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The Prevalence of Smoking in Nursing Students

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Abstract

Tobacco use is one of the most preventable sources of death and disease, and yet it remains a worldwide problem, with ever-increasing spread into low- and middle-income countries. With the rising costs of healthcare, the focus of efforts to control them has honed in on lifestyles and behaviors that contribute to the escalating costs. Within the scope of this scrutiny, the prevention or cessation of smoking and tobacco usage has become a global priority and a major focal point of worldwide anti-tobacco initiatives by the World Health Organization (WHO) and various governments. The WHO has identified cessation interventions by health care professionals as one of the most important factors in successful smoking cessation for patients, and studies have shown that personal smoking behaviors by health care professionals are a barrier to effective smoking cessation interventions by those health care professionals (Lally et al., 2008; Radsma & Bottorff, 2009). This knowledge fueled the creation and distribution of global surveys by the WHO, the Centers for Disease Control and Prevention (CDC), and the Canadian Public Health Association (CPHA) to investigate the prevalence of smoking behaviors in health care professionals and in students of health care fields, as well as the education those students were receiving on cessation approaches while in school ("Global Health Professions," 2014; "WHO/CDC Global," 2014).

This study utilized one of those surveys, the Global Health Professions Student Survey (GHPSS), created by the WHO, the CDC, and the CPHA, and that was first administered worldwide by the WHO, CDC, and CPHA from 2005 to 2009. The current study sought to investigate the prevalence of smoking in nursing students of all educational levels at East Tennessee State University. The curriculum within the nursing program at the university emphasizes the dangers of and the need for prevention or cessation of smoking, and, thus, it was

expected that the percentage of students who currently smoke would be substantially lower than the percentage of students who do not smoke. The percentage of currently smoking students was found to be 11.2%, and the percentage of daily smokers was 4.1%. Additionally, only 53.7% indicated that they had received formal training in smoking cessation techniques during their education at the university. The survey also investigated the attitudes towards the role of health professionals in successful patient smoking cessation, as well as attitudes towards personal smoking behaviors of health care professionals.

The Prevalence of Smoking in Nursing Students

Introduction

`With all of the information that is readily available on the subject, it is reasonable to expect for it to be common knowledge that smoking is detrimental to overall health and, as noted by Duaso and Duncan (2012), is linked with many health disorders, including respiratory disease, cardiovascular disease, and cancer, as well as negative reproductive effects, poor surgical outcomes, and psychological effects. Tobacco smoking is one of the most preventable sources of disease, and yet it remains a worldwide problem. As healthcare costs continue to rise, much more attention is being focused on unhealthy behaviors that contribute to the escalating expenses.

Tobacco use, and, in particular, smoking has entered the spotlight and mobilized the healthcare community, the government, and corporations to push for smoking cessation. Many employers and insurance companies have implemented programs to promote smoking cessation among their members, and these often include higher insurance rates for smokers, education and support programs for quitting, and, most recently, a controversial move on the part of some corporations of not hiring tobacco users at all (Walton, 2013). On national and state levels, the government provides free smoking cessation information and support through various websites and telephone services, for example, smokefree.gov. Additionally, many healthcare organizations have designed and implemented smoking cessation initiatives at local and regional levels, such as those listed in the directory on the Tennessee Department of Health website (Tennessee Department of Health, n.d.).

The growing concern with smoking-related health issues makes it clear that education about this issue is of utmost importance. Healthcare providers are in a position to provide

education about and to be able to clearly show the links between smoking and the health issues of their clients. Nurses, who often interact with clients more frequently than other healthcare personnel, are in an ideal position and have the best opportunity to deliver education on tobacco use and to provide the client counseling and support necessary for successful behavior and lifestyle changes (Duaso & Duncan, 2012). Despite the fact that assessment for smoking habits is part of the general health history that nurses are required to obtain from clients, many nurses do not go into any kind of depth on these assessments and fail to give smoking cessation advise to those clients who indicate that they do smoke (Radsma & Bottorff, 2009).

Some of the failure to address smoking in clients may be due to the personal smoking behaviors of the nurses themselves. Studies have shown that nurses who smoke do not perform the smoking interventions with their clients as routinely or as in depth as nurses who do not smoke (Radsma & Bottorff, 2009). This lack of and/or depth of assessment apparently derives from the conflicts that smoking nurses feel as a result of their nursing knowledge, their awareness of their perceived position as health role models, and their guilt about and rationalization of their own smoking habits. Radsma and Bottorff (2009) discussed their findings:

> This tension created varying degrees of ambivalence about intervening with tobacco-dependent patients. On the one hand, the nurses were cognizant of the health effects associated with smoking and their professional obligations to intervene; on the other hand, they were motivated to protect themselves from feelings of hypocrisy and stigmatization because of their own smoking. (p. 446)

Thus, smoking nurses are doubly burdened with the guilt over smoking when they know the health risks and guilt over providing less than the expected care to clients who smoke. This

reality opens up a new area of focus, which is the creation of smoking cessation programs geared specifically towards the needs of nurses: the connection between smoking and the high-stress aspect of nursing; the feelings of guilt and shame about their smoking practices, and confidentiality about their smoking in regards to the public (Berkelmans, Burton, Page, & Worrall-Carter, 2011). Intervention is clearly necessary as nurses and other healthcare professionals such as doctors are expected to not only provide care to their clients but also to act as role models for their given advice and for behaviors that they promote (Patkar, Hill, Batra, Vergare, & Leone, 2003).

One major target area where intervention is key and could potentially eradicate the problem of smoking nurses is at the nursing student level, before the future healthcare professionals ever enter the field. Studies conducted on the smoking habits of nursing students have found that a disturbingly high percentage of these students smoke. One study of nursing students in Milan, Italy found that 44.2% were smokers (Biraghi & Tortorano, 2010). Two other studies, conducted at different universities in Spain, identified smoking in nursing students at 29.3% and 26.1%, respectively (Garcia, Sanchez, Casares, Presa, Martinez & Gonzalez, 2007 and Pericas, Gonzalez, Bennasar, De Pedro, Aguilo, & Bauza, 2009). Furthermore, the study by Garcia et al. (2007) found a dearth of knowledge about the detrimental effects of tobacco, deficiency of understanding about the necessity of education in regards to tobacco addiction, and a lack of specific knowledge about the causes of diseases related to tobacco. In addition, those students also had no knowledge about methods of cessation (Garcia et al., 2007). The findings of these researchers' studies point to the importance of educating nursing students about smoking and providing smoking cessation programs so that they can enter their fields as non-smokers,

equipped with the knowledge required to assist their clients in changing their smoking behaviors. These facts should hold true, regardless of locale.

At East Tennessee State University, the nursing students receive information about the ill effects of smoking throughout their duration of their nursing education, with discussions of the issue starting in the first semester in the Health Assessment course, and going more in depth in the Pathophysiology course, where smoking is shown repeatedly to be one of the main contributors to disease processes or the worsening thereof. Smoking and its health consequences continue to be addressed in their Care of the Adult, Care of the Older Adult, Pediatrics, and OB/GYN courses. With the knowledge provided nursing students through the curriculum in their courses, the percentage of nursing students at East Tennessee State University who smoke should be substantially lower than those who do not smoke due to their increased awareness of the profoundly negative consequences of tobacco use. Therefore, the purpose of this study is to discover the prevalence of smoking in the nursing students at East Tennessee State University. The study will also seek to examine the attitudes held by the nursing students towards smoking. This study will investigate the smoking behaviors, attitudes towards smoking and smoking cessation, and knowledge of the health detriments resulting from the decision to smoke, and attitudes towards and perceptions of the role of health professionals in patient smoking cessation. These inquiries will provide insight into the factors informing and contributing to the current smoking status of the participants.

Literature Review

Tobacco use is a global problem, and is continuing to increase, according to the World Health Organization, which calls tobacco use an epidemic and "one of the biggest health threats the world has ever faced" (WHO "Tobacco", 2013). Smoking has been linked with many

diseases and disorders, and the World Health Organization has identified tobacco use as being one of the principal causes of death and disease worldwide. The negative health consequences of smoking are often delayed by years, and because of this, with the increase of smoking prevalence, the World Health Organization predicts that the numbers of illnesses and deaths related to smoking will be observed to rise dramatically by the year 2030 (WHO "Tobacco", 2013). This knowledge has led to global anti-smoking initiatives, with focus towards smoking cessation education, bans on tobacco advertising and promotion, creation and enactment of anti-tobacco laws, and anti-smoking/tobacco mass media campaigns (WHO "Achievement," 2013). While progress has been made in some countries through global anti-tobacco initiatives, low- and mid- income countries continue to see rising levels of smoking and tobacco use in general (WHO "Five Years Progress," 2013; WHO "Tobacco," 2013;). Areas of continued concern and focus involve increasing general knowledge of the health effects of smoking and of various smoking cessation techniques and available cessation resources due to a demonstrated lack of this type of awareness in many smokers (WHO "Tobacco," 2013). The World Health Organization has found that clinical cessation interventions are effective in helping smokers to successfully quit, and identified smoking cessation interventions by health care providers as one of the primary methods by which smokers can receive this assistance (WHO "Achievement," 2013). In light of this finding, it is clear that health care providers must accept their role in this important aspect of health promotion for their patients, and ensure the provision of this necessary education to the patients.

Cigarette smoking was not always seen as the health hazard that it is now understood to be and healthcare professionals did not recognize its dangers or work to promote its cessation or prevention. In fact, cigarette smoking was even normalized and promoted by the utilization of

images of nurses either helping others to smoke or smoking themselves, even as far back as the 1890's (Sarna & Bialous, 2012). During the last century, the frequency of cigarette smoking and the number of tobacco cigarette users in the United States, as well other countries, continued an upward trajectory, despite the concerns that the medical community began to have with the adverse health effects of smoking ("50 Years of Progress," 2014 p.5). As research returned evidence that smoking was strongly linked with negative health consequences, the Surgeon General released a report in 1964 to definitively state that cigarette smoking causes lung cancer in men, and called for action on the issue of smoking ("50 Years of Progress," 2014 p.7). Since the release of the 1964 report, even more in-depth research has been conducted and has led to clearer understanding of the relationship of smoking to many specific diseases. The Surgeon General's 2014 report concludes that the evidence has shown that smoking is, "causally linked to diseases of nearly all organs of the body" ("50 Years of Progress," 2014 p.7). From the time of the 1964 report, and with the mounting evidence against smoking, increasingly aggressive public-education campaigns helped to lead to the decline of smoking rates in the United States. In 1964, nearly half of all U.S. citizens smoked, and now the rate stands at approximately 20% ("50 Years of Progress," 2014 p.19).

Times have changed and, where once it was acceptable to see a nurse smoking or helping someone else to smoke, it is strongly looked down upon now. Nurses and other healthcare providers are perceived as health role models to the patients for whom they provide care. In addition, in the changing healthcare environment, nurses are often the health personnel that the patients see the most often, and are thus in a unique position to deliver smoking cessation interventions and to provide the counseling and support necessary for successful behavior and lifestyle changes for these patients. Additionally, nurses are responsible for obtaining thorough

health histories from their patients, including any current smoking behaviors or a history of smoking (and other detrimental health behaviors). Nurses are also responsible for addressing negative health behaviors and providing information about their relationship to the present and future health of the patient, as well as providing education about ways to in which to discontinue the unhealthy habits and support resources to support those endeavors. Evidence has been shown that if patients receive tobacco cessation education from their nurses, their chances of successfully quitting the smoking habit increase significantly, and this demonstrates the importance of nurses' dedication to providing effective interventions in this area (Berkelmans, et al., 2011).

Research has shown that the personal smoking behaviors of health professionals are barriers to effective smoking interventions for the patients (WHO, "Achievement," 2013). If nurses smoke and their patients know this, it makes the nurses less credible as knowledgeable health professionals and creates doubt that smoking is truly as detrimental to the patient's health as the nurse is stating (Pericas, et al., 2009). Studies have shown that nurses who are smokers are ineffective educators about the subject to their patients, and fail to follow through with effective smoking cessation strategies and interventions for the patients (Radsma & Bottorff, 2009). Evidence suggests that guilt and cognitive dissonance of the active smoking status of these nurses contribute greatly to their failure to address patient needs in this aspect of their patient care (Radsma & Bottorff, 2009).

Smoking nurses tend to underestimate or play down the severity of the detrimental health effects of smoking cigarettes, and this leads to their delivery of fewer and less effective interventions for their patients who smoke (Radsma & Bottorff, 2009). The nature of nursing can be physically and psychologically stressful to the professionals, and studies have shown

some connection between that fact and the smoking rates of nurses (Perdikaris, Kletsiou, Gymnopoulou, & Matziou, 2010). When considering the guilt caused by their personal smoking behaviors, and their inconsistent and sub-standard delivery of life-saving smoking cessation interventions for their patients, smoking nurses often know that they are not delivering the best care in this aspect for their patients, and this causes an even greater stress upon them (Radsma & Bottorff, 2009). Some nurses evidence this awareness and guilt through their failure to reveal and attempts to hide that they are smokers to employers, fellow health professionals, and their patients (Radsma & Bottorff, 2009).

Some earlier studies showed that physician rates of smoking have steadily declined, while nurse smoking rates had remained fairly constant, and sometimes even exceeded the average national smoking rate (Sarna, Bialous, Nandy, Antonio, & Yang, 2014). However, some of the most recent research found that there had been a decline in the rates of smoking in health care professionals overall, but that the most significant decline was seen in registered nurses, from approximately 11% to approximately 7% (Sarna, et al., 2014). Licensed practical nurses continued to hold the position for the highest rate of smoking prevalence at almost 25% (Sarna, et al., 2014). The declining rate of smokers in health professions may be due to the efficacy of tobacco education and smoking intervention programs implemented at the national, state, and local levels.

In studies that sought to examine the personal smoking habits of health care professionals, one consistent area of focus was on the current students of the various health care fields. As future health care providers, it has been important to investigate the health habits of these groups, because they will eventually be the health educators, designers, and implementers of interventions for the patients of the future. Results from many of the studies have shown that

the smoking habit is still prevalent in students of health professions (Cauchi & Mamo, 2012; Ferrante et al., 2013; Sinha et al., 2010; Sun, Burhoo, Moussa, & Ramasawmy, 2013; Warren, Sinha, Lee, Lea, & Jones, 2009). The consensus is that, while current healthcare students are increasingly knowledgeable about smoking and its detrimental effects, they are often not applying that knowledge to their personal health behaviors. In addition to healthcare students downplaying or ignoring the health risks related to their lifestyle choices, many of these students do not receive education on smoking cessation interventions, and they remain less confident and aware of the techniques and programs of smoking cessation that they should be providing to their patients (Cauchi & Mamo, 2012; Ferrante et al., 2013; Sinha et al., 2010; Sun et al., 2013; Warren et al., 2009). A common conclusion of many studies is that tobacco cessation education and simulation should be a part of the undergraduate curriculum in order to prepare students to take on this important intervention in their clinical practice (Cauchi & Mamo, 2012; Ferrante et al., 2013; Sinha et al., 2010; Sun et al., 2013; Warren et al., 2009). In regards to their personal smoking, students should be reminded about the negative health effects of smoking, and should be educated about the relationship of personal smoking behaviors to effective smoking counseling for their patients.

