

ORIGINAL ARTICLE

Structural Relationship Among Mindfulness, Perceived Stress Level, and Psychological Dependence on Smoking

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Main Points

- Mindfulness mediates the relationship between psychological dependence to smoking and the perceived stress level.
- As mindfulness increases, the psychological addiction of individuals who want to quit smoking may reduce.

Abstract

This study aimed to detect the mediating role of mindfulness in the relationship between psychological dependence on smoking and perceived stress levels. Fagerström Test for Nicotine Dependence, Mindful Attention Awareness Scale, Psychological Dependence to Smoking Scale, and Perceived Stress Level Scale were applied. To evaluate the indirect effects, regression analysis and the Sobel Z test were used. Of the 68 female (45%) and 83 male (55%) participants, Fagerström Test for Nicotine Dependence score (5.75 ± 2.51) was higher in past experiences of quitting for less than 1 month vs. longer quitting periods ($p = .02$). The mindfulness level was found to be negatively correlated with the Fagerström Test for Nicotine Dependence score ($p = .216$; $r = -.101$), perceived stress score ($p < .001$; $r = -.296$), and psychological dependence scores ($p = .001$; $r = -.271$). Regression analysis revealed that the perceived stress and mindfulness levels were predictors on psychological dependence ($B = 0.204$; $t = 2.548$; $p = .012$, and $B = -0.236$; $t = -3.525$; $p = .005$, respectively). The results of the Sobel test evaluating the mediator role of mindfulness in the relationship between perceived stress and psychological dependence were significant (Z value = 2.337, $p = .019$). These results highlight the role of mindfulness in smokers toward reducing associated perceived stress with psychological dependence.

Keywords: Addiction, mindfulness, nicotine dependence, smoking, stress

Introduction

Smoking trends experienced a drastic change in the past few years, with higher-income countries showing a significant decrease and low- and middle-income nations experiencing a rise in smoking rates (Stubbs et al., 2017). Despite the legal regulations introduced in 2008 to control tobacco use, Türkiye is still among the countries with a high rate of smoking

(Dağlıoğlu et al., 2022). In 2022, the smoking rate has increased to 28.3%, while the rate in 2019 was 28.0%, according to the results of Türkiye's health survey (TUİK, 2023). This situation caused the factors associated with smoking addiction and the fight against tobacco to be even more critical.

Addicts state the stress-reducing, relaxing effect of smoking as one of its benefits; however, the incidence

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Received: October 19, 2023

Revision Requested:

December 13, 2023

Last Revision Received:

December 27, 2023

Accepted: March 29, 2024

Publication Date: July 12, 2024



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Cite this article as: Mercan Başpınar, M., Kibar Akıllı, I., & Kamat, S. (2024). Structural relationship among mindfulness, perceived stress level and psychological dependence on smoking. *Addicta: The Turkish Journal on Addictions*, Published online July 12, 2024. doi:10.5152/ADDICTA.2024.23098

of high-stress levels and low mood among smokers is much higher than among nonsmokers and ex-smokers (Hajek et al., 2010). Mindfulness refers to the individual's paying full attention to current experiences, including stress, in a nonjudgmental or accepting way, and as it increases, it allows to rearrange her emotions and stress instead of suppressing it (Peker et al., 2019). The biochemically proven effects of mindfulness-based motivational interviewing in smoking cessation reducing desire to drink and withdrawal have been reported (Yang et al., 2023).

Smoking cessation treatments included a behavioral interview, monotherapy, or combination therapies (nicotine replacement therapy, varenicline, bupropion) (McDonough, 2015). The psychoactive substance in cigarettes, factors such as happiness, joy, accompanying another activity, feeling self-confident, and social status play a crucial role in smoking addiction (Bardakci et al., 2021). Although behavioral smoking cessation programs are an effective tool for smoking cessation, these are underutilized (Hummel et al., 2018). Although not everyone needs expert support to quit smoking, behavioral smoking cessation programs are particularly beneficial for those who need extra help to overcome their tobacco addiction (Rusk et al., 2023).

Addictive behaviors are difficult to change and result in high rates of relapse following change attempts (Bowen et al., 2014; Schwebel et al., 2020). Mindfulness-based interventions have been shown to be as effective as the existing evidence-based treatments for addictive behaviors (Bowen et al., 2014). It is recommended to implement the strategy 5A (Ask, Advise, Assess, Assist, Arrange) to the group who want to quit smoking nicotine addiction and the 5R (Relevance, Risks, Rewards, Roadblocks, Repetition) strategies to the reluctant patients (Chandler & Rennard, 2010). According to this strategy, if patients begin to realize the negative sides of smoking behavior and accept these negativities, the desire to quit smoking will occur. Therefore, mindfulness level is just as important in treatment strategies, not only treatment type preferred.

This study aimed to evaluate the mediator role of mindfulness between perceived stress levels and psychological dependence on smoking. How mindfulness mediates psychological dependence levels has been investigated.

