

Relationship between Doctors' Attitude towards Smoking and their Intention to Quit Smoking

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Abstract

Smoking is a global issue that is taking the lives of millions of people every year. The purpose of the study is to examine the impact of doctors' attitudes towards smoking on their intention to quit smoking. The data collected from doctors was analyzed using partial least squares structural equation modeling. The results revealed that the attitude towards smoking is positively related to the intention to quit smoking. These findings suggest that doctors who were aware of the smoking hazards were more likely to quit smoking. Thus, management and government should adopt policies and procedures that develop a negative attitude towards smoking among people in general and doctors in particular.

Keywords: Attitude towards smoking; Intention to quit smoking; Theory of planned behaviour; PLS-SEM

INTRODUCTION

Smoking is acknowledged as the most prevalent and perilous form of addiction on a global scale. It is regarded as one of the main sources of respiratory ailments, cancers, and particularly cardiovascular conditions, and causes 5.4 million deaths every year (Feng et al. 2010; Leone, Landini, and Leone 2010; Maniscalco et al. 2021). Smoking constitutes the primary source of disability after hypertension on a global level, resulting in a higher mortality rate than that associated with alcohol and substance abuse, or even vehicular accidents (Collaborators 2017). An individual who engages in lifelong smoking possesses a 50% likelihood of succumbing to smoking-related causes, with an average reduction in lifespan of approximately ten years. There exists a population exceeding one billion smokers worldwide, with tobacco use implicated in roughly eight million fatalities each year. Smoking is a significant contributor to profound morbidity and mortality on a global scale. Approximately one-fourth of the populace in Europe and the United States are identified as smokers (Eurobarometer

2015; Abuissa et al. 2006). In these regions, which exhibit the highest mortality rates attributable to tobacco, around 16% of deaths are linked to tobacco consumption. Notwithstanding a reduction in the prevalence of smoking, tobacco use in affluent nations continues to represent a considerable risk factor for morbidity and mortality. Although numerous countries have instituted initiatives aimed at smoking cessation, public awareness remains insufficiently elevated.

The cessation of smoking is of paramount significance in the prevention and management of cardiovascular diseases (Spruyt et al. 2015; Eurobarometer 2015). It has been empirically demonstrated that interventions aimed at smoking cessation, when executed by healthcare professionals, can significantly enhance the rates of smoking cessation. Nevertheless, the smoking behaviors of healthcare professionals themselves may serve as a detrimental example for patients, while non-smoking healthcare practitioners possess a greater capacity to motivate patients to abandon smoking. Moreover, the context in which smokers find themselves can significantly affect their attitudes towards quitting. For example, Maniscalco et al. highlighted that patients who recognized their hospitalization as related to smoking were more inclined to quit smoking after discharge, indicating that acute health experiences can serve as a "teachable moment" that positively influences cessation attitudes (Maniscalco et al. 2021). Similarly, Spruyt et al. demonstrated that smokers who exhibited more negative implicit attitudes towards smoking were more likely to quit, reinforcing the idea that personal endorsement of health concerns significantly influences cessation behaviour (Spruyt et al. 2015).

Cardiologists ought to take into account the modification of patient risk through lifestyle alterations and preventive strategies in order to mitigate morbidity and mortality within the context of cardiovascular disease management. Such approaches can yield substantial benefits for patients as well as doctors at reduced costs. However, the smoking behaviours of doctors may adversely influence the efficacy of these benefits. This study seeks to investigate the correlation between the attitude of medical doctors towards smoking and their intention to smoke cessation.

SMOKING

Smoking refers to the inhalation and exhalation of smoke produced by burning tobacco or other substances (Leone, Landini, and Leone 2010). The most common form is tobacco smoking, which typically involves cigarettes, cigars, or pipes. When tobacco is burned, it releases nicotine, tar, and various harmful chemicals that can have significant health effects. Smoking is associated with numerous health risks. These risks include respiratory diseases, cardiovascular diseases, and various types of cancer, particularly lung cancer (Leone, Landini, and Leone 2010; Maniscalco et al. 2021; Spruyt et al. 2015). In addition to tobacco, some people smoke other substances, such as marijuana, which can have different effects and legal implications depending on the jurisdiction.

INTENTION TO QUIT SMOKING

The intention to quit smoking is typically defined as the determination or desire of a smoker to stop smoking within a specific period (Söyler and Yorulmaz 2024). According to the theory of planned behavior, intention is the stronger predictor of actual behavior (Ajzen 1991). The theory further explains that an individual's intention toward

something is predicted by his or her attitude, subjective norms, and perceived behavioral control. Previous studies also argue that an individual's intention to quit smoking is predicted by previous attempts to quit, physical activity, or a history of lung disease, which are independently associated with difficulty and intention to quit (Marques-Vidal et al. 2011). (Feng et al. 2010) in an empirical study found that past quit attempts, nicotine dependence, health concerns, and attitudes toward smoking are the predictors of smoking cessation. In another study among smokers, affective attitude was the strongest predictor of intentions to quit smoking (Høie et al. 2012). Interventions such as counseling, nicotine replacement therapies, or medications can aid in quitting (Söyler and Yorulmaz 2024).

