions	3 (1.2)	9 (3.7)	28(11.5)	104(42.6)	100(41.0)
The information on online gaming addiction encourages me to take actions that could be beneficial to my health	2 (0.8)	9 (3.7)	28(11.5)	93(38.1)	112(45.9)
I can easily understand the information on online gaming addiction	3 (1.2)	4 (1.6)	31(12.7)	101(41.4)	105(43.0)
I feel more inclined to look after myself after knowing about online gaming addiction	2 (0.8)	4 (1.6)	38(15.6)	95(38.9)	105(43.0)
I have learnt something new about online gaming addiction	4 (1.6)	6 (2.5)	40(16.4)	93(38.1)	101(41.4)
The information on online gaming addiction prepares me for what might happen to my health	2 (0.8)	6 (2.5)	35(14.3)	90(36.9)	111(45.5)
I value the advice given about online gaming addiction	2 (0.8)	4 (1.6)	29(11.9)	98(40.2)	111(45.5)
Awareness of online gaming addiction gives me confidence that I can manage my health	1 (0.4)	4 (1.6)	40(16.4)	84(34.4)	115(47.1)
Awareness on online gaming addiction helps me to have a better understanding of my personal health	1 (0.4)	2 (0.8)	30(12.3)	97(39.8)	114(46.7)
Awareness of online gaming addiction encourages me to play a more active role in my healthcare	1 (0.4)	5 (2.0)	31 (12.7)	97(39.8)	110 (45.1)

**Table 4: The frequency and percentage of the level of awareness on online gaming addiction**

Level of Awareness	Frequency N (%)
Good	240 (98.4)
Poor	4 (1.6)
Total	244 (100)

Score range: Good = 31 – 60, Poor = 0 – 30

**Table 5: Association between sociodemographic background with the level of awareness on online gaming addiction among the participants**

Demographic background	Awareness level, N (%)		N (%)	p-value*
	Poor	Good		
<b>Gender</b>				
Male	2 (0.7)	98(40.3)	100 (41)	0.207
Female	2 (0.7)	142(58.3)	144 (59)	
<b>Year of Study</b>				
Year 1	1 (0.3)	27(11.2)	28 (11.5)	0.033
Year 2	1 (0.2)	31(12.9)	32 (13.1)	
Year 3	1 (0.1)	40(16.7)	41 (16.8)	
Year 4	2 (0.4)	116(48.0)	118 (48.4)	
Year 5	1 (0.2)	24(10.4)	25 (10.2)	
<b>Kulliyah (faculty)</b>				
Kulliyah of Nursing	2 (0.6)	91(37.5)	93 (38.1)	0.055*
Kulliyah of Medicine	1 (0.3)	29(13.8)	30 (12.3)	
Kulliyah of Dentistry	1 (0.2)	27(11.7)	28 (11.5)	
Kulliyah of Pharmacy	1 (0.2)	28(12.1)	29 (11.9)	
Kulliyah of Science	1 (0.3)	32(13.2)	33 (13.5)	
Kulliyah of Allied Health Science	1 (0.2)	30(12.5)	31 (12.7)	
<b>Average time exposure on online gaming in a day</b>				
Less than 1 hour	2 (0.2)	141 (58.3)	143 (58.6)	0.558
2 to 3 hours daily	2 (0.2)	88 (37.1)	90 (36.9)	
4 to 5 hours daily	1 (0.1)	8 (3.8)	9 (3.7)	
More than 6 hours daily	0 (0)	2 (0.8)	2 (0.8)	

## Discussion

This study was conducted among International Islamic University Malaysia Kuantan undergraduate students. Majority of participant were from year 4 students, with 118 participants (48.4%), 41 participants (16.8%) from Year 3 students, 32 participants (13.1%) from year 2 students, 28 participants (11.5%) from Year 1 students and 25 participants (10.2%) from Year 5 students. Out of 244 participants, 144 (59%) were female while the rest were male. There are 98 participants (38.8%) from Kulliyah of Nursing, 33 participants (13.5%) from Kulliyah of Science while the rest from Kulliyah of Allied Health Science, Kulliyah of Medicine, Kulliyah of Pharmacy, Kulliyah of Dentistry with participants 31 students (12.7%), 30 students (12.3%), 29 students (11.9%), 28 students (11.5%) respectively. Among 244 participants, majority with number 143 students (58.6%) spend less than 1 hour on online gaming in a day. 90 participants (36.9%) spend 2 to 3 hours daily on online gaming, 9 participants (3.7%) spend 4 to 5 hours daily on online gaming and 2 participants (0.8%) spend more than 6 hours daily on online gaming.

