European Journal of Education Studies
ISSN: 2501 - 1111
ISSN-L: 2501 - 1111
Available on-line at: www.oapub.org/edu

DOI: 10.46827/ejes.v7i10.3305 Volume 7 | Issue 10 | 2020

THE EFFECTIVENESS OF PSYCHO-EDUCATION PROGRAM AIMED AT PREVENTING SMOKING ADDICTION ON THE BASIS OF MOTIVATIONAL INTERVIEW[i]

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Abstract:
The aim of this study is to examine the effectiveness of the Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview prepared in terms of preventing smoking addictions of university students through group experience and in the light of literature. From this point of view, an answer was sought to the question "Does the Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview affect the smoking addiction levels of students studying at the university?" Two hypotheses were formed in order to seek an answer to this question. Hypotheses: The Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview, affects the smoking addiction levels of cigarette addict university students who participate in the program (experimental group) compared to the cigarette addict university students who do not participate in this program significantly in favor of the experimental group joining the psycho-education program. Regarding the smoking addiction levels of university students who joined the Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview, Fagerström Test for Nicotine Dependence (FTND) post-test total scores are significantly higher than their Fagerström Test for Nicotine Dependence (FTND) pre-test total scores. The study was prepared in quasi-experimental design based on pretest-posttest application with the experimental and control group. The experimental group of 14 people and the control group of 14 people were included in the study. Pre-test was applied to both groups before the training. After the pre-test, the experimental group was applied "Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview" consisting of 10 sessions. After the training, both groups were applied post-test. In the

[i] DIE WIRKSAMKEIT DES PSYCHO-EDUCATION-PROGRAMMS ZUR VERHINDERUNG VON RAUCHABHÄNGIGKEIT AUF DER GRUNDLAGE VON MOTIVATIONSINTERVIEWS

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research, the Personal Information Form prepared by the researcher and Nicotine Addiction Scale, developed by Fagerström (1989) and the validity and reliability studies of which were performed by Uysal et al. (2004) was used. As a result of data analysis, no significant difference was found between the experimental group and the control group in terms of the pre-test scores. When the scores of the post-test, applied after the Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview, consisting of 10 sessions were examined, the experimental group was found to be different significantly compared to the control group. The data obtained were evaluated in the light of the literature and Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview was found to be effective on the decrease of the smoking addiction levels of smoking addict university students. It was suggested that a monitoring measurement at 3-6 month intervals could be made, a placebo group could also be formed in a new study to be conducted, the psychological counselling and guidance service personnel of the school could implement psycho-education programs on different levels and groups regarding smoking addiction in order to test the effectiveness of the program. In addition, the effectiveness of the program could be tested on different individuals and study groups.

Keywords: smoking addiction, motivational interview, university student, training program, addiction

Zusammenfassung:
Diese Studie zielt darauf ab, die Rauchsucht mithilfe des Gruppenlebens im Rahmen des Programms zur Verhinderung der Rauchsucht zu verhindern, das auf einem vom Forscher für zigarettensüchtige Studenten, die an der Universität studieren, erstellten Psycho-Education-Programm für Motivationsinterviews basiert. Die Studiengruppe bestand aus der Versuchsgruppe bestehend aus 14 freiwilligen und zigarettensüchtigen Studenten und der Kontrollgruppe bestehend aus 14 freiwilligen und zigarettensüchtigen Studenten. Die Studie besteht aus einem semi-experimentellen Muster mit Anwendung vor und nach dem Test. Sowohl das vom Forscher erstellte Formular für persönliche Informationen als auch der Fagerström-Nikotinsuchttest (FNBT), der von Uysal, Kadakal, Karşıdağ, Bayram, Uysal und Yılmaz (2004) ins Türkische angepasst wurde, wurden als Vortest auf die gesamte Studiengruppe angewendet. Anschließend wurde mit der Versuchsgruppe ein 10-tägiges "Psycho-Education-Programm zur Verhinderung von Rauchabhängigkeit auf der Grundlage von Motivationsinterviews" durchgeführt. Die Kontrollgruppe war in keiner Anwendung enthalten. Nachdem das Psycho Education-Programm auf die Versuchsgruppe angewendet wurde, wurde der Fagerström-Nikotinabhängigkeitstest (FNBT) sowohl auf die Versuchsgruppe als auch auf die Kontrollgruppe angewendet, um festzustellen, ob das Psycho Education-Programm einen Unterschied machte. Es wurde festgestellt, dass die Prävention der Rauchsucht auf der Grundlage eines Motivationsinterview-Psycho-Education-Programms die Rauchsucht von Studenten mit Zigarettenabhängigkeit

