EXAMINING PSYCHOMETRICS, SOCIO-ECONOMIC AND DEMOGRAPHICS DISPARITIES AMONG ADULT SMOKERS: ANOVA AND T-TESTS ANALYSIS

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Abstract: This paper investigates adult smoking in Pakistan by examining demographics, psychometrics, and socioeconomic disparities among smokers aged over 20 years. A cross-sectional design was employed with a sample of 300 adult smokers, using purposive sampling for data collection through self-report instruments: The Cigarette Dependence Scale, Novaco Anger Scale, Kessler Psychological Distress Scale, and WHO Quality of Life Scale. Key demographic factors, including area, socioeconomic status, family system, and marital status, were analyzed to identify trends in smoking behaviors. The study highlights psychological factors such as nicotine dependence and health-related quality of life. Additionally, it emphasizes disparities in tobacco use across income levels and regions, underscoring the need for targeted interventions to improve access to cessation resources and public health campaigns.

Keywords: Adult smoking, Pakistan, socioeconomic disparities, nicotine dependence, psychological distress, quality of life, cessation resources, public health interventions.

1 Introduction

Tobacco use remains a significant public health concern worldwide, contributing to a myriad of preventable diseases and premature deaths annually (Pérez-Warnisher, 2018). Despite extensive efforts to curb smoking rates, disparities persist among different demographic, psychometric, and socio-economic groups, particularly between urban and rural populations. Understanding the nuanced interplay of these factors is essential for designing effective interventions and policies aimed at reducing smoking prevalence and mitigating associated health burdens. This paper seeks to examine the multifaceted landscape of adult smoking behaviors, focusing on the disparities evident in urban and rural settings.

By delving into demographics, psychometrics, and socio-economic factors, we aim to uncover the complex dynamics influencing smoking prevalence and cessation patterns across diverse populations. Demographic characteristics, such as age, gender Area (Rural/Urban), socioeconomic (Low /Middle/ High), Family System (Joint / Nuclear), and Marital Status (Single/ Married), have long been recognized as influential factors in smoking behavior (Tseng, 2001). Understanding how these variables intersect with smoking prevalence rates can inform targeted interventions tailored to specific population groups. Psychometric factors, including stress, depression, anxiety, and addiction, play a pivotal role in shaping smoking behaviors (Bruijnzeel, 2012).

Exploring the psychological dimensions of smoking like Nicotine dependence, General Health, Physical Health, Psychological Health, Social Relationships, and Environment, within urban and rural contexts can elucidate underlying motivations and challenges associated with tobacco use, paving the way for more tailored cessation programs and support services. Furthermore, socio-economic disparities profoundly impact smoking behaviors, with income, employment status, access to healthcare, and geographic location serving as key determinants (Wang, 2018). Disentangling the socio-economic factors contributing to smoking prevalence disparities between urban and rural areas is crucial for implementing equitable policies and resource allocation strategies aimed at reducing tobacco-related harm.

By synthesizing existing research findings and leveraging contemporary data, this paper aims to contribute to a comprehensive understanding of adult smoking behaviors in urban and rural settings. Through a multidimensional analysis encompassing demographics, psychometrics, and socioeconomic indicators, we endeavor to elucidate the intricate web of influences shaping smoking patterns and disparities across diverse populations. Ultimately, the insights gleaned from this examination can inform evidence-based strategies to reduce smoking prevalence, promote cessation efforts, and address health inequities among urban and rural communities. Through collaborative efforts grounded in empirical research and targeted interventions, we can strive towards achieving healthier, smoke-free environments for all individuals, regardless of their geographic location or socio-economic status.

2 Literature Review

Tobacco smoking is a significant public health concern, with a growing burden in low- and middle-income countries (Jha, 2006). Disparities in smoking prevalence exist, with vulnerable populations such as those with lower education and socioeconomic status, certain racial/ethnic groups, and those in the military being particularly affected (Drope, 2018). Rural residents are also at increased risk due to higher smoking rates and less protection from tobacco smoke (Weg, 2011). Understanding the barriers and motivations to quitting among urban adult smokers is crucial, with financial issues, social support, and social norms being key factors (Rosenthal, 2013). These findings underscore the need for tailored interventions and policies to reduce smoking prevalence and its associated health burdens.

