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Structure teaching programme on effects of tobaccoabuse among adult construction workers in tertiary hospitals Coimbatore

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Abstract

Effectiveness of structure teaching programme on effects of tobacco abuse among adult constructionworkers in Tertiary Hospitals Coimbatore.

Objectives: To assess the effectiveness of structured teaching program on effects of tobacco abuse among adult construction workers.

Methodology: The research methodology selected for this study is pre experimental design, one group pre-test post-test design. This study includes 100 construction workers and then the setting for the study conducted from PSG Hospital in Coimbatore, After Ethical clearance got from the committee IHEC (Institutional human ethical committee), PSG IMS&R. The level of knowledge of tobacco abuse and nicotine dependence was assessed. Data were analysed by inferential statistics and descriptive statistics.

Result: The analysis revealed that the among 100 construction workers, 92% had adequate knowledge, 8% had moderate knowledge and no one had inadequate knowledge in assessment of tobacco abuse. And among them 30% have heavy nicotine dependence, 32% have moderate nicotine dependence, 38%have light nicotine dependence.

Conclusion: The structure teaching programme has helped the construction workers to know about the effects, complication of tobacco and they gained knowledge about tobacco and nicotine abuse.

Keywords: Structured teaching programme, Ill effects, tobacco abuse, adult, construction workers

Introduction

India is home to 267 million tobacco users, [1] the second largest number of tobacco consumers in the world and the country faces a substantial tobacco-related mortality and morbidity burden [2, 3] Efforts to strengthen tobacco control in India are underpinned by the enactment of the Cigarettes and Other Tobacco Products Act (COTPA) in 2003 and its ratification of the WHO Framework Convention on Tobacco Control (FCTC) in 2004. [4 5] India's commitment towards the provision, and more effective implementation and enforcement of tobacco control measures under COTPA and FCTC led to the introduction ofthe National Tobacco Control Programme (NTCP) in 2007–2008. [6] Initially developed as a pilot project in two districts in each of nine Indian states, [7] the NTCP was expanded in 2008–2009 to cover a total of 42 districts and 21 states (online supplementary table S1) and has been expanded to 400 districts across India with a budget allocation of INR 650 million (US$8.8 million) for the year 2018–2019 [8]

Need for the Study

Non-communicable diseases (NCDs) contributes to more than 50 per cent disability adjusted life years (DALYs) in India; and tobacco contributes to 7·4 per cent of DALYs which is nextto diet and high blood pressure. According to Global Burden of Disease (GBD) 2015, tobacco use contributed to 5.9 per cent out of total DALYs in India. Smokeless tobacco (SLT) consumption is a multifactorial process influenced by varied range of contextual factors *i.e*., social, environmental, psychological and the genetic factors which are linked to the tobacco use. The determinants associated with the SLT use are gender, educational level, wealth index (inverse association), urban-rural residence, socio-economic status and low tax. Taking the view from tobacco control programmes, there is a need to address determinantsof SLT use with State level monitoring and socio-economic inequalities, progress and reviewof the taxation of the SLT use in India [9].

Review of literature

A pre experimental study was conducted on structure teaching programme on tobacco abuse among adults in selected village, kancheepuram district. Convenient sampling technique was used and 100 adults were selected at kancheepuram district. The data was collected, organized and analyzed in terms of both descriptive and inferential statistics. The analysis revealed that the mean value of pre- test was 7.92±3.92 and was increased in post-test to 17.36±2.67 The't' value was 10.92, which had high statistical significance at $p<0.05$ level and which confirms that there was a statistically significant difference between pre-test and post-test level of knowledge on tobacco abuse among adults. This study proves that structure teaching programme was effective in improving level of knowledge on tobacco abuse among adults [10].

