

## Using the Health Promotion Towards Hypertension among Employees: Arandomized Controlled Trial

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### Abstract

**Background:** Hypertension (HTN), described as greater than 140mmHg systolic blood pressure (SBP) or larger than 90mmHg diastolic blood pressure (DBP), is a serious public health problem across the world.

**Methods:** True experimental design by using the randomized controlled trial approach is conducted to determine the efficacy of pander's health promotion based model on intervention for enhancing eating behaviors university of Mosul hypertension employees' for period from 26-November 2022 to 1-March 2023.

**Results:** Findings of this study depict that there were statistically significant differences among all composed of the Pender's Health Promotion Model on Intervention for Enhancing Eating Behaviors Hypertensive Employees. On the contrary, the perceived barrier was the only belief that showed no significant during three time(pre\_test,post\_test1,post\_test2).

**Conclusion:** This study concluded that Health intervention through the health promotion of pander model demonstrates the importance of hypertension prevention and has a positive impact on employees' perceptions of perceived , perceived benefits, perceived self\_efficacy, social support and activity related effect of unhealthy hypertension advised employees to using their eating behavior through a healthy diet, physical activity and other healthy behaviors to hypertension control to prevent different health hazards

**Key words:** Nola Pender's, Health Promotion, Hypertension, Employees

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# Introduction

The health promotion model's ability to clarify and anticipate individuals' health actions across logical thinking, which demonstrates how demographic variables are linked to human values and, finally, affect the individual behaviors and ways of life, has made it the model of choice for many health promotion organizations<sup>(1)</sup>. According to Pender, produces four products, People seeking to be in charge of their own behaviors, Individuals strive to better themselves and their surroundings, Individual actions are influenced by the interpersonal environment created by health practitioners, Changing behavior requires self-initiated changes in individual and contextual variables. These assumptions might assist clients in prioritizing other requirements, particularly health-related issues ("Nola Pender Health Promotion Model," 2019). Hypertension (HTN), described as greater than .140mmHg systolic blood pressure (SBP) or larger than 90mmHg diastolic blood pressure (DBP), is a serious public health problem across the world. Although our knowledge condition as well as the accessibility to therapies, 80 million adults in the United States and 266 million people in China suffer from HTN <sup>(2)</sup>. The majority of the time, hypertension does not generate any obvious symptoms. When this happens, you may experience dizziness, shortness of breath, headaches, and nosebleeds, all of which could suggest high blood pressure If long-term hypertension is not appropriately controlled, complications such as heart disease, stroke, and renal failure might arise. Blurred vision, nausea, chest pain, and anxiety are all symptoms of a hypertensive emergency, which is a rare and hazardous occurrence <sup>(3)</sup>. The aim of the study to Apply Pender's Health Promotion Towards Hypertension of Employees.

## Methods and Materials:

True experimental design by using the randomized controlled trial approach is conducted to determine the efficacy of pander's health promotion based model on intervention for enhancing eating behaviors university of Mosul hypertension employees' for period from 26-November 2022 to 1-March 2023. A probability simple random sample of 50 male and female employees from faculties of different specializations was selected. The sample was collected from four colleges at the University of Mosul, which are the College of Medicine, Engineering, Science, and education. The sample was selected from a homogeneous group of 220 employees. Random selection and random assignment are used to create the experimental and control group. The intervention for the experimental group involved a health education lecture about enhancing eating habits related to hypertension. Analyzed data using SPSS, Version24 using both descriptive statistics, inferential statistics (Means, and SD, Number and percentage).as well as Levene's Test for Equality of Variances, Test of normality using the Kolmogorov-Smirnov test, Using the Friedman's test to make comparisons between two related samples or more than two related samples and Using the absolute and relative change indicator to check the levels of percentage change for the study cases before and after the test<sup>(4-237)</sup>.

## Results:

**Table 1: Statistical description of the study for each of the five studied concepts of the health promotion of Pander Model**

Case summaries							
Concept of Pander Model		Experimental			control		
		Pretest	Posttest 1	Posttest 2	Pretest	Posttest 1	Posttest 2
<b>Benefit</b>	Mean	2.5900	3.7600	3.8800	2.4800	2.6700	2.6700
	S.D	0.30516	0.18371	0.17854	0.32210	0.34400	0.34400
<b>Barriers</b>	Mean	3.0857	3.1143	3.0857	3.0343	3.0743	3.0800
	S.D	0.25754	0.25085	0.25754	0.28655	0.29196	0.28595
<b>Self-efficacy</b>	Mean	2.7667	4.1267	4.1333	2.9533	2.9467	2.9533
	S.D	0.24056	0.18807	0.18634	0.18333	0.21365	0.18333
<b>Social support</b>	Mean	2.8200	3.8400	3.8600	2.8400	2.8200	2.8200
	S.D	0.43012	0.23805	0.27080	0.47258	0.45369	0.45369

Activity related affect	Mean	2.8700	4.1000	4.0900	2.8500	2.8600	2.8700
	S.D	0.29861	0.23936	0.25900	0.29756	0.29826	0.28062

**Note: SD: Standard deviation**

**Table (2): Test the amount of absolute and relative change of the study variables between the pre-test and the post-test (final value).**

Absolute and relative change				
Concepts	Mean of Exp-post (final value)	Mean of Exp-pre (initial value)	Absolute change	Relative change
Benefit	3.7600	2.5900	1.17	0.451737
Barriers	3.1143	3.0857	0.0286	0.009269
Self-efficacy	4.1267	2.7667	1.36	0.49156
Social support	3.8400	2.8200	1.02	0.361702
Activity related affect	4.1000	2.8700	1.23	0.428571

## Discussion:

**Table (1)** shows an examination of the changes that occurred to employees through three stages (pre, post1, post2), it was found in the first stages (baseline) that their feeding behavior was 2.590 ( $\pm 0.30516$ ), But after the intervention and giving the training program in (post1) it became 3.880 ( $\pm 0.17854$ ), and this indicates the program was effective and changing the behaviors for the employees. These results and positive change are in agreement with a study conducted by <sup>(73)</sup>. In the third stage, after two months of the intervention, the participants were collected and their health behaviors tested. The ratio of 3.8800 ( $\pm 0.17854$ ), appeared. This indicates that they have maintained the same information and behaviors and may have increased. This also confirms to us that they have implemented all the instructions given to them during the lecture. These results are consistent with <sup>(74)</sup> where he indicated that there was a noticeable change in the level of improvement in high blood pressure among the research participants after using the program. A comparison in the control study in the three stages, pretest was (M=2.4800), posttest1 (M=2.6700), posttest2 (M=2.6700) shows that the results were similar, and the official reason was that they were not participating in the program. These findings agree with <sup>(75-132)</sup> post hoc testing revealed that the average health promotion score changed (perceived benefits) differed significantly between the groups of participants ( $p > 0.000$ ). For the control group, the results showed that there was "no" significant change "in the mean health promotion score throughout the program, they also mentioned that the "control group did not change during these stages.

## Conclusion:

The study concluded that the Health intervention through the health promotion of pander model demonstrates the importance of hypertension prevention and has a positive impact on employees' perceptions of perceived, perceived benefits, perceived self\_efficacy, social support and activity related effect of unhealthy hypertension advised employees to using their eating behavior through a healthy diet, physical activity and other healthy behaviors to hypertension control to prevent different health hazards, Cues to action for activating "readiness" to quit within unhealthy behaviors and self-efficacy for confidence in the ability to maintain blood pressure.

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