



MACROJOURNALS

# The Journal of **MacroTrends** in Health and Medicine

## The Quest for Smoking Cessation

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### Abstract

*Nurses are uniquely positioned to promote health. Studies have shown that personal smoking among health care professionals and students may negatively influence their attitudes toward tobacco control and their ability to prevent smoking or promote smoking cessation. The aims of this research were first to describe the baccalaureate nursing students' smoking habits and second, to evaluate the influence of a health promotions course on the students' smoking habits.*

*Methods: Participants were second year nursing students who had not yet begun the health promotion course and third year students who had already completed the course. All participants complete a self-administered questionnaire on health habits which included questions on smoking.*

*Results: The sample included 176 students (126 second year students and 50 third year students). Approximately 26% of both the second year and third year students were current smokers. Moreover all students demonstrated low motivation to quit smoking.*

*Conclusion: Examination of the results showed that in spite of the theoretical studies concerning proper health life style behavior, and clinical exposure to sickness and death, students' health behavior did not improve. Since didactic courses probably have no effect on students' smoking habits, there is a further need to offer smoking cessation programs through the nursing studies.*

Keywords: *Health Promotion, Smoking, Smoking Cessation, Nursing Students*

### 1. Introduction

Health promotion is predicated on individual accountability for health. Nurses and nursing students take an active part in educating the public; their knowledge is essential to both delivery of adequate care and promotion of themselves as role models (Schank &

Lawrence,1993). However, their ability to act as role models is hampered when they do not engage in good health promotion practices themselves.

One poor health care practice that a relatively high percentage of nursing students engage in is smoking. A study of 546 Spanish nursing students found that 24.2% smoked (Molina, Fernandez, Fernandez, Delgado, de Abajo, & Martin, 2012), while among a group of 148 German nursing students, 29% smoked daily and an additional 13% smoked occasionally (Vitzthum, et al, 2013). Sejr and Osler (2002) reported about 40% of Danish student nurses smoke.

Health promotion has the potential to make its greatest impact on chronic debilitating diseases. One of its chief concerns is tobacco use and smoking, particularly in young adults. By targeting young people, efforts to decrease smoking will have the greatest effect on both morbidity and mortality.

Health promotion courses in the nursing school curriculum in Israel are constructed as blocks of knowledge, each block building on the previous one .The first course is given in the beginning of the second year when the student starts to explore the internal medicine program. The Health Promotion and Disease Prevention course is given during the second year. The course explores harmful and constructive health behaviors, concentrating on improvement of self- care using the Trans Theoretical Stages of Change model by Prochaska and DiClemente (1983). Much of the course focused on smoking habits. During the course the students are asked to reflect on their health attitudes and analyze their own and their friends' unsafe health activities. By the end of the course the students were asked to build personal interventional program for their peers. This assignment gives the students valuable experience in guiding others to change poor health habits. As nurses, they will be able to contribute their knowledge and act as resources for the public because many people are eager to consult professional experts about changing their life style and poor health habits (Charlton ,While & Mochizuki, 1997). Studies in other countries have found that students who develop a good preventative health attitude towards their patients may change their own smoking habits (Sejr & Osler, 2002). The aim of this study is to give a snapshot of the prevalence of smoking habits among Israeli nursing students and to depict their attitude towards tobacco cessation.

## **1.2 The Study**

The purpose of this study was initially to explore the prevalence of smoking among second and third year nursing student. In addition we wanted to explore the students' attitude towards smoking cessation.

## **2. Methods**

This study was directed at second and third year students enrolled in the undergraduate nursing program at a university located in the south of Israel. The Israeli nursing education consists of four years of full time study.

After receiving ethical approval from the nursing department in the university, one of the investigators explained the study and distributed the questionnaire in class. It was

administered in class to second and third year nursing students. Participation was voluntary. By filling out a questionnaire, students gave implied consent for their participation in the study. Student anonymity was preserved by not asking for names or any other identifying information.

The questionnaire was developed by the investigator. The first section asked for basic demographic information. The remaining twenty six items were multiple choice questions about health habits. The items about smoking included questions on current smoking status, what students smoked (cigarettes, pipes, or marijuana), and, if they currently smoked, what plans they had for quitting.

Categorical data was analyzed by chi square test, with a significance level of  $p \leq 0.05$ . For purposes of analysis, age was reduced to categorical groups as well.

### **3. Results**

Out of a total of 232 enrolled in the classes approached, 176 students completed questionnaires (126 second year students and 50 third year students. The second year students were currently studying Health Promotion the third year students had completed the course the previous year. There were no significant differences in demographics of the sample between the two classes. Overall, 26% of the students currently smoked. There was no significant difference in smoking rate between the classes.

When analyzed by gender and by age, no significant differences were found in smoking rates or desire to quit smoking. Because the third year students had already studied health promotion, an analysis was performed to see if exposure to information about health effects of smoking and smoking cessation made a difference in smoking behavior or in plans to stop smoking. Among the students who participated in the study, no significant difference was found in current smoking status ( $\chi^2 = 3.49$ ,  $p = 0.32$ ) or in plans for smoking cessation. (See Table for more information on student demographics and smoking status).