wirksam senkt / senkt. Die erhaltenen Ergebnisse wurden mit Unterstützung der Literatur diskutiert. In Übereinstimmung mit den Ergebnissen der Studie wurden folgende Vorschläge gemacht: Um die Wirksamkeit des Programms zu testen, kann in Abständen von 3 und 6 Monaten eine Folgemessung an der Versuchsgruppe durchgeführt werden. Die Placebogruppe kann auch in neuen Studien hinzugefügt werden. Schulpsychologen können psychoedukative Programme auf verschiedenen Ebenen und Gruppen anwenden. Die Wirksamkeit des Programms kann an Personen unterschiedlichen Alters und unterschiedlicher Arbeitsgruppen getestet werden.

Schlüsselwörter: Rauchsucht, Motivationsinterview, Student, Bildungsprogramm, Sucht

1. Introduction

Other than cigarette, tobacco is also consumed in the form of hookah, Cuban cigar, pipe and chewing tobacco but today, the most known and the most frequently consumed tobacco product is cigarette (Aslan, 2005, Tuğlu, Güzelant, Erdoğan, Şenevli and Abay, 2000). According to the World Health Organization (WHO), smoking behavior is defined as a state of bio-psychological poisoning. Cigarette is a product, which is presented for smoking with the inclusion of different additives in the tobacco leaves (Gençöz, Gençöz, Soykan and Soykan, 2003).

Cigarette is a substance, which causes the nicotine to spread efficiently in the body and that has a high addictive effect. Nicotine is a cyanide-based poison, which is not used medically. When nicotine is used, it affects the dopamine system of the body, warns the body by connecting to the receptors of the brain and results in sudden increase in attention and concentration. It forms two contradictory states by both warning the body and causing relaxation (Özyazıcı, 2012 & Gençöz, Gençöz, Soykan and Soykan, 2003). Due to these reasons, smoking addiction occurs, and quitting requires a tough process.

The addiction formation process is composed of three stages (Broms, 2008, Koudsi, 2010). These:

- It is because of the pleasure-giving effect of nicotine. In a few seconds after one starts smoking, nicotine passes through the blood brain barrier and pleasure-giving effects start to form. Since this pleasure and delight only lasts a few minutes, cigarette addicts generally want to pursue the act of smoking in order to feel the same effect all day.
- As the adaptation of the brain to the constantly performed action, the tolerance of being exposed to cigarette develops. Tolerance is the willingness to take a greater dose in order to reveal the normal effect as a result of the decrease in the sensitivity of the body to the nicotine taken previously.
- The body gets used to taking nicotine repeatedly. That the person constantly smokes decreases the effect of nicotine leading to smoking more in order to see the same effects.

Continuing smoking despite all the health problems that can be experienced after smoking are known, is one of the most important criteria of smoking addiction (Gençöz, Gençöz, Soykan and Soykan, 2003).

In addition to this addiction, one of the most important reasons of the continuance of smoking behavior and the failure of treatment initiatives is that the person is not willing to quit smoking (Çelepkolu, Atlı, Palancı, Yılmaz, Demir, İbiloğlu et al., 2014, Bilir, 2008). No matter how much pressure is put on the cigarette addict, s/he cannot be made to quit smoking unless s/he himself/herself wants it (Bilir, 2008). Therefore, the degree of addiction and the willingness to quit smoking are crucial for succeeding in quitting (Bozkurt and Bozkurt, 2016).