Material and Methods

The observational (cross-sectional) study was carried out between May 30 and June 30, 2021, including 151 cigarette smokers referred from the chest diseases polyclinics to a certificated family medicine specialist of the smoking cessation clinic of a tertiary hospital.

Process

The sample size required 134 participants, according to the 1-month average number of applications, with type 1 error $\alpha = 0.05$, Cohen d (effect size) = 0.3, and a 95% confidence interval. The sample collection was completed when 151 people were reached. Those who use neurologic or psychiatric drugs that may affect their mental health and may be a confounding factor in answering questions, such as the use of antidepressant medication diagnosed and prescribed by a psychiatrist, were excluded from the study.

Ethics Committee Approval and Patient Consent

Ethics committee approval and research permissions were obtained from Gaziosmanpaşa Training and Research Hospital Ethics Committee dated May 11, 2021, and protocol number 74. A written informed consent form was obtained from all volunteer study participants before the interview.

Scales in the Study

Fagerström Test for Nicotine Dependence

The validation of the Turkish version of the six questions Fagerström Test for Nicotine Dependence (FTND), originally developed by Fagerström in 1978 and revised by Heatherton et al. and Pomerleau et al. in 2004, has been adapted in Turkish by Uysal et al. (CS, 1994; Heatherton et al., 1991; Uysal et al., 2004).

Psychological Dependence to Smoking Scale

The test to assess the psychological dependence on smoking developed by Ponciano-Rodríguez et al., who distinguishes the psychological component of smoking addiction as mild, moderate, and high, is a 25-item three-point Likert-type scale. The Turkish validity and reliability study was performed in 2021 by Bardakçı et al. The items in the scale were structured using three gradations (very frequently = 3; sometimes = 2; never = 1) (Bardakci et al., 2021). The Cronbach's alpha coefficient of the scale was 0.93, and it was found to be 0.91 in our study.

Perceived Stress Level Scale

The Turkish adaptation of the 14-item five-point Likert-type scale developed by Cohen et al. in 1983 was made by Eskin et al. The internal consistency coefficient of the Turkish scale was calculated as 0.84, and an increase in the test score indicates an increased perception of stress (Cohen et al., 1983; Eskin et al., 2013). In our study, the scale Cronbach's alpha coefficient was found to be 0.76.

Mindful Attention Awareness Scale

Özyeşil et al. studied the score of a 15-item 6-point Likert-type scale, developed by Brown and Ryan, for Turkish validity and reliability. The lowest score on the scale is 15, while the highest score is 90. As the total score of mindfulness level increases, the general tendency to be aware of and be attentive to instantaneous experiences in daily life is considered to increase (Özyeşil et al., 2011; Taber, 2018). The Cronbach's alpha coefficient of the scale was 0.80, and in our study, it was found to be 0.85.

Data Analysis

Data analysis was performed using the SPSS Statistics Program (v.22; IBM SPSS Corp.; Armonk, NY, USA) software package. Descriptive statistics for continuous variables are expressed as mean and standard deviation, while categorical variables are expressed as numbers and percentages. As scale scores, regression analysis was performed to examine the relationships between perceived stress level, psychological dependence on smoking, and mindfulness level, which is considered as a mediator variable. The Sobel Z test was used to assess indirect effects. All scales used in the study were adapted to Turkish, and Cronbach's alpha coefficients were found to have sufficient level of internal reliability (0.70 and above) (Taber, 2018). The statistical significance limit of the "p" value was considered significant below .05.

Results

Of the 151 smokers, the frequency of never trying to quit smoking before was 14.6%, and the frequency of those who quit smoking for more than 1 year was 16.6%. The median age of cigarette smokers was 37 years, and 55% were male (Table 1).

In Table 2, mindfulness score, psychological dependence to smoking, perceived stress level, and nicotine dependence scores and the correlations between them were evaluated. A negative correlation was found between mindfulness level, FTND score ($p = .216$; $r = -.101$), perceived stress score ($p < .001$; $r = -.296$), and psychological dependence on smoking ($p = .001$; $r = -.271$).

Table 1.
Sociodemographic Characteristics of the Participants

Continuous Variables		$\bar{X} \pm SD$ (median)
Age (years)		37.21 \pm 9.54 (37)
Cigarette pack starting age (years)		19.68 \pm 6.65 (18)
Smoking duration (years)		17.55 \pm 10.31 (17)
Categorical variables		n (%)
Sex	Female	68 (45.0)
	Male	83 (55.0)
Marital status	Married	100 (66.2)
	Single/widowed/divorced	51 (33.8)
Education	Primary/secondary school	47 (31.1)
	High school	49 (32.5)
	University	55 (36.4)
Income level	Low	37 (24.5)
	Moderate	91 (60.3)
	High	23 (15.2)
Working area	Private sector	46 (30.5)
	State	54 (35.8)
	Self-employment	14 (9.3)
	Not working (Housewife, student, retired, unemployed)	37 (24.5)
Number of attempts to quit smoking	Never tried	22 (14.6)
	1 time trying	35 (23.2)
	Tried 2 times	27 (17.9)
	Tried 3 times	22 (14.6)
	Hard-try (4 or more)	45 (29.8)
Longest smoking cessation time	1 day – 1 month	79 (52.3)
	1 – 6 months	29 (19.2)
	6 months to 1 year	18 (11.9)
	More than 1 year	25 (16.6)

Note: n = number; %, percent; SD = standard deviation; X = mean.