Research Methodology

This study utilized a descriptive cross-sectional survey design to determine the prevalence of tobacco smoking in the nursing students at East Tennessee State University. Additional questions asked these nursing students about their smoking history and their attitudes toward tobacco use. Through the acquisition and analysis of this information, the study sought to show that the rates of smoking nursing students were lower than that of non-smokers. Nursing

students of all educational levels at the university were invited to participate in the study by completion of a questionnaire.

The instrument chosen for this study was the Global Health Professions Student Survey (GHPSS), which was developed by the World Health Organization, the Centers for Disease Control and Prevention, and the Canadian Public Health Association in 2005. This survey collects data on participant demographics, tobacco use prevalence and smoking behaviors, exposure to environmental/second-hand smoke, attitudes about tobacco use and cessation interventions, knowledge about the health risks of smoking and cessation interventions, attitudes towards the role of health professionals in tobacco cessation interventions, and whether the participants had received training on the dangers of smoking and in cessation interventions through their university (Centers for Disease Control and Prevention, n.d.). Its measurement reliability is high, with an alpha of .815 (Gualano, Bontempi, Saulle, Ricciardi, & La Torre, 2011). This questionnaire has been administered many times to different types of health profession's students, and the results of those studies inform current knowledge of the global health behaviors and attitudes towards tobacco use of student health professionals. The survey was adapted for this study through the inclusion of additional questions that expanded the potential age-range choices, the range of number of years in school, and the particular level of educational program in East Tennessee State University's College of Nursing, in order to accommodate the advanced degree participants. The questionnaire with the various participant responses is included in Appendix A.

The population of interest was nursing students at all levels of education, and the sample consisted of current students at East Tennessee State University's College of Nursing, including the Bachelor of Science in Nursing (BSN), the Master of Science in Nursing (MSN), the Doctor

of Philosophy (PhD) in Nursing, and the Doctor of Nursing Practice (DNP) programs. After the receiving the approval of the Institutional Review Board of East Tennessee State University, the GHPSS was sent out twice through the students' school email accounts, with one week between the emailed invitations. The invitation emails contained scripted explanations of the study and the survey. The invitation explained that there were no direct or monetary benefits to their participation and obtained consent through the provision of entrance to the survey via a link within the email. The scripts to these emails are included in Appendix B.

The invitations were sent to 649 BSN students, 10 MSN students, 28 PhD students, and 67 DNP students, for a total of 754 potential participants in this study. Data from the survey was collected and analyzed using IBM SPSS Statistics 22 software. Of the data collected, selected portions were put into charts or graphs to better analyze and visualize the results. The results were also separated by gender, to determine how the responses differed between the two.

Results

Of the 754 potential participants in this research study, 199 responses were received, for an overall response rate of 26.4%. Within the individual programs the response rates from the total invitations originally sent were varied and as follows: the BSN programs had a response rate of nearly 25%; the MSN programs had a 100% response rate; the PhD programs had a response rate of 0; and the DNP programs had a response rate of 22.4%. In 12 of the 199 completed surveys, the degree program had not been selected. The detailed results of the survey can be found in the frequency tables in Appendix A and in the charts and graphs in Appendix C, but, in summary, the MSN programs gave the highest response rate, followed by the BSN programs.

Demographics

Demographics questions asked the participant his or her age, degree program, gender, and current year. When asked their age, 37% of the respondents were in the age range from 19 to 24 years old, 15.3% were in the age range from 25 to 29 years old, and 47.6% were 30 years of age or older. The degree program in which the participants were currently enrolled was reported as follows: 86.6% were enrolled in the BSN program, 5.3% were enrolled in the MSN program, and 7.5% were enrolled in the DNP program. The participants were asked their gender, and 85.7% responded that they were female, while 14.3% responded that they were male. They were also asked to identify their current year in school and the results were as follows: 5.3% were in their first year, 8.5% were in their second year, 20.6% were in their third year, 37% were in their fourth year, 10.6% were in their fifth year, 4.2% were in their sixth year, 4.2% were in their seventh year, and 9.5% reported having been in school for more than seven years. Gender was broken down in the findings for those years, and the number of male participants was higher than that of females in all but the second, fourth, and fifth years. In review, the largest percentage of respondents was over 30, with the typical respondent being a female BSN student in the fourth year of school.

Smoking Prevalence

The prevalence of smoking in the nursing students at the university was determined in the first section of the questionnaire. The participants were asked if they had ever experimented with smoking tobacco, even just one or two puffs. The majority of the participants, 62.4%, stated that they had tried or experimented with cigarette smoking, while 37.6% stated that they had not. Within those responses, 62.5% of the female respondents and 70.4% of the males said that they had tried smoking. The students were also asked on how many days out of the last 30 days that they had smoked cigarettes. Most of the participants (88.8%) responded that they had

not smoked on any days in the past month, while the remaining 11.2% indicated that they had smoked. Of those who had smoked, 1.5% had smoked on one or two days, 1.5% had smoked on six to nine days, 2.6% had smoked on ten to nineteen days, 1.5% had smoked on twenty to twenty-nine days, and 4.1% of participants indicating that they had smoked on all thirty days of the past month. When asked at what age they were when they first tried a cigarette, 38.1% said that they had never smoked cigarettes, while among the 61.9% who had, the responses were spread out over ages ranging from 10 years old or younger to age 30 years or older. The greatest concentration within this range was in the age groups of 11 to 15 years old (24.9%), 16 to 17 years old (12.7%), and 18 to 19 years old (10.2%). Looking at the responses, the majority of respondents had tried smoking at an approximate age of 11 to 15 years, with a higher percentage of males experimenting with smoking.

Environmental/Second-hand Smoke Exposure

The survey investigated the participants' exposure to second-hand smoke in their homes by asking them about how many days, out of the past seven, people had smoked in their presence. The responses from 81.3% of the participants indicated that this had taken place on zero days, but for the remaining 18.7%, exposure had taken place in their homes. The largest percentages of number of days with second-hand smoke exposure were in the one to two day range (9.4%) and the all seven days option (6.8%). The participants were also asked how many days, out of the past seven, people had smoked in their presence in places other than where they lived. Approximately 50% indicated no second-hand smoke exposure outside of their home, while 50.5% had been exposed to environmental smoke at a range of different frequencies over the previous 7 days. The various degrees of exposure were as follows: 32.8% indicated that it had taken place on one to two days, 10.9% on three to four days, 1% on five to six days, and

5.7% on all seven days. In summary, most respondents were not exposed to smoke inside their homes, but approximately 50% did experience exposure outside their personal residences.

Attitudes towards Smoking, Smoking Cessation, and Personal Smoking Behaviors

Attitudes and behaviors towards smoking and smoking cessation were measured through a series of questions. According to the responses, 93.2% of respondents believe that sales of tobacco products to adolescents under 18 should be banned, and 74% of participants indicated that there should be a complete ban on tobacco product advertisements. When asked about the banning of smoking in various public venues, the responses indicated agreement with banning as follows: in restaurants-97.9%, in discos/bars/pubs-79.2%, in all enclosed public places-87%. This indicates that the majority of respondents agree with restrictions or bans on smoking in most public or shared areas.

Personal smoking behaviors, knowledge of cessation options, and attitudes towards quitting their own smoking habit were assessed in a series of questions. The participants were asked how soon they smoke their first cigarette after waking up. In their responses, 45% had never smoked and 46.6% did not currently smoke. Of the participants who indicated that they do smoke, 1.6% did so in less than 10 minutes, 2.1% within 10 to 30 minutes, 1.0% within 31 to 60 minutes, and 3.7% after 60 minutes. When asked if they wanted to stop smoking now, 90.6% of the participants do not smoke, 5.6% responded that they do want to quit, and 3.7% said that they do not want to stop smoking. The next question asked if the students had tried to stop smoking cigarettes in the last year. The responses were that 86.4% of participants did not smoke, 10.0% had tried to quit, and 3.7% had not attempted to stop smoking. The range of responses to the question about how long ago the student had stopped smoking was broad. Those participants who had never smoked made up 53.9%, those who have not stopped smoking were 4.7%, less

than one month was 2.6%, one to five months was 3.1%, six to eleven months was 1.6%, one year was 3.1%, and three years or longer was 28.3%. When asked if they had ever received help or advice to stop smoking cigarettes, 13.1% of participants said they had, 33.5% said that they had not, 53.4% indicated that they had never smoked. This shows that a large percentage of the respondents who smoke have tried to quit, and have not received any help or intervention in their cessation attempts.

Attitudes towards Role/Responsibility of Health Care Professionals in Smoking Cessation

Several questions in the survey addressed participant perspectives on the roles and responsibilities of health care professionals in regards to cessation interventions for their patients who smoke. The results showed a majority (99%) of respondents believe that health professionals are an important part of the smoking cessation process and the success of their patients, and approximately 94% of the participants believed that health professionals should receive specific training on cessation techniques. The responses indicated that approximately 95% of the participants believe that health professionals should serve as role models for their patients and the general public. A decreased number of respondents agreed that cessation interventions increased the patient's chances of success and that the personal smoking behaviors of a health professional would influence the likelihood of their giving of smoking cessation advice to their patients. The responses indicate a disparity in the recognition of the role that the personal smoking behaviors of health professionals has on the chance of success in client cessation attempts.

Education

Several questions addressed the smoking education and training cessation techniques that the students had received in nursing school. The participants were asked if they had received

any training in school about the dangers of smoking, and 96.8% indicated that they had. Participants were asked if they had ever discussed the reasons why people smoke, and 66.8% indicated that they had. Participants were also asked if they had learned during their school training about the importance of recording tobacco use history as part of a patient's general medical history, and 97.4% indicated that they had learned this skill. These results point to the fact that students are not receiving education on the motivational factors behind client smoking behaviors, and that they should receive this education while in school.

The participants were asked if, as part of their school training, they had ever received any formal training in smoking cessation approaches to use with patients, and 53.7% indicated that they had. The next question asked if participants had learned in school that it is important to provide educational materials to support smoking cessation to patients who want to quit smoking, and 87.9% responded that they had learned this behavior. The next two questions addressed the participants' knowledge of nicotine replacement therapies (i.e. patches or gum) or the use of antidepressants in tobacco cessation programs, and 97.3% indicated that they had heard of nicotine replacement therapies and 65.8% had heard of the use of antidepressants in tobacco cessation programs. In summary, the results indicate that students require further education on the various cessation aids available to their clients, which would contribute to more successful cessation intervention.

Discussion

The findings from this survey are interesting, as they show that smoking is still an issue for some nursing students, as 11.2% reported current cigarette smoking. However, that percentage is substantially lower than that of people who do not currently smoke, and it is encouraging that only 4.1% of the respondents reported smoking cigarettes on a daily basis. This

result compares favorably to other studies that have utilized the GHPSS, and which show a wide range of results in regards to current smoking status in students. The results of the GHPSS conducted by the WHO from 2005 to 2009 showed current smoking in nurses ranged from less than 5% to 43.9%, depending on the country surveyed, and, in over half of the countries surveyed, over 20% of the students smoked (Warren et al., 2009). Results from a 2007 survey of nursing students in India showed that 4.5% currently smoked (Sinha et al., 2010). When the GHPSS was conducted in 2012 on students in Catania (Italy), it showed that 38.2% were current smokers (Ferrante et al., 2013). A 2010 survey of students in Malta that utilized the GHPSS returned results showing that 27.1% of the participants were current smokers (Cauchi & Mamo, 2012). A 2012 GHPSS survey of students in Mauritius (Sub-Saharan Africa) showed that 24.7% of the nursing students surveyed currently smoked (Sun et al., 2013). The results from these studies show that the current smoking rates reported by the nursing students and East Tennessee State University in this study fall on the lower end of that range of percentages of current smokers, and, when compared to the other studies, show an expected or normal percentage of currently smoking students.

Another area that the GHPSS explores is that of the formal tobacco cessation education that the survey participants received in their university training. The original GHPSS conducted by the WHO found that the majority of students received little or no formal training in tobacco cessation techniques and approaches as part of their curriculum (Warren et al., 2009). This lack of training was a consistent result throughout many other studies, with only 37.6% of Indian nursing students receiving training (Sinha et al., 2010), 21.3% of students in Catania received training (Ferrante et al., 2013), 12.6% of the students in Malta reported receiving training

(Cauchi & Mamo, 2012), and 6.7% of the nursing students in Mauritius received formal training (Sun et al., 2013).

The results of this study at East Tennessee State University found that 53.7% of the participants reported receiving formal training in smoking cessation approaches to use with patients, and this compares favorably with the other surveys that were examined. One factor that may influence this difference in results might be that this study involved participants at higher levels of education. All of the other studies looked specifically at third-year health professions students, who might not have received this type of education yet. However, it is clear that nursing students' education in tobacco cessation techniques is an area that calls for renewed focus and research, with the intention of correcting lack of training. Universities should include formal tobacco cessation training in the curriculum for their nursing students. A possibility for future research could include surveying the nursing students for personal smoking behaviors and knowledge of cessation techniques before they enter formal training, and surveying them again after the completion of the training to discover whether there are changes in behaviors and level of knowledge in that time, and to examine whether these changes might be attributed to the training the students received. This research could also explore the perceived confidence in delivery of interventions and the students' likelihood of giving these interventions before and after the receipt of the education on cessation techniques.

The GHPSS asks questions designed to evaluate the participants' attitudes towards the role of health care professionals in the successful tobacco cessation efforts of their patients. While several studies have shown that the majority of students in the health professions believe that health professionals have a role in the successful cessation of smoking for their patients, there appears to be a barrier to or difficulty in the students' understanding of the negative effect

on patient cessation success caused by their personal smoking behaviors, as a significantly lower percentage of the respondents reported that they believe that health professionals should serve as health role models or that health professionals who smoke are less likely to advise their patients to stop smoking, (Cauchi & Mamo, 2012; Ferrante et al., 2013; Sinha et al., 2010; Sun et al., 2013; Warren et al., 2009). This study found that 99% of the participants believed that health professionals have a role in successful smoking cessation for their patients, but only 72.9% believe that a patient's chances of quitting smoking are increased if advised about cessation by a health professional. Additionally, 94.7% of the participants believed that health professionals should be health role models for their patients, but only 77.5% believe that a health professional would be less likely to advise patients to stop smoking. While these results show that the participants in this study have a greater understanding, in comparison to the participants in the other studies, of the relationship of the role that health professionals and their personal smoking behaviors have on the successful smoking cessation of their patients, participants in this study also demonstrate a clear need for further education on the subject. If, in the future, tobacco cessation education was included in the curriculum for students, a focus for research could be to explore whether there was a change in the students' attitudes towards the role of health professionals in patient smoking cessation and in their understanding of the effects of their personal smoking behaviors before and after their cessation education.