Motivational Interview was first defined and started to be used in 1983 by Miller and Rollnick. Motivational Interview is a clinical method initially used with the aim of changing the motivation of individuals with alcohol problem and to detract them from these problems. It was especially put forth as a transient intervention method. After it was concluded that Motivational Interview was beneficial for people with alcohol problem, some studies were made in order to provide behavioral change based on the thesis that it can also be beneficial in the last ten years of the 20th century regarding other health problems and chronic diseases. In the studies, it was revealed that Motivational Interview increases individuals' motivation and leads to behavioral change and that since this situation has a positive effect in individuals' coping with health problems and chronic diseases, it is frequently used (Rollnick, Miller and Butler, 2008).

Ambivalence refers to the contradictory feelings, emotional states with dilemma and opposite feelings of advisees who apply in order to receive support and with Motivational Interview, it was aimed to ensure that advisees discover this paradox and provide behavioral change. Motivational Interview is a directive and advisee focused way of intervention used with the aim of eliminating this paradox (Miller & Rollnick, 2009, Dicle, 2015). The ambivalence needs to be solved in order to ensure motivation and the solution of ambivalence constitutes the focal point in Motivational Interview (Özcan, 2009).

Motivational Interview is a special kind of intervention ensuring that people realize their problems and helping them take action in order to reveal their desires. This form of intervention especially gives better results in people who are unwilling about change or who have contradictory feelings (Miller and Rollnick, 2009). Motivational Interview technique is based on ensuring that individuals initially realize their dilemmas or problems, affecting their motivation, helping them find a way of solution to their dilemmas or problems and to provide the intended behavioral change (Scott, 2010, Sommers-Flanagan & Sommers-Flanagan, 2015). There are internal and external motivations affecting the individual. In this behavioral change, it is important to form and increase the inner motivation and to degrade the external motivations in the individual to internal motivation due to their limited effects (Dicle, 2017).

Motivational Interview comprises two stages not being interrelated but having common goals; and its first stage aims at the acquisition of internal motivation for change.

In the first stage, the aim is to analyze the ambivalence, to free the individual from feelings of dilemma and paradox and to form the change motivation. In the second stage, the aim is to form a strong commitment for motivation and to create a change plan that will pursue this commitment. The common purpose of these two stages is to help the individual clarify his goals with the help of change talks within the process of interview and to ensure that the individual's change of behavior will be perpetual and permanent (Rubak et al. 2005, Arkowitz & Miller, 2008, Dicle, 2015). Moreover, this will only be possible with bringing in especially internal motivation during the interview process.

In Motivational Interview, there is a cycle of change composed of a spiral structure of six steps. In the Change Cycle composed of "Pre-thinking (intent), intent, decision making, action (active participation), prolongation and hesitation" periods, the process may pass from the last step to the first step and the process and cycle may continue repeatedly until the behavioral change is realized (Dicle, 2015).

Motivational Interview, in short, is a way of communication that is advisee centered, that presents feedbacks regarding the behavior by evaluating the behaviors of the advisee, where direct persuasion and confrontation methods are not used, where the aim is to dwell on the problems of the employee and ensure that s/he realizes the ambivalence s/he experiences and finds ways of solution, ensures that the desire of the advisee regarding change is revealed, autonomy and freedom to choose are involved in behavioral change and suggestions for solution cannot be presented unless the advisee decides in the direction of change (Dicle, 2015, Özgür, 2016).

In our study, the aim is to prevent the smoking addiction of addict university students with the help of the group experience in the Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview prepared by the researcher based on the literature. Based upon this goal, answers to the following questions were sought:

Does the Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview affect the smoking addiction levels of addict students? The following hypotheses were formed based on the problem sentence above.

