



Original Research

Differences in Self-Efficacy for Smoking Cessation and Knowledge about Smoking Consequences among Adolescents

Ayoub Akbar Rafat¹ | Haqi Ismael mansoor²

¹Community Health Nursing
Department, College of
Nursing, University of Kerbala
Email:

ayoub.a@s.uokerbala.edu.iq

²PhD, Instructor, Community
Health Nursing Department,
College of Nursing, University
of Kerbala Email:

Haqi.i@uokerbala.edu.iq



Abstract

Around 80% of the 1.3 billion tobacco users worldwide live in low- and middle-income countries where the burden of tobacco-related illness and death is heaviest. Tobacco use contributes to poverty by diverting household spending from basic needs such as food and shelter to tobacco. This spending behaviour is difficult to curb because tobacco is so addictive. A descriptive correlation conducted from 10th November 2023 to 20th June 2024, study aimed to investigate the differences in knowledge about smoking consequences and Self-Efficacy for smoking cessation between the groups of grade, living arrangements, and family's socioeconomic class. The study included a convenience sample of 400 high school students. The study instrument is composed of students' sociodemographic sheet, Family's Socioeconomic Status Scale, The Smoking: Self-Efficacy/Temptation Scale, and The Knowledge about the Consequences of Smoking Scale. Data were collected using a self-reported instrument for the period from February 15th, 2024, to March 4th, 2024. The study results reveal that there is a statistically significant difference in Self-Efficacy for smoking cessation among family's socioeconomic class groups. The student researcher concluded that the socioeconomic status groups of the families differed in their levels of self-efficacy for quitting smoking in a statistically meaningful way. Further post hoc analysis demonstrated that students who are of families whose socioeconomic class is high enjoy greater Self-Efficacy of Smoking cessation. The student researcher recommends that there is a need for the community health nurses to initiate multisectoral collaborate with the raising of the knowledge of students about the deleterious consequences of smoking. There is a need for the community health nurses to collaborate with health officials in the Ministry of Health, Ministry of Work and Labor with the goal of protecting adolescents from the hazardous effects of smoking.

Keywords: Adolescents, Knowledge about Smoking Consequences, Self-Efficacy for Smoking Cessation.

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Introduction:

The agricultural product known as tobacco is made from the dried leaves of the genus *Nicotiana*, which contains 64 species of plants in the Solanaceae family. Tobacco has been utilized in many ways by humans throughout history. Chewing or smoking tobacco in pipes was common practice in bygone eras. Cigarettes are the primary packaging it is now found in. (Popova, et al., 2020). According to WHO recommendations, there are two main types of tobacco products: those that can be burned in a cigarette and those that can be chewed or snuffed out. (Medial, 2017). People of all income levels smoked at dizzying rates. The most popular time to smoke tobacco was during the transition from the 16 to the seventeenth centuries. Tobacco became victorious. At this time, smoking was primarily characterized by its fashionable position in terms of social relevance. (Apperson, 2019). Tobacco products such as cigars, pipe tobacco, and chewing tobacco were widely used during the turn of the twentieth century. Even if cigarette smoking was starting to rise sharply, mass manufacture of cigarettes was only starting. There was a dual perception of tobacco's therapeutic and harmful effects in the ninth edition of the Encyclopaedia Britannica (1888), which states that tobacco products were thought to cause certain health problems. As a means to alleviate boredom, boost mood, and increase focus and performance, many academics and medical experts of the day promoted the use of tobacco. (West, 2017). An unwavering commitment to tobacco was one characteristic that distinguished the gallant, dandy, swell, or beau of that era. Despite the fact that gallantry was only a piece of equipment, Earle asserts that certain individuals were "born and made" to wear it. (Apperson, 2020). Among the many sarcastic achievements of an all-around competent gentleman that old Robert Burton mentions is the ability to "take tobacco with a grace, with hawking, riding, hunting, card-playing, dicing and the like." However, Bishop Hall elaborates on the finer things that the young fashionista used to consume in 1597 and says that thereafter he smokes a whole tunnel of tobacco (Grana & Ling, 2014).

Methods:

A descriptive correlational design was used to guide this study. Descriptive correlational design is a type of correlational research because its primary purpose is to examine relationships between and among variables (Kerlinger & Lee, 2000; Leedy & Ormrod, 2019). The study was conducted at Tuz County, Saladin Governorate. The subjects were recruited from eight high schools in this county. The study included a non-probability convenience sample of high school students who agreed to participate in this study. The study participants were collected from the three stages and the student researcher enters the available subjects until he reaches the required sample. The sample size was determined based on a moderate effect size (0.25), alpha error probability of 5%, a power of 95%, and 10 groups. Thus, the recommended sample size would be 390. By considering an attrition rate of 20% of the recommended sample size which will be 78, the final sample size is 400. Inclusion criteria involve high school students, males, and morning study participants were predetermined as criteria based on which the study participants will be recruited. Exclusion criteria involve students at middle school and evening study. The study instrument is composed of students' sociodemographic sheet (age, living arrangement, residency), and grade. It also includes the Family's Socioeconomic Status Scale which is adopted from Shaikh and Pathak (2017). This scale encompasses father's level of education (its score ranges from 1-10), mother's level of education (its score ranges from 1-10), household's occupation (its score ranges from 1-10), and family's monthly income (its score ranges from 1-10). The total score is calculated by summing the scores of the aforementioned indices. The score ranges between 4-5 is classified as of lower class, the score that ranges between 6-14 is classified as of upper lower class, the score that ranges between 15-20 is classified as of lower middle class, the score that ranges between 21-33 is classified as of upper middle class, and the score that ranges between 34-40 is classified as of upper class. The study instrument also includes the Smoking: Self-Efficacy / Temptation Scale. It also includes the 19

