THE RELATIONSHIP BETWEEN PLAYING ONLINE GAMES AND BURNOUT AMONG STUDENTS IN YOGYAKARTA

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ABSTRACT

Background: Gaming burnout or gaming fatigue is used to describe anyone who has become overworked or overplayed, and under-rested, along with other associated physical, social, and emotional factors. There are many factors that play into gaming fatigue or gaming burnout, but they all appear to be related to increased levels of physical and emotional stress and limited rest. In the gaming community, it appears much of this stress is fueled by pressure to do more to stream more hours per day and more days per week, to grind the game until the individual get the chance at the professional level, and so on. The hypothesis was that adolescents who engage in online gaming have higher probability of experiencing gaming fatigue. This study aimed to the relationship between playing online games and burnout among students.
Subjects and Method: This was a cross-sectional study conducted at the Universitas Respati Yogyakarta, Yogyakarta, Central Java. A total of 70 students were selected in this study. The dependent variable was burnout. The independent variable was the intensity of playing online games. The data was analyzed by chi-square test.
Results: The intensity of online games was associated with an increased risk of gaming burnout in students ($p < 0.001$).
Conclusion: The intensity of online games is associated with an increased risk of gaming burnout in students.

Keywords: online games, intensity, burnout, students.

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BACKGROUND

The development of the era of globalization at this time has a very large influence on human life. Through the era of globalization, the internet has made a major contribution to the development of students. Students spend a lot of time surfing the internet in various forms, starting from doing college assignments, browsing, googling, social networking, chatting and online games. Every student is required to always be ready and have quality in order to be able to compete with other individuals, besides that lecture activities also take time and energy. Ideally, students have a healthy and good physique, but in reality, students feel lazy because they can't stand their condition to complete tasks that must be completed, thus making students look for entertainment. One of the entertainments of today's modern era is online games. Online games are games that are operated using an internet connection. Online game fans themselves are not limited by age and gender (Kurniawan, 2017).

Online games with facilities via the internet offer more facilities such as connecting us with various players outside our area, compared to ordinary games (such as video games) because these players can communicate with other players in various parts of the world through chat. Students who do not have online game facilities in their homes can easily access them at internet cafes (warnet) that provide online games facilities. This condition makes it easier for students to play online games anywhere and anytime without knowing the time, this eventually causes students who initially only look for entertainment to become dependent (Syahran, 2015).

Online games are one of the five potential dangers hidden in the use of the internet because they often feature violent scenes. Some of the other dangers of the internet are cyber bullying, cyber fraud, pornography, and cyber stalking (Pranitika et al., 2014). Internet penetration in Indonesia until 2016 reached thirty-four percent of the total population of 259.1 million people. This means that the number of active internet users in Indonesia has reached 88.1 million people. Of this number, as many as 79 million people are active users of various social media. the composition of internet users by gender, consisting of women as much as 48.57%, and men as much as 51.43%. For the composition based on age, the largest number is shown by people aged nineteen to 34 years, which is 49.52%. However, the largest penetration is at the age of 13-18, which is 75.50%. The second largest internet users based on economic level, which are in the lower middle class, 74.62%, and the upper middle class, 16.02% (KOMINFO, 2018).

SUBJECTS AND METHOD

1. Study Design
This was a cross-sectional study conducted at the Faculty of Health Sciences, Universitas Respati Yogyakarta, Sleman, Yogyakarta, from March 2020 to February 2021.

2. Population and Sample
This research was conducted online. The population in this study were 70 students who met the criteria as online game players.

3. Study Variable
The dependent variable is fatigue. The independent variable is the intensity of playing online games.

4. Operational Definition Study
Fatigue is a condition of student body resistance that begins to decline due to activities playing online games 3 hours a day.

The intensity of playing online games is the length of time spent playing online games.

5. Study Instrument
The instrument used is a questionnaire conducted through an online google form.

6. Data Analysis
The data were analyzed by univariate and bivariate analysis using the odds ratio (OR).

7. Research Ethic
This research has obtained an Ethical Eligibility Letter with the number 232.3/FIKES/PL/X/2020.

RESULTS

1. Sample Characteristics

The majority of students who play online games are women as many as 58 people (82.56%). Most of them came from the nutrition sciences undergraduate program as many as 35 people (50%). The majority of students play online games every day as many as 54 people (77.14%), with a maximum duration of 3 hours as many as 53 people (75.71%), and almost all playing online games this month as many as 65 people (92.86%), and the majority experience fatigue as many as 39 people (55.71%) (Table 1).