As shown in Table 3, no significant difference was found between the measured mindfulness, perceived stress, FTND score, and psychological addiction of males and females in the study ($p = .127$; $p = .942$; $p = .423$; $p = .446$, respectively). Fagerström Test for Nicotine Dependence scores of the married smokers were higher than the singles, and those working in the private sector and those who could not work (housewife, student, etc.) were higher than the others ($p < .001$). No significant difference was observed in mindfulness ($p = .733$) and stress level ($p = .671$) between previous quit times attempts. However, the perceived stress levels of those who quit longer than 1 year before were found to be significantly lower than those who quit between 1 and 6 months and those who quit between 6 months and 1 year ($p = .017$; $p = .014$, respectively). The FTND score was found to be higher in those who experienced quitting for less than 1 month vs. longer quitting periods ($p = .002$). A higher FTND score ($p < .001$) was found in smokers with a low education level than those with high school and university.

Regression analysis was used to examine the relationship between perceived stress and psychological dependence on smoking based on the mediating role of mindfulness. Additionally, the Sobel Z test was used to evaluate the indirect effects. Figure 1 shows the models showing the mediator role of mindfulness in the relationship.

The regression analysis results showed that the perceived stress level predicted the level of psychological dependence on cigarettes positively ($B_{sh} = 0.204_{0.107}$; $t = 2.667$, $p = .012$) and negatively predicts the level of mindfulness ($B_{sh} = -0.580_{0.135}$; $t = -3.789$; $p < .001$). The level of mindfulness was observed as a negative predictor of psychological dependence on smoking ($B_{sh} = -0.236_{0.061}$; $t = -3.525$, $p = .005$).

After determining the significant relationship ($p = .012$) between the perceived stress levels and psychological dependence on smoking, a model was established in which the mindfulness variable was evaluated as a mediator variable. In the established model, the significant relationship between stress level and mindfulness ($p < .001$) and mindfulness and psychological addiction to smoking ($p = .005$) enables it to be used as a mediator parameter. However, the fact that the relationship between perceived stress and psychological dependence on cigarettes ($p = .043$) is still significant shows us that mindfulness is a partial mediator variable. The indirect effect in the total effect is at the level of 36.55% (0.106/0.290), while the remaining 63.45% is defined as the direct effect. Sobel test results were significant with a Z value of -2.337 , a standard error of 0.045, and a p-value of .019.

Discussion

This observational study has explored the mediating role of mindfulness in nicotine dependence based on a structural model of the indirect effect of mindfulness on the relationship between perceived stress levels and psychological dependence. Mindfulness was found to reduce the psychological dependence level on smoking by reducing the effect of perceived stress levels.

Unfortunately, most smokers failed in their attempt to quit even if they receive the best psychosocial and/or pharmacological

Table 2.

Relationships Between Mindfulness, Psychological Dependence on Smoking, Perceived Stress Level, and Nicotine Addiction and Descriptive Statistics

Variables	Correlations				Descriptive Statistics			
	Mindfulness	Psychological Dependence on Smoking	Perceived Stress Level	FTND Score	$X \pm SD$ (Median)	Skewness	Kurtosis	Cronbach Alpha
Mindfulness score	-	$r = -.271$ $p = .001$	$r = -.296$ $p < .001$	$r = -.101$ $p = .216$	59.07 ± 13.28 (59)	-0.016	-0.659	0.851
Psychological dependence on smoking	$r = -.271$ $p = .001$	-	$r = .213$ $p = .009$	$r = .312$ $p < .001$	49.94 ± 10.26 (48)	0.207	-0.658	0.914
Perceived stress level	$r = -.296$ $p < .001$	$r = .213$ $p = .009$	-	$r = .144$ $p = .077$	28.49 ± 7.22 (28)	0.624	3.014	0.763
FTND score	$r = -.101$ $p = .216$	$r = .312$ $p < .001$	$r = .130$ $p = .111$	-	5.75 ± 2.51 (6)	-0.162	-0.935	0.728

Note: FTND = Fagerström Test for Nicotine Dependence; SD = standard deviation; X = mean.

treatments available (Serfaty et al., 2018). Mindful smoking is hypothesized to increase the salience of the sensations involved in the experience (Yang et al., 2022). Min-Jeong et al. reported a heightened awareness of automatic behavior accompanied by noticing unpleasant aspects of cigarettes by mindful smoking exercise (Yang et al., 2022). Black et al. showed that mindfulness had an indirect effect on past 30-day smoking frequency through depressive affect, anger affect, and perceived stress mediators (Black et al., 2012). In Baer et al.'s intervention study, the mindfulness-based stress reduction program improved mindfulness skills and predicted change in perceived stress levels (Baer et al., 2012). At the beginning of treatment, we measured worse mindfulness levels that were related to a higher perceived stress and psychological dependence.

