

A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge in Relation to the Prevention of Lifestyle Diseases among Software Professionals Working in Selected Companies

Akhil U S

Abstract: ***Background and Objectives:** More than half of the country's workforce regularly does their work in front of a computer, and the combination of long hours and time spent in front of a computer has resulted in a health problem. In the race of earning more money, the software professionals in India have been found to have been compromising on their health. A recent study has revealed that increasingly the software professional in the country are suffering from poor quality of life. Lifestyle diseases are diseases that appear to become ever more widespread as countries become more industrialized. Lifestyle diseases are different from other diseases because they are potentially preventable with changes in diet, lifestyle, and environment. **Statement of the Problem:** "A study to assess the effectiveness of structured teaching programme on knowledge in relation to the prevention of lifestyle diseases among software professionals working in selected companies, Bangalore". **Objectives:** To assess the pre-test knowledge in relation to the prevention of life style diseases among Software Professionals working in selected companies. To develop a structured teaching programme on prevention of lifestyle diseases among software professionals. To assess the post-test knowledge in relation to the prevention of Lifestyle disease among Software Professionals. To compare the pre-test knowledge to the post-test knowledge in relation to the prevention of life style diseases. To find out the association between Pre-test knowledge scores towards prevention of lifestyle diseases and selected socio-demographic variables. To find out the association between the mean differences of gain in knowledge regarding the prevention of lifestyle diseases. The research hypothesis was stated as H_{a1} : There will be a significant difference between the pre – test and post – test knowledge on prevention of lifestyle diseases among software professionals. H_{a2} : There will be a significant association between the pre-test knowledge score on prevention of lifestyle diseases and selected socio-demographic factors among software professionals.*

Keywords: BMI CHD, MET, FBS, GLB, SES

1. Introduction

"Health is defined as a state of complete physical, mental and social well-being, not merely the absence of disease or infirmity". This definition of health highlights the importance of understanding health and disease burden within the personal, social and cultural context specific to the person or community whose health is being considered.¹ Lifestyle disease can be simply defined as any disease associated with the way a person lives. They include coronary artery disease, stroke, obesity, type 2 diabetes mellitus and diseases associated with smoking and substance abuse. In the yester years, life style diseases were diseases of the affluent and uncommon in the developing world.³ Gone are those days and now software professionals are an important threat to developing economies, draining a good chunk of their scanty health budget. It is predicted that by 2020, these diseases will be causing 7 out of 10 deaths in developing countries. Developing world is now faced with a dual dilemma of having both lifestyle diseases and communicable diseases.

India is a country where health is not considered a priority. Though the business of Gyms, Spas, and diet pills is running amazingly, there is a huge population, which is falling sick due to various diseases every day. BP levels are high and Professionals in almost all the sectors

constantly feel stressed, overworked, unhealthy and irritated.

2. Need for the Present Study

The rapid growth of ITeS-BPO and IT industry as a whole is having a deep affect on the socio-economic dynamics of the country. IT/ITeS sector has led to the creation of IT workforce which has its distinct forms of work, employment, organization, and management along with its distinct work culture that have emerged which has its affect on lifestyle, sociality and identity that are taking place within this new global workforce.¹⁴ Lifestyle in the young BPO workers lead to health hazards at the workplace and lifestyle leading to heart attacks and other major ailments. The alarms on health hazards led the union health minister of India reported to have expressed shock and quoted saying in a newspaper report that "We are, therefore, finalizing a blueprint of India's first dedicated health policy for the BPO sector." Currently, Indian Information Technology (IT) Sector is growing rapidly with 2,236,614 working in it. This has generated a new genre of occupational health problems such as musculo-skeletal disorders, computer vision syndrome, psycho-social and sleep problems.¹⁵

