Assessment of Participation in and Satisfaction with the National Campaign on Viral Hepatitis C and Non-Communicable Diseases among Administrative Workers of Ain Shams University, Cairo, Egypt.

Thesis submitted for partial fulfillment of master degree in public health

By

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2020

سورة البقرة الآية: ٣٢

Acknowledgment

First and foremost, I feel always indebted to **ALLAH,** *the Most Kind and Most Merciful.*

I'd like to express my respectful thanks and profound gratitude to ***Prof. Samia Ismail Hassan El-Damaty,*** *Professor of Community, Environmental and Occupational Medicine Faculty of Medicine, Ain Shams University for her keen guidance, kind supervision, valuable advice and continuous encouragement, which made possible the completion of this work.*

I am also delighted to express my deepest gratitude and thanks to ***Prof. Mohamed Farouk Allam,*** *Professor of Community, Environmental and Occupational Medicine Faculty of Medicine, Ain Shams University, for his kind care, continuous supervision, valuable instructions, constant help and great assistance throughout this work.*

I am deeply thankful to ***Dr. Nashwa Ismail Ali Basyoni,*** *Lecturer of Community, Environmental and Occupational Medicine Faculty of Medicine, Ain Shams University, for her great help, active participation and guidance.*

Nourhan Badr

Abstract

Background: On the first of October2018, the Egyptian Ministry Of Health and Population (MOHP) launched an initiative; named 100 Million Health campaign, for nationwide screening of hepatitis C virus (HCV) and non-communicable diseases (NCDs).Egypt has the highest prevalence rate of HCV infection in the world of about 10% of the Egyptian population. NCDs are considered the leading cause of mortality in Egypt and estimated to account for 84% of all deaths. **Objectives:** This study was conducted to a) Estimate the prevalence of participation in national campaign among administrative workers in Ain shams University. b) Assess the level of satisfaction of the participants with this campaign among Ain shams university administrative workers.c) Identify the percentage of positively screened participants in this campaign and the consequent action done by him/her.d) Assess level of knowledge of these workers on viral hepatitis C and non-communicable disease.

Methods: A cross sectional study was conducted on 400 Administrative workers of Ain shams university faculties between March and August, 2019 in Cairo, Egypt. A multistage random sample was done. The study data was collected by using self-administrated questionnaire. **Results:** Most of the study group (96%) had participated in the campaign. "Reassurance about health" was considered the main reason for participation at 92%. Non participation rate was about 4% where the main cause was fear of needle prick. About 91% of the participants were satisfied with the services provided by the campaign. Mass media played the most important role (91%) in awareness about the campaign. Prevalence rate of HCV among participants was 11%, Prevalence rate of Hypertension among participants was 22.7%, Prevalence rate of Diabetes among participants was 17.7% and Prevalence rate of Obesity among participants was 26%.High percentage of cases of HCV ,Hypertension, Diabetes and Obesity were discovered among participant during the campaign(83%,64%,66% and 62% respectively) .About (84%) of the study group had knowledge that HCV is transmitted through infected blood transfusion and (78%) had knowledge that it's transmitted through usage of infected syringes. More than half of the study group (65%) believed that stress is the main cause of hypertension. (72%) beleived that over eating is one of main causes of elevated blood glucose. (76%) believed that over eating is the main causes of obesity. About 78% believed that following a balanced diet are preventive methods against elevated blood pressure, elevated blood glucose and obesity. About 94% of study group believed in existence of an effective treatment for elevated

blood glucose and elevated blood pressure, 86% believed in existence of an effective treatment for hepatitis C virus and 69% believed in existence of an effective treatment for obesity.

Conclusions: Most of the study group had participated and were satisfied with the campaign. Mass media played the most important role in awareness with the campaign. . Most of participants who were recent discovered infection with HCV, hypertension and/or diabetes sought medical advice. Most of participants had known that there are effective treatments for HCV, Hypertension and Diabetes

Recommendation: Screening programs and campaigns should be repeated at regular intervals to help in early detection and treatment of the diseases and the Mass media campaigns should be included as a key component to improve population the health behaviors of the population.

Keywords: *Hepatitis C Virus, Non Communicable Diseases, Participation, Satisfaction, Ain Shams University, Egypt*

List of Contents

List of Tables

Table No.	Title	Page No.

List of Figures

List of Figures Cont...