ATTITUDE TOWARDS SMOKING:

Attitude is conceptualized as how an individual reacts to various environmental stimuli, which encompass information, opinions, tangible objects, or policy interventions (Ajzen 1991). It has been empirically defined as a product of behavioral beliefs alongside an assessment of their consequences (Ajzen 1975, 1991). Prior investigations have underscored that attitude plays a crucial role in elucidating the dynamics of health-related behaviors, such as smoking (Eiser and van der Pligt, 2015). From the perspective of the theory of planned behavior, a negative attitude towards the outcomes of smoking is positively related to the intention to quit smoking. Prior studies have also provided evidence of the impact of attitude toward smoking on intention to quit smoking (Saleem et al. 2023). However, empirical evidence from the context of Pakistan in general and Balochistan in particular is missing. Therefore, following the theory of planned behavior and related literature, we predict that:

H1: Attitude towards smoking is positively related to intention to quit smoking.

METHODOLOGY

In this study, a total of 213 medical doctors working in public sector hospitals of Balochistan, Quetta, were invited through a paper-based survey to complete the questionnaire. The study used convenience sampling for data collection. A structured questionnaire was disseminated to the medical doctors working in public sector hospitals of Balochistan, specifically targeting those employed at these hospitals. The survey asked questions about the demographic details and variables of the study. The survey was attached with instructions informing all respondents that the study was confidential and no information would be shared with anyone.

Measure

Attitudes towards smoking are measured with six items adopted from (Barati et al. 2015), and example item of the scale is "Tobacco smoking would reduce nervousness". Furthermore, the intention to quit smoking was adopted from the work of (Söyler and Yorulmaz 2024) and measured with eight items. An example item of the scale is "I want to quit smoking". All items were rated on a five-point Likert scale ranging from "1 = Strongly Disagree to 5 = Strongly Agree".

In the following Table 1, the demographic details of the respondents are presented.

Table 1: Demographic Detail

	N=213	%
<i>Gender</i>		
Male	167	78.40
Female	46	21.60
<i>Marital Status</i>		
Married	188	88.26
Single	28	11.74
<i>Designation</i>		
Surgeon	143	67.14
Physicians	70	32.86
<i>Experience (Years)</i>		
1-5 Years	9	4.22
6-10	79	37.09
11-15	70	32.86
16-20	45	21.13
21 and above	10	4.70

DATA ANALYSIS AND RESULTS

Data for the study was analyzed using IBM SPSS software. The descriptive statistics of the study revealed that attitude towards smoking is positively related to the intention to quit smoking ($r = 0.440$). The study results also revealed that the mean for the variables ranged between 3.0533 and 2.7772. The standard deviation of the study variables also ranged between 1.03127 and 1.07810.

Table 2

Variables	Mean	SD	1	2
Attitude Towards Smoking	3.0533	1.07810	-	0.440**
Intention to Quit Smoking	2.7772	1.03127	0.440	-

Note:** Correlation is significant at the 0.01 level (2-tailed).

For the testing of the hypotheses, we used partial least squares structural equation modelling (PLS-SEM). In the PLS-SEM, we first used confirmatory factor analysis to test the reliability and validity of the study variables. The results of the CFA (Table 3) revealed that all items of the variables were reliable, as the factor loading values exceeded the minimum threshold of 0.70 (Hair, Ringle, and Sarstedt 2011). The variables also established convergent validity since the AVE values were greater than 0.50 (Hair, Ringle, and Sarstedt 2011).

In the second stage of PLS-SEM, we assessed the hypotheses testing. For hypotheses testing, a bootstrapping with 5000 subsample was used to estimate the path coefficients and t-statistics. The findings of the study revealed that attitudes towards smoking are negatively related to the intention to quit smoking ($\beta = 0.342$; t-statistics= 3.123; $p = 0.000$). Thus, hypothesis one of the study is supported.

DISCUSSION AND CONCLUSION

The purpose of this study was to examine the influence of doctors' attitudes toward smoking on their intention to quit smoking. The data collected from 213 doctors were analyzed using IBM SPSS and SmartPLS 3.2.9 software. The findings of the study revealed that attitude towards smoking is positively related to doctors' intention to quit smoking. These findings are consistent with the theory of planned behavior, which states that people's intentions are predicted by their attitudes towards an object (Ajzen

1975, 1991). The findings are also in line with the work of Eiser and van der Pligt (2015), showing that doctors' attitudes towards the hazards of smoking are positively related to their intention to quit. Furthermore, this study's results corroborate the work of Saleem et al. (2023), which found that people's attitudes towards smoking are the strongest predictor of their intention to quit. These findings suggest that individuals who believe smoking is dangerous to health and causes many diseases are more likely to quit smoking.

LIMITATIONS AND FUTURE DIRECTIONS

Despite the theoretical and practical implications of the study, this study has some limitations that need to be considered. First, the data for the study was collected from respondents and was self-reported. Therefore, the issue of common method bias may arise. Future scholars are advised to conduct longitudinal or time-lag studies to avoid the issue of common method bias. Furthermore, the cross-sectional nature of the study also limits its ability to establish causality; future scholars should conduct longitudinal studies. Likewise, the model of the study is based on the theory of planned behavior, so other variables of the theory, such as perceived behavioral control and subjective norms, should also be included in future studies. We also encourage other scholars to include contextual factors that may impact doctors' intention to quit smoking.

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