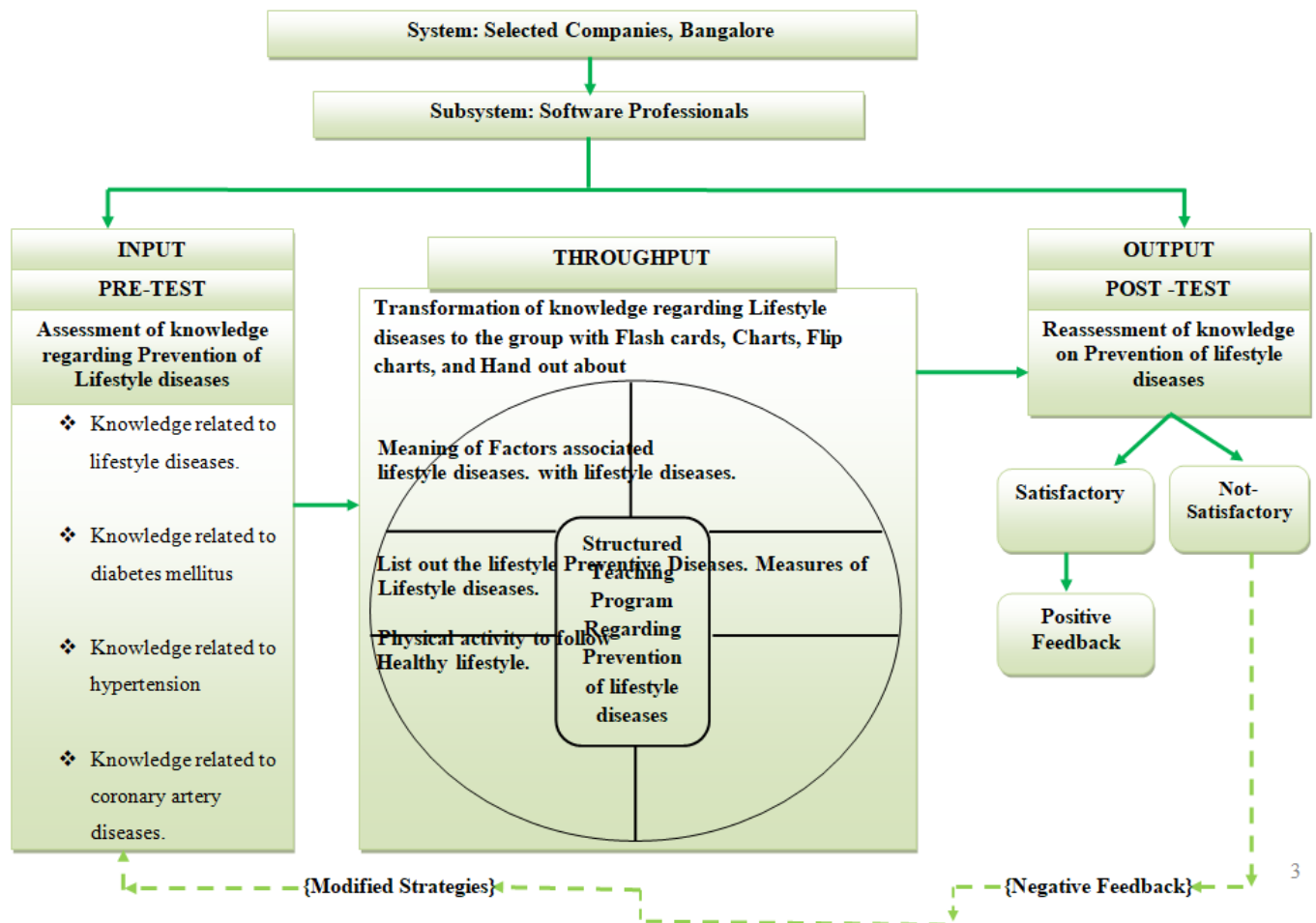


Figure 1

3. Research Methodology

Research Approach

Research approach indicates the procedure for conducting the study. The research approach adopted for this study is evaluative research approach. Evaluative approach is an applied form of research that deals with the question how well the program is meeting its objective. Its goal is to assess or evaluate the success of a program.

Research Design

To achieve the aims and objectives of the study a Pre-experimental study design one group pre -test and post – test was used without comparing the control group.

The formula used was:

O1 x O2 E	Before	X	After
	X		X

O1: First observation

O2: Second observation

E: Experimental group

X: Experimental treatment

Setting of the Study

The setting of this study was conducted in selected companies, which were situated in Bangalore. This setting selected because of the availability of samples, feasibility of conducting the study and for ethical clearance.

Population

In this research the accessible populations were the Software professionals working in selected companies, Bangalore.

Sample Size

To fulfill the objective of the study, the sample consists of 50 software professionals who are working in selected companies, Bangalore

Sampling Technique

Purposive sampling sometimes referred to as “judgmental or theoretical sampling, which involves the conscious selection by the investigator of certain subjects or elements to include in the study.

Variables**Independent variables:**

In this study the independent variable will be structured teaching program on prevention of lifestyle diseases among Software Professionals working in selected companies, Bangalore.

Dependent variables:

In this study the dependant variable was gain adequate knowledge on prevention of lifestyle diseases which will be tested before and after conducting structured teaching program among software professionals.

Associated variable:

It refers to those variables which are highly influence the dependent variables such as age, educational status, gender, family income status, types of family, religion, sources of information, type of food, dietary consumption, type of oil used in cooking, body weight, adding table salt to the food, physical exercise, lifestyle habits, habits, awareness about lifestyle diseases and finally marital status among Software Professionals working in selected companies, Bangalore.