List of Abbreviations

Abb.	Full term
ABP	Ambulatory Blood Pressure
BMI	Body Mass Index
BP	Blood Pressure
CAD	Coronary Artery Disease
CHD	Coronary Heart Disease
CVD	Cardio vascular Disease
DAAs	Direct Acting Antivirals
DASH	Dietary Approaches to Stop Hypertension
DBP	Diastolic Blood Pressure
DKA	Diabetic Ketoacidosis
DM	Diabetes Mellitus
EHIS	Egypt Health Issue Survey
FPG	Fasting Plasma Glucose
HCC	Hepato Cellular Carcinoma
HCV	Hepatitis C Virus
HHS	Hyperglycemic Hyperosmolar State
HIV	Human Immuno-deficiency Virus.
IDF	International Diabetes Federation
IFG	Impaired Fasting Glycemia
IGT	Impaired Glucose Tolerance
KAP	Knowledge, Attitude and Practice
LDL	Low Density Lipoprotein
MENA	Middle East and North Africa
MOH	Ministry Of Health
MRI	Magnetic Resonance Imaging
MRR	Mortality Rate Ratio
NCCVH	National Committee for Control of Viral Hepatitis
NCDs	Non Communicable diseases
NHANES	National Health and Nutritional Examination Survey

List of Abbreviations Cont...

Abb.	Full term
OGTT	Oral Glucose Tolerance Test
PAD	Peripheral Artery Disease
PAT	Parenteral Anti Schistosomiasis
PCO	Polycystic Ovarian Syndrome
PEG-INF	Pegylated Interferon
RAVs	Resistance-Associated variants
RBV	Ribavirin
SBP	Systolic Blood Pressure
SIM	Simeprevir
SVR	Sustained Virological Response
T2D	Type 2 Diabetes Mellitus
TE	Transient Hepatic Elastography
TVR	Telaprevir
US	UltraSonography
WHO	World Health Organization

Introduction

On the first of October2018, the Egyptian Ministry Of Health launched an initiative for elimination of hepatitis C virus (HCV) and screening of Non communicable diseases under slogan of (100 Million Health).This initiative targeted 50 million citizens all over Egypt; it involved screening, treatment of positive cases and follow up **(Stophcv, 2020).**

It was done in 3 phases. The first phase lasted from first of October till 30thof November 2018 and covered nine Egyptian governorates. The second phase started from first of December 2018 till 28th of February 2019 and covered eleven Egyptian governorates including Cairo. While the third and the last phase extended from first of March till 30th of April 2019 and covered the rest of Egyptian governorates which are seven in number **(Stophcv, 2020).**

Screening was conducted in all Ministry of Health hospitals; all primary and rural health units; Egyptian Health Insurance Organization managed clinics, university hospitals, military and police hospitals; and all youth centers in all the screened areas **(Waked et al., 2020).**

The campaign aimed at the early detection and treatment of HCV and NCDs without charging the participants. It aimed to decrease the morbidity and mortality caused by these diseases and to improve Egyptian health through a screening program done all over the country, to achieve Egypt free of HCV by 2020.The campaign targeted all Egyptians over 18 years (about 50 million citizen) and included testing of HCV, random

glucose test, blood pressure measurement, weight, height and body mass index (BMI) measurement and hence detection of overweight and obesity**.** It provided an opportunity for a large number of citizens to check on their health **(Stophcv, 2020).**

Hepatitis C virus (HCV) infection is one of the major causes of chronic hepatitis and liver disease worldwide and is a serious health issue in many other countries. Worldwide, nearly about 130-150 million people were chronically infected with HCV and 500,000 died annually from hepatitis C-related liver diseases **(Elgharably et al., 2017).**

Studies have shown that four percent of the population aged 15-59 years, or around 3.5 million Egyptians, had an active hepatitis C infection**.** The Egypt Health Issue Survey (EHIS) of 2015 showed that the seroprevalence in the age groups 15-59 years was 10% and the prevalence of viremia was 7%.According to EHIS, the percentage of HCV infected patients decreased approximately 30 percent between 2008 and 2015 **(MOHP, 2015).** The discovery of direct-acting antivirals which can cure more than 95% of persons with HCV, thereby reducing the risk of death from liver cancer and cirrhosis, have allowed a chance to end HCV infection in Egypt **(WHO, 2018).**

Regarding the campaign held in Egypt between October 1, 2018, and April 30, 2019, it's showed that out of target population of 62.5 million, a total of 49,630,319 persons (79.4%) had participated in the screening campaign. Most of the participants (66.3%) were younger than 45 years of age. About 20.6% did not participate in this screening campaign **(Waked et al., 2020),**