The Difference in Self-Efficacy for Avoiding Exposure to Second-Hand Smoking Among Pregnant Wives According to Their Socioeconomic Status

الفرق في النجاعة الذاتية لتجنب التعرض للتدخين السلبي بين الزوجات الحوامل وفقاً لحالتهن الاجتماعية والاقتصادية

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المستخلص:

الاهداف: تهدف هذه الدراسة إلى معرفة الفرق في النجاعة الذاتية في تجنب التعرض للتدخين السلبي بين الزوجات الحوامل حسب حالتهن الاجتماعية والاقتصادية.

المنهجية: أجريت دراسة وصفية ارتباطية في مدينة بغداد للمدة من ١ تشرين الاول ٢٠٢٣ الى ٤ نيسان٢٠٢٤. عينة غير احتمالية (عينة مقصودة) مكونة من(٣٩٠)امرأة حامل ممن راجعن مراكز الرعاية الصحية في بغداد، العراق. استبيان يتكون من الخصائص الديموغرافية والإنجابية ، والتعرض لدخان السجائر، ومقياس النجاعة الذاتية، ومقياس المعوقات المتصورة. تم تحليل البيانات باستخدام الحزمة الإحصائية للعلوم الاجتماعية.

النتائج: أظهرت نتائج الدراسة وجود فروق ذات دلالة إحصائية في النجاعة الذاتية لتجنب التعرض للتدخين السلبي بين مستوى تعليم الزوجات. وأظهرت نتائج الدراسة وجود فروق ذات دلالة إحصائية في النجاعة الذاتية لتجنب التعرض للتدخين السلبي بين فئات مهنة الزوجة وبين فئات الدخل الشهري للأسرة.

الاستنتاج: يجب اعتبار النساء الحوامل ذوات المستوى الاجتماعي والاقتصادي المنخفض مجموعة سكانية رئيسية لتنفيذ برامج التثقيف الصحي لزيادة النجاعة الذاتية للنساء الحوامل.

الكلمات المفتاحية: النجاعة الذاتية، التدخين السلبي، الزوجات الحوامل، الاجتماعي والاقتصادي

Abstract

Objective(s): this study aims to investigate the difference self-efficacy for avoiding exposure to second-hand smoking among pregnant wives according to their socioeconomic status.

Methodology: A descriptive correlational study was carried out in Baghdad city for the period from October 1st ,2023 to April 4th

,2024. A non-probability (purposive sample) sample of (390) pregnant women who visited the health care centers in Baghdad, Iraq. A questionnaire composed of demographic and reproductive characteristics, exposure to cigarette smoke by smoking, self-efficacy scale, and perceived barriers scale. The data were analyzed by using statistical package for the social sciences.

Results: The study results display that there is a statistically significant difference in Self-Efficacy for avoiding exposure to secondhand smoking among wife's level of education groups. The study results reveal that there is a statistically significant difference in Self-Efficacy for avoiding exposure to secondhand smoking among wife's occupation groups and among family's monthly income groups.

Conclusion: Pregnant women with low a socioeconomic should be considered a key population for the implementation of health educational programs to increase the Self-Efficacy of pregnant women.

Key words: self-efficacy, secondhand smoking, pregnant wives, Socioeconomic

Introduction

smoking remains a major public health issue as it is a leading cause of preventable morbidity and mortality globally [(1)]. Cigarette smoking has been considered as a risk factor for the development of several cancers, including the gastrointestinal, urogenital, and respiratory systems [(2)]. Second-hand smoke (SHS) is resulted by the combustion of cigarettes, other tobacco products, and the exhalation

of smoke by smokers, and it affects non-smokers who exposed to it [(3)].

Secondhand smoking exposure has both short-and long-term consequences, including the following short-term effects include irritation of the nose, eyes, lungs, and throat, and sometimes nausea, headache, and dizziness. Asthma attacks can also be triggered by exposure. Long-term exposure to secondhand smoking increases the risk of heart attack, lung cancer, and cardiac mortality. Living with smokers increases the risk of smoking-related illness for non-smokers [(4)].

