

THE INFLUENCE OF *COGNITIVE BEHAVIORAL THERAPY* (CBT) BASED ON ISLAMIC VALUES ON GAMING ADDICTION ONLINE GAMES FOR SCHOOL-AGE CHILDREN

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Abstract

Online game addiction is often characterized by the inability to control the desire to play so that it is difficult or unable to stop the behavior regardless of all the efforts made to stop it. This research aims to determine the effect of Cognitive Behavioral Therapy (CBT) based on Islamic values on addiction to playing online games in school-aged children. Design This research is a quasi-experiment with a two-group pretest and post-test design with the control group. The population in this study were grade 6 students from two elementary schools in Makassar City, South Sulawesi with a sample size of 64 respondents and taken by purposive sampling divided into control and intervention groups. The research instrument is a knowledge questionnaire. Data analysis using SPSS software. The research results explain that Asymp.Sig. (2-tailed) is 0.000, which shows that there is a difference in the level of knowledge in the intervention and control groups after being given CBT intervention with Islamic values because CBT with Islamic values was given to the intervention group. Meanwhile, before the intervention was given, there was no significant difference in the control and treatment groups with a value of $0.829 > 0.05$. This means that there was no difference between the control and intervention groups before being given CBT with Islamic Values. Islamic Values CBT intervention can help in efforts to reduce the level of online gaming addiction in adolescents and can be used as an alternative nursing intervention in preventive efforts.

Keywords: *Online Games, Addiction, Cognitive Behavioral Therapy*

Introduction

Technology and science are developing rapidly, making people's lives more practical in carrying out all activities with the help of technology, one of which is *online games*. *Online games* are a type of game that uses devices connected to the internet network as the medium. *Online games* function as a means of entertainment, but playing activities too often will make individuals attached and addicted (Efendi, Christy & Yuma, 2021).

Online game addiction is often characterized by the inability to control the desire to play so that it is difficult or unable to stop the behavior regardless of all the efforts made to stop it. The main cause of *online game addiction* is because a person feels happy then the brain produces dopamine which is a hormone that makes you happy. Under normal conditions, this will cause addiction. Objects that make you happy stimulate the brain to produce excessive dopamine which disrupts the work of the hypothalamus, which is the part of the brain responsible for regulating emotions and creates a mood of confidence, enthusiasm, and an unnatural feeling of happiness. This makes the body automatically addicted and wants to feel it again. This repeated duration makes people use opium repeatedly higher duration. If this happens continuously for too long it will damage the receptors and cause the brain to become addicted.

Statistical results from The Recovery Village (2021), more than 2 billion people play online games in the world. Other statistical data regarding online gaming addiction shows that 1–10% of gamers have a compulsive addiction problem. Based on the *We Are Social* report, Indonesia is the country with the third largest number of online game players in the world, the number of online game players in Indonesia reached 54.7 million people in 2020. The number increased by 24% compared to 2019, namely 44.1 million people (Statista, 2020). School-aged children are one of the groups at risk

of becoming addicted to *online games*, where when they are bored with school assignments, many of them will look for entertainment. (Wibowo & Fransco, 2021).

Addiction to online games can have negative impacts, including psychological aspects, academic aspects, financial aspects, and social aspects (Novrialdy, 2019). Social disorders caused by online game addiction occur over a long period because the individual separates himself from real life (Wibowo & Fransco, 2021). Based on In this case, a strategy to help addicted sufferers is needed to control their excessive thoughts and behavior so that their addiction to playing *online games* can be reduced effectively. Several studies show that the recommended *treatment method for dealing with game addiction* is *Cognitive Behavior Therapy* (CBT), which is a type of therapy based on the cognitive model of mental illness, which was first developed by Beck (1964). In its simplest form, cognitive models 'hypothesize that people's emotions and behavior are influenced by their perceptions of events. It is not the situation in and of itself that determines what people feel but rather the way they contain the situation. In other words, how people feel is determined by how they interpret a situation rather than the situation itself (Fenn & Byrne, 2013).