This literature review aims to examine existing research on these factors among adult smokers in urban and rural contexts. Demographic characteristics such as age, gender, ethnicity, and education play significant roles in smoking behavior and prevalence rates. Research on smoking behavior among adults in urban and rural areas has identified several key factors. Weg (2011) found that rural residents are more likely to smoke and use smokeless tobacco, and are also more exposed to secondhand smoke. Pesko (2017) highlighted the influence of sociodemographics, tobacco control policies, and e-cigarette use on adolescent tobacco use, with e-cigarettes particularly impacting urban areas.

Poulson (1984) compared the use of smokeless tobacco in rural and urban teenagers, finding a higher incidence of oral lesions in rural users. Mitchell (2016) emphasized the need for smoking cessation interventions that consider the unique social and cultural factors influencing smoking among rural, low-income women. These studies collectively underscore the complex interplay of demographic, environmental, and social factors in shaping smoking behavior in urban and rural contexts.

Research has shown that the gender gap in smoking prevalence has narrowed over time, particularly in urban areas where female smoking rates have increased (Waldron, 1991). However, this gap is still significant, with men traditionally exhibiting higher rates of smoking than women (Doogan, 2017). In rural settings, this gap may be influenced by cultural norms and gender roles, which can impact smoking behavior differently compared to urban environments (Doogan, 2017). In Asian populations, women's smoking behavior is influenced by a desire to control weight and handle emotions, while men's smoking behavior is more sensitive to social and structural factors (Tsai, 2008).

These differences in smoking behavior between men and women are largely due to differences in coefficients, indicating substantial differences in smoking behavior (Göhlmann, 2006). Research has consistently shown that smoking disparities exist among different demographic groups, with minority populations and those in rural areas experiencing higher rates of smoking. These disparities are influenced by a range of factors, including targeted marketing by tobacco companies, cultural acceptance of smoking, and limited access to smoking cessation resources (Chen, 1993; Doogan, 2017). For example, South Asian communities in the USA use culturally specific tobacco products to preserve traditions and express ethnic identity (Mukherjea, 2011).

African American smokers may perceive smoking as normative and have mixed expectations for culturally specific interventions (Webb, 2007). These findings underscore the need for tailored interventions that address the specific needs and cultural contexts of different demographic groups.

Research indicates that psychological factors such as stress, depression, anxiety, and personality traits significantly influence smoking behavior and addiction susceptibility among adults (Ellaway, 2008). Urban and rural environments present unique psychosocial stressors that may contribute to smoking initiation and maintenance (Rosenthal, 2013).

For instance, urban residents may face higher levels of environmental stressors, while rural areas may experience isolation and limited access to healthcare services (Weg, 2011). Socioeconomic status is a key determinant of smoking prevalence and cessation outcomes in both urban and rural populations (Hiscock, 2012). Understanding the psychometric profiles of adult smokers in these settings can inform the development of targeted interventions that address underlying psychological factors contributing to smoking behavior. Rural communities face unique challenges in smoking cessation, including limited access to healthcare resources and tobacco control programs (Hutcheson, 2008).

These challenges are exacerbated by the higher rates of late-stage lung cancer and mortality in rural areas (Jenkins, 2018). Social and cultural factors, such as the influence of social networks and the transition from a pro-tobacco culture, also play a significant role in smoking behavior and cessation efforts in rural communities (Mitchell, 2016; Kruger, 2012). Addressing these challenges requires a multi-level approach that considers individual, community, and policy-level factors (Hutcheson, 2008).

In summary, examining demographics, psychometrics, and socio-economic disparities among adult smokers in urban and rural settings is essential for understanding the complex dynamics underlying smoking behavior and designing effective interventions to reduce smoking prevalence and improve public health outcomes. Future research should continue to explore these factors within diverse populations and contexts to inform evidence-based strategies for tobacco control and cessation efforts.

2.1 Socio-Economic Status (SES) Theory

Research consistently supports the SES theory, which posits that individuals with lower socio-economic status are more likely to engage in health-risk behaviors such as smoking. Reijneveld (1998) found that living in a deprived area contributes to a higher prevalence of smoking, even after accounting for individual SES. Hiscock (2012) further highlighted the challenges faced by disadvantaged smokers, including reduced social support for quitting and low motivation to quit. Jahnel (2018) added to this by showing that lower SES individuals are more likely to encounter places where smoking is allowed, which in turn is associated with higher smoking rates.

Harwood (2007) emphasized the need to consider psychosocial factors in understanding the relationship between SES and

smoking, suggesting that these factors may play a significant role in health disparities.