1) The Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview affects the cigarette addiction levels of addict students studying at the university (experimental group) significantly compared to the cigarette addict university students who do not participate in this program (control group), in favor of the experimental group participating in the psycho-education program.
2) Regarding the smoking addiction levels of university students who participated in the Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview, their Fagerström Test for Nicotine Dependence (FTND) post-test total scores are significantly higher than their Fagerström Test for Nicotine Dependence (FTND) pre-test total scores.

2. Material and Methods

2.1 Study Group

In order to be able to determine the individuals to constitute the study group (experimental and control groups), between 15-25 2019, cigarette addict university students were announced that a Psycho-Education Program aimed at Preventing Smoking Addiction would be organized and 218 cigarette addict university students were applied Personal Information Forms and Fagerström Test for Nicotine Dependence (FTND) and their pre-applications were received.

The characteristics of students, which they specified in the Personal Information Form and the total score they obtained from Fagerström Test for Nicotine Dependence (FTND) were equalized by one to one correspondence method and a total of 28 cigarette addict university students, 14 being from the experimental group and 14 control group formed the study group. Pre-interviews were performed with the members of the study group formed one by one, informing about the study was made in the pre-interview and at the end of the pre-interview, an Informed Consent Form was received from each member.

In order to be able to determine whether there was a significant difference between the mean scores that cigarette addict university students forming the study group received from the Fagerström Test for Nicotine Dependence (FTND), the students were applied Independent Measures t-test, which is among parametric tests and the results of the Independent Measures t-test were shown in Table 1.

Table 1: The Comparison of Study Groups' "Smoking Addiction Levels" Pre-test Scores

Study Groups	**N**	$\overline{X}$	**S**	**SD**	**t**	**P**
Experimental Group	14	8.8571	.77033	26	-.252	.803
Control Group	14	8.9286	.73005			

p>.05

When the mean scores obtained from smoking addiction levels pre-test between the experimental and control groups in the study group were compared as a result of the Independent Measures t-Test, it was concluded that there was no statistically significant difference at the end of the process [t(26) = -.252, p>.05]. The analysis results indicate that while the study group was being formed, experimental and control groups were equivalent groups according to Fagerström Test for Nicotine Dependence (FTND) pre-test scores.

2.2 Research Design

The research was performed with quasi-experimental design, consisting of experimental and control groups, where Personal Information Form and Fagerström Test for Nicotine Dependence (FTND), pre-test and post-test were applied. That the experimental and control groups were formed randomly led us choose using semi-experimental design (Karasar, 2005).

The Quasi-Experimental Design we used in the research was given in detail in Table 2.

Table 2: Research Design

Study Groups	Pre-Test	Implementation	Post-test
Experimental Group (14 Cigarette Addict University Students)	Personal Information Form and Fagerström Test for Nicotine Dependence (FTND)	Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview	Fagerström Test for Nicotine Dependence (FTND)
Control Group (14 Cigarette Addict University Students)		Implementation was not performed	

The independent variable of the research is Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview, and its dependent variable is Fagerström Test for Nicotine Dependence (FTND) scores. The experimental group was applied Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview for 3 weeks on Tuesdays and Fridays, between the hours 17.15-19.30 on average and totally in 10 sessions. No implementation other that Personal Information and Fagerström Test for Nicotine Dependence (FTND) pre-test and post-test were performed with the control group. In the program prepared by the researcher in line with the characteristics and needs of the experimental group at the end of the sessions, regulations were made on the program prepared in the beginning and "Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview" consisting of 10 sessions was formed in accordance with the group. In order to determine whether Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview decreased the level of cigarette addiction in the experimental group, at the end of the implementation the members of the experimental and control groups were again applied Fagerström Test for Nicotine Dependence (FTND) (post-test).

On 12.07.2019, ethics committee approval was obtained from Human Research Ethics Committee for the research titled Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview.