Cognitive Behavior Therapy (CBT) is the main *treatment option* for common mental health disorders. NICE (2011) recommends *Cognitive Behavior Therapy* (CBT) for all depression and anxiety disorders as well as Addictions. By providing *Cognitive Behavior Therapy* (CBT), a person will have self-awareness, have more positive thoughts and behavior, and will be aware of what they are experiencing, why they are addicted to online games, what are the impacts of online game addiction, and how to prevent it (Nuralitta & Yuniati, 2020).

Cognitive Behavior Therapy (CBT) based on Islamic values follows the same process as conventional *Cognitive Behavior Therapy* (CBT). The specific difference is that spiritual integration uses religious beliefs and worship to encourage clients to change their thoughts and behavior. *The Cognitive Behavior Therapy* (CBT) approach by integrating specific Islamic values is called *Islamic Cognitive Behavioral Therapy* (ICBT). *Islamic Cognitive Behavioral Therapy* (ICBT) refers to internal cognition based on the Al-Qur'an and Hadith which can make changes to thoughts and behavior (Sabqi *et al*, 2019).

Based on the description above, someone experiencing *online game addiction* is influenced by certain factors and appropriate treatment to overcome *online game addiction* is by implementing *Cognitive Behavioral Therapy* (CBT) based on Islamic values. Therefore, researchers are very interested in carrying out a research process entitled "The Effect of *Cognitive Behavioral Therapy* (CBT) based on Islamic Values on addiction to playing *online games* in school-aged children ."

Method

The type of research used in this research is a quasi-experimental design in the form of a nonequivalent control group design. In this type of research, the experimental group and control group are not chosen randomly. Two groups will be given a pre-test then treatment and post-test. This research used 2 groups, namely the control group and the experimental group. The experimental group was the class that received treatment in the form of Cognitive Behavioral Therapy (CBT) based on Islamic values, while the control group continued to use conventional Cognitive Behavioral Therapy (CBT). The sampling technique used in this research is a non-probability sampling technique with a purposive sampling technique. The location of this research was SD Inpres Manggala and SD Inpres Karuwisi I Makassar.

This research begins with the pre-intervention stage, in this stage the researcher will carry out trials and simulations of the IGDS9-SF measuring instrument. Before testing the instrument, the scale was adapted in Indonesian, after which the scale was tested. Then an initial assessment of the level of online game addiction was carried out. Researchers assessed by distributing the IGDS-9SF scale randomly to obtain pretest results. After the pretest results are obtained, we then screen the students who take part in the intervention activities. The research continues with the pre-intervention stage, in this stage the researcher will carry out an in-depth study of the Cognitive Behavioral Therapy (CBT) Workbook both conventionally and Islamic-based, and also carry out trials to determine the characteristics of online game addiction in children. After the results are known, the subjects will be divided into two groups randomly, namely the experimental group and the control group. The analysis used is a bivariate analysis using Paired Samples T-Test. Research Ethics was obtained from the Health Research Ethics Commission, Faculty of Nursing and Health Sciences, Muhammadiyah University, Semarang No. 102/KE/07/2023.

Results

Frequency distribution data for the intervention and control groups, characteristics of respondents including age, gender, and type of online game can be seen in Table 1 as follows :

Table 1 Data Frequency Distribution based on Frequency of Respondent Characteristics (n=64).