There is a 25%–30% rise in the risk of coronary heart disease and a 20%–30% increase in lung cancer for nonsmoking [(5)]. An estimated 600,000 premature deaths worldwide are attributed to secondhand smoking exposure each year; six million deaths are caused by tobacco use [(6)]. Pregnant women who are exposed to SHS are at risk of experiencing various complications that negatively impact both the mother and the fetus. These complications include spontaneous abortion, miscarriage, fetal growth restriction, intrauterine growth restriction, preterm birth, low birthweight (LBW), and sudden infant death syndrome [(7)].

In the United Arab Emirate, an estimated 34.8% of pregnant women were exposed to secondhand smoking (28.0% at home only) [(8)]. Even though many European nations have implemented smoke-

free laws, the Global Adult Tobacco Survey (2009–2013) revealed that roughly 50% of the one billion children (under the age of 15) living in 21 countries were exposed to secondhand smoking at home; the percentages ranged from 5% in Panama to 15.8% in Qatar and 79% in Indonesia. Almost 84.6% of the children exposed to SHS were from China, India, Bangladesh, Indonesia, and the Philippines. Countries with higher rates of adult smoking had higher prevalence of SHS exposure [(9)].

Self-efficacy refers to an individual's belief in their ability to organize and carry out the course of actions to achieve specific goals (Bandura, 1977). Self-efficacy is a type of expectancy that involves making a judgment about the likelihood of a given event in the future [(10)].

Methodology

A descriptive correlational study was carried out from October 1st ,2023 to April 4th ,2024 at the health care centers in Baghdad, Iraq and included 390 pregnant women who exposed to second-hand smoke. The sample selection was purposive. The inclusion criteria, all pregnant women in all age groups, and whose husbands are smokers. The exclusion criteria, Pregnant women who are illiterate and those whose husbands are non-smokers.

An approval from the ethics committee of College of Nursing/university of Baghdad and approval obtained from health care sectors for the data collection.

The researcher presented a concise explanation of the context of the research and its purposes before starting to collect data from the sample of the study. Pregnant women in health care center were told of the research's purposes and asked to participate in voluntary and fill out the questionnaire. The researcher must precisely adhere to the confidentiality of the data of the study sample and use it only for research purpose.

A questionnaire composed of demographic and reproductive characteristics, exposure to cigarette smoke by smoking, Self-efficacy scale and perceived barriers scale.

The first section composed of demographic and reproductive characteristics including age of women, number of children, spouses' level of education and fetus sex. The second section includes information on exposure to cigarette smoke including number of cigarettes husband smokes per day, number of cigarette husband smokes at home, number of hours of exposure to cigarette smoke.

The third section includes perceived barriers scale consist of two components:

Personal barriers composed of (7) items, Environmental barriers was composed of (5) items. The fourth section includes self-efficacy Consist of (6) items to assess pregnant women's self-efficacy. The items answered on a 5-point Likert scale.

Validity of questionnaire was determined by Ten experts from multidisciplinary fields revised the study instrument. Each expert had over ten years of experience in their own field of expertise. The researcher offered that each expert member examines the study tool for content, clarity, appropriateness, style, and applicability.

Reliability of the questionnaire is based on Cronbach's Alpha of perceived barriers and self-efficacy was (0.81, 0.82) respectively. The data collection process was conducted from the period from January 10th , 2024 to March 3rd , 2024. The questionnaire was distributed for study subjects. After getting the consent of the health care sectors and confirming the validity and reliability of the questionnaire. The self-report method has been used on individuals, and each subject took (15-20) minutes to complete the report.

Statistical analysis was used to analyze the results by using statistical package for the social sciences version (27) and descriptive statistics.