2.3 Data Collection Tools

In the research, Personal Information Form and Fagerström Test for Nicotine Dependence (FTND) were utilized in order to obtain information about cigarette addict university students forming the study group.

2.3.1 Personal Information Form: It was formed by the researcher in order to determine the participants' gender, age, department, general academic grade point averages, feeling of loneliness, family income, parent attitudes, frequency of cigarette and alcohol use and

state of feeling depressed and to equalize the experimental and control groups at least in terms of the characteristics in the form.

2.3.2 Fagerström Test for Nicotine Dependence (FTND): The scale was developed in 1989 by Fagerström (Fagerstrom & Schneider, 1989) in order to detect the degree of physical addiction to cigarette. Each item of the scale, which consists of six items is graded as 0,1,2,3 in the form of 4-point scale. The score range that can be obtained from the scale ranges between 0 and 10.

The increase in the score obtained from the scale indicates that cigarette addiction is at a high level. According to the total score obtained from the scale, cigarette addiction is ranked in four groups being very mild (0-2 points), mild (3-4 points), moderate (5 points), high (6-7 points) and very high (8-10 points) (Fagerstrom & Schneider, 1989).

On the other hand, the study of adapting the scale to Turkish was conducted in 2004 by Uysal, Kadakal, Karşıdağ, Bayram, Uysal and Yılmaz (2004) and Cronbach's Alpha coefficient was calculated as .56 (Uysal, Kadakal, Karşıdağ, Bayram, Uysal and Yılmaz, 2004). In this study, the level of cigarette addiction was ranked in three categories being mild, moderate and high and Fagerström Test for Nicotine Dependence (FTND) Cronbach's Alpha coefficient was found to be .78.

2.4 Data Analysis

In the research, the Fagerström Test for Nicotine Dependence (FTND) pre-test and post-test total scores of cigarette addict university students who were members of the experimental and control group forming the study group were regulated in a way that will enable the analysis of the hypotheses of the research. The data regulated were analyzed with SPSS 22.0 statistical program, using Covariance Analysis and Wilcoxon Signed Rank Test. In the interpretation of the findings obtained, .01 error margin was determined as the higher value.

2.5. Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview

"The Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview" developed by the researcher is given in detail below:

1st Week: Meeting and the Feeling of Us: Meeting the group by playing the meeting game, informing the group members about the implementation process, revealing the members' expectancies from the group and the Psycho-Education Program, determining the personal goals and group goals regarding the process, putting forth the rules for the group, being aware of the harms of smoking, sharing the frequency of group members' starting to smoke and using cigarette, the evaluation and summary of the session.

2nd Week: Mood: In which mood do people smoke? Sharing what they feel while smoking; ensuring that they visualize the moment when they smoke and finished the

cigarette and share their moods at the moment of the visualization with the group; the evaluation and summary of the session.
3rd Week: Intended purpose: Stress, boredom, concentration, relaxing; what is it that I give up? What is enslaving oneself like? The evaluation and summary of the session.
4th Week: Tricks: Nicotine addiction, tricks we are made believe in and involuntary act, alleviating longing for cigarette. The evaluation and summary of the session
5th Week: Devious trap: Why is quitting smoking hard? A devious trap: cigarette; why are we still smoking?
6th Week: Being strong willed and Self-control: Quitting smoking by being strong willed, reducing smoking, attention trap! Skills of controlling oneself. The evaluation and summary of the session.
7th Week: Questions: Only one cigarette, those who rarely smoke, those who do not smoke, those who smoke secretly, social pressure, will I miss cigarette? will I gain weight? the evaluation and summary of the session.
8th Week: Motivation: Avoiding wrong motivations, easy way of quitting, the process of adapting to being devoid of cigarette, one more inhale, will it be harder for me? Main reasons of failure, evaluation and the summary of the session.
9th Week: Alternative: The items used in substitution for cigarette, should I avoid situations that may lead me to smoking? The moment you realize that you got rid of cigarette, the last cigarette, one last warning. The evaluation and summary of the session.
10th Week: Termination: Sharing the group process experiences of the group members during the implementation process; members' performing sharing about personal development and group development, playing warm-up games to ensure positive feelings, the last activity and finalizing the group.