| Characteristics Respondent | Group | | | |
|------------------------------|--------------|-------|---------|-------|
| | Intervention | | Control | |
| | n | % | n | % |
| Age | | | | |
| 11 years old | 17 | 50.0 | 22 | 73.3 |
| 12 years old | 16 | 47.1 | 8 | 26.7 |
| 13 years old | 1 | 2.9 | 0 | 0 |
| Total | 34 | 100.0 | 30 | 100.0 |
| Gender | | | | |
| Man | 18 | 52.9 | 16 | 53.3 |
| Woman | 16 | 47.1 | 14 | 46.7 |
| Total | 34 | 100.0 | 30 | 100.0 |
| Types of <i>Online Games</i> | | | | |
| Free Fire | 14 | 41.2 | 11 | 36.7 |
| Truth Or Dare | 3 | 8.8 | 0 | 0 |
| Mobile Legends | 7 | 20.6 | 13 | 43.3 |
| FIFA | 0 | 0 | 1 | 3.3 |
| Minecraft | 1 | 2.9 | 0 | 0 |
| Roblox | 7 | 20.6 | 0 | 0 |
| Candy Crush | 1 | 2.9 | 0 | 0 |
| Brain Out | 1 | 2.9 | 0 | 0 |
| PUBG | 0 | 0 | 3 | 10.0 |
| Zepeto | 0 | 0 | 2 | 6.7 |
| Total | 34 | 100.0 | 30 | 100.0 |

The data in Table 1 above explains that the majority of 50.0% of respondents were 11 years old in the intervention group and the majority of respondents in the control group were 11 years old. The majority of respondents' gender in both the intervention group 52.9% and the control group 53.3 % were male. The majority of *online games are Free Fire*, 41.2% in the intervention group and 36.7% in the control group.

The level of addiction of respondents before the intervention group can be seen in Table 2 below:

Table 2 Distribution of Pretest addiction levels in the intervention group (n=34).

| Group Intervention | Addicted | n | % | Mean+SD | Median | Min- Max |
|--------------------|-----------|----|-------|---------------|--------|----------|
| Before | Light | 13 | 38.2 | 26.00+7.870 | 28.50 | 10-38 |
| | Currently | 15 | 44.1 | | | |
| | Tall | 6 | 17.6 | | | |
| | Total | 34 | 100.0 | | | |
| After | Light | 26 | 76.5 | 18.59 + 4,881 | 17.50 | 10-29 |
| | Currently | 8 | 23.5 | | | |
| | Tall | 0 | 0 | | | |
| | Total | 30 | 100.0 | | | |

The data in Table 2 above explains that the level of online game addiction of respondents in the intervention group before the intervention was carried out was the majority with moderate addiction, namely 44.1%, with an average value of 26.00 and a minimum – maximum value of 28-50. Meanwhile, after being given the Islamic Values CBT intervention, it was

found that the majority of respondents had a mild addiction, 76.5% with an average score of 18.59 a minimum score of 10, and a maximum of 29.

The level of addiction of respondents before and after the control group can be seen in Table 3 below:

Table 3 Distribution of mean *Pretest addiction levels* in the control group. (n=30).

| Group Control | Addicted | n | % | Mean+SD | Median | Min- Max |
|---------------|-----------|----|-------|---------------|--------|----------|
| Before | Light | 9 | 30.0 | 26.40 + 6.682 | 27.00 | 16-38 |
| | Currently | 16 | 53.3 | | | |
| | Tall | 5 | 16.7 | | | |
| | Total | 30 | 100.0 | | | |
| After | Light | 8 | 26.7 | 27.00 + 6.139 | 27.50 | 17-38 |
| | Currently | 14 | 46.7 | | | |
| | Tall | 8 | 26.7 | | | |
| | Total | 30 | 100.0 | | | |

Based on table 3 above, explains that the level of *online game addiction* of respondents in the control group before conventional intervention was carried out was the majority with moderate addiction, namely 53.3%, with an average value of 26.40 and a minimum – maximum value of 16-38. Meanwhile, after being given conventional CBT intervention, it was found that the majority of respondents had moderate addiction, 46.7% with an average score of 27.00 a minimum score of 17, and a maximum of 38.

Discussion

Identify the characteristics of addictive responses to playing online games

Based on the results of this study, it was found that the majority of respondents were 11 years old in the intervention group and the age group of respondents. The results of this study showed that the majority of respondents were 11 years old in the intervention group and control group. The majority of respondents' gender in both the intervention and control groups were male and the online game played by respondents was Free Fire in the intervention and control groups. The results of the research show that children under 12 years old are addicted to online games, results of other research state that online games make gamers or children only focus on the games they are playing and become lazy about doing other things that are less interesting than online games like children under 12 years old in Bahu Village. They are lazy about doing other activities such as studying, eating, napping, playing with their peers, and so on.