Smoking Cessation Outpatient Clinics In Türkiye deliver pharmacotherapy free of charge by the Ministry Of Health. Using pharmacological treatments and behavioral counseling together has been found more effective than alone (Zeren et al., 2023). However, techniques such as motivational interviews, cognitive behavioral therapy, and mindfulness become more critical in reducing the number of cigarettes and relapse prevention (Marlatt & Witkiewitz, 2005). A search by Vidrin et al. indicated that mindfulness was negatively associated with a level of nicotine dependence and withdrawal severity. Moreover, the study suggests that a lower mindfulness may be a predictor of relapse among adult smokers preparing to quit; thus, mindfulness-based interventions may enhance cessation (Vidrine et al., 2009).

Research suggests that perceived stress may pose a challenge to smokers attempting to quit, but information regarding the correlation between perceived stress and smoking in low-income countries is limited (Stubbs et al., 2017). In a study examining associations between perceived stress and relationships, high perceived stress was associated with recent increases in smoking, less self-efficacy to quit smoking, and less self-efficacy not to smoke when stressed (Ng & Jeffery, 2003). Higher nicotine dependence was correlated with higher perceived stress in a study by Fatani et al. (Fatani et al., 2022). The frequency

of smoking in high-stress occupations like police and health worker groups is determined to be higher than that in the general population. This situation was thought to be explained by the following reasons: excessive daily working hours, the shift system, and working discipline (Kutlu et al., 2021). In our study, smokers were compared according to institutions, not occupations. In the private sector, employees' nicotine addiction was found to be significantly higher than those working in the government. This may be due to the stress level in private sector working conditions because the stress levels of private sector employees are observed to be higher even if it is not statistically significant. In light of stress's effect on nicotine addiction and negative correlation with mindfulness, mindfulness programs may be necessary for private sector workers. The negative relationship between perceived stress and mindfulness has been shown among nurses in the study of Wu et al. (Wu et al., 2022). Similarly, mindfulness-based intervention found to be a valuable approach to successfully alleviate stress in a highly stressed population by impacting mindfulness and perceived stress in accordance with the study results of Dark-Freudeman et al. (Dark-Freudeman et al., 2022).

Hajek et al. reported that smoking cessation is associated with the lowering of stress among highly dependent smokers who report that smoking helps them cope with stress (Hajek et al., 2010). In our study, perceived stress level had no relationship with FTND score despite of significant relationship with psychological dependence. This finding draws attention to the psychological role of perceived stress, rather than the amount smoked, in cigarette addiction. In our results, the indirect effect of mindfulness on the relationship between perceived stress and psychological dependence on cigarettes was significant and had a reducing role in both scores. So, it was thought that mindfulness may be an important way related to a psychological link with addiction.

In the study of Gilpin et al., among those who quit during 3 – 6 months at baseline, continuous abstinence more than doubled to 52%, and the group that had abstained for 1 but less than 2 years showed another large increase in continuous abstinence to 76%

Table 3.

Relationships Between Mindfulness, Psychological Dependence on Smoking, Perceived Stress Level, and Nicotine Addiction and Descriptive Statistics

