

The Effectiveness of Group Counselling with Cognitive Restructuring and Self-Management Techniques to Reduce Internet Addiction

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Abstract

This study aimed to examine the effectiveness of group counseling with Cognitive Restructuring and Self-management techniques to reduce internet addiction. For more, the study used experimental method with pre-test – post-test one group design through Mixed Anova model. This involved 14 students of Public Vocational High School 12 Surabaya (SMKN 12 Surabaya) as research subjects chosen by using purposive sampling technique. Based on Mixed Anova analysis, it was known that group counseling with Cognitive Restructuring and Self-management techniques was effective to reduce students' internet addiction. These findings asserted that students who received group counseling with Cognitive Restructuring and Self-management techniques experienced internet addiction reduction.

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INTRODUCTION

The internet was invented as a medium to help increase a human's life quality. In line with this, the development of internet utilization in Indonesia grows rapidly. This is because the internet is supported by advancement in technology such as the use of computer and cellular phone. Nowadays, almost all human's activities can be accomplished via the internet, such as needs for information access, payment of household bills, banking transactions, and entertainment.

Internet advancement is hoped to give positive affect to human's life quality improvement. The more individuals access information through the internet, the more knowledge they will obtain. This is following Alhabahba, and Mahfoodh (2016) which found that the internet improves students' participation in the English class significantly and contributes to professionals English skills development. Moreover, Kaya, Kesan, & Izgiol (2013) found that students who do internet-based learning gain better success than those who do conventional learning without internet.

On the other hand, the internet also has negative impacts. One of them is internet addiction. The overused and uncontrolled internet usage makes internet users experience addiction. Alternatively, internet addiction is defined by Young (in Arslan, 2017) as a syndrome indicated by spending much time on internet usage and turning out of control. Wilson, and Johnson (2013) define addiction processes as compulsive behaviors which disturb normal life and cause significant negative consequences in family, job, and one is social life. Gambling addiction, internet addiction, sex addiction, sports addiction, and eating addiction are categorized as addictive processes.

Several studies findings prove the negative impacts of internet addiction. First, Domínguez-Vergara, and Ybañez-Carranza (2016) found that online social media addiction reduces Peru students' socialization ability level. Second, Koç (2011) showed that students who use the internet six hours or more in a day experience psychiatric

symptoms such as somatization, obsessive-compulsive disorder, interpersonal sensitivity, depression, anxiety, hostility, paranoid ideation, and psychoticism. Third, Akin, Arslan, S., Arslan, N., Uysal, and Sahranç (2015) found that there is a relationship between self-management ability and internet addiction that internet addiction decreases the level of individual self-management ability directly.

However, the phenomenon of internet addiction can still be found in one of the SMKN in Surabaya. Based on data from guidance and counseling teachers on students class X and XI problematic cases notes related to the internet in the academic year of 2017-2018, it was found that: (1) 38 students used cellular phone to browse during teaching and learning process without any instruction from teachers (excessive use), (2) 51 students used cellular phone to communicate via social media during the teaching and learning process (excessive use), (3) 54 students used cellular phone/laptop to play online and offline games during teaching and learning process without any instruction from teachers (excessive use), (4) 14 students accessed porn videos/pornographic content through cellular phone/laptop (excessive use), (5) 27 students did not come to school because of playing online game in internet cafes (tolerance and negative repercussions), (6) 19 students stole cellular phones because of not wanting to be called as outdated people (tolerance and negative repercussions). According to these notes, it can be concluded that students' problematic behaviors showed several indicators of internet addiction.

Interventions focused on reducing and overcoming negative impacts of internet addiction are supposed to be given to internet addiction sufferers so that their addiction can decrease. The impacts of internet addiction are important to reduce to make healthy and outstanding individuals. These imply that this study was encouraged to find solutions to overcome internet addiction.

Therefore, Cognitive Restructuring technique in Cognitive Behavior Therapy (CBT) Group Counseling was considered to be effective to reduce internet addiction. Similarly,

Jorgenson, Hsiao, and Yen (2016) showed that Cognitive Behavior Therapy is effective to reduce internet usage behaviors. Du, Wenqing, and Vance (2010) found that CBT group counseling can reduce internet addiction problems on adolescents. Przepiorka, Blachnio, Miziak, and Czuczwar (2014) found that Cognitive Behavior Therapy is effective to cope with internet addiction problems.

