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A study to evaluate the effectiveness of planned teaching program on knowledge related to the second hand smoking on health hazards among the degree students of Dharwad district, Karnataka

Abstract

Background: The risk of toxic chemical inhalation is longer in second hand smokers than active smokers, degree students enjoy friends circle and are into most adventurous which make them susceptible to high risk of exposure to toxic smoke of smoking. There is increased need to make degree students vulnerable group to be aware of toxic effects of smoke reaching their lungs passively, hence the awareness of second hand smoking and its health hazards, prevention is the prime aim of the present study by improvising the knowledge of adolescents.

Methodology: A evaluator approach using one group pre-test post-test design used for 100 degree students were selected by probability random sampling technique at selected degree colleges of Dharwad, structured knowledge questionnaire had content validity index of 0.87 and reliability of 0.90 having 30 questions was used. The pre-test assessed the knowledge of degree students on second hand smoking structured questionnaire, planned teaching programme was given, after seven days teaching program post-test collected the scores of degree students, the collected data was analysed for the objectives of the study.

Results: The present study found that mean pre-test knowledge were less than mean post-test knowledge score and Mean% enhancement in knowledge was 44.36%. The study revealed the effectiveness of planned teaching programme on knowledge score at 38.45 for 99 degrees of freedom with $p<0.001$. The percentage of knowledge level improved to adequate knowledge on health hazards of second hand smoke to degree students.

Conclusion: The present study found that, the planned teaching programme was effective in improving the knowledge, concluded that the planned teaching programme can bring a significant awareness among population and recommended that more research evidenced based studies have to be conducted to bring awareness about second hand smoking among large group high risk groups like mother of passive smokers, couples living with smokers.

Keywords: Second hand smoking, degree students, planned teaching program, knowledge

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Introduction

In 1930s globally there was rise in number of smokers, when people seen smoking sync with modern lifestyle. The use of tobacco constitutes the single largest source of preventable deaths worldwide. Currently, in India, there are 266.8 million tobacco users aged 15 years and above, of which 99.9 million smoke tobacco.[1] Tobacco use is a major cause of non-communicable diseases that account for about 62% of avoidable deaths in India and there is absolutely no awareness about second-hand smoking (passive smoking) and it being injurious to health like first-hand tobacco smoking (active smoking). Passive smoking is the unintentional inhalation of smoke in the air or contact with its chemical constituents emerging from the burning end of a cigarette, bidi or any other means, and also the smoke breathed out by smokers. The Global adult tobacco survey showed that not all workplaces are tobacco-smoke free yet. Today, 30.2% adults in India are exposed to passive smoking at their workplaces; smoking is prevalent inside Indian houses, 48.8% in all households and 45.5% in non-smoker households with higher burden in rural India. A little more than one-third of non-smoking adults are exposed to passive smoking inside their homes. Prevalence of second-hand smoke inside homes is higher amongst females, due to obvious reasons. In addition, one in four of all adults are exposed to second-hand smoke in public places.

Public tobacco smoking is the major health problem in India. More than seven million people die due to direct tobacco use, and 1.2 million non-smokers deaths reason is second hand smoking[2] Significant biological levels of nicotine from second hand smoke exposure were equivalent to nicotine levels from active smoking and levels that are associated with behaviour changes due to nicotine consumption Even though many reasons are there for lung cancer tobacco smoking is the main that may be active or passive.[2] 1.2 million premature deaths per year are related to second hand smoke worldwide. This is a serious health concern that can affect both adults and children who are exposed to second hand smoke.[3] Degree students are at high risk of exposure for passive smoking or second hand smokers due to autonomy and control that they have over their home and social environment. More than half of degree students report second hand smoking exposure in public places. Second hand smoking linked to increase the risk of stroke, lung cancer, and also the coronary heart disease. Hence the present study designed to bring awareness of degree students regarding health hazards caused due to second hand smoking.

Methodology

An evaluator approach one group pre-test post-test design for 100 degree students studying in the selected degree colleges using simple probability random sampling technique is used, a structured knowledge designed by researcher had 30 questions had content validity index 0.87 and reliability of 0.90 The researcher obtained ethical authority permission from selected degree colleges, conducted pre test to assess knowledge of degree students following which planned teaching programme was given after completion of week, post-test was given to degree students with the same knowledge questionnaire. The collected data was statistically analyzed for the effectiveness of planned teaching program.

Results

Findings related to the socio-demographic variables

Age: In the present study (Figure 1), it is observed that the degree students out of 100, 98 (98%) were in age group of 19 to 21 years, 2 (2%) of degree students were in 22 to 23 years of age.