		Mindfulness		Psychological Dependence on Smoking		Perceived Stress Level		FTND Score	
		X ± SD	p	X ± SD	p	X ± SD	p	X ± SD	p
Sex	Female	60.87 ± 12.11	.127	49.24 ± 9.86	.446	28.54 ± 6.96	.942	5.57 ± 2.49	.423
	Male	57.60 ± 14.05		50.52 ± 10.60		28.46 ± 7.46		5.90 ± 2.53	
Marriage	Married	59.79 ± 13.35	.352	49.54 ± 10.21	.507	28.91 ± 6.98	.342	5.76 ± 2.54	<.001
	Single	57.67 ± 13.14		50.73 ± 10.41		27.67 ± 7.67		5.74 ± 2.47	
Education	Primary/secondary school	57.85 ± 14.19	.461	50.41 ± 11.27	.647	29.75 ± 5.94	<i>p</i> = .021*	6.87 ± 9.91	<.001*
	High school	60.55 ± 11.19		50.37 ± 9.78		29.39 ± 7.87	<i>p</i> ^{ab} = .061 <i>p</i> ^{ac} <.008*	5.89 ± 2.36	<i>p</i> ^{ab} = .061 <i>p</i> ^{ac} <.001*
	University	58.80 ± 14.25		49.16 ± 9.91		26.64 ± 7.35	<i>p</i> ^{bc} = .504	4.67 ± 2.38	<i>p</i> ^{bc} = .014
Income	Low	57.89 ± 12.66	.719	51.08 ± 10.72	.595	29.95 ± 8.78	.428	6.16 ± 2.66	.082
	Moderate	59.88 ± 13.23		49.93 ± 10.60		27.98 ± 6.27		5.85 ± 2.45	
	High	57.78 ± 14.71		48.13 ± 7.99		28.22 ± 7.99		4.74 ± 2.32	
Working area	^a Private sector	58.61 ± 15.17	.818	49.19 ± 10.07	.418	28.76 ± 7.82	.222	6.41 ± 2.57	.005*
	^b State	59.65 ± 12.63		49.05 ± 9.95		26.85 ± 6.93		4.76 ± 2.73	<i>p</i> ^{ab} = .001*
	^c Self-employment	55.86 ± 13.38		49.36 ± 10.57		28.5 ± 4.72		6.07 ± 2.43	<i>p</i> ^{ac} = .643 <i>p</i> ^{ad} = .821 <i>p</i> ^{bc} = .092
	^d Not working	60.02 ± 11.88		49.38 ± 10.57		30.57 ± 7.30		6.27 ± 2.42	<i>p</i> ^{bd} = .005* <i>p</i> ^{cd} = .770
Number of attempts to quit smoking	Never tried	60.41 ± 6.45	.733	47.09 ± 8.09	.319	27.40 ± 10.99	.671	5.64 ± 2.79	.892
	1 time trying	57.23 ± 13.47		48.26 ± 11.66		27.34 ± 5.72		5.83 ± 2.54	
	Tried 2 times	60.11 ± 10.97		53.11 ± 11.08		28.85 ± 7.17		5.78 ± 2.44	
	Tried 3 times	61.77 ± 13.22		50.41 ± 10.23		29.27 ± 6.45		6.18 ± 2.36	
	Hard-try (4 or more)	57.91 ± 13.12		50.51 ± 9.33		29.33 ± 6.45		5.53 ± 2.58	
Longest smoking cessation time before	^a 1 day – 1 month	58.62 ± 13.50	.635	51.09 ± 10.75	.035*	29.03 ± 7.43	.793	6.37 ± 2.50	.02*
	^b 1 – 6 months	58.86 ± 14.58		52.38 ± 10.73	<i>p</i> ^{ab} = .574 <i>p</i> ^{ac} = .150 <i>p</i> ^{ad} = .017*	27.55 ± 5.30		5.76 ± 2.23	<i>p</i> ^{ab} = .258 <i>p</i> ^{ac} = .032* <i>p</i> ^{ad} <.001*
	^c 6 months to 1 year	62.39 ± 13.55		47.22 ± 8.54	<i>p</i> ^{bc} = .097 <i>p</i> ^{bd} = .014*	29.06 ± 10.33		4.94 ± 2.51	<i>p</i> ^{bc} = .293 <i>p</i> ^{bd} = .040*
	^d More than 1 year	58.36 ± 11.01		45.44 ± 7.62	<i>p</i> ^{cd} = .576	27.52 ± 5.87		4.40 ± 2.25	<i>p</i> ^{cd} = .425

Note: FTND = Fagerström Test for Nicotine Dependence; SD = standard deviation; X = mean.

**p* < .05.

(Gilpin et al., 1997). In terms of cigarette smoking, greater levels of mindfulness have been associated with improved cessation outcomes, including less severe nicotine dependence and greater self-efficacy for smoking abstinence (Vidrine, 2009). Our study showed that the nicotine dependence (FTND) score was higher in those who experienced quitting for less than 1 month vs. those who had longer quitting periods, and the rates of quitting for less than 6 months and more than 1 year were 19.2% and 16.6%, respectively. However, no significant difference in the mindfulness score was found in the groups of quitting time duration or number of attempts.

Mindfulness levels may be different for some demographic characteristics. Older age and female gender differences for some aspects of mindfulness in the sample of the Bosnian general population were found significant (Alispahic & Hasanbegovic-Anic, 2017). Similarly, gender responses to a mindfulness training intervention may differ, too (Kang et al., 2018). Both males and females progress in addiction, but in females, estradiol is hypothesized to facilitate this transition by enhancing dopamine in the dorsal striatum. So, the female gender may be at risk of being linked to nicotine addiction (Becker et al., 2017). On the other hand, no significant difference was found between the measured

