



*Research Paper*

## **The Comparison of The Effectiveness of Wells Metacognitive Group Training and Cognitive and Behavioral Stress Management on Educational Negligence of Female Students**

Omolbanin Hashemi Gorji<sup>1</sup>, Hasan Asadzadeh<sup>2\*</sup>, Tayebeh Sharifi<sup>3</sup>, Ahmad Ghazanfari<sup>3</sup>

1. PhD student in Educational Psychology, Islamic Azad University, Shahrekord Branch
2. Corresponding Author: Associate Professor and Faculty Member of Allameh Tabatabai University. [Asadzadehd@yahoo.com](mailto:Asadzadehd@yahoo.com)
3. Associate Professor and Faculty Member of Islamic Azad University, Shahrekord Branch

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### **Abstract**

One of the problems that students face in their studies is educational negligence which plays a key role in academic life. The present study aims to compare the effectiveness of two methods of Wells metacognitive training and cognitive-behavioral stress management on the educational negligence of female students. The present study is the experimental type and semi-experimental design with pre-test and post-test design were implemented with two experimental groups and a control group. Thirty-three students were selected by multi-cluster sampling method among the girls' high schools in Sari, were assigned to experimental group of Wells metacognitive group training, cognitive-behavioral stress management group, and control group. To measure educational negligence, the Solomon and Rothblum scales were used, which were implemented before and after the training sessions. The results of descriptive and inferential indicators showed that only Wells metacognitive group training had a significant effect on the preparation for the end-of-semester homework component. Metacognitive therapy also had a significant effect on the overall score of educational

negligence, while cognitive-behavioral stress management had an insignificant effect on educational negligence. The results indicated that Wells metacognitive group training can further reduce the educational negligence compared to cognitive-behavioral stress management.

**Keywords:** *Educational negligence, Metacognitive group training, Cognitive and behavioral stress management, Students.*

## **Introduction**

Academic procrastination is one of the important issues that has been considered by many researchers in recent years and is referred to as a bad habit (Chase, 2003; Michałowski et al., 2017). Procrastination in homework is a common problem among students (Li et al., 2020), and is one of the most important causes of learners' failure or failure to learn and achieve academic achievement (Janssen & Carton, 1999; Lowinger et al., 2016). Solomon and Rothblum (1984) describe academic procrastination as doing homework, preparing for exams, or doing semester-long papers in the last moments of the semester. According to studies, procrastination in education and research has short-term benefits for stress management and physical health, however, its long-term effect is reversed (Kandemir, 2014; Li et al., 2020). Studies show that this type of procrastination affects 70% of school education (Hen & Goroshit, 2020; Kármen et al., 2015).

By providing the conditions that enable students to develop all the talents and abilities that will lead them to success or help them get the job done, the education system will be transformed into centers for developing life skills. Because students, as the young and future-making forces of the country, play an effective role in this field. Another critical issue is the growing trend of procrastination among students, many procrastinating students believe that their problem is unsolvable. Therefore, they do not take any action to solve their problem or resort to inappropriate solutions, while research has shown that there are extremely useful and effective solutions to overcome procrastination. Metacognitive therapy and cognitive and behavioral management of stress are among the effective and short-term therapies that have been proposed recently and, in several studies, their effectiveness in the treatment of various disorders has been confirmed. Therefore, the present study intends to examine the effectiveness of the two methods of teaching Wells metacognition and cognitive-behavioral stress management on students' academic procrastination, and in other words, to clarify which of the two methods of teaching Wells metacognition and cognitive-behavioral stress management is more effective in reducing students' academic procrastination?