A mixed method study was conducted prevalence and factors that influence smokeless tobacco use among adults in pastoralist communities of Borena zone, Ethiopia. A total of 634 households were selected randomly for interview. An interviewer-administered questionnaire and in-depth interview guide was used to assess adults' practice, attitude, knowledge, and perception on Smokeless Tobacco use. The result showed that out of 634 participants, 287 (45.3%) of them were current users of smokeless tobacco. Being Muslim (AOR= .21, 95% CI: .13, .33), being Christian (AOR = .38, 95% CI: .22, .67), and having good health risk perception toward smokeless tobacco use (AOR = .49, 95% CI: .34, .70) were protective factors for smokeless tobacco use, whereas favorable attitude (AOR = 2.12, 95% CI: 1.48, 3.04) and high social pressure towards smokeless tobacco use (AOR = 1.73, 95% CI: 1.21, 2.47) were factors independently associated with smokeless tobacco use. The study concludes that smokeless tobacco use is very commonin the selected districts of the Borena zone. The practice is strong linked to the lifestyle of the community [11].

Statement of the Problem

Effectiveness of structured teaching program on effects of tobacco abuse among adult construction workers in Tertiary Hospitals, Coimbatore.

Objectives

- To assess the level of knowledge on effects of tobacco abuse among adult construction workers.
- To assess the effectiveness of structured teaching program on effects of tobacco abuse among adult construction workers.
- To associate the level of knowledge on effects of tobacco abuse with selected demographic variables.

Assumptions

Structured teaching program update their knowledge on prevention of tobacco abuse among adult construction workers.

Hypothesis

H_1: There will be a significant difference in the pre and post-test level of effects of tobacco abuse among adult construction workers.

H_2: There will be a significant association of the level of effects of tobacco abuse with selected demographic variables among adult construction workers.

Delimitations

The study is restricted to construction workers

Operational Definitions

Effectiveness

It refers to the outcome of structured teaching program on effects of tobacco abuse among adult construction workers.

Tobacco abuse

It refers to any habitual use of the tobacco plant leaf and its products. The predominant use of tobacco is by smoke inhalation of cigarettes, pipes, and cigars. Smokelesstobacco refers to a variety of tobacco products that are sniffed, sucked, or chewed.

Structured teaching program

In this study structured teaching program refers to a lecture discussion class on effects of tobacco abuse among adult construction workers. It includes the causes symptom, side effects, and preventive method of tobacco abuses.

Adult

In this study workers who belongs to 18-40 years, who are working in the PSG Hospitals.

Construction workers

A construction worker is a laborer, employed in the physical construction of a building and its infrastructure.

Projected outcome:

Construction workers will have enhancement in level of knowledge regarding tobacco abuse.

Research Design

The research design selected for this study is pre experimental design, one group pre-test – post-test design. Here the test acts as a measurement tool for the evaluation effect on post-test.

Variables of the study

Independent variables

Structured teaching program on effects of tobacco abuse

Dependant variable

Level of knowledge on effects of tobacco abuse.

Setting of the study

The setting for the study conducted in PSG hospitals Coimbatore.

Population

The population is adult construction workers from PSG hospitals, Coimbatore.

Sampling

Samples include adult workers who are working in the PSG hospitals construction site.

Sampling technique

Convenient sampling technique.

Sample size

100

Criteria for selection of sample
Inclusion Criteria
Workers who are willing to participate in the study.

Exclusion Criteria
Workers who are absent at the time of study.

Research instruments and tool for data collection
Section A: Demographic variables
Demographic variables include age, sex, religion, native language, educational status, occupational status, income(Rs. Per month). Living Status, Habits. Have you used substances: Yes / No, If yes specify that.
Have you attended any tobacco abuse classes: Yes/ No, If yes specify that.

Section B: Structured knowledge questionnaire on effects of tobacco abuse.
It consists of 27 items. It includes General information, Misconceptions, effects and Treatment.

Score Interpretations
>75 : Adequate
50-75 : Moderately Adequate
<50 : Inadequate

Section C: Fragestrom test for nicotine dependence.
It consists of 6 items which includes duration, frequency and likes and dislikes of patient.

