

**REFLECTION OF SOME LIFE STYLE FACTORS ON
LEVEL
OF ARTERIAL BLOOD PRESSURE**

Submitted By

Wafaa Mohammed Mohammed Mohammed

B. Sc. of Pharmacy, Faculty of Pharmacy, Cairo University, 2001

A thesis submitted in Partial Fulfillment
Of
The Requirement for the Master Degree
In
Environmental Sciences

Department of Environmental Medical Sciences
Institute of Environmental Studies and Research
Ain Shams University

2018

APPROVAL SHEET
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This thesis Towards a Master Degree in Environmental Science
Has been Approved by:

Name

Signature

1-Prof. Dr. Mostafa Hassan Ragab

Prof. of Community Medicine & Environment, Department of
Environmental Medical Sciences
Institute of Environmental Studies & Research
Ain Shams University

2-Prof. Dr. Hala Ibrahim Awad Allah

Prof. of Community Medicine & Environment, Head of Department of
Environmental Medical Sciences
Institute of Environmental Studies & Research
Ain Shams University

3-Prof. Dr. Islam Shawky Abdel Aziz

Prof. of Cardiology
Faculty of Medicine
Al Azhar University

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Under The Supervision of:

1-Prof. Dr. Mostafa Hassan Ragab

Prof. of Community Medicine & Environment, Department of
Environmental Medical Sciences
Institute of Environmental Studies & Research
Ain Shams University

2-Prof. Dr. Yasser Kamel Gaber Baghdady

Prof. of Cardiology
Faculty of Medicine
Cairo University

3-Prof. Dr. Manal Hamed Elhamamsy

Prof. of Clinical Pharmacy
Faculty of Pharmacy
Ain Shams University

2018



Contents First of all, thanks to **Allah** for helping and guiding me in accomplishing this work and for everything else I have.

Words are not sufficient to express my sincerest appreciation and my deepest gratitude to **Prof. Dr. Mostafa Hassan Ragab**, Professor of Community and Environmental Medicine, Institute of Environmental Studies and Research, Ain Shams University, for his continuous encouragement, and his precious remarks which guided me to present this work in its proper way, it was indeed an honor to have been supervised by him.

I would like to thank **Prof. Dr. Yasser Baghdady**, Professor of Cardiology, Faculty of Medicine, Cairo University, for his guidance and suggestions which were of great value to me.

Also I would like to thank **Dr. Manal Hamed Elhamamsy**, Professor of Clinical Pharmacy, Faculty of pharmacy, Ain Shams University, for her great effort to finish this work.

An endless thanks for my family for their support without it, I would never completed this work.

Abstract

High blood pressure remains a major cause of cardiovascular morbidity and mortality worldwide; risk factors for developing hypertension divided to non modifiable (age, gender, inherited risks), and modifiable (food therapy, losing weight, getting regular exercise, quitting smoking as well managing stress). Studying lifestyle pattern of population is required for controlling and prevention of hypertension complications. The current study was carried out to detect the effect of some life style factors on blood pressure.

The subject of the study are male middle aged (20-50) years and classified according to blood pressure measurement into: group one normotensive subject (n=50), two-hypertensive subject (n=50). An interviewing questionnaire of lifestyle pattern was developed and utilized by the investigator. A descriptive correlation research design was utilized to achieve the aim of the present study.

There was a significant relation between HTN and lifestyle pattern regarding (body weight, physical activity, stress, and smoking).

The current study concluded that following unhealthy lifestyle pattern can lead to HTN. The study recommended that applying modified lifestyle pattern can improve blood pressure and decrease the risk of associated health complications.