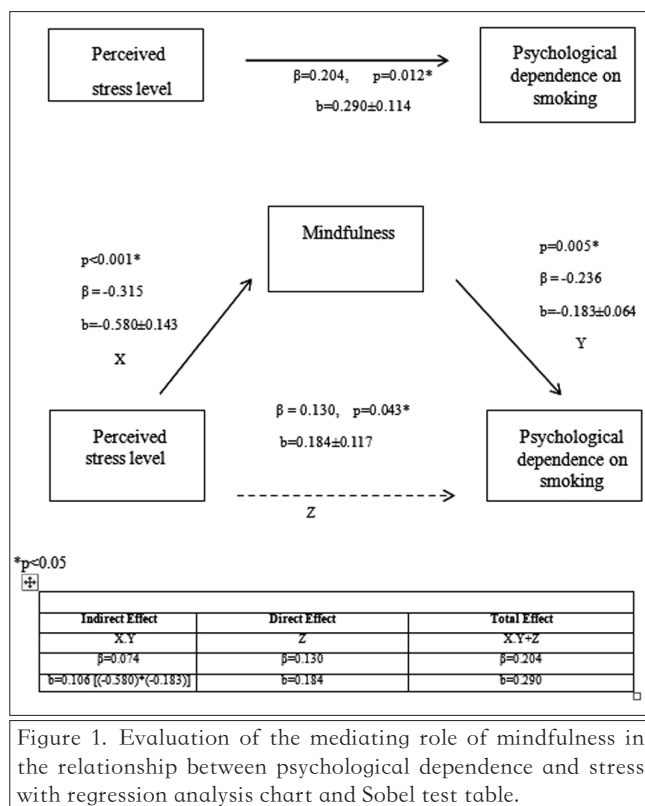


Figure 1. Evaluation of the mediating role of mindfulness in the relationship between psychological dependence and stress with regression analysis chart and Sobel test table.

mindfulness, perceived stress, FTND score, and psychological addiction of males and females in our study.

Mindfulness is believed to help people better control their thoughts and feelings rather than be controlled by them. Currently, no clear evidence shows that mindfulness-based treatments help people stop smoking or improve their mental health and well-being. However, in a review by Jackson et al., low evidence was reported. Stopping smoking gives rise to distressing urges to smoke and low mood, so mindfulness-based treatments could improve people's ability to cope with these (Jackson et al., 2022).

Limitations

In this study, the initial state of mindfulness, stress and addiction levels, and past quit attempts of the smokers who want to quit smoking again were measured at the beginning of the study, but quit success was not dedicated. This study did not investigate the role of mindfulness as regards smoking cessation success but investigated the relationship between pretreatment stress, mindfulness, and psychological dependence in the decision to quit smoking. Although this seems like a limitation, it is thought to be useful to improve future studies about mindfulness.

In light of our results, mindfulness plays a role in breaking the effect of perceived stress on psychological addiction and reducing psychological dependence on cigarettes. This situation has drawn attention to how mindfulness-based interview technique as a part of behavioral treatment in smoking cessation treatments may lead to a better stress and dependence management.

Ethics Committee Approval: This study was approved by the Ethics Committee of Ethics committee approval and research permissions were obtained from Gaziosmanpaşa Training and Research Hospital (approval no: 74, date: May 11, 2021).

Informed Consent: Written informed consent was obtained from the participants who agreed to take part in the study.

Peer-review: Externally peer-reviewed.

Acknowledgments: Thanks to all participants of this study.

Author Contributions: Concept – M.M.B.; Design – M.M.B., I.K.A., S.K.; Supervision – M.M.B., I.K.A., S.K.; Resources – M.M.B., I.K.A., S.K.; Data Collection and/or Processing – M.M.B.; Analysis and/or Interpretation – M.M.B.; Literature Search – M.M.B., I.K.A., S.K.; Writing – M.M.B., I.K.A., S.K.; Critical Review – M.M.B., I.K.A., S.K.

Declaration of Interests: The authors have no conflict of interest to declare.

Funding: The authors declared that this study has received no financial support.

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Geniřletilmiř Trke zet

Bilinli farkındalık, algılanan stres dzeyi ve sigaraya psikolojik baėımlılık arasındaki yapısal iliřki

Giriř ve ama

Son yıllarda sigara ime eėilimlerine bakıldıėında; yksek gelirli lkelerde nemli bir dřř grlrken, dřk ve orta gelirli lkelerde sigara ime oranlarında artıř izlenmektedir. Baėımlılar sigara iiminin stres azaltıcı, rahatlatıcı etkisini vurgulamaktadırlar; ancak sigara ienler arasında yksek stres dzeylerinin ve depresif ruh halinin grlme sıklıėı, sigara imeyenlere ve sigarayı bırakmıř olanlara gre ok daha yksektir. Bilinli farkındalık, bireyin stres de dahil olmak zere mevcut deneyimlerine yargılamadan ve kabullenici bir řekilde tm dikkatini vermesi anlamına gelir ve dzeyi arttıkk bireyin duygularını ve stresini bastırmak yerine yeniden dzenlemesine olanak tanır. Farkındalık temelli motivasyonel grřme uygulamalarının biyokimyasal olarak kanıtlanmıř ime isteėini azaltıcı etkileri sigarayı bırakma tedavilerinde rapor edilmiřtir. Bu alıřmanın amacı sigaraya psikolojik baėımlılık ile algılanan stres dzeyi arasındaki iliřkide bilinli farkındalıėın aracı roln tespit etmek ve sigara baėımlılıėını anlamamızda bilinli farkındalıėın neminin deėerlendirilmesidir.

