

SERIOUS GAME APPROACH TO THE TREATMENT OF DEPRESSION IN ADOLESCENT

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Abstract

The aim of this research is to help therapist in easing the difficulties in treatment direct face-to-face counseling session of depression in adolescent. Qualitative and quantitative surveys and observation were done during the evaluation. The users of the game were tested on the user satisfaction, user engagement, and user motivation as well as user acceptability toward this game. Findings indicate that most adolescents enjoyed the game. Overall, adolescents and counselor provided positive feedback on the game. The serious game can help in effective adolescent-counselor relationship, and can assist in improving adolescent engagement during the counseling process.

Keywords: games, therapeutic, depression, adolescents

INTRODUCTION

In fact, engineering and computer programmer are domain experts in using computers. But, nowadays they do not yet, because a lot of expertise also use computer as a tool in their works. Almost everyone from different background, skill and qualification used computers in their daily life. Mental health professional such as therapist, psychologist and counselor are currently utilized computer-based technology in their session. One of the on-going researches was represented by the use of computer game in mental health care service.

Depression which is one of the mental health illness faced by some people worldwide is an alarming issues. According to Rias, et al., (2014), depression in developed countries such as Malaysia is a common yet serious medical illness. It is predicted that in 2030, most high-income countries will have high number of depress citizen (Henriques. & Camacho, 2012). Depression in adolescent can be seen from their behavior of acting to be ill, reluctant to attend class, feel misunderstood and often get other disorders such anxiety, phobia, eating disorder, become abusive and even can lead to an attempt of suicide.

Fombonne et al., 1999 cited in Noken-Hoeksema. & Hilt (2009) said that mental illness is one of the disability that can strike early in adolescence and can become chronic and relapse over the life span if not be treated. Adolescent that suffer from depression will have mood swing, loss of interest, feeling hopeless, low-self-esteem and poor concentration.

Initially, games were developed only for leisure purposes. Digital games such as TV or console games, PC games, and hand held games and other using digital devices and content. Nowadays, games have been utilized as tools for assist people in many form of training, teaching and learning

(Rosenberg., et al., 2010) and to date in healthcare (Yusof. & Rias, 2015). There are two approaches of games that is gaining acceptance to solve real world problem and the general application of computer games. They are termed as serious game and gamification. In this report we only cover the usage of serious game. We will expedite about the term in next section. The term gamification is still new and open for further discussion. But in generally, it means as games that is designed for fun (Mc Callum, 2012).

Serious game is a unique type of game that has a main purpose is ahead of real entertainment by teaching knowledge or training skills (Fuchslocher., Niesenhaus., & Krämer, 2011) . Horne-Moyer described the electronic games for psychotherapy (EGP), also called as serious games. According to Mc Callum (2012), serious game can be described as the developments of games specifically arrange to gain some changes in the layer behavior. Some mental health illnesses have been utilized serious game for treatment and prevention steps (Yusof., Rias., & Yusoff, 2014). Serious games implementation in psychotherapy can attract young patients. They can immerse with the treatment easily. In recent years, there are various studies and researches have been utilized serious game in intervention of mental health (Yusof. & Rias, 2015).

This report presents a serious game as an instrument to transitive adolescents with depression. Serious game can be seen as effective tools in therapy session. They are many studies have been proven that serious game can advocate recovery in adolescent (Yusof. & Rias, 2015). Serious game usage can promote decrease of

ISSUES AND PROBLEMS STATEMENT

In this paper, we identify several issues regarding to adolescent committee regarding depression. Based on our observation from the previous study, there is still some limitations about serious game approach to treatment of depression in adolescent. Some of the limitations are:

- Adolescent committee are not interact with the right approach
- Lack information regarding the approach of depression
- The approach not well-known yet in world wide
- The cost of the instrument of equipment for treatment

RESEARCH OBJECTIVES

The aim of this paper is to help therapist in easing the difficulties in treatment direct face-to-face counseling session of depression in adolescent. In order to achieve this aim, we identify the sub-goals:

- To review evidence regarding serious game treating adolescent with depression
- To acknowledge the benefits of applying serious game in psychotherapy session
- To influence adolescent with depression to get treatment

RESEARCH QUESTIONS

In order to make the objectives to be achieved, some questions need to be created as guidelines such as:

- Is it possible to assist psychotherapist in psychotherapy session using serious game approach?
- What is the benefit that can be acknowledged from using serious game in psychotherapy session?
- Is it possible to influence adolescent with depression to get treatment?

LITERATURE REVIEW AND PROPOSED FRAMEWORK

1. Game background

Serious game is a unique type of game that has a main purpose is ahead of real entertainment by teaching knowledge or training skills (Fuchslocher., Niesenhaus., & Krämer, 2011) . Horne-Moyer described the electronic games for psychotherapy (EGP), also called as serious games. According to Mc Callum (2012), serious game can be described as the developments of games specifically arrange to gain some changes in the layer behavior. Some mental health illnesses have been utilized serious game for treatment and prevention steps (Yusof., Rias., & Yusoff, 2014). Serious games implementation in psychotherapy can attract young patients. They can immerse with the treatment easily. In recent years, there are various studies and researches have been utilized serious game in intervention of mental health (Yusof. & Rias, 2015).