3 Research Significant

This research aims to investigate and compare the demographics, psychometrics, and socio-economic disparities among adult smokers residing in urban and rural settings. By examining these factors, we can gain a comprehensive understanding of the various influences that contribute to smoking behavior and its prevalence across different geographic areas. Demographic variables such as Area, socioeconomic, Family System, and Marital Status play a significant role in shaping smoking patterns, while psychometric factors like Nicotine Dependence, General Health, Physical Health, Psychological Health, Social Relationships, Environment, and Quality of Life can influence individuals' propensity to smoke. By analyzing these aspects, policymakers and healthcare professionals can develop targeted interventions and programs to reduce smoking prevalence and promote cessation strategies tailored to the unique needs of urban and rural communities.

4 Research Objectives

The research objective of this study is to analyze the demographics, psychometrics, and socio-economic disparities among adult smokers residing in both urban and rural settings. By examining these factors, the study aims to gain a comprehensive understanding of the characteristics and circumstances of adult smokers across different geographic areas. Through quantitative analysis, the research seeks to identify correlations and disparities that may exist between urban and rural populations of smokers. This objective provides valuable insights into the diverse factors influencing smoking behavior and informs targeted interventions and policies aimed at reducing smoking prevalence and addressing related disparities in both urban and rural communities.

5 Research Questions

1. what is the ratio of adult smokers in urban and rural settings?
2. Which psychometric factors have a high ratio of smoking behavior among adult populations in urban and rural areas?
3. Which Socioeconomic factors have a high ratio of smoking behavior among adult populations in urban and rural areas?
4. What is the difference in smoking rate across people from different Marital statuses and Family Systems?
5. How do environmental factors, impact the smoking rate in urban and rural settings?
6. How much do levels of tobacco addiction and dependence differ between urban and rural adult smokers?
7. What are the implications of demographic, psychometric, and socio-economic disparities for public health interventions targeting adult smokers in urban and rural areas?

6 Research Design

The present study employed a cross-sectional survey research design to conduct the study through a survey method. The participants included in this study were all adult smokers from different areas in Pakistan.

6.1 Sample of Study

The data was taken from (N= 300) adult smokers by using the convenient sampling technique. The demographics like age, family status, socioeconomic status, residential area, marital status, and monthly income were asked. Nicotine dependence was measured through the Cigarette Dependence Scale (Etter et al., 2003), anger was measured through the Novaco Anger Scale 1994 (Novaco, 2010), the Kessler Psychological Distress Scale (Kessler. et al., 2002), and WHO Quality of Life Scale,1995

6.2 Demographic Form

The purpose of the demographic form was to seek the necessary information from the sample required for the current study. Informed consent was taken from participants before data collection which also indicates the rationale of the study with the promise of confidentiality of information.

Table 1: *Demographic characteristics of sample (N=300)*

Characteristics	N	%
Marital Status		
Single	*236*	*78.7*
Married	*64*	*21.3*
Socioeconomic Status		
Low	*36*	*12.0*
Middle	*224*	*74.7*
High	*40*	*13.3*
Family System		
Joint	*167*	*55.7*
Nuclear	*133*	*44.3*
Area		
Rural	*166*	*55.3*
Urban	*134*	*44.7*

Table 1 reveals that a lower number of participants from the nuclear family system (n=133, 44.3%) participated as compared to participants from the joint family system (n=167, 55.7%). A greater number of participants from the middle class (n=224, 74.7%) participated as compared to the lower class (n=36, 12.0%) and high class (n=40, 13.3%). A greater number of single participants (n=236, 78.7%) participated as compared to married ones (n=61, 20.3%) and divorced (n=3, 1.0%). A lower number of participants from urban areas (n=134, 55.3%) as compared to participants from rural areas (n=166, 44.7%).

6.3 Procedure

A questionnaire along with a demographic sheet was administered after getting the formal informed consent from participants. The questionnaire consisted of three sections: section one contained informed consent, section two consisted of demographic information and the third section consisted of research questionnaires.

Table 2: Psychometric Properties of scales

Scale	M	SD	Range	Cronbach's α
1. Nicotine Dependence	*31.75*	*9.31*	*12-54*	*.82*
2. Quality of Life	*50.85*	*15.95*	*0-100*	*.83*
3. Novaco Anger	*30.45*	*3.06*	*19-40*	*.88*
4. Kessler Psychological Distress	*80.85*	*13.61*	*54-122*	*.80*

Note: 1= Nicotine dependence, 2= Quality of life 3= Novaco anger, 4= kessler psychological distress

Table 2 shows the psychometric properties of the scales used in the present study. The Cronbach's α for the Nicotine Dependence Scale was .82(>.80) which indicates high internal consistency. The Cronbach's α for the WHO Quality of Life Scale was .83(>.80) which indicates high internal consistency. The Cronbach's α for Novaco Anger Scale was .88(>.80) which indicates high internal consistency The Cronbach's α for the Kessler Psychological Distress Scale was .80 which indicates high internal consistency.