The GHPSS investigated the age that the respondents first started experimenting with cigarettes, and a standard finding has been that the highest percentage of first smoking takes place in the age range between 11 and 15 years of age, with the next highest percentage being in the range between 16 and 17 years of age (Cauchi & Mamo, 2012; Ferrante et al., 2013). The results of this study at East Tennessee State University were consistent with other studies and

found that the highest percentage of first smoking experimentation took place in the age range of 11 to 15 years old (24.9%), with the next highest percentage in the range of 16 to 17 years of age (12.7%). The fact that this is a standard finding raises the question of whether or not adequate smoking prevention initiatives are being concentrated towards this highly vulnerable age group. Another question would be if the initiatives that are in place are recognizing and working within the appropriate psychosocial stage of development for this age group, which is that of strong peer influence. These questions could serve as the basis for future research efforts.

There are other directions that future research could explore. The GHPSS was developed in 2005, before the meteoric rise of electronic cigarettes, and thus this type of nicotine use was not included on the instrument. Smoking electronic cigarettes, or "vaping," is an increasing trend for many people (Goniewicz, Lingas, & Hajek, 2013). Some people use electronic cigarettes as an aid to tobacco smoking cessation, while others use it as a substitute for tobacco smoking with no intention of quitting (Goniewicz et al., 2013). Still others smoke electronic cigarettes, and have never smoked tobacco cigarettes at all (Goniewicz et al., 2013). As one of the newest nicotine products, electronic cigarettes have not undergone the significant years of research that tobacco has, and thus relatively little is known about the long-term consequences of vaping or the rates of success in its use as a tobacco-cessation intervention. The prevalence of vaping in nursing students is an area of future exploration.

The GHPSS sought to discover if participants who had previously smoked had quit and, if so, how long ago that they had quit. It did not address the motivations behind participant cessation, however, and this is another area to be addressed by future research efforts. It would be interesting to discover whether nursing student cessation is related to education received in nursing school. Another reason for smoking cessation could be related to changes in the

potential employability for nursing students, as many facilities are changing their policies to exclude tobacco users from candidacy for employment.

The main limitation is that due to a low, uneven participation rate, findings cannot be extrapolated to East Tennessee State University nursing students as a whole; however, they do apply to those in the sample. A better response rate might have been achieved if the survey had been given over a longer period, with more emailed reminders, and with some type of incentive for completion of the questionnaire. Despite that limitation, the sample size for this study is very good and provides a greater understanding of the issue of current smoking behaviors in the nursing students at East Tennessee State University. Another consideration in looking at the percentages of students who had ever tried smoking and those who currently smoke would be the region of the country in which the university is situated. Tennessee ranks fifth highest in the nation for the prevalence of smoking in adults, and increased to that ranking from holding the 11th place in 2006, indicating that smoking and tobacco use remain a severe problem for the residents of the area (Bauer & Li, 2008).

This study of the nursing students at East Tennessee State University is relevant and timely, considering the increasing urgency in prevention and cessation of smoking, and given the role that health professionals play in successful smoking cessation for their patients. The findings from this study show that attitudes and smoking habits of the nursing students at the school reflect the changing outlook on this topic, but also reveal the continued need for education on smoking cessation and the responsibilities of health professionals towards their smoking patients. This study contributes valuable information about the nursing students of this area, and may help in the decision to include tobacco cessation education into future nursing curriculum.

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Appendix A

Questionnaire/Data Summary/Frequency Table

Table1. Have you ever tried or experimented with cigarette smoking, even one or two puffs?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	123	61.8	62.4	62.4
	No	74	37.2	37.6	100.0
	Total	197	99.0	100.0	
Missing	System	2	1.0		
Total		199	100.0		

Table 2. How old were you when you first tried a cigarette?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I have never smoked cigarettes	75	37.7	38.1	38.1
	Age 10 or younger	7	3.5	3.6	41.6
	Age 11 - 15	49	24.6	24.9	66.5
	Age 16 - 17	25	12.6	12.7	79.2
	Age 18 - 19	20	10.1	10.2	89.3
	Age 20 - 24	17	8.5	8.6	98.0
	Age 25 - 29	1	.5	.5	98.5
	Age 30 or older	3	1.5	1.5	100.0
	Total	197	99.0	100.0	
Missing	System	2	1.0		
Total		199	100.0		

Table 3. During the past 30 days (one month), on how many days did you smoke cigarettes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 days	174	87.4	88.8	88.8
	1 or 2 days	3	1.5	1.5	90.3
	6 to 9 days	3	1.5	1.5	91.8
	10 to 19 days	5	2.5	2.6	94.4
	20 to 29 days	3	1.5	1.5	95.9
	All 30 days	8	4.0	4.1	100.0
	Total	196	98.5	100.0	
Missing	System	3	1.5		
Total		199	100.0		

Table 4. Have you smoked cigarettes on school premises/property during the past year?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I have never smoked cigarettes	73	36.7	37.1	37.1
	Yes	15	7.5	7.6	44.7
	No	109	54.8	55.3	100.0
	Total	197	99.0	100.0	
Missing	System	2	1.0		
Total		199	100.0		

Table 5. Have you smoked cigarettes in school buildings during the past year?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I have never smoked cigarettes	75	37.7	38.1	38.1
	No	122	61.3	61.9	100.0
	Total	197	99.0	100.0	
Missing	System	2	1.0		
Total		199	100.0		

Table 6. Have you ever used chewing tobacco, snuff, bidis, cigars, or pipes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	40	20.1	20.4	20.4
	No	156	78.4	79.6	100.0
	Total	196	98.5	100.0	
Missing	System	3	1.5		
Total		199	100.0		

Table 7. During the past 30 days (one month), on how many days did you use chewing tobacco, snuff, bidis, cigars, or pipes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 days	190	95.5	96.4	96.4
	1 or 2 days	2	1.0	1.0	97.5
	3 to 5 days	1	.5	.5	98.0
	6 to 9 days	1	.5	.5	98.5
	All 30 days	3	1.5	1.5	100.0
	Total	197	99.0	100.0	
Missing	System	2	1.0		
Total		199	100.0		

Table 8. Have you used chewing tobacco, snuff, bidis, cigars, or pipes on school premises/property during the past year?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I have never used chewing tobacco, snuff, bidis, cigars, or pipes	117	58.8	59.4	59.4
	Yes	5	2.5	2.5	61.9
	No	75	37.7	38.1	100.0
	Total	197	99.0	100.0	
Missing	System	2	1.0		
Total		199	100.0		

Table 9. Have you used chewing tobacco, snuff, bidis, cigars, or pipes in school buildings during the past year?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I have never used chewing tobacco, snuff, bidis, cigars, or pipes	118	59.3	59.9	59.9
	Yes	1	.5	.5	60.4
	No	78	39.2	39.6	100.0
	Total	197	99.0	100.0	
Missing	System	2	1.0		
Total		199	100.0		

Table 10. During the past 7 days, on how many days have people smoked where you live, in your presence?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 days	156	78.4	81.3	81.3
	1 to 2 days	18	9.0	9.4	90.6
	3 to 4 days	4	2.0	2.1	92.7
	5 to 6 days	1	.5	.5	93.2
	All 7 days	13	6.5	6.8	100.0
	Total	192	96.5	100.0	
Missing	System	7	3.5		
Total		199	100.0		

Table 11. During the past 7 days, on how many days have people smoked in your presence, in places other than where you live?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 days	95	47.7	49.5	49.5
	1 to 2 days	63	31.7	32.8	82.3
	3 to 4 days	21	10.6	10.9	93.2
	5 to 6 days	2	1.0	1.0	94.3
	All 7 days	11	5.5	5.7	100.0
	Total	192	96.5	100.0	
Missing	System	7	3.5		
Total		199	100.0		

Table 12. Does your school have an official policy banning smoking in school buildings and clinics?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes, for school buildings only	11	5.5	5.8	5.8
	Yes, for both school buildings and clinics	178	89.4	93.2	99.0
	No official policy	2	1.0	1.0	100.0
	Total	191	96.0	100.0	
Missing	System	8	4.0		
Total		199	100.0		

Table 13. Is your school's officials smoking ban for school buildings and clinics enforced?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes, policy is enforced	113	56.8	59.2	59.2
	No, policy is not enforced	75	37.7	39.3	98.4
	School has no official policy	3	1.5	1.6	100.0
	Total	191	96.0	100.0	
Missing	System	8	4.0		
Total		199	100.0		

Table 14. Should tobacco sales to adolescents (persons younger than 18 years old) be banned?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	179	89.9	93.2	93.2
	No	13	6.5	6.8	100.0
	Total	192	96.5	100.0	
Missing	System	7	3.5		
Total		199	100.0		

Table 15. Should there be a complete ban of the advertising of tobacco products?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	142	71.4	74.0	74.0
	No	50	25.1	26.0	100.0
	Total	192	96.5	100.0	
Missing	System	7	3.5		
Total		199	100.0		

Table 16. Should smoking be banned in restaurants?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	188	94.5	97.9	97.9
	No	4	2.0	2.1	100.0
	Total	192	96.5	100.0	
Missing	System	7	3.5		
Total		199	100.0		

Table 17. Should smoking be banned in discos/bars/pubs?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	152	76.4	79.2	79.2
	No	40	20.1	20.8	100.0
	Total	192	96.5	100.0	
Missing	System	7	3.5		
Total		199	100.0		

Table 18. Should smoking in all enclosed public places be banned?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	167	83.9	87.0	87.0
	No	25	12.6	13.0	100.0
	Total	192	96.5	100.0	
Missing	System	7	3.5		
Total		199	100.0		

Table 19. Should health professionals get specific training on cessation techniques?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	180	90.5	93.8	93.8
	No	12	6.0	6.3	100.0
	Total	192	96.5	100.0	
Missing	System	7	3.5		
Total		199	100.0		

Table 20. Health professionals serve as "role models" for their patients and public?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	180	90.5	94.7	94.7
	No	10	5.0	5.3	100.0
	Total	190	95.5	100.0	
Missing	System	9	4.5		
Total		199	100.0		

Table 21. Should health professionals routinely advise their patients who smoke to quit smoking?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	185	93.0	96.9	96.9
	No	6	3.0	3.1	100.0
	Total	191	96.0	100.0	
Missing	System	8	4.0		
Total		199	100.0		

Table 22. Should health professionals routinely advise their patients who use other tobacco products to quit using these products?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	182	91.5	95.3	95.3
	No	9	4.5	4.7	100.0
	Total	191	96.0	100.0	
Missing	System	8	4.0		
Total		199	100.0		

Table 23. Do health professionals have a role in giving advice or information about smoking cessation to patients?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	190	95.5	99.0	99.0
	No	2	1.0	1.0	100.0
	Total	192	96.5	100.0	
Missing	System	7	3.5		
Total		199	100.0		

Table 24. Are a patient's chances of quitting smoking increased if a health professional advises him or her to quit?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	140	70.4	72.9	72.9
	No	52	26.1	27.1	100.0
	Total	192	96.5	100.0	
Missing	System	7	3.5		
Total		199	100.0		

Table 25. How soon after you awake do you smoke your first cigarette?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I have never smoked cigarettes	86	43.2	45.0	45.0
	I do not currently smoke cigarettes	89	44.7	46.6	91.6
	Less than 10 minutes	3	1.5	1.6	93.2
	10 - 30 minutes	4	2.0	2.1	95.3
	31 - 60 minutes	2	1.0	1.0	96.3
	After 60 minutes	7	3.5	3.7	100.0
	Total	191	96.0	100.0	
Missing	System	8	4.0		
Total		199	100.0		

Table 26. Do you want to stop smoking cigarettes now?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I have never smoked cigarettes	85	42.7	44.5	44.5
	I do not smoke now	88	44.2	46.1	90.6
	Yes	11	5.5	5.8	96.3
	No	7	3.5	3.7	100.0
	Total	191	96.0	100.0	
Missing	System	8	4.0		
Total		199	100.0		

Table 27. During the past year, have you ever tried to stop smoking cigarettes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I have never smoked cigarettes	86	43.2	45.3	45.3
	I did not smoke during the past year	78	39.2	41.1	86.3
	Yes	19	9.5	10.0	96.3
	No	7	3.5	3.7	100.0
	Total	190	95.5	100.0	
Missing	System	9	4.5		
Total		199	100.0		

Table 28. How long ago did you stop smoking cigarettes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I have never smoked cigarettes	103	51.8	53.9	53.9
	I have not stopped smoking cigarettes	9	4.5	4.7	58.6
	Less than 1 month	5	2.5	2.6	61.3
	1 -5 months	6	3.0	3.1	64.4
	6 - 11 months	3	1.5	1.6	66.0
	One year	6	3.0	3.1	69.1
	2 years	5	2.5	2.6	71.7
	3 years or longer	54	27.1	28.3	100.0
	Total	191	96.0	100.0	
Missing	System	8	4.0		
Total		199	100.0		

Table 29. Have you ever received help or advice to help you stop smoking cigarettes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I have never smoked cigarettes	102	51.3	53.4	53.4
	Yes	25	12.6	13.1	66.5
	No	64	32.2	33.5	100.0
	Total	191	96.0	100.0	
Missing	System	8	4.0		
Total		199	100.0		

Table 30. Do you want to stop using chewing tobacco, snuff, bidis, cigars or pipes now?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I have never used chewing tobacco, snuff, bidis, cigars or pipessmoked cigarettes	133	66.8	69.6	69.6
	I do not use chewing tobacco, snuff, bidis, cigars or pipes nowttes	50	25.1	26.2	95.8
	Yes	4	2.0	2.1	97.9
	No	4	2.0	2.1	100.0
	Total	191	96.0	100.0	
Missing	System	8	4.0		
Total		199	100.0		

Table 31. Are health professionals who smoke less likely to advise patients to stop smoking?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	148	74.4	77.5	77.5
	No	43	21.6	22.5	100.0
	Total	191	96.0	100.0	
Missing	System	8	4.0		
Total		199	100.0		

Table 32. Are health professionals who use other tobacco products (chewing tobacco, snuff, bidis, cigars or pipes) less likely to advise patients to stop smoking?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	144	72.4	76.2	76.2
	No	45	22.6	23.8	100.0
	Total	189	95.0	100.0	
Missing	System	10	5.0		
Total		199	100.0		

Table 33. During your (medical, dental, nursing, or pharmacy) school training, were you taught in any of your classes about the dangers of smoking?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	183	92.0	96.8	96.8
	No	6	3.0	3.2	100.0
	Total	189	95.0	100.0	
Missing	System	10	5.0		
Total		199	100.0		

Table 34. During your (medical, dental, nursing, or pharmacy) school training, did you discuss in any of your classes the reasons why people smoke?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	127	63.8	66.8	66.8
	No	63	31.7	33.2	100.0
	Total	190	95.5	100.0	
Missing	System	9	4.5		
Total		199	100.0		