3. Results

In the research, Fagerström Test for Nicotine Dependence (FTND) pre-test and post-test total scores of cigarette addict university students, who were experimental and control group members and who formed the study group were regulated and compared according to hypotheses using Covariance Analysis and Wilcoxon Signed Rank Test.

Hypothesis 1: Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview, affects the smoking addiction levels of cigarette addict university students who participate in the program (experimental group) compared to the cigarette addict university students who do not participate in this program (control group) significantly in favor of the experimental group who participates in the psycho-education program according to the cigarette addiction levels. The numeric data (arithmetic means and standard deviations) of the Fagerström Test for Nicotine Dependence (FTND) scores of students in the study (experimental and control group) were given in Table 3.

Table 3: Fagerström Test for Nicotine Dependence (FTND) Numeric Data of the Study Group

Experimental Group N=14				**Control Group** N=14			
Pre-test		**Post-test**		**Pre-test**		**Post-test**	
$\overline{X}$	**S**	$\overline{X}$	**S**	$\overline{X}$	**S**	$\overline{X}$	**S**
8.8571	.77033	5.2857	.99449	8.9286	.73005	8.5000	.94054

When we look at the results in Table 3, we see that the arithmetic mean of the pre-test scores of the experimental group's Fagerström Test for Nicotine Dependence (FTND) is 8.8571 and the arithmetic mean of the pre-test scores of the control group's Fagerström Test for Nicotine Dependence (FTND) is 8.9286. It is seen that the arithmetic mean of the experimental group's Fagerström Test for Nicotine Dependence (FTND) post-test scores is 5.2857 and the arithmetic mean of the control group's Fagerström Test for Nicotine Dependence (FTND) post-test scores is 8.5000.

Covariance analysis was applied on the total scores, which the cigarette addict university students obtained from Fagerström Test for Nicotine Dependence (FTND) and the results were given in Table 4.

Table 4: The Covariance Analysis of the Post-test Scores according to the Pre-test Scores of Fagerström Test for Nicotine Dependence (FTND)

The Source of Variance	**KT**	**Sd**	**KO**	**F**	**P**	**Et-Square**
Model	72.614	2	36.307	37.719	.000	.751
Pre-test	.293	1	.293	.304	.586	.012
Group	71.693	1	71.693	74.481	.000	.749
Error	24.064	25	.963			
Total	1427.000	28				

As seen in Table 4, regarding the Fagerström Test for Nicotine Dependence (FTND) scores of the study group, the difference between the post-test attitude scores corrected according to the pre-test were found to be significant [F(1-25)= 71.693, p<.001]. This finding indicates that the experimental process performed caused a significant change in cigarette addiction attitudes of university students.

The post-test mean attitude score corrected according to the pre-test is = 5.291 for the experimental group and = 8.495 for the control group. In this situation, it is seen that cigarette addict university students who participated in the Psycho-Education Program developed are more positive than the cigarette addict students who did not participate in the Psycho-Education Program. When et-square values are examined, it is obvious that being in different process groups, i.e. being in experimental and control groups, explains 74.9 % of the variance in post-test scores of Fagerström Test for Nicotine Dependence (FTND), independently of the pre-test groups.

It is also understood that Fagerström Test for Nicotine Dependence (FTND) pre-test scores are not an important predictor of the Fagerström Test for Nicotine Dependence (FTND) post-test scores [F (1-25) = .304, p<.001] and explain 01.2 % of the changes in the Fagerström Test for Nicotine Dependence (FTND) post-test scores. The ratio of

Fagerström Test for Nicotine Dependence (FTND) pre-test scores' and group variables' explaining the variability in Fagerström Test for Nicotine Dependence (FTND) post-test scores is 75.1 %. Based on these results, it is clearly understood that the ANCOVA model is significant [F (2-25) = 37.719, p<.001].