Keywords:

Hypertension, lifestyle, stress, physical activity, obesity

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Abbreviations

ACC	American College of Cardiology
ACE	Angiotensin converting enzyme
ACE-I	Angiotensin converting enzyme inhibitors
ADRs	Adverse drug reactions.
AGT	Angiotensinogen gene.
AHA	American Heart Association for adults ,
AR	Angiotensin receptor blocker
ARB	Angiotensin receptor blocker
BMI	Body Mass Index
BP	Blood pressure
CAD	Coronary Artery Disease
CC	Cochrane collaboration
CC	The Cochrane collaboration
CCB	Calcium channel blockers
CDC	The Center for Disease Control
CH	Cluster headache
CHF	Chronic heart failure
CRP	C-Reactive protein
CVD	Cardiovascular diseases
CVD	Cardiovascular diseases
DASH	Dietary approach to stop hypertension.
DBP	Diastolic blood pressure
DDIs	Drug-Drug interaction

List of Abbreviations

DP	Diastolic pressures.
EDHS	Egypt Demographic and Health Survey
ESH	The European Hypertension Society
ESRD	End stage renal disease
HDL	High-density lipoprotein.
HEI	Healthy eating index
HTN	Hypertension
ICH	Intra-cerebral hemorrhage
JNC	The Joint National Committee
LDL	Low-density lipoprotein
MAP	Mean arterial pressure
MI	Myocardial infarction
NCD	Non communicable disease
NHP	Egyptian National Hypertension Project
NSAIDs	Non-steroidal anti inflammatory drugs.
OHRP	The office of Human Research Protections
PKD	Polycystic kidney disease
RBCs	Red blood corpuscles
RF	Radio frequency
SBP	Systolic blood pressure
SNS	Sympathetic nervous system
SP	Systolic pressure
WHO	World Health Organization

INTRODUCTION

Hypertension (HTN) is a silent, invisible killer that rarely causes symptoms. Increasing public awareness is the key, as it is the access to early detection. Raised blood pressure is a serious warning sign where significant lifestyle changes are urgently needed. In this regards; world need to know why raised blood pressure is dangerous, and how to take steps to control it, i.e. they need to know raised blood pressure, and other risk factors such as diabetes often appear together. To raise this kind of awareness, countries need systems and services in place to promote universal health coverage and support healthy lifestyles such as eating a balanced diet with minimal saturated fat, reducing salt intake, practicing regular exercise and shunning tobacco (*Cameron, 2017*). The same author further added that access to good quality medicines, which are effective and inexpensive, is also vital, particularly at the primary care level. As with other non-communicable diseases, awareness aids early detection while self-care helps ensure regular intake of medication, healthy behaviors and better control of the condition.

In **2013, World Health Organization (WHO)** reported that HTN or high blood pressure affects approximately 50 million Americans, nearly 30% of those are unaware they have HTN. High-income countries have begun to reduce HTN in their populations through strong

public health policies such as reduction of salt in processed food, and widely available diagnosis and treatment that tackle HTN and other risk factors together. Furthermore, many can point to examples of joint action - across sectors - that is effectively addressing risk factors for raised blood pressure. In contrast, many developing countries are seeing growing numbers of people who suffer from heart attacks and strokes due to undiagnosed and uncontrolled risk factors such as HTN.

Addressing behavioral risk factors, e.g. unhealthy diet, harmful use of alcohol and physical inactivity, can prevent HTN. Tobacco use increases the risk of complications of HTN. If no action is taken to reduce exposure to these factors, cardiovascular disease incidence, including HTN, will increase. Salt reduction initiatives can make a major contribution to prevention and control of high blood pressure. However, vertical programs focusing on HTN control alone are not cost effective (*Mendis, 2013*).

Globally cardiovascular disease accounts for approximately 17 million deaths a year, nearly one third of the total. Of these, complications of HTN account for 9.4 million deaths worldwide every year (*WHO, 2013*).

Therefore, the current study was carried out to detect lifestyle pattern of patients diagnosed with HTN.

Significance of the study:

The growing problem of high blood pressure among Egyptians should be considered; **Ibrahim (2013)**, results indicated that HTN is highly prevalent health problem and that the rates of HTN awareness, treatment, and control are relatively still very low and varied by regions as rates of awareness, treatment, and control tended to be low in areas of low socioeconomic status.