

## Original Article

### To Assess The Risk Factors of Non-Communicable Diseases among middle aged people attending OPD'S of selected Hospital Kolar with a view to Develop an Health Education Pamphlet on prevention of Non-Communicable diseases.

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#### Abstract

**Background:** Non-Communicable Diseases (NCDs) are the major health problems of world, more than two out of three deaths are due to NCDs. More than one in two deaths in India (60%) are because of NCDs. A large proportion of NCDs are preventable if correct information is provided by a health care workers at right time in order to practice a healthy lifestyle which in turn to reduce their risk for NCDs.

**Objective:** To assess the risk-factors of non-communicable disease among middle aged people by using checklist.

**Methods:** Fifty middle aged people were included in the study through purposive sampling technique. Participants were assessed for risk factors of Non-communicable diseases by using modified WHO checklist on risk factors of Non-communicable diseases. Data was analyzed by using Descriptive and Inferential Statistics like mean, percentage, standard deviation and chi-square.

**Results:** Out of fifty people 30% were Smokers and 34% were using non smokable tobacco. 20% were using alcohol, 14% of their blood pressure was raised above 140/90 mm of Hg when measured by health professionals and 22% of them had family history of hypertension, 32% of them were following healthy diet and 76% of them were following unhealthy dietary habit. 70% of the people are performing moderate activity.

**Conclusion:** Study concluded that there were risk factors of non-communicable diseases among middle aged people. Distribution of health education pamphlet to middle aged people will help on preventing of Non-communicable diseases.

**Keywords:** Non-communicable diseases (NCDs), Risk factors, Middle aged people, health education pamphlet, Prevention.

#### Introduction

Non-communicable diseases (NCDs)<sup>1,2</sup> are also known as chronic diseases and it tend to be of long duration and are result of a combination of genetic, physiological, environmental and behaviors factors.<sup>3</sup> They require treatment for several years, and

some require life-long treatment. Non-communicable diseases are being major challenges for public health because nearly 5.8 million of deaths every year at the young age that is between 30 to 70 years. Several diseases fall into this group of conditions. The main types of NCDs are heart diseases (like heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma), diabetes and hypertension.<sup>4</sup>

Heart diseases are the diseases which affects only heart. Most common type of heart disease is Coronary artery disease. It develops when arteries that supply blood to heart become clogged with plaque. Hence the blood supply to the heart will be reduced and the heart receives less oxygen and fewer nutrients. This causes an interruption of blood flow to the heart while damaging or destroying the part of heart muscle leading to is cheamia or infarction. This is called myocardial infarction or heart attack.<sup>5</sup>

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Conflict of Interest: None

Financial Aid: Nil

Submitted: 17-02-2022

Accepted: 25-03-2022

Published: 20-07-2022

## **Gunasheela & Vijayalakshmi, Non-Communicable Diseases among middle aged people to develop an Health Education Pamphlet on Prevention.**

Diabetes mellitus is a metabolic disease which occurs when body can't use glucose (a type of sugar) normally. Glucose is the main source of energy for the body's cells. The level of glucose in the blood are controlled by a hormone called insulin, which is produced by islets of Langerhans of the pancreas. Insulin helps glucose enter the cells. In diabetes, pancreas do not make enough insulin (type 1 diabetes) or the body can't respond normally to the insulin that is made (type 2 diabetes). This causes glucose levels in the blood to rise, leading to increased urination, extreme thirst, and unexplained weight loss.<sup>6</sup>

Hypertension is also known as high blood pressure, which blood vessels have persistently raised pressure. Blood pressure is force of blood pushing against walls of the arteries as it flows through them. Blood pressure is highest when heart beats to push blood out into the arteries is called systolic pressure. When the heart relaxes and fills with blood again, the pressure is called diastolic pressure. When the blood pressure is measured, the systolic pressure is stated top and the diastolic pressure bottom. Blood pressure is measured on two days, systolic blood pressure readings on both days is  $\geq 140$  mmHg and diastolic blood pressure readings on both days is  $\geq 90$  mmHg. Majority of the people with hypertension are unaware of the problem because it may have no warning signs or symptoms. Hence hypertension is called a "silent killer".<sup>7</sup>

Cancer is a group of diseases caused by abnormal growth of cells in a part of the body, with the potential to invade or spread to other parts of body. The most common types of cancer in males are lung cancer, prostate cancer, colorectal cancer, and stomach cancer and in females, breast cancer, colorectal cancer, lung cancer, and cervical cancer. Due to abnormal growth of cells the person may experience a lump, abnormal bleeding, prolonged cough, unexplained loss of weight, and a change in bowel movements.<sup>8</sup>

The above non-communicable diseases occurring in India are due to change in lifestyles and work stress. These comes under risk factors of non-communicable diseases. Risk factors which are classified as modifiable and non-modifiable risk factors. Non-modifiable risk factors age, sex and family history and modifiable risk factors are tobacco use and exposure to secondhand smoking, unhealthy diet habit, physical inactivity and alcohol abuse.<sup>9</sup> If proper measures are initiated by us we can even the modifiable risk factors which causes the diseases such as Diabetes mellitus, Hypertension and cancer.

So present study was undertaken with an aim to assess the risk factors of non-communicable diseases among middle aged people attending OPD's of selected hospital Kolar with a view to develop an health education pamphlet on prevention of non-communicable diseases.