Table 3: *Mean Comparison of Adult Smokers of Rural and Urban Areas on Study Variables*

Variables	Smokers of Urban Area (M ± SD)	Smokers of Rural Area (M ± SD)	t (298)	p	Cohen's d
Nicotine Dependence	33.08 ± 8.98	30.67 ± 9.45	2.24	.02	0.26
Anger	28.68 ± 5.17	28.80 ± 4.71	−.214	.83	0.02
Psychological Distress	52.28 ± 15.68	49.69 ± 16.12	1.40	.16	0.16
Quality of Life	7.17 ± 2.02	7.03 ± 1.86	.629	.53	0.07
General Health	22.44 ± 4.60	21.69 ± 4.29	1.45	.14	0.16
Physical Health	16.20 ± 3.30	16.20 ± 3.36	−.009	.99	0.00
Psychological	10.20 ± 2.74	10.02 ± 2.60	.59	.55	0.06
Social Relationships	26.14 ± 5.05	25.49 ± 5.28	1.08	.27	0.12

Table 3 revealed non-significant mean differences in nicotine dependence with t (298) =2.24, p >.05. Findings showed that participants from urban areas exhibit higher scores on nicotine dependence (M = 33.08, SD = 9.45) as compared to participants from rural areas (M = 30.67, SD = 9.45). Cohen's d is 0.26 (>0.20) which indicates a small effect size. Finding exposed non-significant mean differences in anger with t (298) =.214, p>.05. Findings showed that participants from rural areas exhibit higher scores on anger (M = 28.80, SD = 4.71) as compared to participants from urban areas (M = 28.68, SD = 5.17). Cohen's d was 0.02 which shows no effect size. Results exposed non-significant mean differences in psychological distress with t (298) =1.40, p >.05. Findings displayed that participants from urban areas exhibited higher scores on psychological distress (M = 52.28, SD = 15.68) as compared to participants from rural areas (M = 49.69, SD = 16.12). Cohen's d was 0.16 (<.20) which indicates no effect size. Results exposed non-significant mean differences in quality of life with t (298) =.629, p >.05. Findings displayed that participants from urban areas exhibited higher scores on quality of life (M = 7.17, SD = 2.02) as compared to participants from rural areas (M = 7.03, SD = 1.86). Cohen's d was 0.07 which shows no effect size. Results exposed no significant mean differences in physical health with t (298) =-.009, p >.05. Findings displayed that participants from urban and rural areas exhibited the same score on physical health (M = 16.20, SD = 3.30) (M = 16.20, SD = 3.36) respectively. Cohen's d was 0 which indicates no effect size. Results exposed non-significant mean differences in psychological with t (298) =.59, p >.05 Findings displayed that participants from urban areas exhibited higher scores on psychological (M = 10.20, SD = 2.74) as compared to participants from rural areas (M = 10.02, SD = 2.60). Cohen's d was 0.06 which shows medium effect size. Results exposed non-significant mean differences in social relationships with t (298) = 1.08, p > .05. Findings displayed that participants from urban areas exhibited higher scores on social relationships (M = 26.14, SD = 5.05) as compared to participants from rural areas (M = 25.49, SD = 1.08). Cohen's d was 0.12 (<.20) which indicates no effect size.

Table 4: *Mean, Standard Deviation and F-values for students of three levels of socioeconomic status on Study Variables*

Variables	Low (M ± SD)	Middle (M ± SD)	High (M ± SD)	F (2, 297)	η²	Post-Hoc
Nicotine Dependence	30.14 ± 9.40	31.49 ± 9.44	34.65 ± 8.00	2.59	0.01	
Anger	48.22 ± 15.61	51.29 ± 16.59	50.73 ± 12.27	0.58	0.00	
Psychological Distress	28.13 ± 5.29	28.77 ± 5.02	29.15 ± 3.84	0.41	0.00	
Quality of Life	79.94 ± 11.82	84.96 ± 14.40	83.68 ± 12.05	2.07	0.01	