4. Results

Part I: Percentage distribution of socio-demographic variables of software professionals from selected company, Bangalore

1. Association between Age and Knowledge level

N = 50

Age (in yrs)	Inadequate (0 – 33)		Satisfactory (34 – 66)		Adequate (67 – 98)		Total		χ^2
	N	%	N	%	N	%	N	%	
20 – 24 yrs	23	54	-	-	-	-	23	46	43.24 (significant) 0.001 level
25 – 29 yrs	13	30	2	33	-	-	15	30	
30 – 34 yrs	3	7	3	50	-	-	6	12	
35 – 39 yrs	3	7	1	17	-	-	4	8	
40 & above	1	2	-	-	1	100	2	4	
Total	43	100	6	100	1	100	50	100	

2. Distribution of respondents according to Educational status

Educational status	Inadequate (0 – 33)		Satisfactory (34 – 66)		Adequate (67 – 98)		Total		χ^2
	N	%	N	%	N	%	N	%	
Dip. Engineer	14	32.0	-	-	-	-	14	28.0	34.15 significant 0.001 level
B.Tech	11	26.0	-	-	-	-	11	22.0	
M.Tech	5	12.0	1	17.0	-	-	6	12.0	
B.E	5	12.0	-	-	-	-	5	10.0	
M.E	1	2.0	2	33.0	-	-	3	6.0	
BCA	6	14.0	1	17.0	-	-	7	14.0	
MCA	1	2.0	2	33.0	1	100	4	8.0	
Total	43	100.0	6	100.0	1	100.0	50	100.0	

Part II: Distribution of overall respondent knowledge level towards Lifestyle diseases among software professionals after structured teaching program

N=50

Inadequate (0-33)		Satisfactory (34-66)		Adequate (67-98)	
N	%	N	%	N	%
-	-	12	24.0	38	76.0

Part III: Mean and Standard deviation of different sections of knowledge on prevention of lifestyle diseases for software professionals in Pre-test and Post-test

N = 50

Sl. No	Different sections of knowledge	Pre-test		Post-test	
		Mean	SD	Mean	SD
1	Knowledge assessment on prevention of lifestyle diseases	14.5	1.73	18.98	2.97
2	Knowledge assessment on prevention of diabetes mellitus	10.86	1.46	16.30	2.07
3	Knowledge assessment on prevention of coronary artery disease	12.90	1.08	15.24	2.0
4	Knowledge assessment on prevention of hypertension	10.0	1.78	14.84	1.19
	Over all	48.26	6.05	65.36	8.28

**Part IV: Critical ratio pre-test and post-test by using paired 't' test
(Effectiveness of Structured Teaching Programme)**

N = 50

Sl. No	Different sections of knowledge	Inadequate = 0-33 Satisfactory = 34-66 Adequate = 67-98		Paired 't' value
		Mean	SD	
1.	Knowledge assessment on prevention of lifestyle diseases	4.08	1.9	5.84
2.	Knowledge assessment on prevention of diabetes mellitus	5.42	2.15	8.89
3.	Knowledge assessment on prevention of coronary artery disease	2.32	1.34	3.79
4.	Knowledge assessment on prevention of hypertension	4.74	1.12	5.85
	Over all	16.56	6.78	12.45

Table reveals that the overall improvement in mean score was 16.56 (6.78) with paired 't' value 12.45. The mean post-test knowledge score was significantly higher than the mean pre-test knowledge scores of software professionals, $t_{49} = 3.50$, $P < .001$ level. Thus, the research hypothesis was accepted.

Part V: Data on linear regression regarding socio-demographic factors and mean differences of gain in knowledge regarding lifestyle diseases among software professionals in selected company, Bangalore

<i>Background factors</i>	<i>Beta</i>	<i>t</i>	<i>Significance</i>
<i>Age</i>	.023	-0.370	0.714 (NS)
<i>Educational status</i>	.026	-0.826	0.415 (NS)
<i>Family income status</i>	.067	0.753	0.475 (NS)
<i>Types of family</i>	-.018	-0.367	0.716 (NS)
<i>Religion</i>	.173	0.946	0.352 (NS)
<i>Sources of information</i>	-.328	0.425	0.674 (NS)
<i>Type of food</i>	.023	0.753	0.716 (NS)
<i>Dietary consumption</i>	-.328	0.425	0.674 (NS)
<i>Type of oil used in cooking</i>	-.074	-0.653	0.519 (NS)
<i>Body weight</i>	-.104	0.691	0.495 (NS)
<i>Adding table salt to the food</i>	.026	-0.826	0.415 (NS)
<i>Physical exercise</i>	.173	0.946	0.352 (NS)
<i>Lifestyle habits</i>	-.018	-0.367	0.716 (NS)
<i>Habits</i>	.086	0.410	0.685 (NS)
<i>Awareness about lifestyle diseases</i>	-.074	-0.653	0.519 (NS)
<i>Gender</i>	.026	-0.826	0.415 (NS)
<i>Marital status</i>	.023	-0.370	0.714 (NS)

5. Conclusion

The majority of software professionals working in selected companies, Bangalore; overall there is a need for structured teaching program to enhance knowledge towards prevention of lifestyle diseases. The study finding reveals that there was highly significant enhancement in knowledge level towards prevention of lifestyle diseases after conducting structured teaching program among software professionals.

The socio-demographic factors such as age, educational status, gender, family income status, types of family, religion, sources of information, type of food, dietary consumption, type of oil used in cooking, body weight, adding table salt to the food, physical exercise, lifestyle habits, habits awareness about lifestyle diseases and finally marital status did not predict the enhancement in level of knowledge among the software professionals. Therefore structured teaching program was independently effective among software professionals working in selected companies, Bangalore.

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