



## Original Research

# Impact of a Transtheoretical Model on Enhancing Electronic Hookah-Related Behaviors among Nurses

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### Abstract

**Objective:** To assessment the effect of a trans theoretical Model in improving Behaviors nurses related Hookah.

**Material:** In order to assess the effect of a transtheoretical model on changing healthcare staff' behavior around electronic hookahs in Mosul, a descriptive cross-sectional design study was used. The Mosul hospital was the site of the study. 58 men and women were chosen in a probability simple random sample. The information is gathered between November 1 and November 15, 2022.

**Results:** All of the Trans Theoretical Model's concepts were found to be (p value) significant in this study, with the exception of the concept of experiential processes.

**Conclusion:** The study found that decision balance, self-efficacy / temptation, processes of change, and behavioral processes were among the many health behaviors that were positively impacted by the assessment through the Trans Theoretical Model.

**Keywords:** Trans theoretical Model, nurses, Electronic Hookah

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### Introduction:

The current generation of portable, travel-friendly hookahs is the electronic hookah. An electronic hookah is simple to use, requires no setup, and is entirely electronic. With a modern twist, electronic hookah, also known as electronic shisha or e-hookah, gives the same high-quality smoke as traditional hookah. There are numerous types of electronic hookah pens, and each one has a unique application. A rechargeable e-hookah pen contains a battery that can be recharged for continuing usage as opposed to a disposable vape pen, which typically has a limited number of puffs (usually around 320) before needing to be thrown away<sup>(1)</sup>. Despite being heavily advertised and actively

glamorized in the media as a healthier tobacco alternative, the toxicological components of hookah smoke, including "nicotine, carbon monoxide, particulates, oxidants, heavy metals, phenols, and flavoring agents", indicate the potential to cause adverse cardiovascular events and other conditions associated with the toxins. Smoking electronic hookahs has detrimental health effects that are a leading factor in cardiovascular morbidity and mortality<sup>(2)</sup>. Many variables, such as societal acceptance and fewer limitations, accessibility, the usage of flavoring and aromatic tobacco, a greater social status, curiosity, peer pressure, fashion and the desire to amuse males, seem to have contributed to the popularity of

electronic hookah smoking. The majority of users maintain that smoking hookah does "no or less harm" than smoking cigarettes since they do not inhale the smoke and instead hold it in their mouths, shielding themselves from the addictive and nicotine-absorbing effects of nicotine<sup>(3,4)</sup>. Up to the mid-1960s, smoking rates rose. Afterward, 42% of American people smoked. In a 1964 report, the Surgeon General made a connection between smoking and harmful health risks such as emphysema, heart disease, and lung cancer. Tobacco use among adults had decreased to roughly 14% of the population by 2017<sup>(5)</sup>. E-cigarettes are not necessarily safe, despite this. In general, e-cigarette aerosol contains fewer of the 6,500 lethal toxic chemicals found in cigarette smoke. However, the aerosol produced by e-cigarettes is not risk-free. It could include nicotine, heavy metals like lead and cadmium, volatile chemical compounds, cancer-causing agents, and other potentially dangerous substances, and heavy metals like lead<sup>(6,7)</sup>. The article's goal is to determine how a transtheoretical model affects electronic health records-related behaviors in nurses.

**Method and Materials:**

In order to assess the impact of a transtheoretical model on changing healthcare staff behavior around electronic hookahs in Mosul, a descriptive cross-sectional design study is used. The Mosul hospital was the site of the study. For the purpose of evaluating the impact of the Trans Theoretical

Model on altering the behavior of healthcare professionals in relation to electronic hookahs in Mosul city, 58 health care worker employees were chosen through a probability simple random sampling procedure. A two-part instrument was used to gather the data for the study. Part one involved gathering the data, characterizing the Health care workers sociodemographic characteristics (age, gender, workplace, marital status and residence), In part II, an electronic hookah-related scale was used to evaluate how well healthcare workers' behaviors have improved. Before it was finalized, the student's instrument was reviewed by 14 specialists in fields relating to the study. The Trans Theoretical Model of Health Promotion was used to construct this scale, which has five main subscales: (1) "Decision balance," "Processes of change," "Self-efficacy / temptation," and To alter the ideas of healthcare professionals on the use of electronic hookahs, there are (4) " Experiential Processes " and (5) " Behavioral Processes ". 34 things total on a 5-point scale made up the entire scale. Utilizing a business model centered on health promotion, improvements in employee behavior were evaluated using a 5-point Likert scale. A higher number indicates greater agreement with the notions. The responses for these questions varied from "(1) strongly disagrees to (5) strongly agree". Data was collected by a questionnaire, and SPSS version 26 was used for analysis<sup>(8-118)</sup>.

**Results:**

**Table (1): sample study's (n=58) demographics were as follows**

Factors	Number	Mean	SD	Std. Error	F	P-value
Age	58	27.4	2.76	0.1678	1.223	0.453
Gender	58	2.8	1.24	0.1654	0.000	1.000
M.status	58	1.54	0.876	0.1422	1.6665	0.551
Residence	58	1.94	0.932	0.1287	0.000	1.000
Workplace	58	1.76	0.549	0.0542	1.087	0.342

**Table (2): For each of the five Transtheoretical Model principles that were researched, a statistical summary of the study is provided.**

Transtheoretical Model	Mean	SD	P_value
Decision balance	2.76	0.765	0.000
Self-efficacy / temptation	2.33	0.887	0.000
Processes of change	1.77	0.245	0.000
Experiential Processes	3.11	0.655	0.123
Behavioral Processes	1.65	0.544	0.000

**Discussion:**

The trans theoretical model of behavior modification is an interdisciplinary treatment concept that assesses person's preparedness to switch to improved behavior and provides tools or approaches to help with the transition. The model takes into account concepts like decisional balance, self-efficacy, and phases and processes of transformation. Although the transtheoretical model includes processes of change, levels of change, and stages of change as well, the phrase "stages of change" is occasionally used to describe it. However, this usage is a synecdoche. The abbreviation "TTM" is also used to refer to the transtheoretical model<sup>(119)</sup>. 58 healthcare workers are participating in this study. The mean and SD (27.42.76) of the study's age are the results. According to other demographic parameters, the majority of individuals in the survey method were male (76%) and married (81%) as well as home owners (93%). The results similar with<sup>(9)</sup> who found that the majority of participants frequently exhibited health behavior impairment . In a study similar to this one, the participants' average age was 2.99 (1.34), 96% of them were married, and 72.8% had poor family income. The results of this study are comparable to those of study <sup>(120)</sup>, which found that the respondents' average age was (21.21 + 2.90). 90% of people were married, and 70% made a modest living for their family. All of the Trans theoretical model's concepts were found to be (p value) significant by statistical analysis of the second table, with the exception of the notion of experiential processes. The findings indicated that

every model concept, with the exception of the experiential processes, was highly effective<sup>(121)</sup>. This is because health workers correctly committed to the experimental operations by altering or improving their behaviors when using the electronic hookah, which is the main cause of the ineffectiveness of the experiential processes<sup>(122)</sup>.

**Conclusions:**

The study found that decision balancing, self-efficacy / temptation, processes of change, and behavioral processes were among the numerous health behaviors that were positively impacted by the assessment through the Trans Theoretical Model.

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