### Level of Awareness on Online Gaming Addiction Among Undergraduate Students

The students' awareness level was determined by the total score of the 12 questions. The result from the statistical test shows that 98.4% of participants have above average of awareness level while 1.6% of participants have below average of awareness level on online gaming addiction



among undergraduate students IIUM Kuantan campus. Thus, majority of IIUM Kuantan undergraduate students have good level of awareness on online gaming addiction. In contrast, the study among the students at middle school in Guangzhou, China by (Yu et al., 2021) reported the students have below average of awareness level on Internet Gaming Disorder (IGD). The result varies may be due to the education level of the participants. The participants with tertiary education level seems to have a good awareness level on online gaming addiction compared to the participant in the study in Guangzhou, China. The participants aware that addiction to online gaming and playing it excessively with their competitive nature will lead to physical and psychological stress. Eye fatigue, blurry vision, low back pain, tension headache, wrist pain, hand pain, and poor posture while gaming are the physical stress that are might be affect the game addiction. For the psychological distress were anxiety, apathy, uncooperative attitude, tense, sleep disturbances, mental distress, aggressive affect and behaviours, distress in social life, and emotional disturbances. (Palanichamy et al., 2020)

### **Association Between Socio-Demographic Characteristics with Level of Awareness on Online Gaming Addiction**

The students' awareness level was determined by the total score of the 12 questions. Awareness level on online gaming addiction is determined by a scoring. The scoring was calculated using a median of the total score of 60 based on Likert scale of 12 questions. A scoring range of 1 – 30 indicates a poor level of awareness on online gaming addiction. Meanwhile, a scoring range from 31 – 60 indicates a good level of awareness on online gaming addiction. In the present study, for gender variables, for males there are 98 participants (40.3%) have a good awareness level while female with 142 participants (58.3%) have a good level of awareness on online gaming addiction. It is about 116 participants (48%) from Year 4, 40 participants (16.7%) from Year 3, 31 participants (12.9%), 27 participants from (11.2%), 24 participants (10.4%) that have a good level of awareness on online gaming.

Based on socio- demographic characteristics for Kulliyyah, from Kulliyyah of Nursing, about 91 students (37.5%), Kulliyyah of Medicine about 29 students (13.8%), Kulliyyah of Science about 32 students (13.2%), Kulliyyah of Allied Health Science about 30 students (12.5%), Kulliyyah of Pharmacy about 28 students (12.1%) and Kulliyyah of Dentistry about 27 students (11.7%) are having a good level of awareness on online gaming addiction. Based on average time on online gaming exposure, for time less than 1 hour a day, 141 of the participants (58.3%) have a good level of awareness on online gaming addiction, for time 2 to 3 hours a day, 88 of the participants (37.1%) have a good level of awareness on online gaming addiction, for time 4 to 5 hours a day, 8 of the participants (3.8%) have a good level of awareness on online gaming addiction meanwhile for time more than 6 hours daily, only 2 of the participants (0.8%) have a good level of awareness on online gaming addiction.

There is no association between the gender, Kulliyyah and average time exposure on online gaming addiction in a day and the level of awareness on online gaming addiction as all the p-value more than  $p > 0.05$  which are  $p = 0.207$ ,  $p = 0.055$ ,  $p = 0.558$  respectively. On the other hand, in a study from Norway, Germany and the USA, the findings report that a greater proportion of male play video games that female (Leonhardt & Overå, 2021). As well as study in Uni Arab Emirates (UAE) showed that males students are more addicted than female students (Naaj & Nachouki, 2021). The result compared to this study might be differ due to the peer influence as the participants live in the same places. Gaming maybe their way to interact or having a time among themselves. The participants are also from the students. Involve in online gaming may be the way of coping mechanisms from their stress-study life regardless of their gender.