Studies in self-management technique to deal with addiction problems are found in several journals. First, Akın, Arslan, S., Arslan, N., Uysal, and Sahranç (2015) states that there is a significant relationship between self-management and internet addiction. Second, Li, Dang, Zhang, and Guo (2014) found that there is a significant relationship between internet addiction and self-management. Third, Detra (2013) found that self-management is effective to reduce online game addiction on students in Public Junior High School 40 Bandung (SMPN 40 Bandung). Fourth, Prasetiawan (2016) found that group counseling is effective to reduce online game addiction on the eighth-grade students of SMPN 15 Yogyakarta. Fifth reviews are done to several journals written by Pezoa-Jares, Espinoza-Luna, and Vasquez-Medina, J. A. (2012) found that the modification of Cognitive-behavioral Therapy can overcome problems caused by online applications.

Based on the online journals reviews and problems analysis, this study aimed to examine the effectiveness of group counseling with Cognitive Restructuring and Self-management techniques to overcome internet addiction on the students of SMKN 12 Surabaya.

METHODS

To pursue such an objective, the researchers employed an experimental research method with Mixed Anava involving two experimental groups, namely Cognitive Restructuring (CR) technique experimental group, and Self-Management (SM) experimental group. For more, the subjects of this study were as many as 14 students in a tenth grade or class

XI chosen by using purposive sampling technique.

The research was begun by giving pre-test on the subjects to measure their internet addiction level. The subjects were divided into 2 groups, namely Cognitive Restructuring technique experimental group, and Self-Management experimental group. After the pre-test was done, the CR group was given treatment in the form of group counseling with Cognitive Restructuring technique, while SM group received group counseling with Self-management technique. Once the treatments were done, post-test 1 was given, and after two weeks, the chance went for post-test 2. After that, the researchers conducted analyses of the research findings.

Additionally, the data collection technique in this study used the Internet Addiction Test as the measurement tool. This test contained 20 items. On that tool, the researchers did experts validation and trials. Further, the results of the instrument validation showed that 20 items were considered valid by which through the significance level of 5%, and score of 0.25, the researchers obtained the lowest score of 0.37, and highest was 0.75. Also, a reliability test was conducted and gained a very high result, namely 0.89. At last, the collected data were then analyzed by using Mixed Anava technique.

RESULTS AND DISCUSSION

The followings are the results of Mixed Anava which was used to examine the effectiveness of Cognitive Restructuring and Self-Management techniques to reduce internet addiction test level.

According to Table 1, it was known that the results of Repeated Measures Mixed Anava showed the existence of time effect toward internet addiction reduction ($F_{(2.79, 5.15)} = 521.71$, $p < 0.01$). Meanwhile, the specific reduction can be seen from effects experienced by each group in which CR group which received Cognitive Restructuring technique apparently showed inclination on pre-test, post-test 1, and post-test 2 significantly. Besides, SM group which received Self-Management treatment also experienced

reduction on pre-test, post-test 1, and post-test 2 significantly ($F_{(2,4,2,0)} = 216.30, p < 0.01$).

Table 1. The Effect of Group Counseling with Cognitive Restructuring and Self-Management Techniques to Reduce Internet Addiction.

Group	N	Pre-test		Post-test 1		Post-test 2		F ₁	F ₂
		M	SD	M	SD	M	SD		
Cognitive restructuring	7	83	3.78	68	2.79	62	5.15	102.69	521.711
Self-Management	7	84	3.02	64	2.42	59	2.05	216.30	
F ₃							1.45		
F ₄							6.33		

F₁ = time effect on group 1, and 2

F₂ = time effect on each group

F₃ = effects between group 1 and 2

F₄ = interaction effect between time and techniques

Further, pairwise comparisons results showed that the mean difference on post-test 1 and pre-test showed significant reduction on internet addiction before and after receiving the treatment (MD = -17.35, $p < 0.00$). Moreover, the results of mean difference on post-test 2 and pre-test showed more significant reduction on internet addiction after the implementation of post-test 2 derived from the treatment given (MD = -23.35, $p < 0.00$). Alternatively, the results of mean difference between post-test 2 and post-test 1 showed a slight reduction of internet addiction between post-test 1 and post-test 2 (MD = -6.00, $p < 0.00$). The last, pairwise comparisons test showed $p = 0.00$ with significance level of $p < 0.05$. This results showed

that the reduction of internet addiction occurred significantly.