Table 35. During your (medical, dental, nursing, or pharmacy) school training, did you learn that it is important to record tobacco use history as part of a patient's general medical history?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	184	92.5	97.4	97.4
	No	5	2.5	2.6	100.0
	Total	189	95.0	100.0	
Missing	System	10	5.0		
Total		199	100.0		

Table 36. During your (medical, dental, nursing, or pharmacy) school training, have you ever received any formal training in smoking cessation approaches to use with patients?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	102	51.3	53.7	53.7
	No	88	44.2	46.3	100.0
	Total	190	95.5	100.0	
Missing	System	9	4.5		
Total		199	100.0		

Table 37. During your (medical, dental, nursing, or pharmacy) school training, did you learn that it is important to provide educational materials to support smoking cessation to patients who want to quit smoking?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	167	83.9	87.9	87.9
	No	23	11.6	12.1	100.0
	Total	190	95.5	100.0	
Missing	System	9	4.5		
Total		199	100.0		

Table 38. Have you ever heard of nursing nicotine replacement therapies in tobacco cessation program (such as nicotine patch or gum)?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	183	92.0	97.3	97.3
	No	5	2.5	2.7	100.0
	Total	188	94.5	100.0	
Missing	System	11	5.5		
Total		199	100.0		

Table 39. Have you ever heard of using antidepressants in tobacco cessation program (such as bupropion or Zyban)?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	125	62.8	65.8	65.8
	No	65	32.7	34.2	100.0
	Total	190	95.5	100.0	
Missing	System	9	4.5		
Total		199	100.0		

Table 40. How old are you?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	19 to 24 years	70	35.2	37.0	37.0
	25 to 29 years	29	14.6	15.3	52.4
	30 years or older	90	45.2	47.6	100.0
	Total	189	95.0	100.0	
Missing	System	10	5.0		
Total		199	100.0		

Table 41. What is your gender?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	162	81.4	85.7	85.7
	Male	27	13.6	14.3	100.0
	Total	189	95.0	100.0	
Missing	System	10	5.0		
Total		199	100.0		

Table 42. What is your course year in school?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	First year	10	5.0	5.3	5.3
	Second year	16	8.0	8.5	13.8
	Third year	39	19.6	20.6	34.4
	Fourth year	70	35.2	37.0	71.4
	Fifth year	20	10.1	10.6	82.0
	Sixth year	8	4.0	4.2	86.2
	Seventh year	8	4.0	4.2	90.5
	More than seven years	18	9.0	9.5	100.0
	Total	189	95.0	100.0	
Missing	System	10	5.0		
Total		199	100.0		

Table 43. What degree program are you currently enrolled in?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	BSN	162	81.4	86.6	86.6
	MSN	10	5.0	5.3	92.0
	DNP	15	7.5	8.0	100.0
	Total	187	94.0	100.0	
Missing	System	12	6.0		
Total		199	100.0		

Appendix B

Email Scripts

Script 1

Dear Students,

You are receiving this email because you are a student at ETSU's College of Nursing, and your participation is requested in a survey for a research study being conducted by Jennifer Trotter, one of the Honors in Discipline nursing students. The procedures for participation involve filling out an online survey provided at the link below. This survey is about the prevalence of smoking in nursing students of all degree levels, and the information gathered is highly relevant due to perception of nurses as health models, and given the current healthcare hiring environment in which tobacco use could eliminate an individual from consideration for employment. The survey will be anonymous, and no personally identifying information will be gathered about the participants. While there is no compensation for completion of the survey and no direct benefit to participation, your participation will help to advance the understanding of this issue and would be greatly appreciated as it would help Jennifer Trotter to complete her research study. Please take the time to fill out the survey; it should take about 10 minutes of your time. Participation in this research study is completely voluntary, and you must be 18 years old or older. You can complete the survey by following the link included in this email. If you have any questions, please feel free to contact Jennifer Trotter by phone at (865) 283-0724 or at her email address trotter@goldmail.etsu.edu.Thank you in advance for your time and assistance in this research project.

Survey link:

https://com.etsu.edu/esurvey/Survey.aspx?s=fc1837e369e844eea2c1b96a123eac3a&forceNew=true&test=true

Script 2

Dear Students,

You are receiving this email because you are a student at ETSU's College of Nursing, and your participation is requested in a survey for a research study being conducted by Jennifer Trotter, one of the Honors in Discipline nursing students. The procedures for participation involve filling out an online survey provided at the link below. A previous email was sent to you a week ago, and if you responded to the email request and filled out the survey, please disregard this email. This survey is about the prevalence of smoking in nursing students of all degree levels, and the information gathered is highly relevant due to perception of nurses as health models, and given the current healthcare hiring environment in which tobacco use could eliminate an individual from consideration for employment. The survey will be anonymous, and no personally identifying information will be gathered about the participants. While there is no compensation for completion of the survey and no direct benefit to participation, your participation will help to advance the understanding of this issue and would be greatly appreciated as it would help Jennifer Trotter to complete her research study. Please take the time to fill out the survey; it should take about 10 minutes of your time. Participation in this research study is voluntary, and you must be 18 years old or older. You can complete the survey by following the link included in this email. If you have any questions, please feel free to contact Jennifer Trotter by phone at (865) 283-0724 or at her email address trotter@goldmail.etsu.edu.Thank you in advance for your time and assistance in this research project.

Survey link:

https://com.etsu.edu/esurvey/Survey.aspx?s=fc1837e369e844eea2c1b96a123eac3a&forceNew=true&test=true

Appendix C

Graphs/Charts/Tables

Figure 1

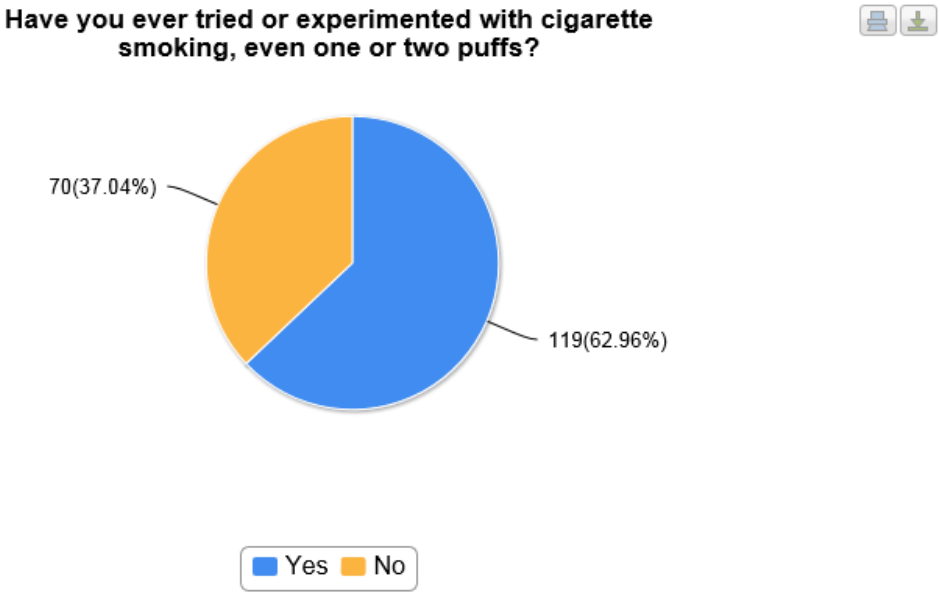
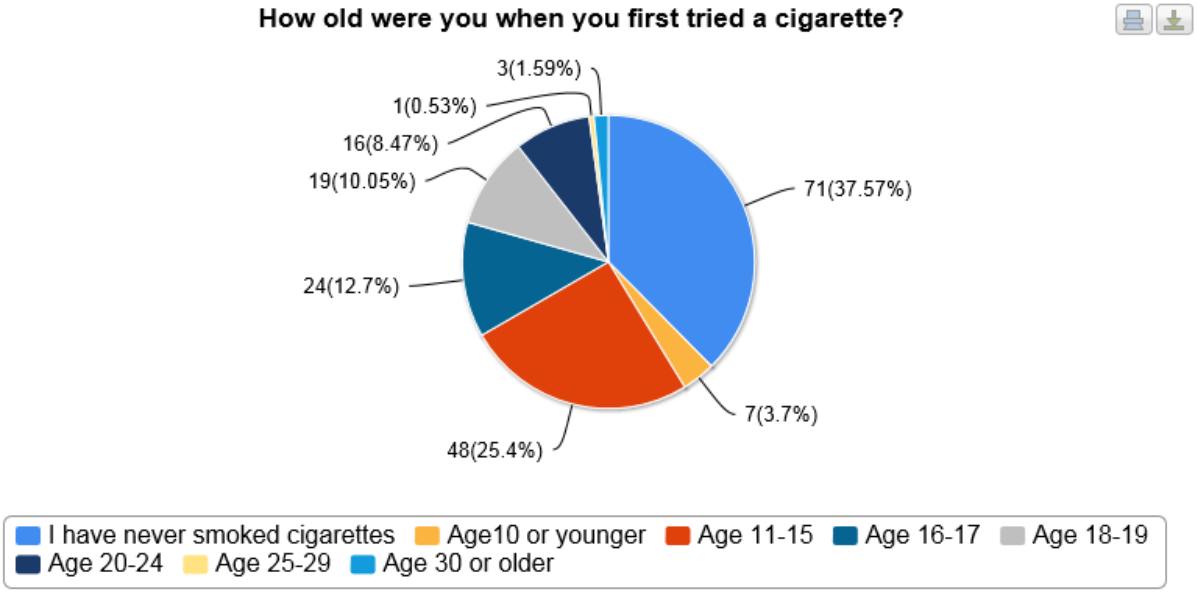


Figure 2



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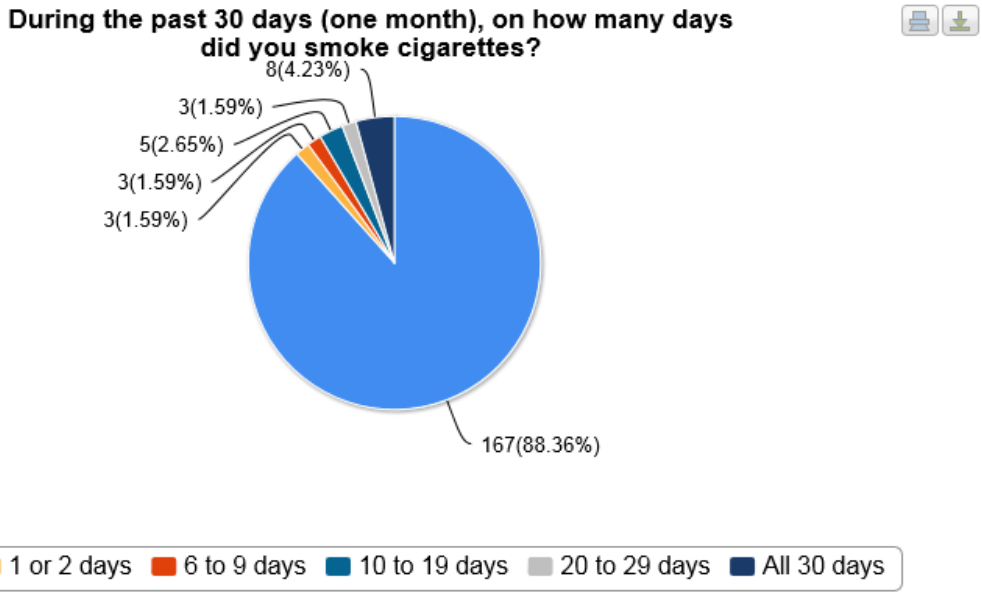

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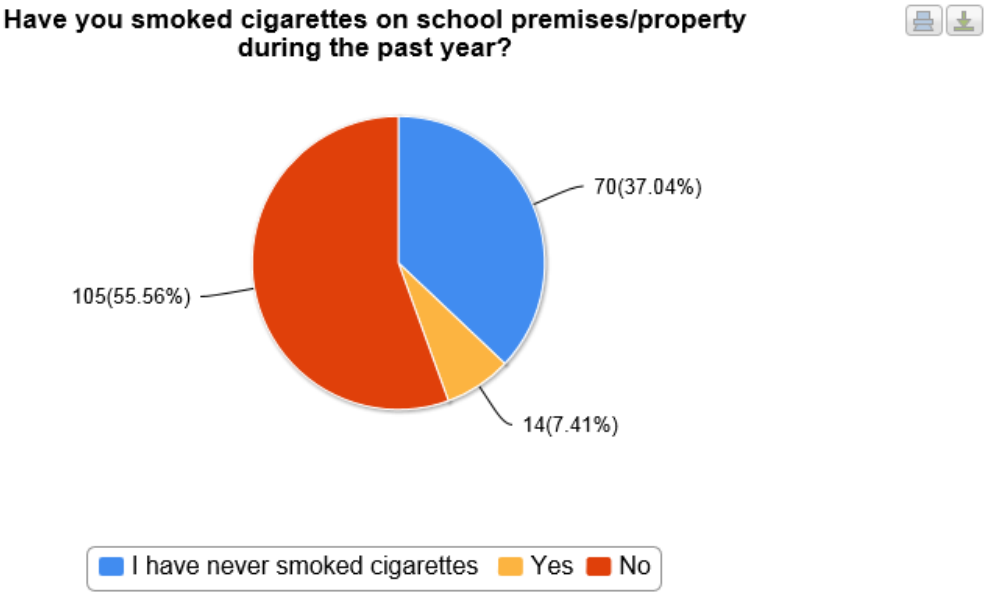

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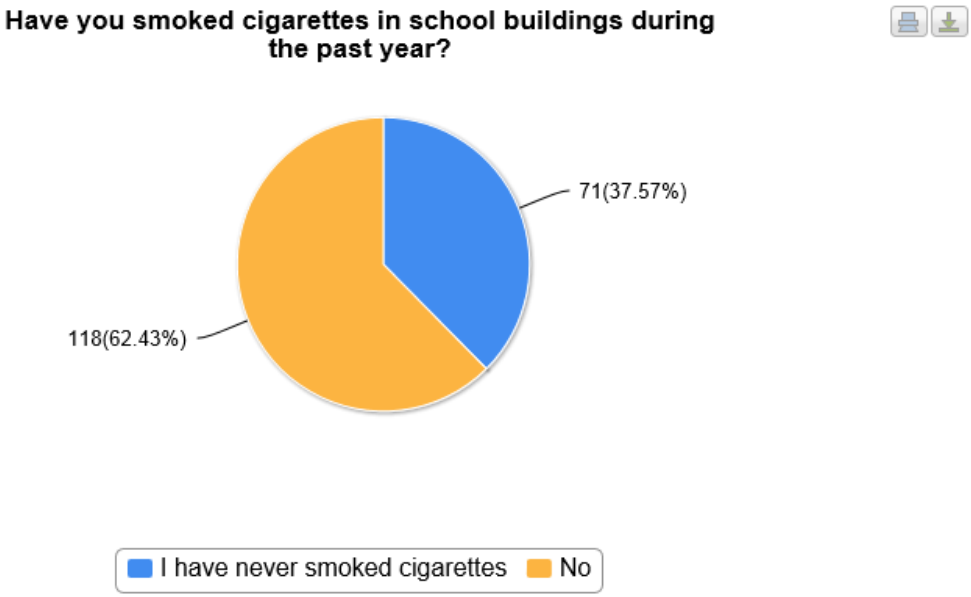