Gere ve Yntem

Gzlemsel (kesitsel) dizayndaki alıřma, nc basamak bir hastanenin Sigara Bırakma Kliniėi'nin sertifikalı Aile Hekimliėi Uzmanına ynlendirilen 151 sigara baėımlısını kapsayacak řekilde gerekleřtirilmiřtir. Fagerstrm Nikotin Baėımlılıėı Testi (FNBT), Bilinli Farkındalık leėi, Sigaraya Psikolojik Baėımlılık leėi ve Algılanan Stres Dzeyi leėi uygulanmıřtır. Dolaylı etkilerin deėerlendirilmesinde regresyon analizi ve Sobel Z testi kullanılmıřtır.

Fagerstrm Nikotin Baėımlılıėı Testi (FNBT): İlk olarak 1978 yılında Fagerstrm tarafından geliřtirilen ve Heatherton ve arkadaşları tarafından revize edilen altı soruluk FNBT' 2004 yılında Uysal ve arkadaşları tarafından Trkeye uyarlanmıřtır.

Sigara imeye Psikolojik Baėımlılık leėi: Sigara imeye Ynelik Psikolojik Baėımlılıėı Deėerlendirme Testi 25 maddelik l Likert tipi bir testtir. Trke geerlik ve gvenirlik alıřması 2021 yılında Bardakı ve ark. tarafından yapılmıřtır. lekteki maddeler c dereceleme kullanılarak yapılandırılmıřtır (ok sık = 3; Bazen = 2; Hibir Zaman = 1). leėin Cronbach Alfa katsayısı 0,93 olup, alıřmamızda 0,91 olarak bulunmuřtur.

Algılanan Stres Dzeyi leėi: Cohen ve arkadaşları tarafından geliřtirilen 14 maddelik beřli Likert tipi leėin Trke uyarlamasıdır. 1983 yılında Eskin ve arkadaşları tarafından yapılmıřtır. Trke leėin i tutarlılık katsayısı 0,84 olarak hesaplanmıř olup, test puanının artması stres algısının arttıėına iřaret etmektedir.

Bilinli Farkındalık leėi: Brown ve Ryan tarafından geliřtirilen 15 maddelik altılı Likert tipi leėin Trke geerlilik ve gvenirliėi zyeřil ve ark. tarafından incelenmiřtir. lekten alınabilecek en dřk puan 15, en yksek puan ise 90'dır. Farkındalık dzeyi toplam puanı arttıkk gnlk yařamdaki anlık deneyimlerin farkında olma ve bunlara dikkat etme ynndeki genel eėilimin de arttıėı dřnlmektedir.

Bulgular

68 kadını (%45) ve 83 erkek (%55) katılımcının FNBT puanı ($5,75 \pm 2,51$), daha uzun bırakma dnemlerine kıyasla 1 aydan kısa sreli bırakma deneyimlerinde daha yksek bulundu ($p = ,02$). Bilinli farkındalık dzeyinin FNBT puanı ($p = ,216$; $r = -0,101$), algılanan stres puanı ($p < ,001$; $r = -0,296$) ve sigaraya psikolojik baėımlılık puanı ($p = ,001$; $r = -0,271$) ile negatif iliřkili olduėu saptandı. Farkındalıėın aracı rolne dayalı olarak algılanan stres ile sigaraya psikolojik baėımlılık arasındaki iliřkiyi incelemek iin regresyon analizi kullanıldı. Ayrıca dolaylı etkilerin deėerlendirilmesinde Sobel Z testi kullanıldı. Regresyon analizi, algılanan stres dzeyinin sigaraya olan psikolojik baėımlılıėın yordayıcısı olduėunu ortaya ıkardı ($B = 0,204$; $t = 2,548$; $p = ,012$). Farkındalık dzeyinin sigaraya psikolojik baėımlılıėın negatif yordayıcısı olduėu gzlendi ($B = -0,236$; $t = -3,525$; $p = ,005$).

Tartıřma

Bu gzlemsel alıřma, farkındalıėın baėımlılıktaki aracı roln arařtırmıřtır. Farkındalıėın algılanan stres dzeyi etkisini azaltarak sigaraya olan psikolojik baėımlılık dzeyini azalttıėı bulunmuřtur.