Results

Table 1. *Participants' sociodemographic characteristics (N = 390)*

Variable	Frequency	Percent
Wife's Age (Years): Mean (SD): 27.14 ± 6.28		
17-22	102	26.2
23-28	137	35.1
29-34	93	23.8
35-40	47	12.1
41-46	11	2.8
Husband's Age (Years): Mean (SD): 31.94 ± 6.46		
19-26	73	18.7
27-34	196	50.3
35-42	94	24.1
43-50	25	6.4
51-59	2	0.5
Number of Children		
1	195	50.0
2	117	30.0
3	30	7.7
4	30	7.7
5	11	2.8
6	2	.5
7	5	1.3
Husband's level of education		
Unable to read and write	5	1.3
Read and write	2	0.5

Elementary school	149	38.2
Middle school	121	31.0
High school	53	13.6
Diploma	31	7.9
Bachelor's degree	26	6.7
Master's degree	2	0.5
Doctoral degree	1	0.3

Table 1. *(Continued)*

Variable	Frequency	Percent
Wife's level of education		
Read and write	1	0.3
Elementary school	134	34.4
Middle school	111	28.5
High school	84	21.5
Diploma	21	5.4
Bachelor's degree	39	10.0
Wife's Occupation		
Housewife	336	86.2
Employee	37	9.5
Student	17	4.4
Family's monthly income (Iraqi Dinar)		
< 300.000	197	50.5
300.000 – 600.000	79	20.3
601.000 – 900.000	68	17.4
901.000 – 1.200.000	30	7.7

1.201.000 – 1.500.000	16	4.1
Housing Type		
House	374	95.9
Apartment with balcony	3	0.8
Apartment without balcony	13	3.3
Internal Area		
Small, without ventilation	57	14.6
Small, well ventilated	246	63.1
Large, not ventilated	17	4.4
Large, well ventilated	70	17.9

SD: Standard deviation

The wives' mean age is 27.14 ± 6.28; more than half age 23-28-years (*n = 137*; 35.1%), followed by those who age 17-22-years (*n = 102*; 26.2%), those who age 29-34-years (*n = 93*; 23.8%), those who age 35-40-years (*n = 47*; 12.1%), and those who age 41-46-years (*n = 11*; 2.8%).

The husband's mean age is 31.94 ± 6.46; around half age 27-34-years (*n = 196*; 50.3%), followed by those who age 35-42-years (*n = 94*; 24.1%), those who age 19-26-years (*n = 73*; 18.7%), those who age 43-50-years (*n = 25*; 6.4%), and those who age 51-59-years (*n = 2*; 0.5%).

Concerning number of children in the family, a half reported that they have one child (*n = 195*; 50.0%), followed by those who have two children (*n = 117*; 30.0%), those who have both three and four children (*n = 30*; 7.7%) for each of them, those who have five

children (*n = 11*; 2.8%), those who have seven children (*n = 5*; 1.3%), and those who have six children (*n = 2*; 0.5%).

Regarding husband's level of education, less than two-fifths are elementary school graduates (*n = 149*; 38.2%), followed by those who are middle school graduates (*n = 121*; 31.0%), those who are high school graduates (*n = 53*; 13.6%), those who hold diploma degree (*n = 31*; 7.9%), those who hold bachelor's degree (*n = 26*; 6.7%), those who are unable to read and write (*n = 5*; 1.3%), those who each read and write, hold master's degree (*n = 2*; 0.5%), and one who holds doctoral degree (*n = 1*; 0.3%).

With respect to wife's level of education, more than a third are elementary school graduates (*n = 134*; 34.4%), followed by those who are middle school graduates (*n = 111*; 28.5%), those who are high school graduates (*n = 84*; 21.5%), those who hold bachelor's degree (*n = 39*; 10.0%), those who hold diploma degree (*n = 21*; 5.4%), and one who reads and writes (*n = 1*; 0.3%).

As per women's occupation, the majority are housewives (*n = 336*; 86.2%), followed by those who are employees (*n = 37*; 9.5%), and those who are students (*n = 17*; 4.4%).