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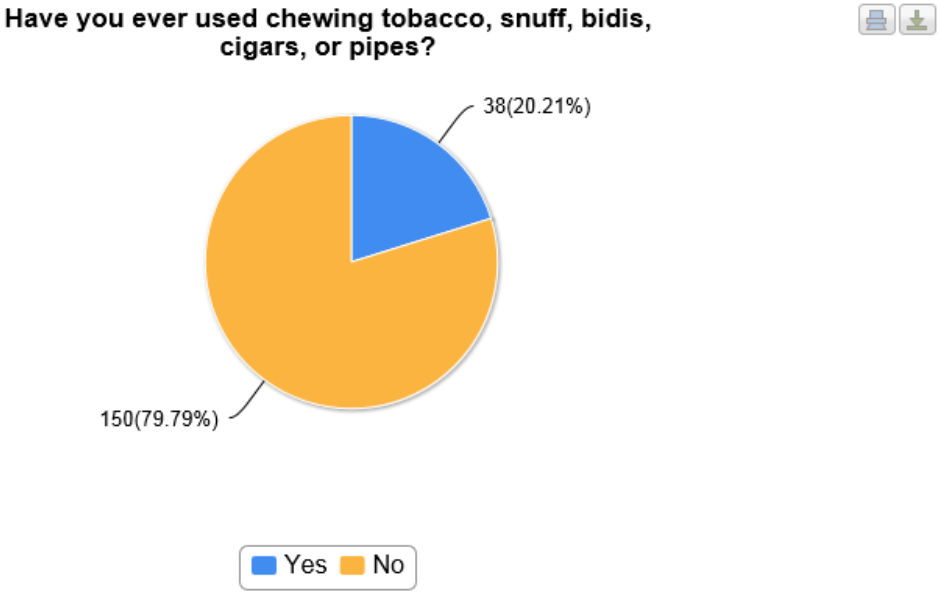

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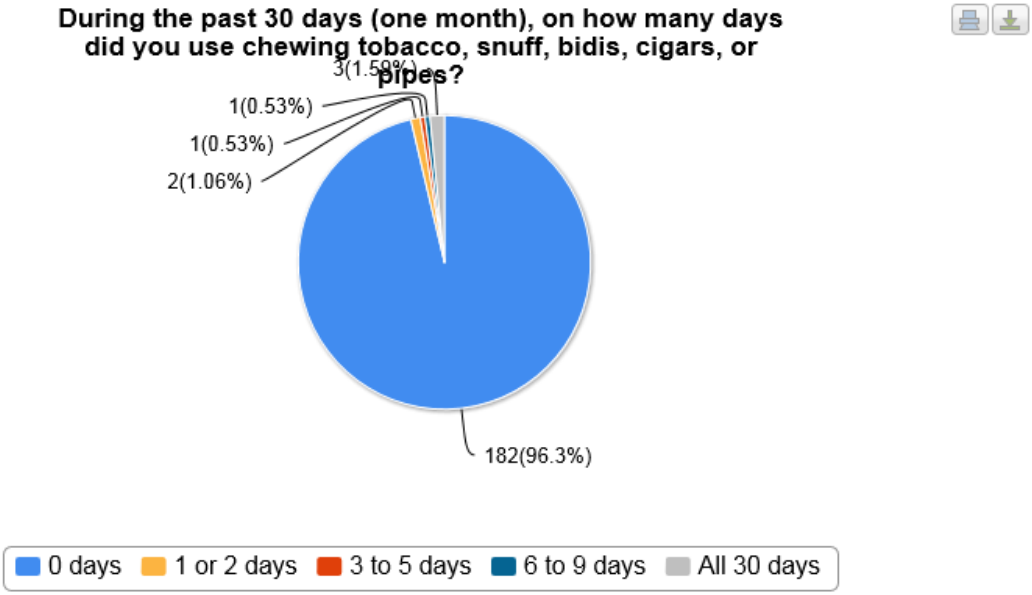

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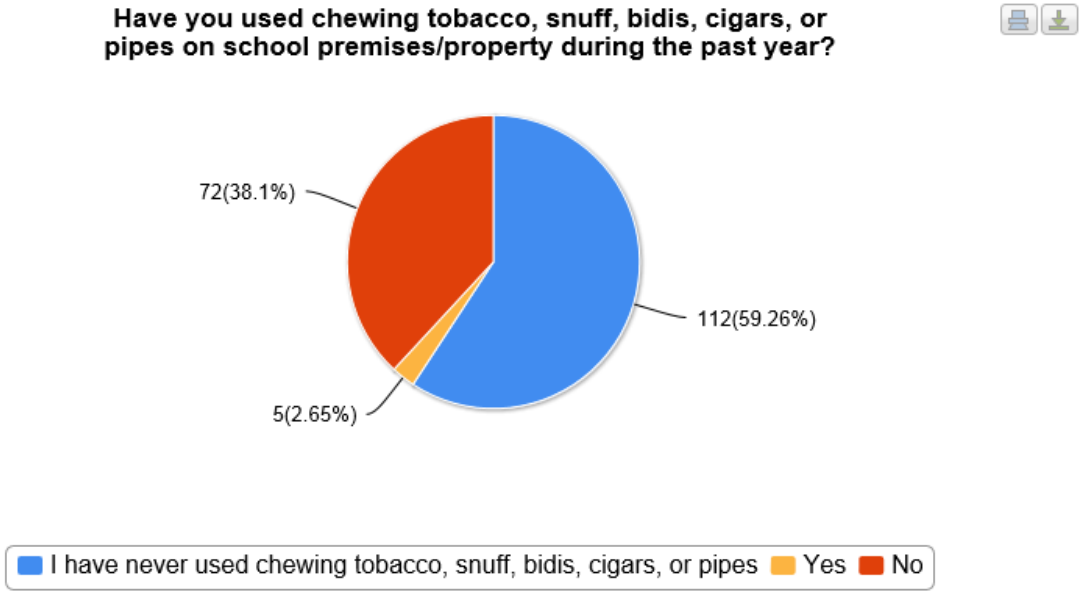

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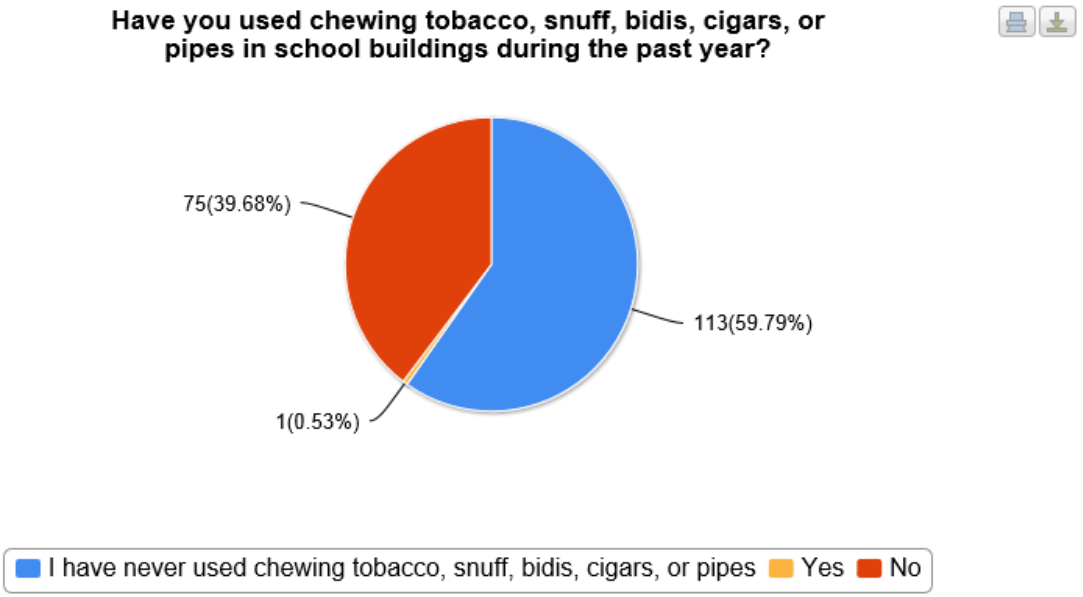

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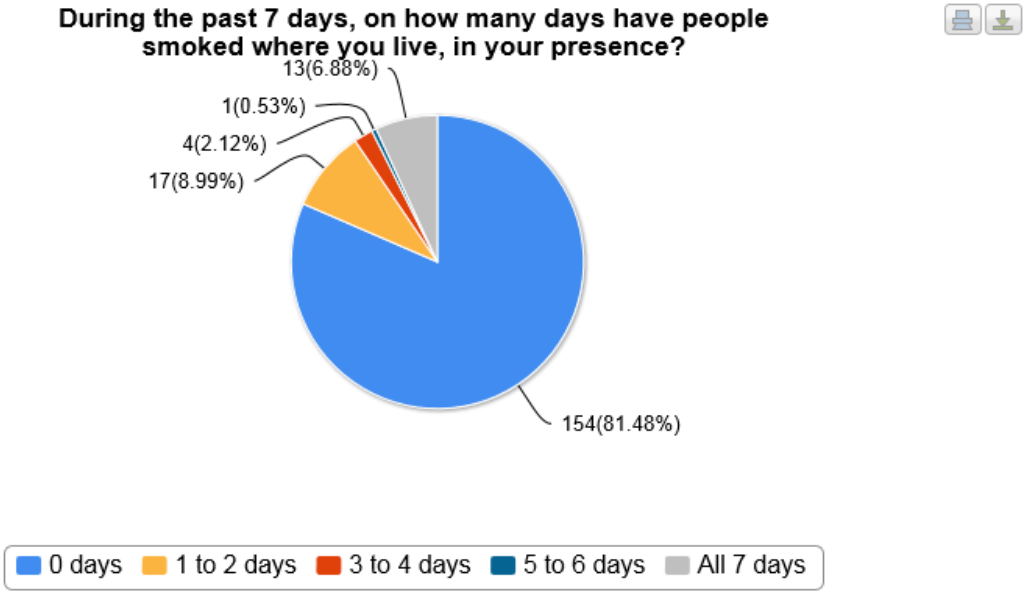

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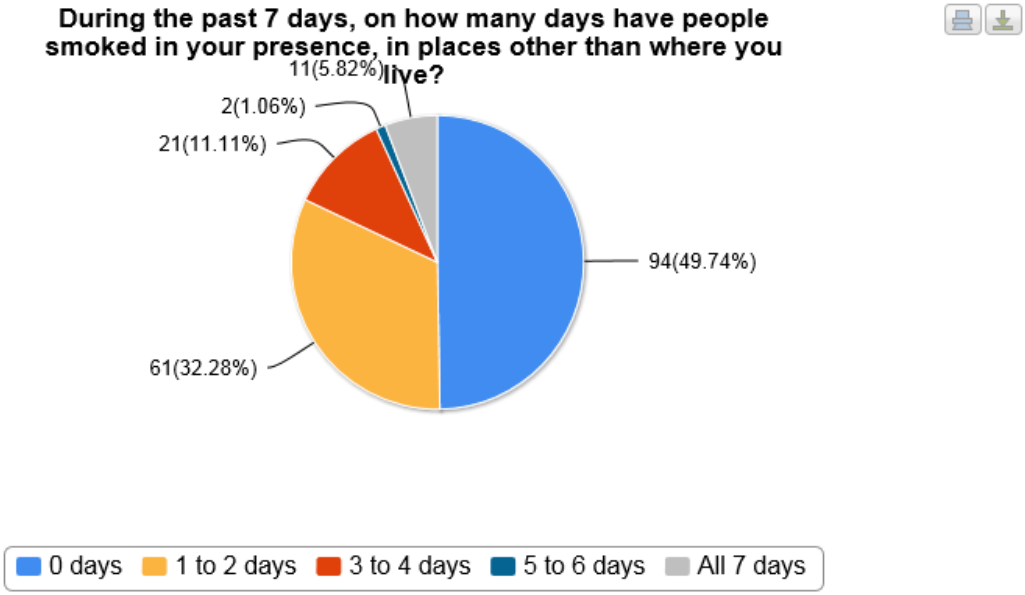

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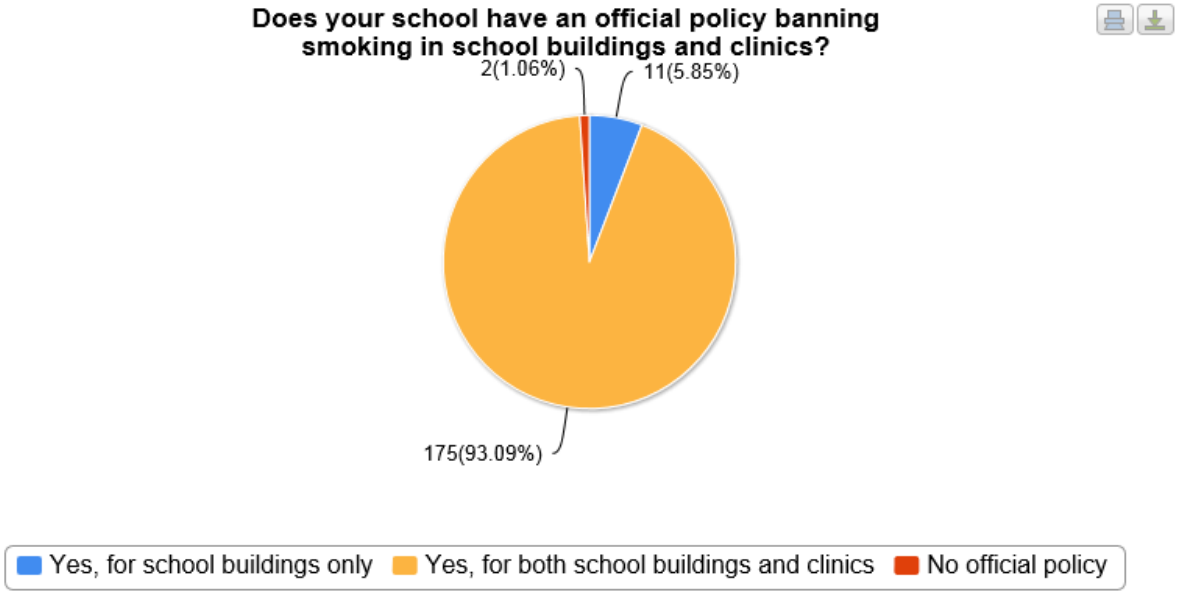