Table 1. Sample Characteristics

Characteristics	n	%
Gender		
Male	12	17.14
Female	58	82.56
Study Program		
Diploma Program Physiotherapy	3	4.28
Midwifery Diploma Program	6	8.57
Undergraduate Nutrition Sciences	35	50.00
Nursing Science Undergraduate Program and Nurse Profession	10	14.29
Public Health Undergraduate Program	14	20.00
Midwife Professional Education	2	2.86
Time		
Everyday	54	77.14%
Not everyday	16	22.86%
Duration		
≥ 3 hours	53	75.71%
< 3 hours	17	24.29%
The last time playing online game		
This month (10th of February 2021)	65	92.86%
Last month (11th of January 2021)	5	7.14%
Fatigue		
Not tired	8	11.43
Tired	39	55.71
Exhausted	23	32.86

2. Bivariate Analysis

The intensity of online gaming was associated with an increased risk of game fatigue in students (OR= 2.37; $p < 0.001$) (Table 2).

Table 2 The relationship between the intensity of playing online games with fatigue

Intensity of Playing Online Games	Fatigue						p
	Not tired		Tired		Exhausted		
	n	%	n	%	n	%	
≥ 3 hours	0	0	30	42.85	23	43.3	<0.001
<3 hours	8	11.43	9	12.85	0	0	

DISCUSSION

The results of this study showed that of the 70 students who played online games, most of them were 58 students (82.56%) in the female gender group and 12 students (17.14%) in the male gender group. Several previous studies have shown that the majority of online game users are male, for example a study at SMA Negeri 1 Deli showed male online game users as many as 80 subjects (83.30%) (Arizona et al., 2020).

Research conducted among computer user online gamers at the internet cafe M2g Supernova Malalayang also showed that the gender of online game users was male with 41 subjects (95.30%) and female with two subjects (4.70%)8. The gender of this study was mostly female because the research conducted at the Faculty of Health Sciences, Universitas Respati Yogyakarta, the majority of students were women. Online games besides having a negative side, actually also has a positive side. Empirical research shows that online games can improve the cognitive abilities of girls who play online games during childhood and adolescence (Laconi et al., 2017; Lopez-Fernandez et al., 2019).

The intensity of playing online games shows that most 75.71% (53 people) are intensely playing online games. Subjects spend most of their time in a day playing online games. The intensity of playing online games is how often or the frequency of individuals playing online games. Intensity is a person's behavior, the intensity of online games has a huge impact on health, mental disorders, inhibits the process of self-maturation, affects learning achievement, waste, and has difficulty socializing with other people (Maulidar et al., 2019). The intensity of playing online games provides various kinds of impacts or influences both physically and psychologically for players. The physical impact can be in the form of fatigue in the limbs due to playing games for too long which causes the body's health to decline so it is easy to get sick. While the psychological impact caused is that players become irritable, unable to control emotions caused by defeat in playing games (Kurniawan, 2017).

Fatigue with a level of tiredness reached (55.71%) or 39 of 70 students experienced fatigue or more subjects experienced more fatigue, only a small percentage (11.43%) of subjects did not experience fatigue. These results are in line with previous study on the relationship between the level of online game addiction and the incidence of asthenopia in Medan City High School students which showed that there was a significant relationship or correlation between online game addiction and asthenopia. This causes symptoms such as headaches, blurred vision, discomfort in the eyes, and often squinting when looking at distant objects (Anggraeni, 2017).

Study on students of Islamic junior high school Al-Qudwah Grade 8 also shows that most students (85.70%) experience fatigue due to playing with mobile phones, which is indicated by symptoms of complaints such as drowsiness, yawning, lack of concentration, dizziness, sore eyes, etc. when participating in learning activities. in the classroom. Continous fatigue that occurs every day will

result in chronic fatigue (Anggraeni, 2017).

The results showed that the intensity of playing online games was related to fatigue. This study is in line with the results of research by Arizona et al. (2017) which states that a long duration of playing games has a greater risk of increasing eye fatigue. Eye fatigue caused by playing online games for a long time or Asthenopia (Computer Vision Syndrome) will appear after four hours or more, and will have health effects such as very tired eyes, heavy and sore head, blurred vision, dryness in the eyes. eyes, eyesight becomes sensitive to light, double vision, pain in the neck and back and complaints of dizziness (Arizona et al., 2017).

Previous research on the relationship between online game addiction and sleep quality in online gamers computer users at the m2g Supernova Malalayang internet cafe, which resulted in a relationship between online game addiction and sleep quality, gamers could not resist playing online games and unable to manage online game play time. The results showed that the subject had poor sleep quality because the subject was too engrossed in playing online games and could not manage the time to play so that the subject lacked sleep and difficulty falling asleep and experiencing sleep deprivation (Manuputty et al., 2020).

The results of this study are in accordance with previous research, there is a relationship between the intensity of playing online games on the occurrence of stress, and there is a relationship between the intensity of playing online games on the occurrence of depression. There is a relationship between the intensity of playing online games on the occurrence of sleep disturbances. Subjects with medium and high intensity of playing online games experienced the most severe stress, subjects with low, medium, or high intensity of playing online games had minimal depression, subjects with low intensity of playing online games mostly had good sleep quality, but in Subjects with moderate intensity of playing online games and high intensity of playing mostly had poor sleep quality. This shows that most students who have an excessive intensity of playing online games can have a bad impact on their health.

CONFLICT OF INTEREST
There is no conflict of interest in this study.

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