Gender: In the present study (figure 1), it is observed that the out of 100 degree students 43 (43%) were males, 57(57%) of degree students were females.

Religion: In the present study (figure 1), it is observed that, 70 (70%) late adolescents were Hindu, 16 (16 %) of late adolescents were Muslims, 5 (5%) were Christians and 9 (9%) were belonging to other religions likes Jains, Parsi, Sikhs.

Educational status: In the present study (figure 1), it is observed that, 30 (30%) of degree students had degree first year as their education qualification, 60(60 %) of second year degree students and 10(10 %) of students were degree from third year, as samples were degree students, most of them were undergraduates.

Source of information: In the present study (figure 1), it is observed that, 47 (47 %) of late degree students got information on regarding secondhand smoking through mass media, 25 (25 %) gained information through health professionals and 28(28%) of degree students learnt information on secondhand smoking through friends and family members.

Marital status: In the present study (figure 1), it is observed that, 98(98%) degree students were unmarried and only two (2 %) of degree students were married.

History of smoking: In the present study (figure 1), it is observed that, 40 (40%) of degree students had no one smoker in the family and 60 (60%) of degree students had smoker at family.

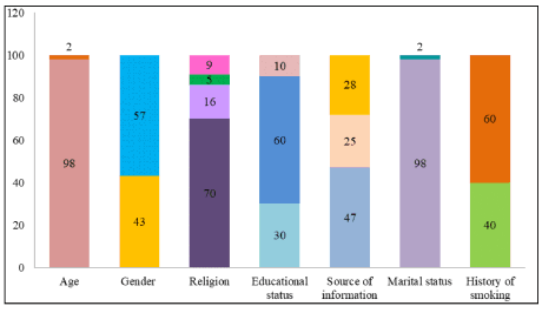

Figure 1 Multi-bar diagram describes the distribution of socio-demographic variable.

Findings related to comparison of pre-test and Post-test knowledge mean% scores

In the present study (Figure 2), it is observed that the comparison mean% of pre-test and post-test showed significant difference in mean%. The Mean% of post-test in all aspects are higher than the pre-test respectively. This implies that, the planned teaching programme was significant in enhancing the knowledge level of the degree students regarding the effects of second hand smoking on health. The Mean% knowledge enhancement of anatomy and physiology of respiratory system; second hand smoking and its effects on health; legal measures to control the second hand smoking in public place are 1.50; 2.50 and 1.50 respectively overall 44.36% mean% enhancement from pre-test to post-test.

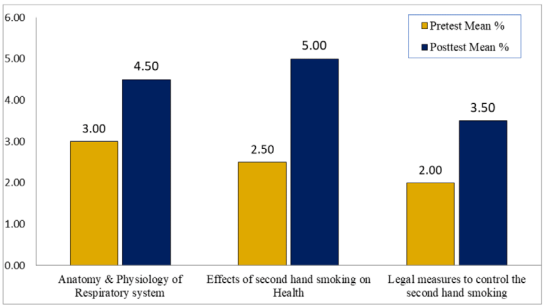

Figure 2 Bar diagram describes the comparison of mean% of pre-test and post-test knowledge scores.

Findings related to knowledge level score in pre-test and post-test

In the present study (Figure 3), it is observed that, the pre-test degree students 62(62.00%) had inadequate knowledge, 38 (38.00%) had moderate knowledge and none of them had adequate knowledge regarding health hazards of second hand smoking. This knowledge level has enhanced to adequate knowledge for 40(40.00%) degree students, 60(60.00%) of degree students improved to moderate knowledge level and none of degree students had inadequate knowledge level in post test, signifies that the planned teaching programme was effective in improving the knowledge level of degree students regarding health hazards of second hand smoking.

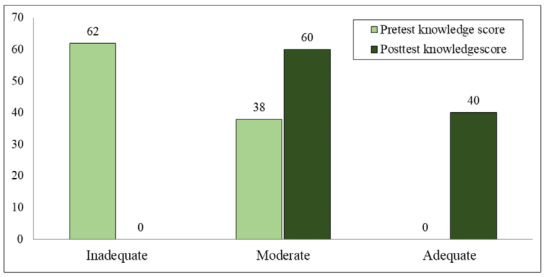

Figure 3 Bar diagram describes the level of knowledge of degree students in pre-test and post-test.