Sigara ienlerin oėu, psikosozal ve/veya farmakolojik tedavileri alsalar bile bırakma giriřimlerinde bařarısız olabilirler. Bilinli sigara imenin, deneyime dahil olan duyuların belirginliėini arttırdıėı varsayılmaktadır. Baer ve arkadaşlarının mdahale alıřmasında farkındalık temelli stres azaltma programı, farkındalık becerilerini geliřtirmiř ve algılanan stres dzeyindeki deėiřimi ngrmřtr. alıřmamızda sigara bırakma tedavisinin bařlangıcında, farkındalık dzeyini llerek, daha dřk farkındalık dzeylerinin daha yksek algılanan stres ve psikolojik baėımlılıkla iliřkili olduėu gsterilmiřtir.

Trkiye'de Sigara Bırakma Poliklinikleri sigara baėımlılıėına karřı farmakolojik tedaviler ve davranıřa ynelik grřme hizmeti iin danıřmanlık vermektedir. zellikle relaps ve bařarısız tedavide motivasyonel grřmeler, biliřsel davranıř terapi ve farkındalık

gibi tekniklerin önemi artmaktadır. Vidrin ve ark.'nın çalışmasında farkındalığın, nikotin bağımlılığı düzeyi ve yoksunluk şiddeti ile olumsuz ilişkisi gösterilmiştir. Ayrıca, sigarayı bırakmaya hazırlanan yetişkin sigara içicileri arasında daha düşük bir farkındalığın, sigaraya yeniden başlamanın bir göstergesi olabileceğini öne sürmüştür.

Araştırmalar, algılanan stresin, sigarayı bırakmaya çalışan sigara içenlere zorluk çıkarabileceğini, ancak düşük gelirli ülkelerde algılanan stres ile sigara içme arasındaki ilişkiye ilişkin bilgilerin sınırlı olduğunu göstermektedir. Algılanan stres ile ilişkili durumları inceleyen bir çalışmada, algılanan yüksek düzey stresin sigara kullanımında artışlarla, sigarayı bırakma konusunda düşük öz yeterlilik ve stresliyen sigara içmeme konusunda daha öz güvensiz olma durumu ile ilişkili olduğunu göstermiştir. Polis ve sağlık çalışanı grupları gibi stresin yüksek olduğu mesleklerde sigara içme sıklığının genel nüfusa göre daha yüksek olduğu görülmektedir. Bu durumun günlük çalışma saatlerinin fazlalığı, vardiya sistemi ve ağır çalışma disiplini gibi nedenlerle açıklanabileceği düşünülmüştür. Bizim çalışmamızda sigara içenler meslekler göre değil kurumlara göre karşılaştırılmıştır. Özel sektörde çalışanların nikotin bağımlılığının kamuda çalışanlara göre anlamlı düzeyde daha yüksek olduğu saptanmıştır. Bu durum özel sektör çalışma koşullarındaki stres düzeyinden kaynaklanıyor olabilir çünkü özel sektör çalışanlarının stres düzeylerinin istatistiksel olarak anlamlı olmasa da daha yüksek olduğu görülmüştür. Stresin nikotin bağımlılığı üzerindeki etkisi ve bilinçli farkındalık ile negatif korelasyonu göz önüne alındığında, özel sektör çalışanlarına yönelik farkındalık temelli programlarının gerekli olabileceği düşünülebilir. Hajek ve ark. sigaranın stresle başa çıkmalarına yardımcı olduğunu bildiren yüksek bağımlı sigara içicileri arasında sigarayı bırakmanın stresin azalmasıyla ilişkili olduğunu bildirmiştir. Çalışmamızda algılanan stres düzeyinin yüksek olması, sigaraya psikolojik bağımlılığın yüksek ve bilinçli farkındalık düzeyinin düşük olmasıyla ilişkilidir.

Kısıtlılıklar

Bu çalışma, sigarayı bırakma başarısı açısından farkındalığın rolünü araştırmamıştır ancak sigarayı bırakma kararında tedavi öncesi stres, farkındalık ve psikolojik bağımlılık arasındaki ilişkiyi inceleyerek tedavi planlamasında öngörü sağlamayı amaçlamıştır.

Sonuç

Çalışmamızda bilişsel farkındalık, algılanan stres düzeyinin sigaraya olan psikolojik bağımlılık üzerindeki etkisini azaltmada etkili bulunmuş ve sigara bırakma tedavilerinde bilinçli farkındalığın önemine dikkat çekilmeye çalışılmıştır.

Çalışmanın önemi

- Bilinçli farkındalık, psikolojik bağımlılık ile sigara içme ve algılanan stres düzeyi arasındaki ilişkiye aracılık eder.
- Bilinçli farkındalık arttıkça sigarayı bırakmak isteyen bireylerin psikolojik bağımlılıkları azalabilir.

Anahtar Kelimeler: bağımlılık, sigara içme, farkındalık, stres, nikotin bağımlılığı