2. Challenges of computerized game

In this section, we discussed some of the issues and challenges in implementing computer game for mental health intervention. The implementation of computerized game in mental health intervention is still in its infancy and more studies need to be carrying on for evaluation. Most of the researches were carrying on with a small number of patients, and thus have a huge potential of obtaining a bias result (Li., Theng., & Foo., 2014) .Furthermore, it has been reported about the insufficiency of data collected on long-term effects of intervention. The reliable trials and long term implementation of researches are needed to achieve firm evidence regarding the effectiveness of computerized game intervention (Coyle., et al., 2011).

3. Technologies classification

Latest study suggests that computerized aid mental health treatment accommodate one conceivable way of working more flourishingly with adolescent. According to Yusof, Rias, & Yusoff (2014) therapeutic game technologies can be classify into four groups. The latest technologies utilized in the development of therapeutic game are computers, video, mobile and interactive tabletop.

4. Therapeutic approach

There are various types of therapeutic approaches that are adopted by therapists. The most effective approach used by the therapists is the Cognitive Behavior Therapy (CBT). Internet-based cognitive behavior therapy (ICBT) is a promising treatment that may increase availability of cognitive behavior therapy (CBT) for psychiatric disorders and other clinical problems (E., B., & N.,

2012). This approach is a combination of the behavioral therapy and cognitive therapy (Beck, 2012).

Psychotherapies and Pharmacotherapies offer two important options for the effective treatment of depression. Besides different forms of psychotherapy, the use of anti-depressant medicines has also been shown to be effective in the treatment of depression (Henriques. & Camacho, 2012). The focus areas in therapy are increasing physical activity and performance, improve self-managed health care, healthy lifestyle improvement and facilitating therapy.

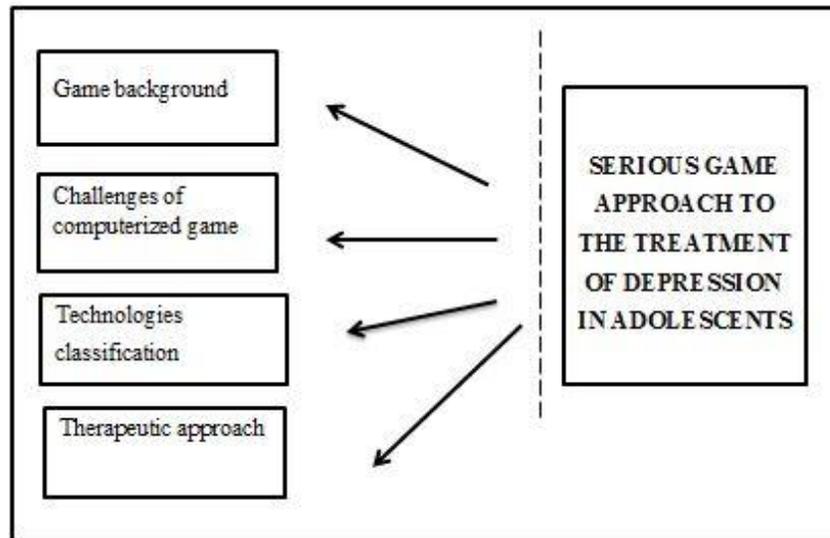


Figure1. Proposed Framework of the study

Based on the research framework, there are 4 variables that consist of 2 categorized which are dependent and independent variables. In order to evaluate the serious game approach to the treatment of depression in adolescents, we use the dependent variable as well as the independent variable. The dependent variable is the main topic: serious game approach to the treatment of depression in adolescents. The independent variables are made of four subtopics: game background, challenging of computerized game, technologies classification, and therapeutic approach.

CONCLUSION

In conclusion, we've found out there are many issues in "serious game approach to the treatment of depression in adolescents". The issues are related with games; depression; adolescents, treatment. The use of serious games in psychotherapy processes can promote fast recovery to the young patients by combining two methods; games and therapeutic approach. The level of engagement also can be enhanced compared to the traditional therapy without therapeutic games. Serious games provide a range of great advantages to be manipulated by the therapists to improve their services. When involving children and adolescents in the psychotherapy processes, an interactive and entertaining method should be applied to ensure their participation throughout the process. Serious games can fulfill this requirement in psychotherapy. Moreover, using serious games as a therapeutic tool could enable therapists to structure the therapy sessions based on their patients'

customization. In this paper, a systematic review of serious games in mental health treatment is deliberated. In the literature analysis, studies have shown that a combination of serious games, technology of computer and CBT has been among the most researched between 2005 until 2014. By having this research, we're hoping to help therapist in easing the difficulties in treatment direct face-to-face counseling session of depression in adolescent

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