### **Objective of the Study**

1. To assess the risk-factors of non-communicable disease among middle aged people by using checklist on risk factors of Non-communicable diseases.
2. To find out the association of risk factor with selected socio-demographic variables such as age, gender, occupation, place of residence, educational status and reason for OPD visit.

### **Material and Methods**

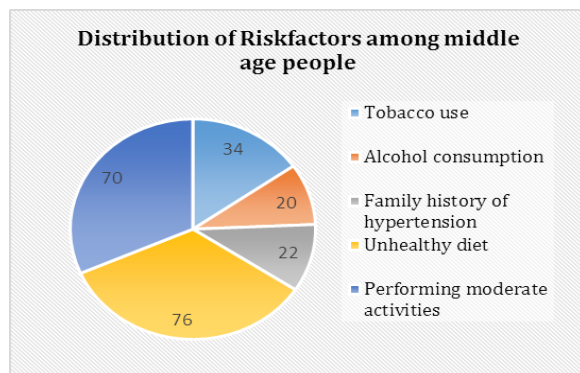
A descriptive survey approach with non-experimental research design was selected. The study was carried out on Middle aged (45- 60 years) people attending OPDs at R.L.Jalappa Hospital & Research Centre, Kolar. The samples were chosen by using non-probability purposive sampling technique with the sample size of 50 middle age people attending OPDs. A risk factor assessment Checklist was administered through interview method. Approximately 20- 30 minutes for each participant to answer the checklist. The questionnaire was validated with experts. The Yes answer was scored as one and No answer as zero. Formal permission was obtained from the institutional ethics committee and permission was taken from the medical superintendent of Hospital. Middle aged people who are willing and fulfilled the inclusion criteria were explained on the purpose of the study and written informed consent was taken from the participants. Throughout the study confidentiality and anonymity was maintained. Further data was coded and processed for statistical analysis by using descriptive and inferential statistics. Further pamphlet was distributed to all the participants.

### **Results**

The results showed with regard to socio demographic variables majority (48%) of middle-aged people in the age group of 45 to 50 years. 58% were male and 42% of them were females, 100% of them were married, 28% of them were with primary school education, 24% each were skilled workers and unemployed respectively, 54% of their monthly family income was between 11,000/- to 30,000/-, 56% of the middle aged people's BMI was 18.5-24.9.

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**Figure 1: Distribution of Risk Factors among middle aged n = 50**



With regard to risk factors:

30% were using smoking, remaining, 34% were using non-smokable tobacco and only, 4% were using both smoking and non-smokable tobacco.

were using both smoking and non-smokable tobacco. 20% were using alcohol. 22% had family history of hypertension. 76% were following unhealthy dietary habit. 70% people are performing moderate activity and 10% of people were doing alternative therapy like yoga and meditation.

With regard to association of risk factor of non-communicable diseases with selected socio-demographic variables showed that there was no association related to age ( $p=1.00$ ), gender ( $p=0.086$ ), marital status ( $p=0.247$ ), education ( $p=0.247$ ), occupation ( $p=0.74$ ), family income ( $p=0.24$ ). The obtained chi-square and Fisher's exact p value of selected socio-demographic variables was greater than table value of 0.05 level of significance which is not significant. BMI ( $p=0.003$ ) which is statistically significant.

**Table - 1: Association of risk factors with socio-demographic variables n = 50**

SL. No	Variables	Risk factors		x <sup>2</sup>	Df	P	Inference
		Below Median	Above Median				
		≤6.5	>6.5				
1	Age			0	1	1.000	NS
	≤55	16	17				
	>55	9	8				
2	Gender			2.956	1	0.086	NS
	Male	11	18				
	Female	14	7				
3	Education			1.339	1	0.247	NS
	Literate	19	23				
	Illiterate	6	2				
4	Occupation			0.11	1	0.74	NS
	Employed	18	20				
	Un-employed	7	5				
5	Income			1.339	1	0.247	NS
	≤30,000	23	19				
	>30,000	2	6				
6	BMI			8.913	1	*0.003	SS
	<24.9	22	11				
	>24.9	3	14				

SS=Statistically Significant, NS=Not Significant

## Discussion

With regard to risk factors of middle aged people, out of 50 people 30% were using smoking, remaining 34% were using non-smokable tobacco and only 4% were using both smoking and Non-smokable tobacco. With regard to alcohol use by middle aged people, 20% were using alcohol and 6% of them stopped consuming alcohol due to health issues. 14% of them identified when measured by health professionals and 22% of them having the

family history of hypertension. With regard to the dietary habits of middle aged people, 24% of them were following healthy diet and 76% of them were following unhealthy dietary habit. With regard to physical activity of middle aged people, 70% of the people are performing moderate activity. This was supported by the study on Prevalence of Risk Factors for Non-Communicable Diseases in the Adult Population conducted by Khwaja Mir Islam Saeed.<sup>10</sup>

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### Conclusion

A Non experimental cross sectional design with a purposive sampling technique used among 50 middle aged group. To assess risk factors of non-communicable diseases by using checklist

The findings of the study revealed that, risk factors 30% were using smoking, remaining 34% were using non smokable tobacco and only 4% were using both smoking and Non-smokable tobacco. 20% were using alcohol 22% of them had the family history of hypertension. 76% of them were following unhealthy dietary habit. 70% of the people are performing moderate activity and 10% of people were doing alternative therapy like yoga and meditation.

Hence study concludes that there are some risk factors of non-communicable diseases among middle aged people. which needs consideration to promote the healthy lifestyle practices.

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