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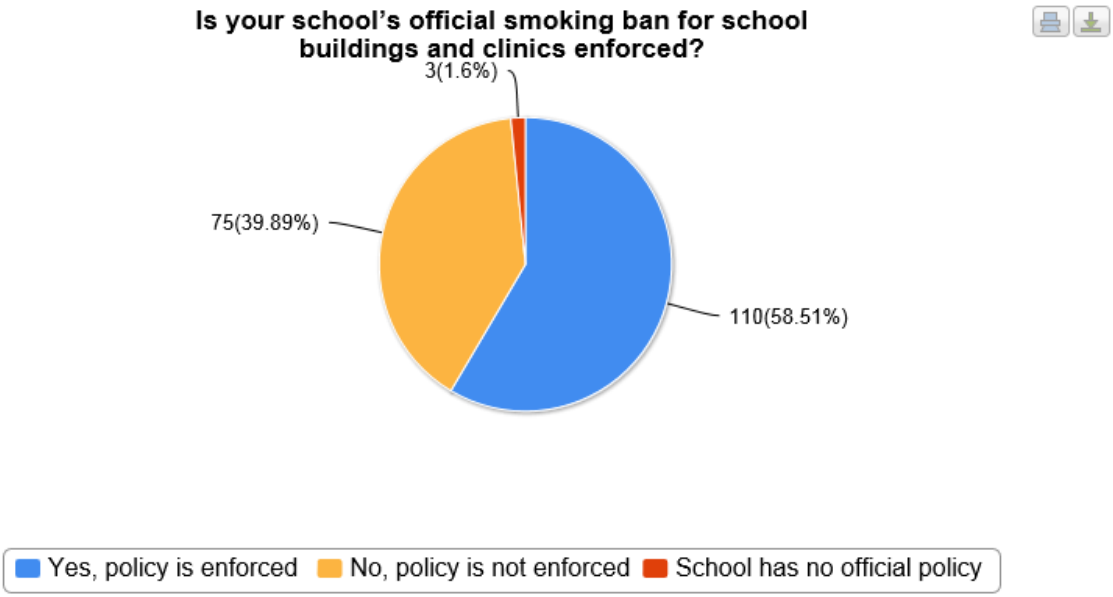

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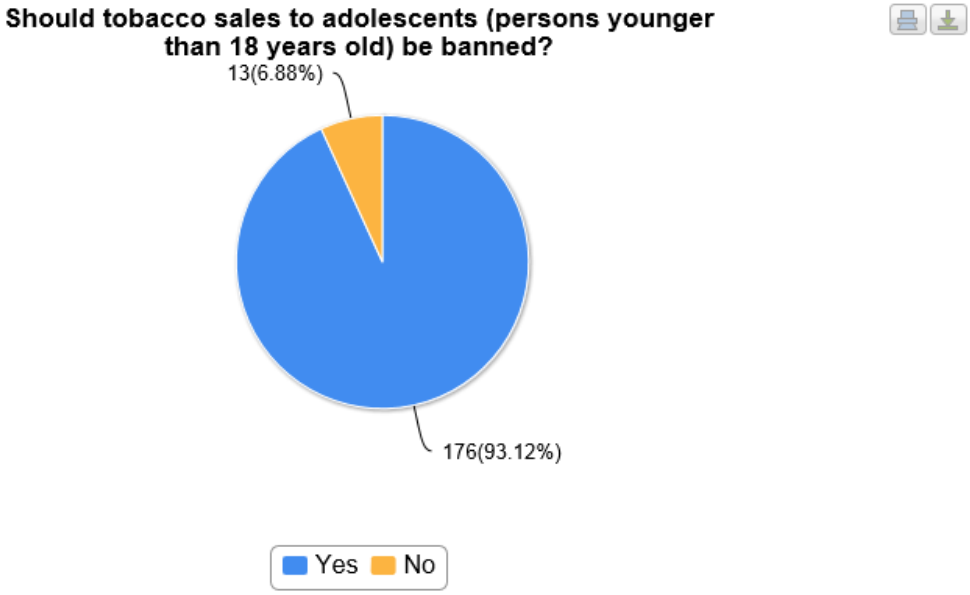

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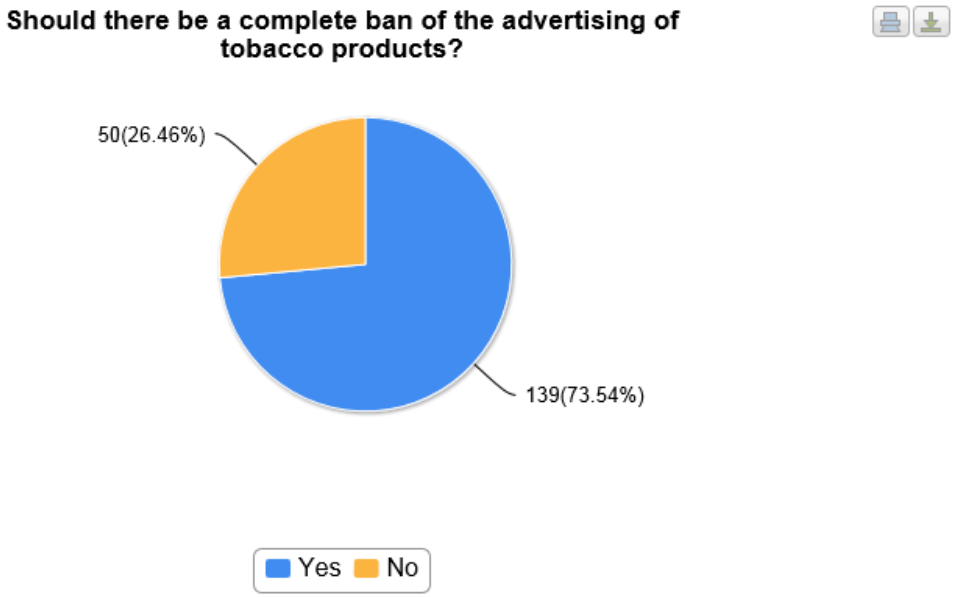

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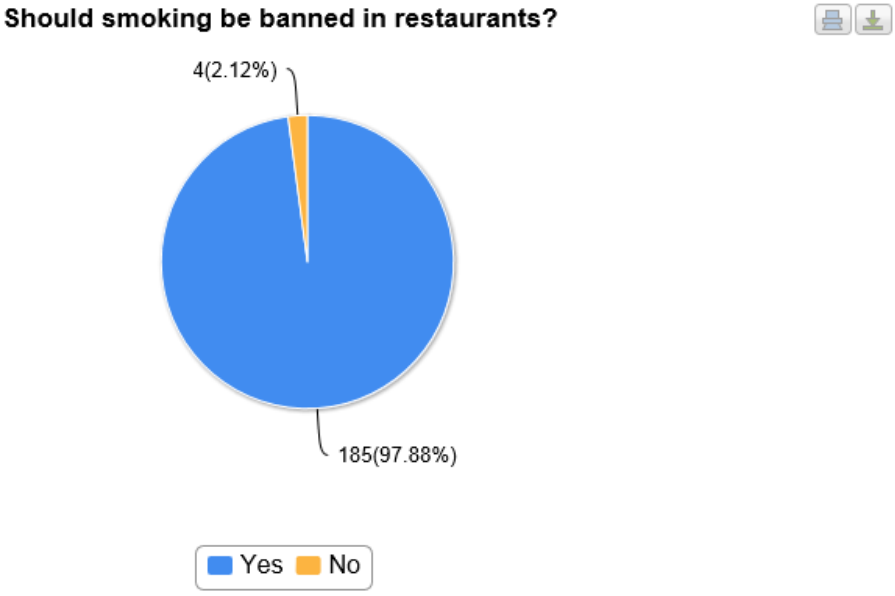

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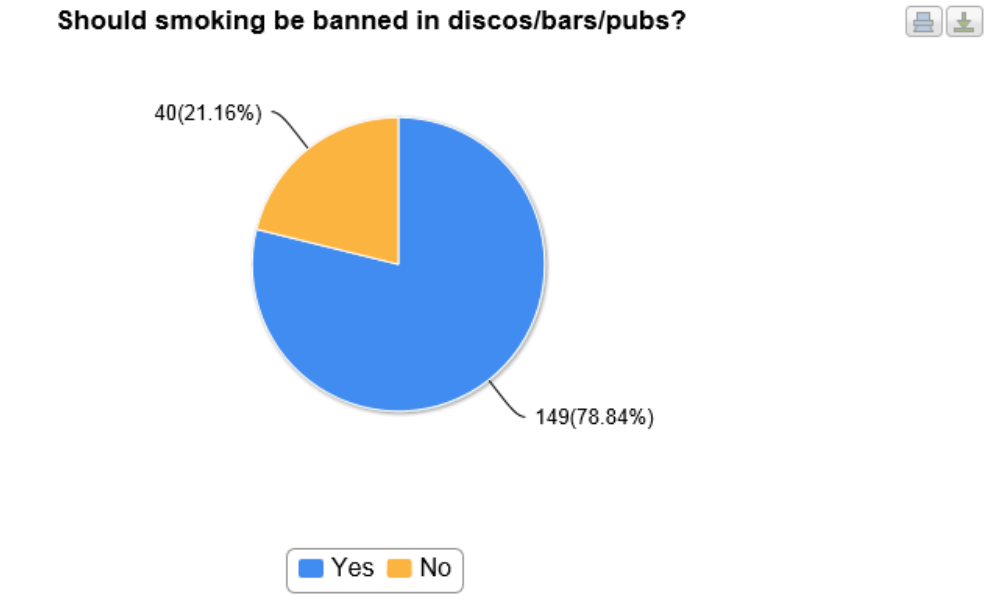

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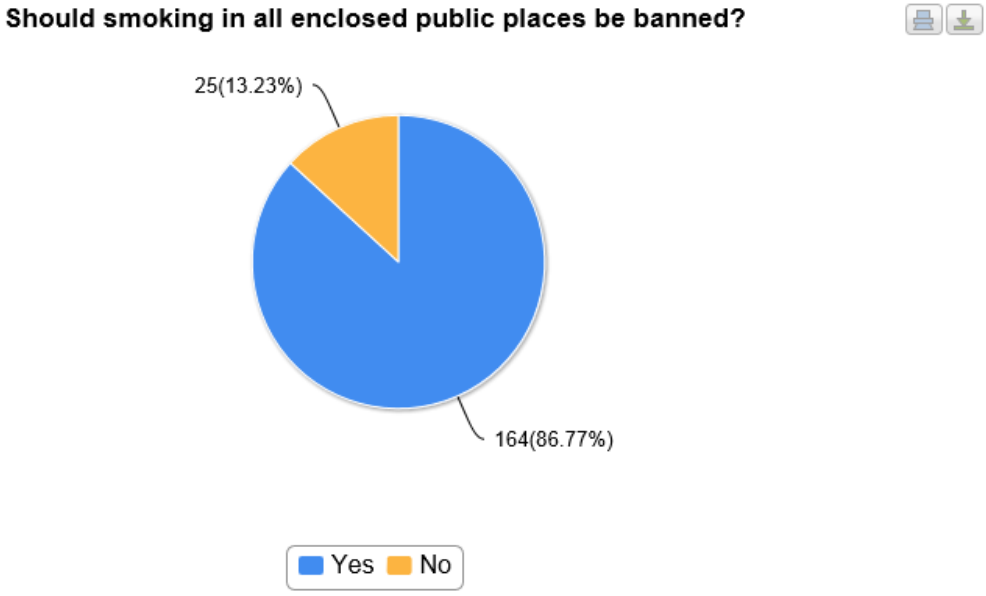

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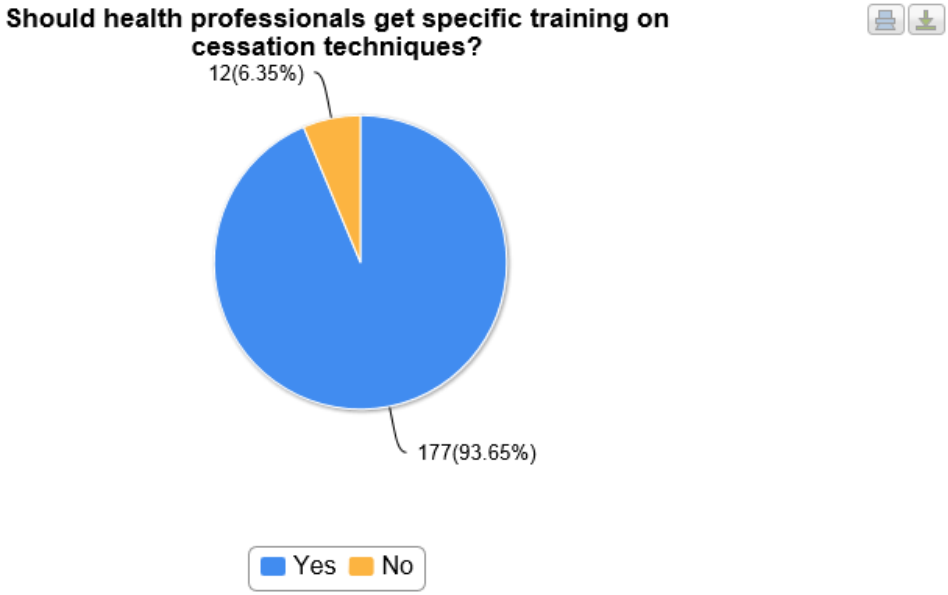

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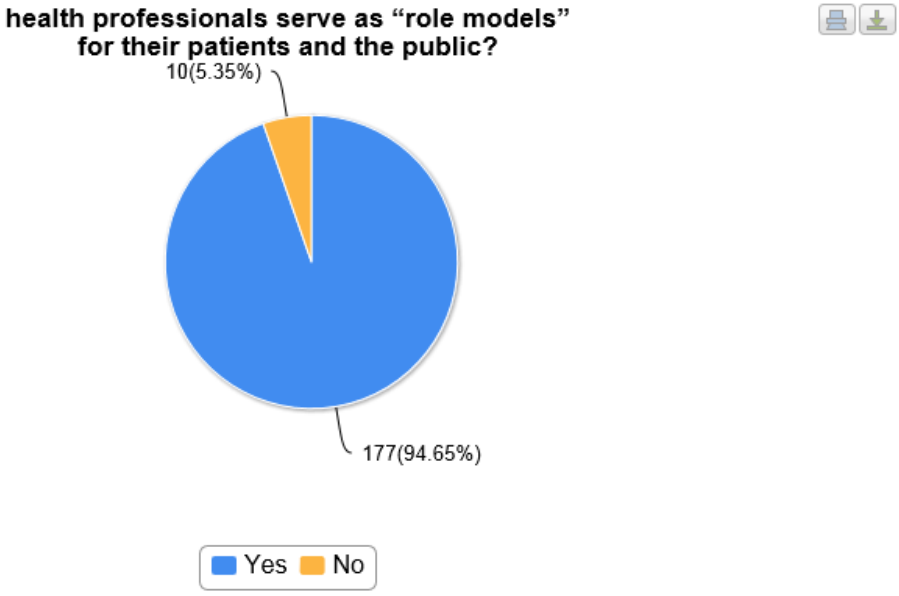