Other research results show that most students who play online games are aged 5-11 years. Children aged 1-6 years have characteristics of activity and space for movement, individual play, spontaneous and curious. The characteristics of children aged 6-8 years are group play, not too dependent on parents, and the peak of enjoyment of playing is at the age of 8 years. Characteristics of children aged 8-12 years are group play, showing interest in certain things, having a curious nature, experimenting, investigating, and being active.

The characteristics of the research show that the majority of men like to play online games, this is in line with other research which states that boys prefer to spend some of their time playing with their friends outside the house rather than just playing on their cellphones at home, whereas children Girls also prefer to play with their peers, but it is not uncommon for them to bring cellphones when playing outside the house

Identify the duration of playing online games and the types of games frequently used.

The research results showed that the majority of the types of games used were the Free Fire online game, 41.2% in the intervention group and 36.7% in the control group. The online free fire game is a game that has sophistication with action adventures from the battle royale genre, where gamers can choose the characters, weapons, and places they want according to their level of play and can be played simultaneously at the same time because being connected to the internet network brings emotions (satisfaction, happy, bored and sad) (Fanizat, 2021). This free-fire game is a type of online action-adventure game that uses a third person as the player. In line with the results of other research, it is stated that several games are famous among the public, such as Mobile Legend, PBUG Mobile, Hago, Clash Royale, Free Fire, and others. Of the various types of games, the one that is most popular among elementary school children is the free fire game (Furqan, 2020)

The free fire online game is a game developed by 111dots studio and published by Garena, released in Indonesia in January 2018. Free Fire is a Battle Royale and TPS (Third Person Shooter) style war game that brings together 50 players on one large map, where each player is required to kill each other and be the only person who can survive to become the winner. Battle Royale is a video game genre that combines the survival and exploration elements of survival games with last-person standing gameplay. Meanwhile, Third Person Shooter is a type of 3D (three-dimensional) shooter game, which is a subgenre of action games that emphasizes the challenges of aiming and shooting (Furqan, 2020). The main danger posed by online game addiction is the extreme time investment in playing (Baggio et al., 2016). Excessive use of time playing online games disrupts daily life. This disorder significantly changes the child's priorities, resulting in very low interest in anything unrelated to online gaming (King & Delfabbro, 2018). Children who are addicted to online games are increasingly unable to manage their playing time

Describes the condition of the level of online game addiction before and after Cognitive Behavior Therapy (CBT) based on Islamic values.

The results of this study explain that the level of online game addiction of respondents in the intervention group before the intervention was carried out was mostly moderate addiction. Meanwhile, after being given the Islamic Values CBT intervention, it was found that the majority of respondents had a mild addiction. Addiction to online games can have a bad impact on children. So efforts are needed so that children can avoid addiction to online games. Kardefelt-Winther (2017) explains that initially addiction was only related to addictive substances (for example alcohol, tobacco, and illegal drugs) which entered through the blood and went to the brain and could change the chemical composition of the brain. However, currently, the concept of addiction has developed (Alexander, 2010; Peele, 2004). The term addiction developed along with the development of social life, so the term addiction is not only attached to drugs but can also be attached to certain activities or things that can make a person dependent, either physically or psychologically.

The World Health Organization (2018) defines online game addiction as a mental disorder included in the International Classification of Diseases (ICD-11). This is characterized by impaired control over games with increasing priority given to games more than other activities. Ghuman & Griffiths (2012) explain that there are problems that arise from excessive online gaming activities, including a lack of concern for social activities, and loss of control over time. , decreased academic achievement, social relationships, finances, health, and other important life functions

Analysis of the condition of children who are addicted to online games before and after Cognitive Behavior Therapy (CBT) based on Islamic values

Analysis of the results of this study explains that the level of online game addiction of respondents in the intervention group before the intervention was carried out was mostly moderate addiction. Meanwhile, after being given the Islamic Values CBT intervention, it was found that the majority of respondents had a mild addiction. Online game addiction can have a negative or dangerous impact on children who experience it. The impacts that will arise due to online game addiction include five aspects, health aspects, psychological aspects, academic aspects, social aspects, and financial aspects.