Score Interpretations
>5 : Heavy dependence
<4 : Moderate dependence
0-2 : Light dependence

Table 1: Comparison of level of knowledge among the construction workers before and after structure teaching programme. N=100

Level of knowledge on tobacco abuse	Pre-test			Post-test		
	Adequate knowledge	Moderate knowledge	Inadequate knowledge	Adequate knowledge	Moderate knowledge	Inadequate knowledge
General information	32%	10%	58%	89%	11%	0%
Misconception	7%	57%	36%	78%	20%	2%
Side effects	14%	48%	38%	100%	0%	0%
Treatment	30%	70%	0%	88%	12%	0%
Over all	3	2	95	92	8	0

Table 2: Mean and standard deviation of pre test and post-test level of knowledge among the construction workers. N=100

S. No	Test done	Mean	S.D	't' test
1.	Pre test	17.93	51.96	35.40
2.	Post-test	26.46	39.61	

Table 3: Assessment of level of nicotine dependence among the construction workers n=100

Level of dependence	Pre-test	Post-test
Heavy dependence >5	44%	32%
Moderate dependence <4	35%	30%
Light dependence 0-2	21%	38%

Table 4: The mean and standard deviation of pre-test and post-test level of tobacco dependence in the construction workers: n= 100

S. No	Test done	Mean	S.D	't' test
1.	Pre test	4.21	11.73	12.5
2.	Post-test	3.16	11.19	

Table 5: Association of pre test level of dependence of tobacco abuse of construction workers with selected demographic variables. n=100

Demographic variables	High dependence >5		Moderate dependence <4		Light dependence 0-2		χ^2	Table value
	No.	%	No.	%	No.	%		
Age in years							χ^2= 52.78 S*	P <0.05
20-30	22	22	20	20	10	10		
31-40	15	15	13	13	6	6		
41-50	7	7	2	2	5	5		
Religion							χ^2= 18.723 S*	P <0.05
Hindu	38	38	32	32	12	12		
Christian	2	2	1	1	5	5		
Muslim	4	4	2	2	4	4		
Mother Tongue							χ^2=16.72 S*	P <0.05
Hindi	23	23	14	14	8	8		
Bengal	19	19	9	9	4	4		
Tamil	2	2	12	12	9	9		
Educational status							χ^2=5.05 NS	P >0.05
Primary Education	13	13	17	17	8	8		
Secondary Education	15	15	9	9	10	10		
Higher secondary Education	16	16	9	9	3	3		
Occupational status							χ^2=34.57 S*	P <0.05
Steel workers	12	12	14	14	18	18		
Stuttering workers	28	28	9	9	3	3		
Machinery workers	4	4	12	12	0	0		
Family Income								

10-15,000	7	7	12	12	13	13	χ^2=21.98 S*	P <0.05
15-20,000	14	14	17	17	3	3		
20-25,000	23	23	6	6	5	5		
Habits								
Tobacco	37	37	16	16	7	7	χ^2=19.81 S*	P <0.05
Alcohol	7	7	19	19	14	14		
Cigarette	0	0	0	0	0	0		

P<0.05,S* - Significant, N.S – Not Significant.

Table 6: Association of pre test level of knowledge of tobacco abuse of construction workers with selected demographic variables. N=100'

Demographic variables	Adequate knowledge <50%		Moderate knowledge 51-75%		Inadequate knowledge >75%		χ^2	Table value
	No.	%	No.	%	No.	%		
Age in years								
20-30	0	0	2	2	65	65	χ^2= 6.09 NS	P >0.05
31-40	0	0	4	4	21	21		
41-50	0	0	1	1	7	7		
Religion								
Hindu	4	4	2	2	85	85	χ^2=0.673 NS	P>0.05
Christian	0	0	0	0	3	3		
Muslim	0	0	0	0	6	6		
Mother Tongue								
Hindi	1	1	2	2	55	55	χ^2=8.051 NS	P>0.05
Bengal	0	0	0	0	26	26		
Tamil	2	2	1	1	13	13		
Educational status								
Primary Education	0	0	2	2	21	21	χ^2=8.443 NS	P>0.05
Secondary Education	3	3	0	0	61	61		
Higher secondary education	0	0	0	0	13	13		
Occupational status								
Steel workers	0	0	0	0	30	30	χ^2=93.5 S*	P<0.05
Stuttering workers	2	2	1	1	27	27		
Machionary workers	1	1	1	1	38	38		
Family Income								
10-15,000	2	2	2	2	36	36	χ^2=8.095 NS	P>0.05
15-20,000	1	1	0	0	31	31		
20-25,000	0	0	0	0	28	28		
Habits								
Tobacco	2	2	1	1	32	32	χ^2=16.76 S*	P<0.05
Alcohol	0	0	1	1	45	45		
Cigarette	1	1	0	0	18	18		