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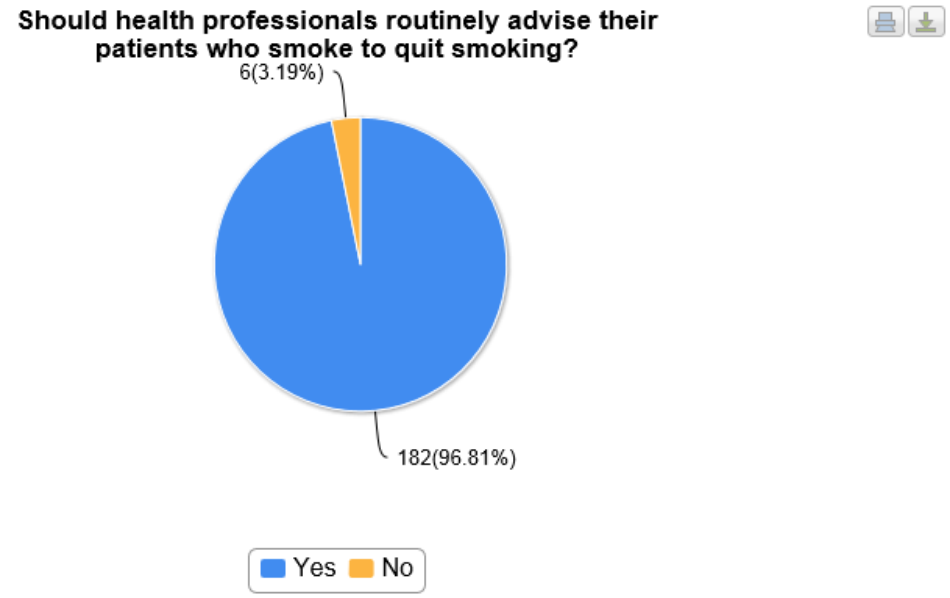

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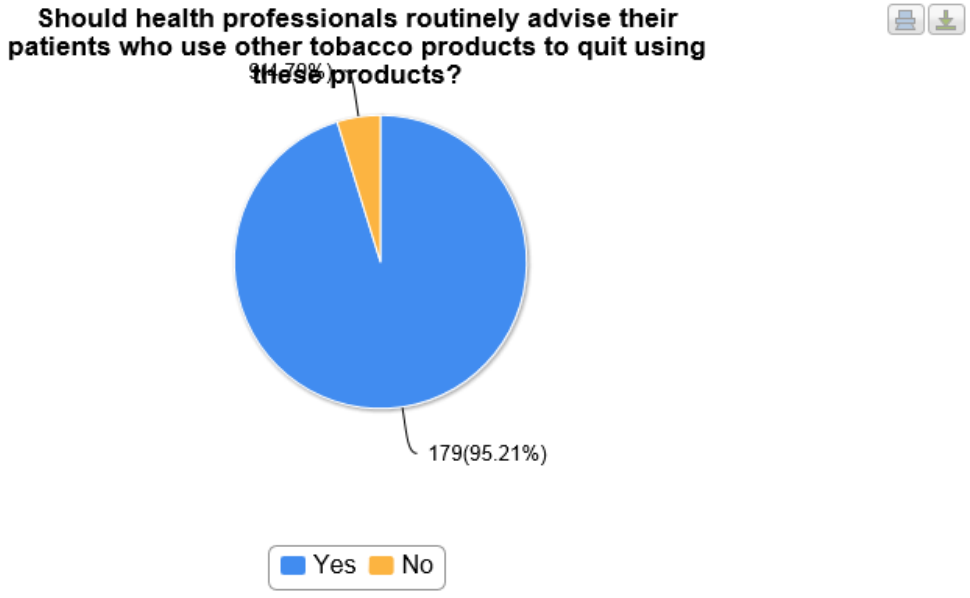

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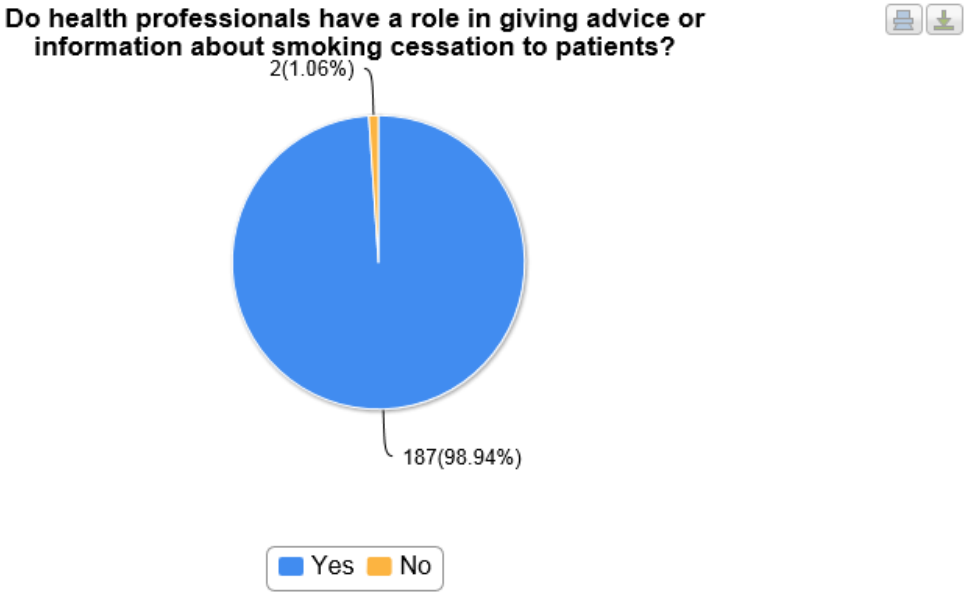

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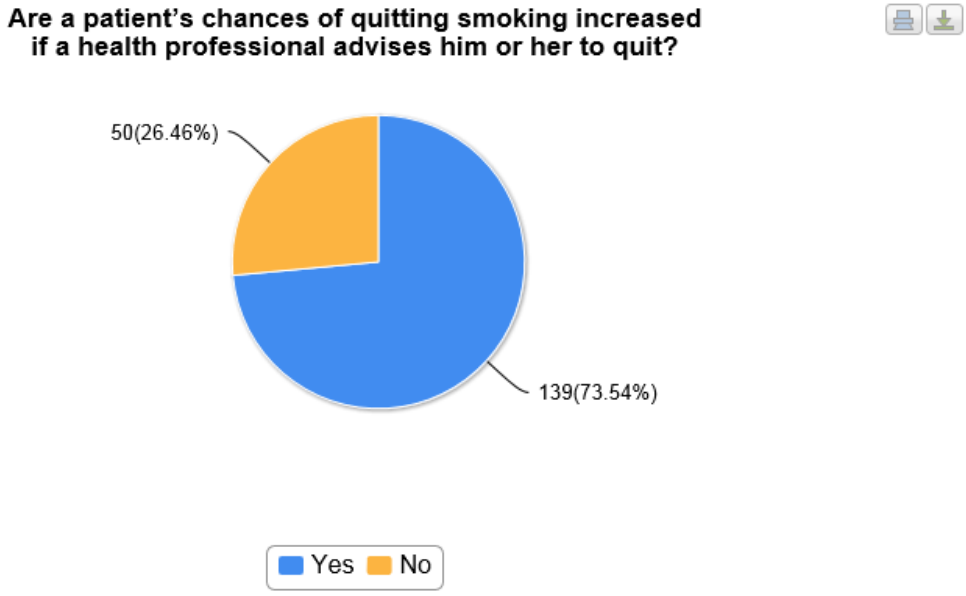

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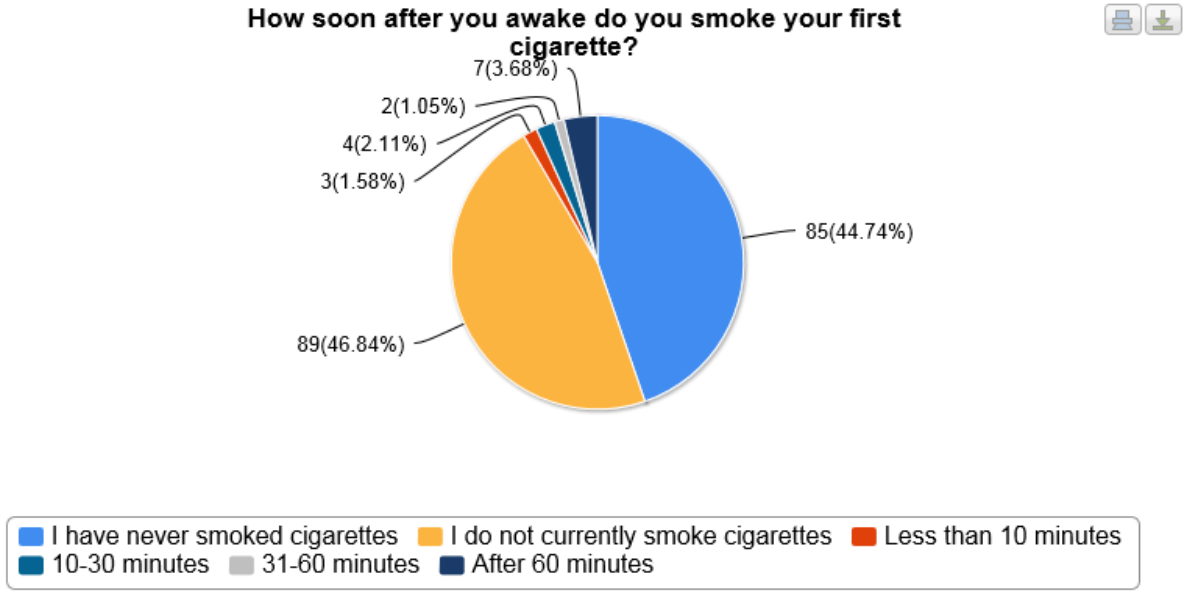

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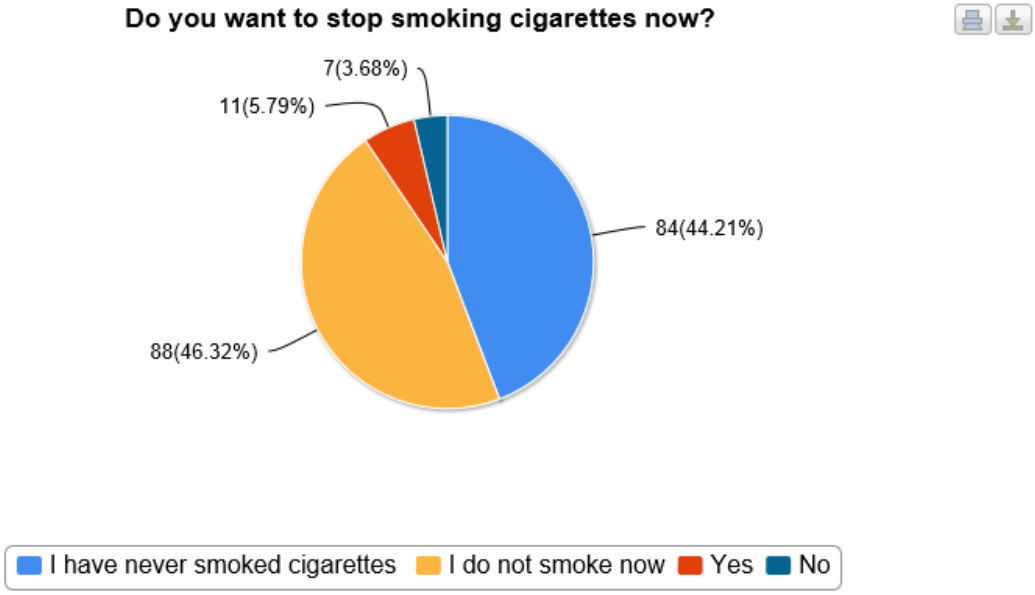

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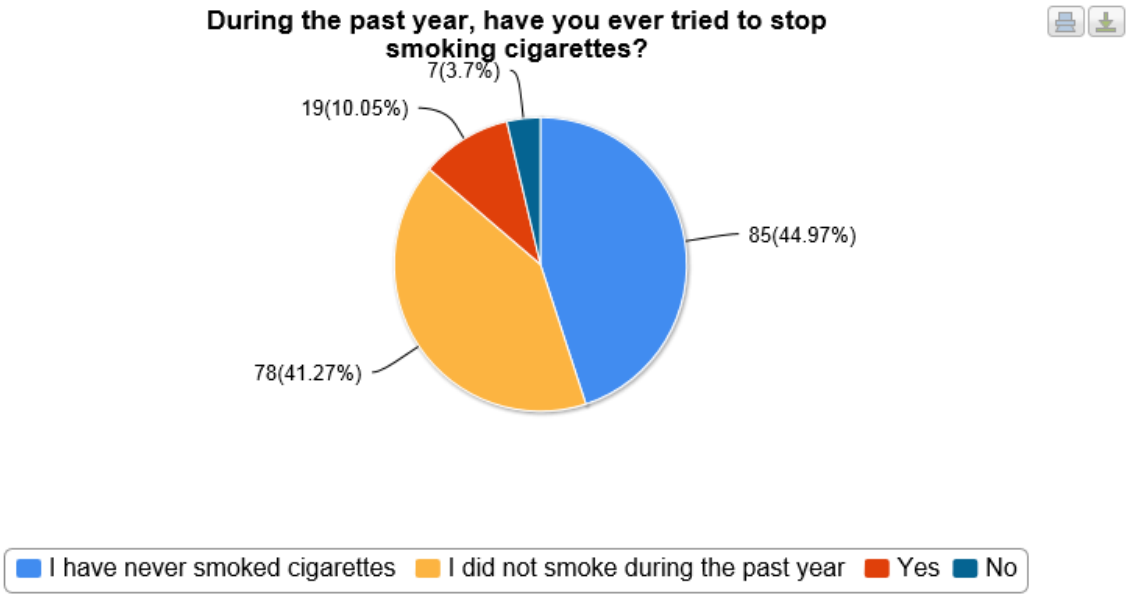