By referring to the differences between the groups, the findings of this study indicated that there was no difference on the level of the effectiveness between CR group and SM group toward the reduction of Internet Addiction. IT asserts that Cognitive Restructuring and Self-Management have the same level of effectiveness in reducing internet addiction ($F_{(1,1)} = 1.45, p > 0.05$). Meanwhile, when associated with the interaction effect, the findings indicated that there were interaction effects between time and techniques in reducing internet addiction level ($F_{(2,24)} = 6.33, p < 0.05$). For the detail, the findings of this study can be seen in Figure 1.

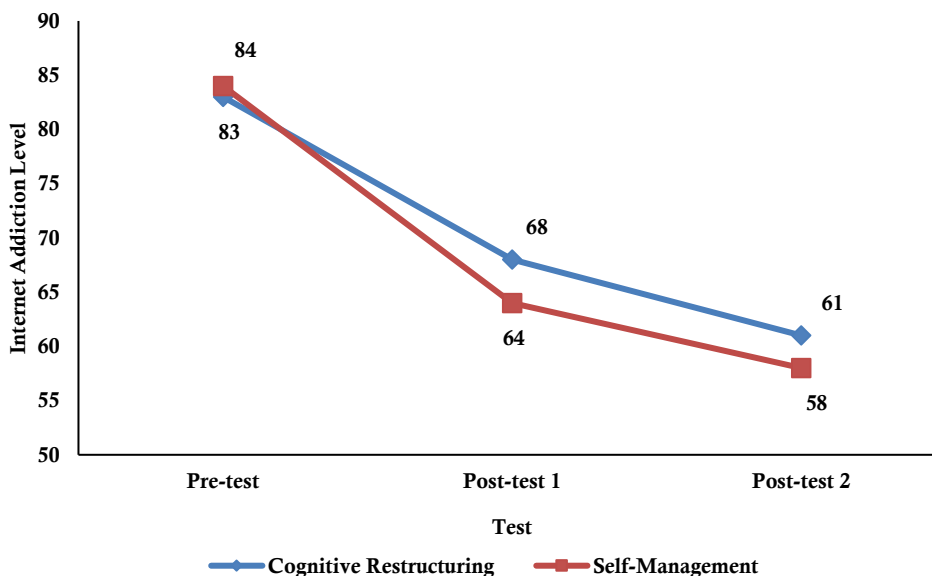


Figure 1. The Results of Cognitive Restructuring and Self-Management

Based on Figure 1, the most beneficial reduction happened on Self-Management group. Even though Cognitive Restructuring and Self-Management had the same level of effectiveness, there still differences in the level of significance on those two techniques. It was proved by the time the pre-test was done, there seemed to be no significant difference, but in the post-test 1 measurement, the difference on significance level started to appear although it was not significant. The last, the results of post-test 2 showed that the levels of differences in the significance of the effectiveness of the two techniques were increasingly visible.

In detail, the difference in the significance level of the two techniques can be seen based on the results of the independent t-test. The results of the independent t-test at the pre-test showed that the differences were not significantly ($t_{(12)} = -0.62$, $p > 0.05$). Then, the results of the independent t-test at the time of post-test 1 showed that the differences were significantly ($t_{(12)} = 2.75$, $p < 0.05$). Furthermore, the results of the independent t-test at the time of post-test 2 showed that the differences were significantly not significant ($t_{(12)} = 1.4$, $p < 0.05$).

CONCLUSION

The results of this study have shown the effectiveness of group counseling with Cognitive Restructuring and Self-Management techniques to reduce internet addiction of the students of SMKN 12 Surabaya. The results of the study showed that the Cognitive Restructuring and Self-Management techniques were effective to reduce the internet addiction of the students of SMKN 12 Surabaya.

This study was successfully conducted by using the experimental method with pre-test – post-test one group design through Mixed Anova model. However, it is necessary to use more effective strategies to prove the effectiveness such as randomized control trials, the use of single subjects, combining Cognitive Restructuring and Self-Management techniques with supporting media, combining Cognitive Restructuring and

Self-Management techniques with other techniques, and the assessment processes can be done by using other techniques and instruments so that it can be generalized more broadly. The next researcher can further examine the internet addiction using other approaches and combine appropriate techniques in order to test the reliability of research results with stronger statistical analysis.

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