There is an association between the year of study and the level of awareness on online gaming addiction where the p-value less than  $p < 0.05$  which is  $p = 0.033$ . The result shows that year of study shows an association on awareness level on online gaming addiction. In a study on the mediating role of online gaming motives and moderating role of age group, when compared to adolescents, adults are better at perception and management of their emotions and have lower impulsivity and sensation-seeking tendencies as well as more adaptive coping styles than maladaptive ones. Furthermore, adults may engage in gaming with more adaptive and beneficial motivations compared to adolescents. Therefore, there may be significant differences on the direct and indirect relationships among adolescent gamers and adult gamers (Kircaburun et al., 2020).

### **Association Between Awareness on Online Gaming Addiction and Its Impact on Physical Health Among Undergraduate Students**

The findings from this study revealed that awareness level on online gaming addiction is significantly associated with the impact on physical health. By using Spearman correlations, between awareness level on online gaming addiction and its impact on physical health p-value,  $p = 0.008$  which is  $p < 0.05$ . From the result, it can conclude that having a good awareness level on online gaming addiction gives a good impact on physical health. On the other point, based on the Table 6, addiction level on online gaming addiction also has a significant association with the impact on physical health with p-value,  $p = 0.011$ . Meanwhile, there is no significant association between awareness level on online gaming addiction and addiction level on online gaming:  $p = 0.207$ . It indicates that we can accept the null hypothesis.

Hence, upon all the result, it can be inferred that it is more important to focus more on the association on awareness level on online gaming addiction and addiction level on online gaming as it concerning that if the students were given a lot of exposure on awareness on online gaming addiction, it does not reduce the addictive behavior of the students on online gaming. It is recommended to take initiative to resolve the addiction on online gaming to ensure the future of the students in their study life. Although gaming can be a good coping mechanism for the majority, it can also give risks to some vulnerable individuals. Balanced and effective approaches to gaming are needed to support psychological and physical well-being (King et al., 2020).

### **Conclusion**

This cross-sectional study aimed to access the level of awareness on online gaming addiction, to determine the association between sociodemographic characteristics with the awareness on online gaming addiction and its impact among undergraduate students IIUM Kuantan campus and to determine the association between awareness on online gaming addiction and its impact on physical health among undergraduate students IIUM Kuantan.

The summary of the findings of the study firstly, most of participants 240 (98.4%) have above average of awareness level while only 4 (1.6%) of participants have below average of awareness level on online gaming addiction. Secondly, there is no significant association between socio-demographic background (gender:  $p = 0.207$ , kulliyah:  $p = 0.055$  and time exposure on online gaming in a day:  $p = 0.558$ ) with awareness level on online gaming addiction, but there is a significant association between socio-demographic background for year of study ( $p = 0.033$ ). Thirdly, there is significant association between level of awareness on online gaming addiction and its impact on physical health with p-value,  $p = 0.008$ . Also, there is a significant association

between level of addiction on online gaming and its impact on physical health with p-value,  $p=0.011$ . But there is no significant association between level of awareness on online gaming addiction and the level of addiction on online gaming with p-value,  $p=0.207$ . This study may not represent all the undergraduate students as it is not reached the targeted number of students which are 244 students from 346 students. It hinders the generalizability of the study outcomes. The study does not include undergraduate students from other universities or colleges around the Kuantan area or other areas.

The result of this study indicates that level of awareness on online gaming addiction are associated with its impact on physical health. However, this study also shows that it is necessary to review association between the level of addiction on online gaming and the impact on physical health as it is concerning that the more exposure on awareness on online gaming addiction does not reduce the addictive behaviours of the students on online gaming. It is recommended to take initiative to resolve the addiction on online gaming to ensure the future of the students in their study life. Universities should develop a variety of simulation strategies focused specifically on students' addiction on online gaming problems.

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