## **Methodology**

The present study is a quasi-experimental design according to its nature and purpose. To conduct the research, a pre-test and post-test design were performed with two experimental groups and a control group. To implement the research design, 150 students were selected by multi-stage cluster sampling method from high schools' girls in Sari, and the anxiety test was performed on them. Then, among those whose anxiety test was a standard deviation higher than the average, thirty-three students were selected and eleven were randomly assigned to groups in the Wells Metacognitive Therapy Experiment, eleven to the Cognitive Behavioral Therapy Group, and eleven to the control group. Wells metacognitive training sessions were performed in 8 sessions based on the Wells training package (2002) and cognitive-behavioral stress management therapy sessions also included 8 sessions by Antoni et al. (2007) was conducted on the second experimental group, and the control group did not receive any intervention. The Solomon and Roth Bloom scales were used to measuring the variable of academic procrastination. This questionnaire was administered before the training program and after the training sessions in all three groups. The data were then collected and evaluated in SPSS-25 using analysis of covariance.

## **Result**

The aim of this study was to investigate the differences in the effectiveness of the two types of metacognitive education in Wells and cognitive-behavioral stress management on academic procrastination of females in Sari. After collecting data, both Kolmogorov-Smirnov, MBox, and Levin tests were used to check the normality of the scores, and covariance and LSD tests were used to analyze the hypotheses. The Kolmogorov-Smirnov statistic indicated that the collected data were normal. The scores from pre-test to post-test decreased in both experimental groups, while in the control group no decrease was observed in any of the scales. Multivariate analysis of covariance was used to assess the significance of the observed differences. The training results show that according to the value of F obtained for the eigenvalue of the Wilkes lambda effect, the linear combination of scores of the components of academic procrastination in the three groups of experiments (first and second) and control after removing the effect of the score Pre-test scores are significant, the effect size is equal (0.555) and shows the strength of the experimental application for the changes in the scores of the dependent variable.

**Table 1:** Results of multivariate analysis of covariance.

Variables	SS	df	MS	F	P	$\mu^2$
The total score of procrastination	1167.043	2	583.522	4.779	0.017	0.277
Preparing for the exam	46.305	2	23.153	0.835	0.446	0.068
Preparing for homework	330.243	2	165.121	9.781	0.001	0.46
Preparing for the final semester homework	115.139	2	57.57	3.218	0.059	0.219

The results of the intergroup effects test after removing the pre-test effect in

Table 1 show the differences between the means of the three experimental and control groups in the total score of procrastination Preparing. There is no significant difference for end-of-semester homework, but there is a significant difference in the component of preparation for homework.

**Table 2.** Results of LSD post hoc test for pairwise comparison of means

Variable	Preparing for the exam			Preparing for homework			Preparing for the final semester homework			The total score of procrastination Preparing				
	MD	SE	P	MD	SE	P	MD	SE	P	MD	SE	P		
Group 1	1.10	2.96	0.71	0.135	2.308	0.954	3.36	2.38	0.17	4.60	6.44	0.48		
Group 2														
Group 3														
Group 1-2		2.63	0.44		-7.27*	2.055		-1.83	2.12	0.40		-11.15	5.73	0.06
Group 1-3														
Group 2-3		2.55	0.23		-7.40*	1.989		-5.19*	2.05	0.02		-15.76*	5.55	0.01
Group 1-2-3														

The post hoc test showed that the difference between the metacognitive test group and the control group and the cognitive-behavioral stress management test group was significant; As metacognitive training is provided, it reduces the average scores of procrastinations of students in the metacognitive test group.

## Discussion

The results showed that none of the training had a significant effect on the component of preparing for the exam. Both metacognitive therapy and cognitive-behavioral therapy for stress management had a significant effect on preparation for homework. Metacognitive therapy had a significant effect on preparation for end-of-semester homework, but cognitive-behavioral stress management therapy did not have a significant effect. Metacognitive therapy also had a significant effect on the overall score of procrastination,

but cognitive-behavioral stress management therapy had insignificant effect. In general, the results indicate that metacognitive therapy has a better effect on procrastination compared to cognitive-behavioral stress management. Among the limitations of the present study, the generalization of the results to other students is limited because the statistical population of the study included girls in the second year of high school in Sari. Due to the effectiveness of group training in Wells metacognition, and cognitive and behavioral stress management, it is recommended that education managers and officials try to teach these methods to teachers through in-service training so that teachers can use them to reduce procrastination.

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