### **4. Discussion**

Health promotion was defined by the WHO in 1998 as "a comprehensive social and political process, it not only embraces actions directed at strengthening the skills and capabilities of individuals, but also action directed towards changing social, environmental and economic conditions so as to alleviate their impact on public and individual health. Health promotion is the process of enabling people to take control over the determinants of their health and thereby improve their health." We examined student self-care, using smoking as the indicator of self-care.

Promoting themselves as role models is problematic for nurses with poor health habits. What little research was done between the years 1995 to 2001 showed that the smoking rate is higher among nursing students than among the general public (Suzuki, Ohida, Yokoyama, Kaneita, & Takemura, 2005). This conclusion is supported supported by our finding that 26% of the students smoke; this is higher than the smoking prevalence in the general public in Israel (20.6%; Ministry of Health, 2012).

The smokers in our study had less positive approaches to quitting smoking or changing their smoking behavior while taking preventative health courses. Moreover, although the students were exposed to a number of courses which focused on health consequences and chronic diseases related to smoking habit, the researcher found no effects on the students' preventative practices. Other studies have also supported our findings, particularly as regards students' attitudes toward health promotion and disease prevention (Becker et al, 1986; Reeve and Kauzekanan, 1996). For example, taking a course on smoking prevention and tobacco cessation did not significantly decrease the prevalence of smoking among a sample of Spanish nursing students (Molina, Fernandez, Fernandez, Delgado, de Abajo, & Martin, 2012). Similarly, Sejr and Osler (2002) reported no change in smoking prevalence among Danish nursing students following an educational intervention and follow up.

The most troubling finding in the current study was not the prevalence of smoking, but that over a third of the smokers did not want to quit. Additionally, 29% had stopped smoking at one time, but resumed the habit again afterwards. This finding is in contrast with Vitzthum and colleagues' finding that two-thirds of German nursing students who smoke had tried to quit one or more times, and 86% of them said they wanted to quit in the future (2013).

One impetus for quitting smoking, among both the general public and students, is the present law in Israel that prohibits smoking in public areas, including in universities. However, smoking is allowed in designated areas (Israeli legislation, 2012). According to Hahn et al (2010), smoke free regulations contribute to reduction in tobacco consumption while encouraging smoke free habits. They also found that the longer smoke free legislation is in effect the better chances are for the young adults to promote their own health by reducing cigarette consumption. American university students need to adapt to new life style because this is often their first experience living away from home; they confront different environments with new rules. For them, smoke free laws actually have a protective influence by preventing them from smoking (Patterson, 2004). The influence of these laws, however, is probably less strong among Israeli university students because most of them have already completed at least two to three years of military service, where there are strong pro-smoking influences.

The intervention in our study focused on reflecting damaging behavior between peers within the educational program. However, this activity is only one approach to smoking reduction; to be successful, intervention should use an all-inclusive approach to smoking prevention or cessation. According to Ramsay and Hoffman (2004) the approach should cover all aspects of life, including nutrition, diet, physical education, and controlling environmental smoking triggers. Another essential element is education with hands on training to give students tools to use when confronted with peers who encourage smoking.

The students in this study were first exposed to health promotion and disease prevention in a mandatory course during their second year of university study. The effectiveness of education on health behavior practices taught simultaneously with basic sciences should be investigated. As yet, the most effective educational techniques for decreasing smoking among nursing students is unknown (Smith, 2010). Perhaps emphasizing awareness of their own behavior and attitudes toward smoking behavior would be more

successful. an emphasis and focus on their future roles as a nurses and patient educators. Additionally, pro- active strategies should be implemented as part of the curriculum in order to enhance promotion of students' own health with hands-on practice.

#### **4.1 Limitations**

One limitation of this study is connected to the sample, which was recruited from only one school.. Additionally, the sample was relatively small and less than 30% of the itas third year students. This unequal representation from the two classes could have affected the lack of significance. Another limitation is the relative homogeneity of the students. Different results might have been obtained with a more diverse sample from different areas of the country. Lastly, this research is cross sectional and cannot depict changes over time.

#### **5. Conclusion**

Over one-quarter of Israeli nursing students smoke; this number does not significantly decrease following a course on health promotion which focuses on smoking cessation. This behavior does not hold much promise for the students' effectiveness as role models in promoting good health habits among their patients in the future. More research needs to be done in this area to discover better approaches to smoking cessation in nursing students.

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Table *Characteristics of Sample*

	Second year students N = 126	Third year students N = 50	Full sample N = 176
Age	mean 25.1(20- 32)(SD)	Mean 26.5(21-34) (SD)	25.2 (18-37)mean (SD)
Gender			
male	N=15 (11.9%)	N=12 (24%)	
female	N=111 (88.1%)	N=38(76%)	
Currently Smoke	N=33 (26%)	N=13 (26%)	N=46 (26.1%)
What smoked			
cigarettes	N=23(69%)	N=10(76.9%)	23.1%
pipe	N=4(12.9%)		1.9%
marijuana			7.8%
cigarettes + marijuana	N=6(18.1)	N=3(23.1%)	1.4%
Plans for cessation			
Do not want to quit	35%	35%	
Want to quit in 6 months	22%	22%	
Want to quit within 1 month	14%	14%	
Already quit but started again	29%	29%	

\* $p < 0.05$ ; # $p < 0.01$