Findings related to effectiveness of planned teaching programme on knowledge scores

In the present study (Table 1), it is observed that in knowledge aspect the t value is 38.45 for 99 degrees of freedom with p value <0.001 showing the significance of planned teaching program in improving the knowledge of degree students regarding health hazards of second hand smoking.

Citation: Japannavar S. A study to evaluate the effectiveness of planned teaching program on knowledge related to the second hand smoking on health hazards among the degree students of Dharwad district, Karnataka. *J Cancer Prev Curr Res.* 2024;15(5):125–128. DOI: 10.15406/jcpcr.2024.15.00563

Table 1 Describes the effectiveness of planned teaching programme on knowledge regarding health hazards of second hand smoking

Knowledge scores of degree students	Sample size	Mean	Standard Deviation	t value	df	p value	Interference
Pre-test	100	13.86	6.36	38.45	99	<0.001	Significant
Post-test		29.61	3.94				

Discussion

Findings relating to the demographic characteristics of degree students

The age distribution in the present study found that out of 100degree students, 96(96.00%) degree students were in 18 to 20 years of age group, four (1.20%) late adolescents were in 21 to 22 years of age. The study samples were degree-studying students hence majority of samples were between 18 to 20 years of age these findings of the study were similar to the study of Gilpin et al.[4] The gender distribution of the present study found that students 43 (43.00%) were males, 57(57.00%) of degree students were females, these findings of the study were similar to the McCabe[5] and Hinson.[6] The religion distribution of the present study found that 70 (70.00%) late adolescents were Hindu, 16 (16.00%) of late adolescents were Muslims, 5 (5.00%) were Christians and 9 (9.00%) were belonging to other religions likes Jains, Parsi, Sikhs these findings were similar to study of Mark Wolfson.[7] Educational status revealed that, 30 (30.00%) of degree students had degree first year as their education qualification, 60(60.00%) of second year degree students and 10(10.00%) of students were degree from third year, as samples were degree students, most of them were undergraduates these findings were similar to the study of Burki TK.[8] Source of information showed that 47 (47.00%) of late degree students got information on regarding secondhand smoking through mass media, 25 (25.00%) gained information through health professionals and 28(28.00%) of degree students learnt information on second hand smoking through friends and family members these findings were similar to the study of Vardavas CI et al.[9] Marital status revealed that 98(98.00%) degree students were unmarried and only two (2.00 %) of degree students were married these findings of study were contrast to the study of Fischer F et al.[10,11] History of smoking revealed that, 40 (40.00%) of degree students had no one smoker in the family and 60 (60.00%) of degree students had smoker at family.

Findings relating to the knowledge of degree students regarding second hand smoking

The present study finding revealed that pre-test knowledge score was poor regarding health hazards of second hand smoking these findings were contrast to the findings of the study Gabriel Uche Pascal et al[12] where most of their study sample had highest awareness of health effects of second hand smoking. Following the planned teaching program, degree students improved their knowledge and awareness on health effects of second hand smoking; these findings were then similar to the finding of study Gabriel Uche Pascal et al.[12]

Finding related to the effectiveness of planned teaching programme on knowledge regarding second hand smoking

In the present study, it is observed that in knowledge aspect the t value is 38.45 for 99 degrees of freedom with p value <0.001 showing the significance of planned teaching program in improving the knowledge of degree students regarding health hazards of second hand smoking these finding were similar to the study of Radha R et al.[12]

Conclusion

The present study designed to assess the knowledge of degree students regarding the knowledge and awareness of health hazards of second hand smoking. Second hand smoking carried a large volume of health effects than the active smokers causing lung, kidney diseases due to toxic chemicals inhalation. Degree college students are vulnerable to high risk of second smoking due to their peer group behaviors, autonomy and adventurous nature. So the study brought the awareness of health hazards of second hand smoking by planned teaching program which found to be effective and useful to selected degree students for bettering their life by practicing tobacco free and smoking free life style.

Recommendations

The present study revealed the importance of the planned teaching program in brining the awareness to the degree students regarding health hazards of second hand smoking. Similarly, a large group study including major population of degree students should be focused as they are vulnerable population and can act upon to prevent the future health hazards of smoking by right awareness and bringing the acceptable attitude. Along this, simultaneously other vulnerable groups such a working women, housewives, pregnant mothers and children.

The present study is conducted for small geographical area and available small sample size, similar study targeting larger geographical area, more samples can be conducted for generalization of research findings, and to cover large group of population.

Acknowledgments

None.

Conflicts of interest

The authors declare that there are no conflicts of interest.

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