This finding supports the 1st hypothesis of the research.

Hypothesis 2: The Fagerström Test for Nicotine Dependence (FTND) post-test total scores of the smoking addiction levels of cigarette addict university students who participated in Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview, is significantly higher than their Fagerström Test for Nicotine Dependence (FTND) post-test total scores.

The data obtained regarding whether the Fagerström Test for Nicotine Dependence (FTND) pre-test attitude scores and Fagerström Test for Nicotine Dependence (FTND) post-test attitude scores of cigarette addict university students who participated in the Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview were organized and Wilcoxon Signed Rank Test was performed on the data. The analysis results of the Wilcoxon Signed Rank Test were provided in Table 5.

Table 5: The Wilcoxon Signed Test Results of the Fagerström Test for Nicotine Dependence (FTND) Scores of University Students Who Participated in the Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview

Post-test Pre-test	N	Mean Rank	Rank Sum	z	P
Negative Rank	14	7.50	105.00	-3.321	.001
Positive Rank	0	0.00	0.00		
Equal	0				

p<.001

As seen in Table 5, the Fagerström Test for Nicotine Dependence (FTND) post-test attitude scores of university students who participated in the Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview, differ significantly from their Fagerström Test for Nicotine Dependence (FTND) pre-test attitude scores (z= -3.321, p<.001). To put it another way, the Fagerström Test for Nicotine Dependence (FTND) pre-test attitude scores and Fagerström Test for Nicotine Dependence (FTND) post-test attitude scores of cigarette addict university students who participate in the Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview, differ significantly.

It was understood that the smoking addiction attitude levels of all the cigarette addict university students who participated in the Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview decreased positively after the psycho-education implementation compared to their smoking addiction attitude levels before the psycho-education implementation. Wilcoxon Signed Rank Test was applied on the data regarding whether the Fagerström Test for Nicotine Dependence (FTND) pre-test attitude scores and Fagerström Test for Nicotine

Dependence (FTND) post-test attitude scores of cigarette addict university students who did not participate in the Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview. Wilcoxon Signes Rank Test analysis results were given in Table 6.

Table 6: The Wilcoxon Signed Test Results of the Fagerström Test for Nicotine Dependence (FTND) Scores of Cigarette Addict University Students Who Did Not Participate in the Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview

Post-test Pre-test	N	Mean Rank	Rank Sum	Z	P
Negative Rank	8	5.13	41.00	-1.459	.145
Positive Rank	2	7.00	14.00		
Equal	4				

p>.05

As seen in Table 6, the Fagerström Test for Nicotine Dependence (FTND) post-test attitude scores of university students who do not participate in the Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview differ significantly from their Fagerström Test for Nicotine Dependence (FTND) pre-test attitude scores (z= -1.459, p>.05). To put it another way, the Fagerström Test for Nicotine Dependence (FTND) pre-test attitude scores of cigarette addict university students who do not participate in the Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview differ significantly from their Fagerström Test for Nicotine Dependence (FTND) post-test attitude scores. Regarding the cigarette addict university students who did not participate in the Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview, it is understood that there was an decrease in eight of the cigarette addict students' smoking addiction attitude level after the implementation, an increase in two of them and the same level was observed in four of them compared to their smoking addiction attitude levels before the implementation.

This finding supports the second hypothesis of the research.

4. Discussion

According to the findings of the study, it was concluded that the psycho-education program led to a significant difference in the cigarette addiction attitudes of university students, that the post-test mean attitude scores regulated according to pre-test of cigarette addict university students who participated in the Psycho-Education Program were more positive compared to cigarette addict students who did not participate in the Psycho-Education Program, and that the smoking addiction attitude levels of all the cigarette addict university students who participated in the psycho-education program decreased positively after the psycho-education implementation compared to their smoking addiction attitude levels before the psycho-education implementation.