items that are measured on a 5-point Likert scale of 1 for (Not at all tempted), 2 for (Not very tempted), 3 for (Moderately tempted), 4 for (Very tempted), and 5 for (Extremely tempted). The total score ranges between 19-90. Higher score indicates Self-Efficacy for smoking cessation. The Smoking: Self-Efficacy / Temptation Scale demonstrated very good internal consistency reliability (Cronbach's alpha = .862) and excellent content validity (Content validity index = 0.92). It also includes the Knowledge about the Consequences of Smoking Scale. The Knowledge about the Consequences of Smoking Scale displayed very good internal consistency reliability (Cronbach's alpha = .873) and excellent content validity (Content validity index = 0.94). A pilot study was conducted among a random sample of (35) smoking middle school students from (4) schools in the city of Tuz was included in the pilot study, and the pilot study sample was excluded from the total study sample. The participant needed approximately (20-30) minutes to complete the questionnaire and answer all questions. The pilot study was conducted from March 11th to March 15th, 2024.

Ethical Considerations:

Following the study's permission by the University of Kerbala's College of Nursing, the student researcher met with Saladin Directorate of Education authorities to discuss the study's specifics. As we explained the study's overarching goal and gave participants instructions on how to

fill out the questionnaire, we made sure they knew their participation was entirely voluntary and that they may withdraw at any time. The participant was assured by the student researcher that their data will be kept confidential and safe both throughout and after the study. The student researcher went on to say that everyone involved in the study would stay anonymous whether it's presented, reported, or published

Study Procedure:

Data were collected by a self-administered method. The researcher met all the principals of selected schools and asked to be alone with students. Thereafter, the researcher obtained a verbal consent of the selected students to participate in the study then the researcher randomly chose between the smoking students. Then, every group of smoker students selected was informed about the study subject and how they fill out the questionnaire. Data were analyzed using the statistical package for social science (SPSS) IBM, version 27. The descriptive statistical measures of frequency were used to describe the study participants' sociodemographic characteristics. The arithmetic mean and standard deviation were also used. The inferential statistical measures of Pearson correlation which was used to identify the correlation between independent variables and the dependent variable.

Study Results:

Table 1. Participants' sociodemographic characteristics (N = 400)

Variable	Frequency	Percent
Age (Years): Mean (SD): 17.75 ± 1.24		
16	72	18.0
17	113	28.2
18	102	25.5
19	69	17.3
20	44	11.0
Grade		
Fourth	126	31.5
Fifth	145	36.25
Sixth	129	32.25
Father's level of education		

Unable to read and write	60	15.0
Read and write	34	8.5
Elementary school	98	24.5
Middle school	66	16.5
High school	48	12.0
Diploma	47	11.8
Bachelor's degree	38	9.5
High Diploma	0	0.0
Master's degree	8	2.0
Doctoral degree	1	0.3

Table 1. (Continued)

Variable	Frequency	Percent
Mother's level of education		
Unable to read and write	56	14.0
Read and write	39	9.8
Elementary school	137	34.3
Middle school	78	19.5
High school	29	7.2
Diploma	25	6.3
Bachelor's degree	36	9.0
Family's monthly income (Iraqi Dinar)		
< 300.000	62	15.5
300.000-600.000	79	19.8
601.000-900.000	127	31.8
901.000-1.200.000	60	15.0
1.201.000-1.500.000	42	10.5
≥ 1.501.000	30	7.5
Socioeconomic Class		
Lower class	8	2.0
Upper lower class	214	53.5
Lower middle class	107	26.8
Upper middle class	70	17.5
Upper class	1	0.3
Living Arrangements		
Live with parents	294	73.5
Live with my mother	67	16.8
Live with my father	27	6.8
Live with my relatives	6	1.5
Live with my friends	3	0.8
Other	3	0.8