Variables	Low (M ± SD)	±	Middle (M ± SD)	High (M ± SD)	±	F (2, 297)	η²	Post-Hoc
General Health	6.61 ± 2.12	±	7.23 ± 1.87	± 6.75 ± 2.03	±	2.34	0.01	
Physical Health	21.28 ± 4.42	±	22.20 ± 4.36	± 21.75 ± 4.88	±	0.75	0.00	
Psychological	15.83 ± 3.07	±	16.30 ± 3.38	± 15.98 ± 3.26	±	0.42	0.00	
Social Relationships	9.53 ± 2.78	±	10.28 ± 2.60	± 9.60 ± 2.85	±	2.06	0.01	

Table 4 displays the average, standard deviation, and F-values for the students who belong to three socioeconomic statuses Nicotine dependence, Anger, Psychological distress, Quality of life, General health, Physical health, Psychological, and Social relationships. The findings indicate non-significant mean differences in nicotine dependence among students with F (2, 298) = 2.59, p >. 05. The findings indicate that smokers who belong to high socioeconomic status exhibit higher scores on nicotine dependence as compared to middle whereas, students belong to low socioeconomic status exhibits lowest score on nicotine dependence. η² is .01 (< .20) which describes a small effect size. The findings indicate non-significant mean differences in anger among smokers with F (2, 298) = .58, p >. 05. The findings indicate that smokers who belong to middle socioeconomic status exhibit higher scores on nicotine dependence as compared to high whereas, students belong to low socioeconomic status exhibits lowest score on anger. η² is .00 (< .20) which describes a small effect size. The findings indicate non-significant mean differences in psychological distress among students with F (2, 298) = .412, p >. 05. The findings indicate that smokers who belong to middle socioeconomic status exhibit higher scores on psychological distress as compared to high whereas, students belong to low socioeconomic status exhibits lowest score on psychological distress. η² is .00 (< .20) which describes a small effect size. The findings indicate non-significant mean differences in quality of life among smokers with F (2, 298) = 2.07, p >. 05. The findings indicate that smokers who belong to middle socioeconomic status exhibit higher scores on quality of life as compared to high whereas, students belong to low socioeconomic status exhibits lowest score on nicotine dependence. η² is .01 (< .20) which describes a small effect size. The findings indicate non-significant mean differences in general health among students with F (2, 298) = 2.34, p >. 05. The findings indicate that smokers who belong to middle socioeconomic status exhibit higher scores on general health as compared to high whereas, students belong to low socioeconomic status exhibits lowest score on general health. η² is .01 (<.20) which describes a small effect size. The findings indicate non-significant mean differences in physical health among students with F (2, 298) = .75, p >. 05. The findings indicate that smokers who belong to high socioeconomic status exhibit higher scores on physical health as compared to middle whereas, students belong to low socioeconomic status exhibits lowest score on physical health. η² is .00 (< .20) which describes a small effect size. The findings indicate non-significant mean differences in psychological health among students with F (2, 298) = .42, p >. 05. The findings indicate that smokers who belong to middle socioeconomic status exhibit higher scores on psychological health as compared to high whereas, students belong to low socioeconomic status exhibits lowest score on psychological health. η² is .00 (< .20) which describes a small effect size. The findings indicate non-significant mean differences in social relationships among students with F (2, 298) =2.06, p >. 05. The findings indicate that smokers who belong to middle socioeconomic status exhibit higher scores on social relationships as compared to high whereas, students belong to low socioeconomic status exhibits lowest score on social relationships. η² is .01 (< .20) which describes a small effect size.

7 Discussion

This study delves into the multifaceted landscape of adult smoking in Pakistan by scrutinizing demographics, psychometrics, and socioeconomic disparities prevalent among smokers aged >20 years. At first, the reliability, normality, and construct validity of the scales were ensured. For unstandardized items, alpha reliability is based on covariance among the items (Coaches& Steed, 2003). The alpha coefficients for all scales were =/>.70, which pointed out that the scales used in the study are reliable (Kline, 2005). The construct validity is composed of discriminant and convergent validity (Anestessi, 2006).

Variables zero-order correlations were in the theoretically desired directions, which supported the scale's convergence validity. The finding reveals that a lower number of participants from the nuclear family system participated as compared to participants from the joint family system. Greater number of participants from middle class participated as compare to lower class and high class. Greater number of single participants participated as compare to married ones and divorced. A lower number of participants from urban areas as compared to participants from rural areas. Findings showed that participants from urban areas exhibited higher scores on nicotine dependence as compared to participants from rural areas. Findings showed that participants from rural areas exhibit higher scores on anger as compared to participants from urban areas

8 Conclusion of the Present Research

In conclusion, the research findings suggest a significant relationship between nicotine dependence and both anger and psychological distress. Individuals who are dependent on nicotine are more likely to experience higher levels of anger and psychological distress. These findings highlight the impact of nicotine dependence on emotional well-being and psychological functioning. However, it is important to note that the research did not find a significant relationship between nicotine dependence and quality of life. This suggests that while nicotine dependence may have detrimental effects on emotional and psychological aspects, it may not directly influence overall quality of life measures.