P<0.05, S* - Significant, N.S – Not Significant

Discussion

In this study 100 construction workers were selected with age group of 20->50years age out of which 100% male and there is no female construction workers. Majority of the construction workers 91% Hindus, 3% Christian and 6% Muslim. In mother tongue 58% Hindi, 26% Bengal and 16%Tamil The educational status was 23% primary education 64% secondary education and 13% higher secondary. Among them 30% of construction are steel workers, 30% shuttering workers and 40% machinery workers. Among them 40% construction workers getting Rs.10,000-15,000, 32% Rs.16,000-20,000, and 28% Rs.21,000-25,000. Among them 35%are tobacco users, 46% are alcohol and tobacco users and 19% are cigarette users. At finally the previous knowledge on effects of tobaccoabuse among 100 construction workers 3% are adequateknowledge 2% are moderate adequate knowledge and 95% are inadequate knowledge [12].

The study findings were supported by a cross sectional study to estimate the prevalence of tobacco abuse among construction workers by socio-demographic profile.1000 male construction workers were selected and interviewed by a questionnaire method. Among these workers around 70% of the workers were migrant population. Nearly 50% of workers were under 21-30 years of age. The mean age of workers was 26.58 years. More than half (58.9%) of the workers were unmarried, most of the workers (71.4%) were following Hindu religion Most of the workers involved in tobacco abuse were illiterate.62% of workers belongs to the poor socio-economic group. The prevalence of smoke and non-smoke form of tobacco was 21.6% and 46.1% respectively [13].

Out of 100 construction workers, In the pre test assessment (2%) had adequate knowledge, (3%) had moderate knowledge and (95%) had inadequate knowledge. In thepost-test (92%) had adequate knowledge, (8%) had moderate knowledge and no one had inadequate knowledge.The above findings were supported by a pre experimental design was conducted on evaluate the effectiveness of structured teaching programme on knowledge regarding hazards of tobacco among adolescent boys of Tallarevu village, Kakinada. Data was collected from 100 Adolescent boys of selected village. The overall analysis of knowledge that the pre-test mean is 1.8 and that of post-test is 21.91.

The calculated 't' value is 87.595, which is higher than the table 't' value 3.39 at 99 df with 0.0001 level ofsignificance. There was extremely significant difference between pre-test and post-test levels of knowledge among adolescent boys regarding hazards of tobacco [14].

Conclusion

The structure teaching programme has helped the construction workers to know about the effects, complication of tobacco and they gained knowledge of tobacco and nicotine abuse.

Acknowledgement

The study was conducted in the Psychiatric Ward, PSG Hospitals, and Coimbatore after getting the formal permission from the Dean, PSG IMS&R, HOD of Psychiatric department and the Nursing Superintendent of PSG hospitals. Ethical clearance obtained from PSG IMS&R Institutional Human Ethics Committee. My heartfelt thanks to my research group students B. Sc Nursing IV Year Ms. Santhiya. M, Mr. Santhosh. C, Ms. Saradha. B, Ms. Saranya. M, Mr. Sasikumar. M, Ms. Sathiyakala. S, Ms. Sathya. N, for their support. This studyis submitted in 2012 partial fulfillment of the requirementfor the degree of Bachelor of Science in Nursing from The Tamil Nadu Dr. M.G.R Medical University, Chennai.

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