Concerning family's monthly income, it is less than 300.000 ID for more than a half of participants (*n = 197*; 50.5%), followed by those whose income ranges between 300.000-600.000 ID (*n = 79*; 20.3%), those whose income ranges between 601.000-900.000

ID (*n = 68*; 17.4%), those whose income ranges between 901.000-1.200.000 ID (*n = 30*; 7.7%), and those whose income ranges between 1.201.000-1.500.000 ID (*n = 16*; 4.1%).

Regarding housing type, the clear majority reported that they live in courtyard (*n = 374*; 95.9%), followed by those who live in apartment without balcony (*n = 13*; 3.3%), and those who live in apartment with balcony (*n = 3*; 0.8%).

With respect to the internal area, most reported that their housing is small, well ventilated (*n = 246*; 63.1%), followed by large, well ventilated (*n = 70*; 17.9%), small, without ventilation (*n = 57*; 14.6%), and large, not ventilated (*n = 17*; 4.4%).

Table 2. *Difference in Self-Efficacy for avoiding exposure to secondhand smoking among wife's level of education groups*

Ranks				Kruskal-Wallis H	df	Asymp. Sig.
	Wife's Education	N	Mean Rank			
Self-Efficacy	Read and write	1	388.00	11.750	5	.038
	Elementary school	134	182.26			
	Middle school	111	183.30			
	High school	84	214.20			
	Diploma	21	229.02			
	Bachelor's degree	39	212.46			
	Total	390				

Asymp. Sig.: Asymptomatic Significance, df: Degree of freedom, N: Number

The study results display that there is a statistically significant difference in Self-Efficacy for avoiding exposure to secondhand smoking among wife's level of education groups (p-value = .038).

Table 3. *Difference in Self-Efficacy for avoiding exposure to secondhand smoking among wife's occupation groups*

Ranks				Kruskal-Wallis H	df	Asymp. Sig.
	Occupation	N	Mean Rank			
Self-Efficacy	Housewife	336	189.29	7.920	2	.019
	Employee	37	237.74			
	Student	17	226.38			
	Total	390				

Asymp. Sig.: Asymptomatic Significance, df: Degree of freedom, N: Number

The study results display that there is a statistically significant difference in Self-Efficacy for avoiding exposure to secondhand smoking among wife's occupation groups (p-value = .019).

Table 4. *Difference in Self-Efficacy for avoiding exposure to secondhand smoking among family's monthly income groups*

Ranks				Kruskal-Wallis H	df	Asymp. Sig.
	Family's Monthly Income	N	Mean Rank			
Self-Efficacy	< 300.000	197	169.96	26.938	4	.000
	300.000-600.000	79	204.08			
	601.000-900.000	68	222.77			
	901.000-1.200.000	30	243.90			
	1.201.000-1.500.000	16	261.00			
	Total	390				

Asymp. Sig.: Asymptomatic Significance, df: Degree of freedom, N: Number

The study results display that there is a statistically significant difference in Self-Efficacy for avoiding exposure to secondhand smoking among family's monthly income groups (p-value = .000).

Discussion

Table (2) The study results reveal that there was a statistically significant difference in self-efficacy for avoiding exposure to secondhand smoking among wife's level of education groups. Further Kruskal-Wallis test demonstrated that the value of self-efficacy was a greater among diploma level.

Table (3) the study results reveal that there was a statistically significant difference in self-efficacy for avoiding exposure to secondhand smoking among wife's occupation groups. Further Kruskal-Wallis test demonstrated that the value of self-efficacy was higher among employee. The results could be explained as these women have more responsibilities and activities compared with counterparts.

Table (4) the study results display that there was a statistically significant difference in self-efficacy for avoiding exposure to secondhand smoking among family's monthly income groups. Furthermore Kruskal-Wallis test demonstrated that the value of self-efficacy was greater among high income group (1.201.000-

1.500.000). the findings could be explained as these women living in luxury compared with other counterparts.

Conclusion

Self-Efficacy is greater among diploma education of woman than counterparts, Self-Efficacy is greater among employee women, Self-Efficacy is greater among high family's monthly income.

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