Other factors such as social support, physical health, and personal circumstances may play a more significant role in determining quality of life outcomes. These findings underscore the importance of addressing anger and psychological distress in individuals with nicotine dependence. Interventions aimed at managing these emotional and psychological symptoms should be considered as part of comprehensive treatment approaches for nicotine dependence. Healthcare providers and addiction specialists must provide tailored support and interventions to address these specific needs in individuals struggling with nicotine dependence.

Further research is warranted to explore the complex relationship between nicotine dependence, anger, psychological distress, and quality of life. Longitudinal studies and comprehensive assessments incorporating various factors can provide a deeper understanding of the dynamics involved. This knowledge can contribute to the development of more effective interventions and treatment strategies for individuals dealing with nicotine dependence and its associated emotional and psychological consequences.

9 Limitations of Present Research

When a researcher conducts research there are certain limitations of every research which should be focused on because researches act as a compass for the researchers to practically solve problems and add knowledge to the existing body of knowledge. Limitations are very crucial because they may weaken the relationship between research variables. The sample that was used in the present research was specific to only smokers from different areas of Punjab, KPK, and Islamabad so these findings cannot be generalized to the whole Pakistan population, hence

external validity is low. Present research is quantitative, it doesn't provide deep facts and details like qualitative research provides. That's why the data assembled was not enhanced and broad.

A convenient technique of sampling was used and that technique has some downsides like this technique unable the generalization of our data findings. This was survey research so it doesn't guarantee what was the cause of the change in dependent variables because in this research method, we are impotent in controlling external factors that can influence our results. Response bias or social desirability was not controlled in the present study. The present research does not clarify the cause-and-effect relationship it only describes the relation of one variable with other.

10 Suggestions for the Further Research

To address the above-mentioned limitations here are some suggestions for further research to get better results and study the relationship among variables more effectively. More than one research design should be used to overcome the response biases or decrease social desirability so that internal validity is high in the research. In order to generalize the research on the whole population of Pakistan the researcher will collects data from different cities or tries to collect from every province of Pakistan.

Future research will not just only on the relationship between quality of life and nicotine dependence but also on the health-related quality of life. Researchers should try to remove all possible confounding to study cause-and-effect relationships. Future researchers should focus on content analysis. The research should use some technique to verify that only participants from specific samples are filling the questionnaire, for instance, their email is made compulsory or the department in which he serves must be written. Further research should focus on qualitative aspects of research as well.

11 Practical Implication of the Present Research

The present research has numerous practical, empirical, and policy implications which are mentioned here. Smoking cessation interventions may need to address underlying psychological distress and anger. Given that nicotine dependence is a predictor of these negative affective states, interventions aimed at reducing smoking rates may need to address the underlying emotional factors that contribute to smoking behavior. Mental health screening and treatment should be considered for individuals with nicotine dependence.

The study's findings suggest that individuals with nicotine dependence may be more likely to experience psychological distress, which may warrant further evaluation and treatment. Public health campaigns aimed at reducing smoking rates may need to focus on the broader impact of smoking on quality of life. While reducing smoking rates is an important public health goal, it may be necessary to also consider the broader impact of smoking on quality of life beyond the physical health consequences. Efforts to address social determinants of health may be important in reducing the impact of nicotine dependence on quality of life.

Given that nicotine dependence may be associated with low quality of life, it should be important to address social factors such as poverty, social isolation, and lack of access to healthcare that can contribute to poor quality of life. Interventions aimed at reducing nicotine dependence may need to consider the role of negative affective states in maintaining dependence. By addressing the underlying emotional factors that contribute to smoking behavior, interventions may be better in reducing nicotine dependence and enhance quality of life.

This model suggests that persons with high levels of nicotine dependence may experience more negative affective states that may use nicotine as a coping mechanism to regulate these emotions. This can create a cycle of dependence in which nicotine use is reinforced by the relief of negative affective states, leading to further dependence on nicotine as a coping mechanism.

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Primary Paper Section: A

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