While Bektaş and Öztürk (2012) determined that in the education programs they implemented "*the cigarette benefit perceptions of students in the social cognitive learning group decreased significantly and their harm perceptions increased," they also put forth that "their cigarette trial rates did not change."* Doğan and Ulukol (2010) stated that, "*with the help of the education they gave, regarding the 7th, 8th and 9th grade students, 10% of the students who stated that they used to smoke before the educational models were implemented quit smoking at the end of the educational seminar and 14.8% of them quit smoking at the end of peer education, that students' level of information increased and they became more self-aware about its effect on health during peer education*." Likewise, Bektaş (2009), in consequence of his study, found that "the program aimed at preventing cigarette use was effective in decreasing the trial rate of children in the social cognitive learning based educational group and in changing the good and harm perception. Siyez and Palabıyık (2009), regarding the education program they applied on 10th grade high school students, stated that while there was an increase in students' "*level of knowledge and ability to reject substances*" regarding drugs, there was a decrease in "*fallacies regarding substances*". De Vries et al. (2003), determined that "*there was an increase in self-sufficiency levels and a decrease in positive perceptions and levels of interest in cigarette in the experimental group in Spain*." Schofield, Lynagh and Mishra (2003) stated that in the education program they implemented "*there was an increase in the knowledge level of the children in the experimental group as a result of the two-year follow-up after the education*." McGahee and Tingen (2000) maintained that the education program they implemented "*was effective in changing children's positive attitudes towards cigarette and that it did not provide a significant change in their beliefs that smoking is normal and in their rejection skills*." Longlios, Petosa and Halam (1999) found that after the education program "*there was an increase in the self-sufficiency level regarding rejection in the experimental group and a decrease in positive perceptions regarding smoking*." Tennent (1991) in the education program s/he implemented, determined that "*there was a significant decrease in the positive perceptions of children in the experimental group regarding smoking compared to the control group after the education s/he gave*."

These findings indicate that a similar conclusion to the one in our study was reached. In almost all the psycho-education studies conducted, it may be asserted that education programs decreased cigarette good perceptions significantly and increased harm perceptions, were effective in decreasing cigarette trial rates and in changing the good and harm perceptions, there was an increase in knowledge levels and substance rejection skills regarding cigarette and tobacco products, there was an increase in self-sufficiency levels, a decrease in positive perceptions regarding cigarette and the levels of interest in cigarette, that it was also effective in changing individuals' positive attitudes regarding cigarette, there was a decrease in positive perceptions regarding the use of cigarette and psycho-education programs were effective in the struggle against addiction. Siyez and Palabıyık (2009) stated that "*the program they applied to 10th grade high-school students did not make a significant change in students' substance use frequency*" ; as for Schofield, Lynagh and Mishra (2003), they determined that contrary to the findings of our study "*no significant change was provided in the attitudes of children regarding cigarette*".

5. Recommendations

According to the findings of our study, it was concluded that Psycho-Education Program aimed at Preventing Smoking Addiction on the basis of Motivational Interview was effective in decreasing the cigarette addiction levels of addict university students.

6. Conclusion

In line with the findings obtained in the study, the following suggestions can be made:

- In the researches to be conducted in the future, follow-up measurements can be made with 3-6 months intervals.
- In the studies to be conducted in the future, a placebo group can be formed, and the effectiveness of the program implemented can be tested.
- Regarding smoking addiction, the psychological counselling and guidance service personnel may apply psych-education programs on different levels and groups.
- The effectiveness of the program may be tested in individuals and study groups of different ages.

Acknowledgements
Dr. Abdullah Nuri Dicle is the author of this research. People who contributed towards the work in any way for the manuscript preparation, do not have any conflict of interest. Permissions have been obtained from authorized who are acknowledged in this section.

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