Health aspect. Addiction to online games causes children's health to decline. Children who are addicted to online games have a weak immune system due to lack of physical activity, lack of sleep, and often eat late (Männikkö, Billieux, & Kääriäinen, 2015). Psychological aspect. The large number of online game scenes that show criminal and violent acts, such as fighting, vandalism, and murder have indirectly influenced the child's subconscious mind that real life is the same as in the online game. The characteristics of children who experience mental disorders due to the influence of online games are that they are irritable, emotional, and easy to say dirty words.

Academic aspect. The child is of school age and has a role as a student at school. Addiction to online games can cause academic performance to decline. Free time that should be ideal for studying lessons at school is more often used to complete missions in online games. Children's concentration power is generally impaired so their ability to absorb the lessons delivered by the teacher is not optimal.

Social aspect. Some gamers feel they find their identity when playing online games through emotional attachment in the formation of an avatar, which causes them to become immersed in the fantasy world of their creation. This can result in loss of contact with the real world, which can lead to reduced interaction (Marcovitz, 2012). Although it was found that there was an increase in socialization online, at the same time there was also a decrease in socialization in real life (Williams, 2006; Smyth, 2007; Hussain & Griffiths, 2009). Children who are used to living in the virtual world generally

have difficulty socializing in the real world. Antisocial attitudes, and not having the desire to mingle with society, family, and friends are characteristics shown by children who are addicted to online games (Sandy & Hidayat, 2019).

Financial aspect. Playing online games sometimes costs money, just buying a voucher so you can still play one type of online game requires quite a bit of money. Children who do not have their income can lie (to their parents) and use various methods including theft to play online games. This is following the research results of Chen et al. (2005) who found that the majority of online game crimes were theft (73.7%) and fraud (20.2%). This research also found that the age of perpetrators of crimes resulting from online games were school-age children.

According to Michelle J Pearce Religious integrated CBT (RCBT), is a manual therapy approach designed to help individuals develop positive thoughts and reduce negative thoughts through beliefs, practices, and religion as the main source. Intervention studies have found that integrating clients' spiritual and religious beliefs in therapy is effective in reducing a variety of problems. The main objective of Islamic-based CBT integration is to apply an Islamic approach that is by the Koran and Hadith, apply cognitive restructuring based on the principles of positive values contained in the Koran towards spirituality, and provide structured interventions that can also be used for the development of Islamic integration CBT counseling to manage Muslim clients with the problems they experience.

It cannot be denied that technological developments in this digital era are very rapid. One product of technological development that is currently popular with children is online games. Online games should be used for entertainment, but what happens is that online games are played excessively, and used as a place to escape from the reality of life, so what happens is online game addiction. This will hurt various aspects of the child's life. For this reason, online games as a form of technological development need to be addressed wisely so that they do not have a bad impact on children. Thus, children need to be given preventive measures against online game addiction, so that they can hopefully avoid online game addiction. It is also hoped that related parties

Conclusion

Based on research results The influence of *Cognitive Behavioral Therapy* (CBT) based on Islamic values on addiction to playing *online games* in school-age children can be concluded as follows:

1. Characteristics of respondents: the majority of respondents were 11 years old in the intervention group and the majority of respondents in the control group were 11 years old. The majority of respondents in the intervention group were male. The majority of online games are *Free Fire* in the intervention group and control group.
2. There was a real difference in the level of online game addiction among respondents in the intervention group before the intervention, with the majority with moderate addiction. Meanwhile, after being given the Islamic Values CBT intervention, it was found that the majority of respondents had a mild addiction. Online game addiction can have a bad impact on teenagers. So efforts are needed so that teenagers can avoid online game addiction.
3. There was a difference in the level of addiction in the intervention and control groups after being given CBT intervention with Islamic values because CBT with Islamic values was given to the intervention group. Meanwhile, before the intervention was given to the control and treatment groups, there was no significant difference, meaning there was no difference between the control and intervention groups before being given CBT with Islamic Values

References

- Apriyadi A. Cognitive Behavioral Therapy Spritualitas Islam Untuk Mengatasi Kecemasan Sosial Remaja. *Couns J Islam Guid Couns*. 2022;2(1):70–83.
- Ardianti. M. Pengaruh Bermain Game Free Fire Terhadap Pembentukan Karakter Anak Pada Siswa Uptd Sd Negeri 31 Barru Kabupaten Barru. 2022.
- Beck JS. *Cognitive behavior therapy: Basics and beyond*. Edisi 2, editor. Guilford Press; 2011.
- Efendi Z, Christy T, Madonna Yuma F. Penyuluhan Dampak Penggunaan Game Online Kepada Siswa Sma Negeri 1 Buntu Pane. *J Pemberdaya Sos dan Teknol Masy* [Internet]. 2021;1(2):122–7. Available from: <http://jurnal.goretanpena.com/index.php/JPSTM>
- Husain F, Purnamasari AO, Istiqomah AR, Putri AL. Gambaran Karakteristik Anak yang Mengalami Kecanduan Bermain

Game Online. *Aisyiyah Surakarta J Nurs.* 2021;2:1–6.

Khaulani F, Neviyarni S, Murni I. Fase Dan Tugas Perkembangan Anak Sd. *J Ilm Pendidik Dasar.* 2020;7(1):51–9.

Kneer J, Rieger D, Ivory JD, Ferguson C. Awareness of Risk Factors for Digital Game Addiction: Interviewing Players and Counselors. *Int J Ment Health Addict.* 2014;12(5):585–99.

Narullita D, Yuniati E. The Effect of Cognitive Behaviour Therapy (CBT) and Acceptance Commitment Therapy (ACT) to Reduce Game Online Addiction in Adolescents. *SSRN Electron J.* 2021;(2016).

Novrialdy E. Kecanduan Game Online pada Remaja: Dampak dan Pencegahannya. *Bul Psikol.* 2019;27(2):148.

Shodikin EN, Sucipto E, Achadi MW, Muzaky F, Wahyu R. Implementation of the Sabaq, Sabqi, Manzil Methods in Improving the Quality of Memorizing Qur ' a Learning in Class V Salafiyah Ula Islamic Center Bin Baz Bantul. 2023;1(1):34–44.

Sihaloho MS, Suwu EAA, Mumu R. Kajian game online terhadap anak di bawah umur di Kelurahan Bahu Kecamatan Malalayang Kota Manado (Studi kasus pada anak di bawah umur 12 tahun). *J Holistik.* 2020;13(1):1–12.

Trianingsih R. Pengantar Praktik Mendidik Anak Usia Sekolah Dasar. *Al Ibtida J Pendidik Guru MI.* 2016;3(2):197.

Van Rooij AJ, Schoenmakers TM, Vermulst AA, Van den Eijnden RJJM, Van de Mheen D. Online video game addiction: identification of addicted adolescent gamers. *Addiction.* 2011 Jan;106(1):205–12.

Wibowo T, Fransco N. Pengaruh Kecanduan Mobile Game Terhadap Gangguan Sosial Pada Era COVID-19. *Comb Manag Business, Innov Educ Soc Sci.* 2021;1(1):687–94.

Wittek CT, Finserås TR, Pallesen S, Mentzoni RA, Hanss D, Griffiths MD, et al. Prevalence and Predictors of Video Game Addiction: A Study Based on a National Representative Sample of Gamers. *Int J Ment Health Addict.* 2016;14(5):672–86.