SD: Standard deviation

The average age is 17.75 ± 1.24 years. Out of the total participants, 28.2% are in the 17-year age group, followed by 25.5% in the 18-year age group, 18.0% in the 16-year age group, 17.3% in the 19-year age group, and 11.0% in the 20-year age

group. When broken down by grade, almost a third are in the fifth grade ($n = 145$; 36.25 percent), followed by the sixth grade ($n = 129$; 32.25 percent), and finally the fourth grade ($n = 126$; 31.5%). When it comes to the level of education

that fathers have, about a quarter have completed elementary school ($n = 98$; 24.5%), followed by those who have completed middle school ($n = 66$; 16.5%), some cannot read or write ($n = 60$; 15.0%), some have completed high school ($n = 48$; 12.0%), some have a diploma degree ($n = 47$; 11.8%), some have a bachelor's degree ($n = 38$; 9.5%), some can read and write ($n = 34$; 8.5%), some hold a master's degree ($n = 8$; 2.0%), and one of them has a doctoral degree ($n = 1$; 0.3%). More than one-third of the mothers have completed elementary school ($n = 137$; 34.3%), then middle school ($n = 78$; 19.5%), none can read or write ($n = 56$; 14.0%), some can read and write ($n = 39$; 9.8%), 36 have a bachelor's degree ($n = 36$; 9.0%), 29 have a high school diploma ($n = 25$; 6.3), and a few have a diploma. Concerning family's monthly income, less than a third reported that their income is 601.000-900.000 ID ($n = 127$; 31.8%), followed by those whose income less than 300.000 ID ($n = 62$;

15.5%), those whose income 901.000-1.200.000 ID ($n = 60$; 15.0%), those whose income is 1.201.000-1.500.000 ID ($n = 42$; 10.5%), and those whose income is 1.501.000 or more ($n = 30$; 7.5%). When asked about their living arrangements, the majority of respondents ($n = 294$; 73.5% of the total) said they've been staying with their parents. Next came those who live with their mothers ($n = 67$; 16.8% of the total), then those who live with their fathers ($n = 27$; 6.8% of the total), then those who live with relatives ($n = 6$; 1.5%), and finally, those who live with friends and other people ($n = 3$; 0.8%). Considering the socioeconomic status of the participants, over half fall into the upper lower class ($n = 214$; 53.5%), followed by the lower middle class ($n = 107$; 26.8%), the upper middle class ($n = 70$; 17.5%), the lower class ($n = 8$; 2.0%), and finally, one person in the upper class ($n = 1$; 0.3%).

Table 5. Difference in Self-Efficacy for smoking cessation among family's socioeconomic class groups

ANOVA					
Self-Efficacy					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	5326.133	4	1331.533	6.619	.000
Within Groups	79462.867	395	201.172		
Total	84789.000	399			

df: Degree of freedom; F: F-Statistics; Sig.: Significance

The study results reveal that there is a statistically significant difference in Self-Efficacy for smoking cessation among family's socioeconomic class groups ($p\text{-value} = .000$).

Discussion:

This descriptive correlation study aimed mainly to investigate the differences in knowledge about smoking consequences and Self-Efficacy for smoking cessation. More than 10 times as many U.S. citizens have died prematurely from cigarette smoking than have died in all the wars fought by the United States (Aula&Qadir.,2013). Cigarette smoking increases risk for death from all causes in men and women (Villanti al et.,2016). The risk of dying from cigarette smoking has increased over

the last 50 years in the U.S.(Bonnie al et.,2015).Psychologist Albert Bandura has defined self-efficacy as people's belief in their ability to control their functioning and events that affect their lives (Lopiz.,2023). One's sense of self-efficacy can provide the foundation for motivation, well-being, and personal accomplishment (Paloutzain al et .,2010). High self-efficacy has numerous benefits to daily life, such as resilience to adversity and stress, healthy lifestyle habits, improved employee performance, and educational achievement (Schunk & DiBenedetto al et.,2016).The study's findings show that the socioeconomic status groups of the families differed in their levels of self-efficacy for quitting smoking in a statistically meaningful way.Further

post hoc analysis demonstrated that students who are of families whose socioeconomic class is high enjoy greater Self-Efficacy of Smoking cessation. This finding could be explained as having better socioeconomic status enables families to have access to literature that makes them knowledgeable enough and then develop greater Self-Efficacy to refrain from smoking behavior or striving for its cessation. Ineson and colleagues (2013) concluded that the prior knowledge individuals have, and ability do positively influence their Self-Efficacy.

Conclusions:

The researchers concluded that Students who are of families whose socioeconomic class is high enjoy greater Self-Efficacy of Smoking cessation. Moreover, the prior knowledge individuals have, and ability do positively influence their Self-Efficacy.

Implications for Practice:

Students from low-income families need extra attention from community health nurses. Community health nurses should start interdisciplinary teams to educate kids about the dangers of smoking and other health issues. Moreover, Devoting time and energy to creating and enhancing initiatives to reduce smoking in educational settings.

Limitations of the study:

The current study involves a set of limitations including using subjective method of data collection where the self-reported instrument was used for data collection. Another limitation is using a non-probability “convenience” sample which involves the absence of representation for the study population. Because of the character of Iraqi women, data collection from smoking adolescents requires a female researcher.

Declaration of Interest:

The researchers declare that there is no any conflict of interest.

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