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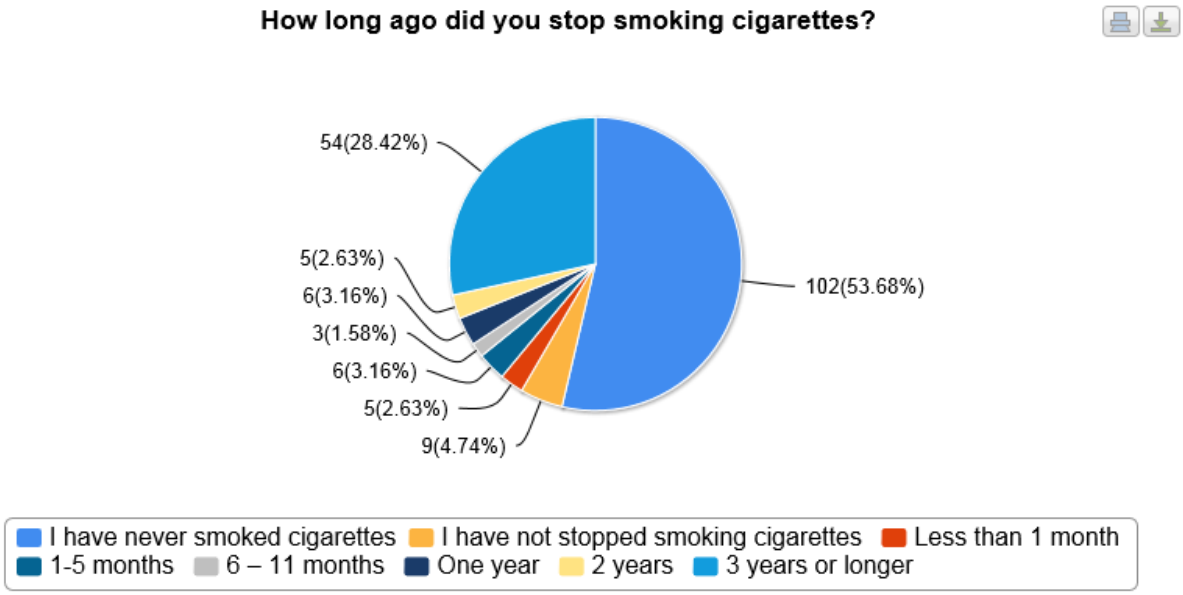

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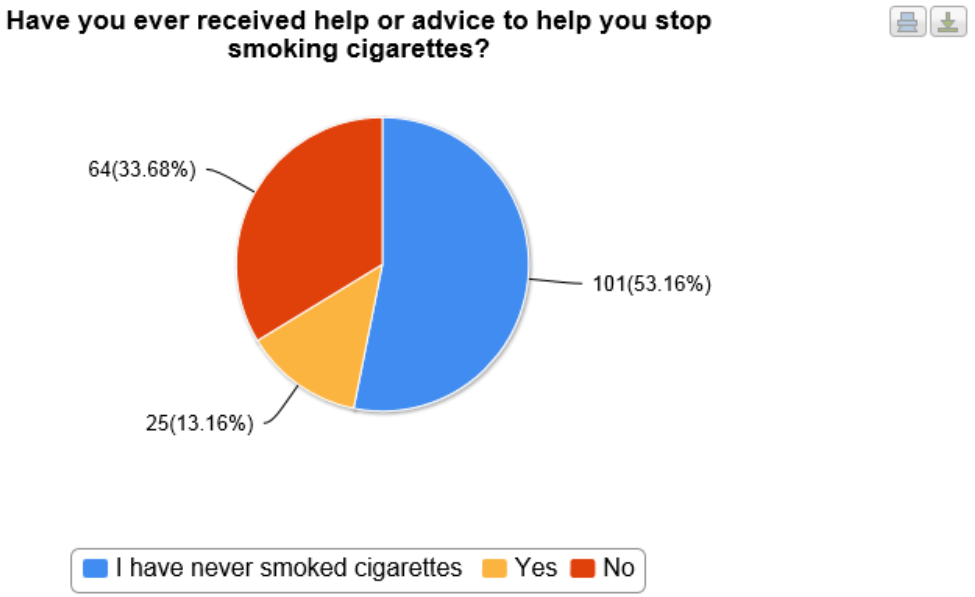

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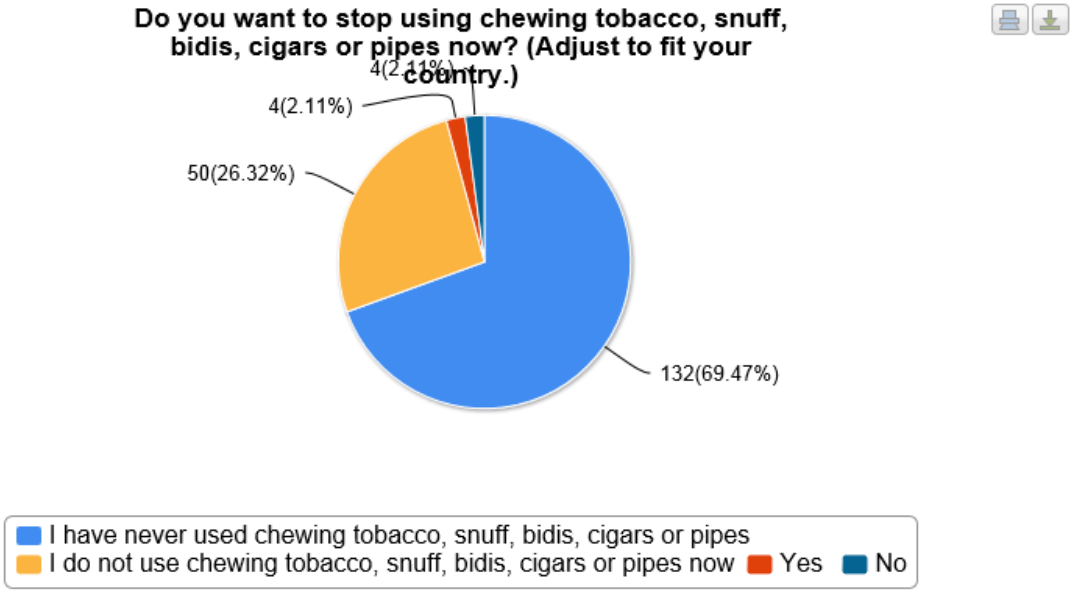

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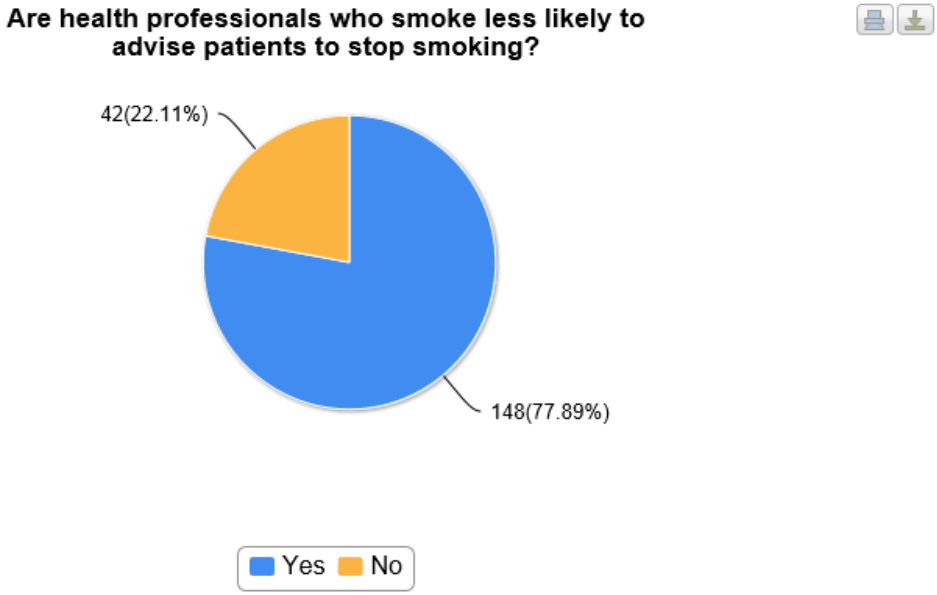

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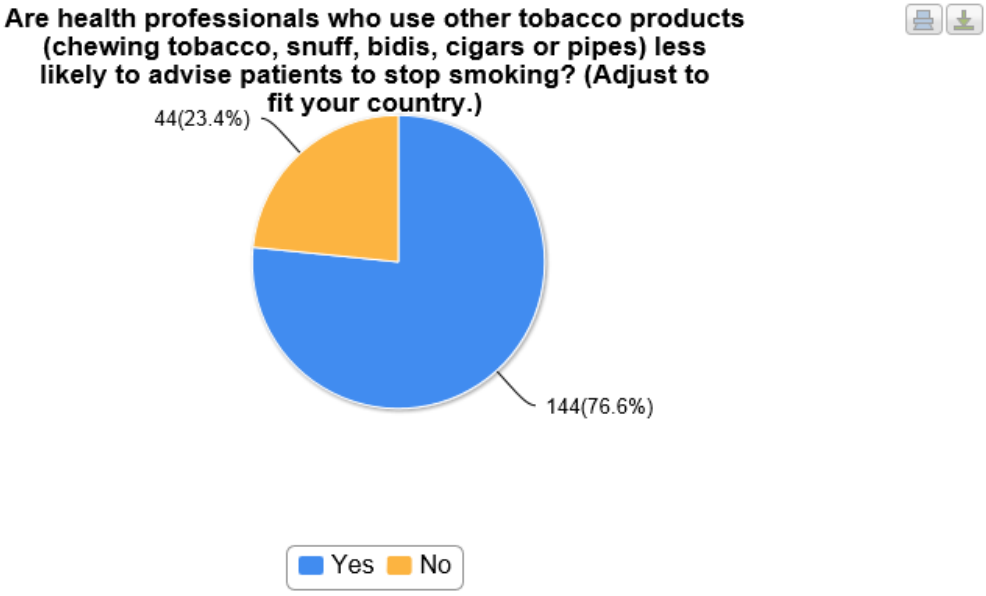

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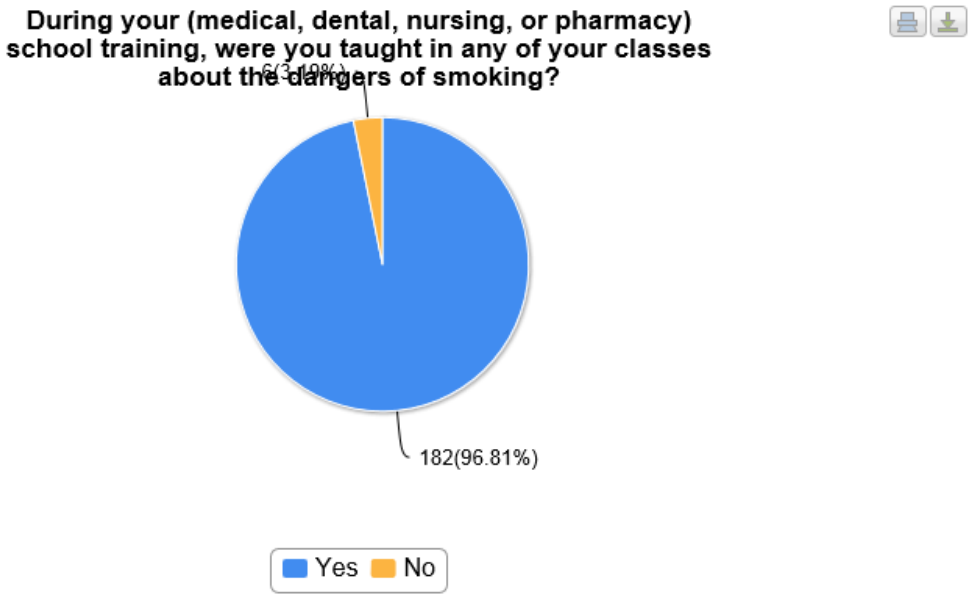

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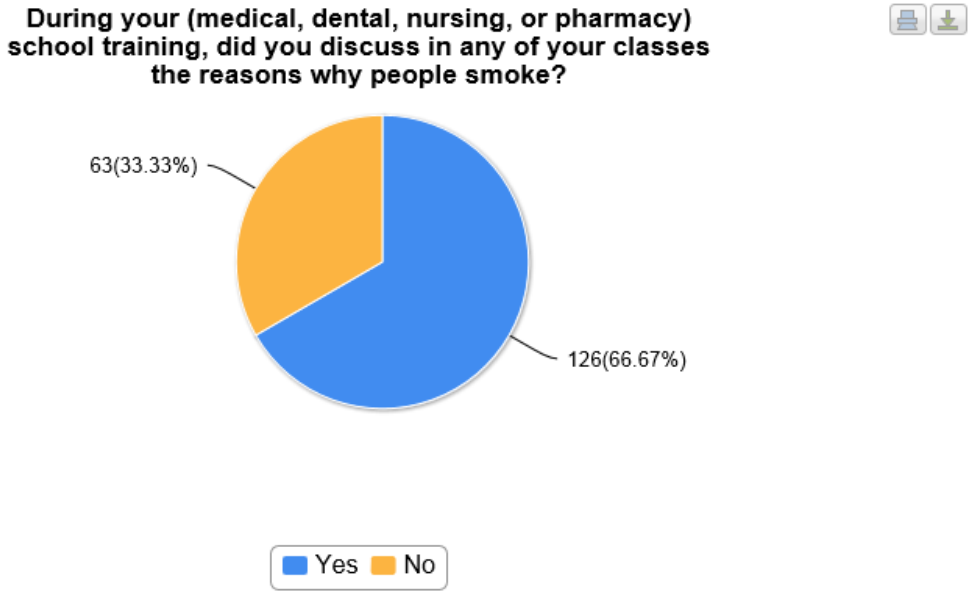

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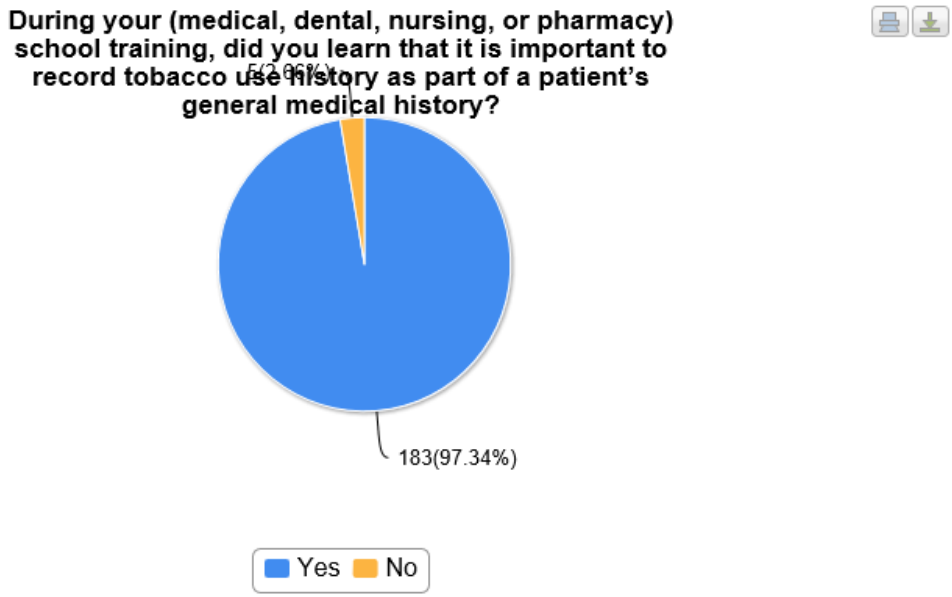

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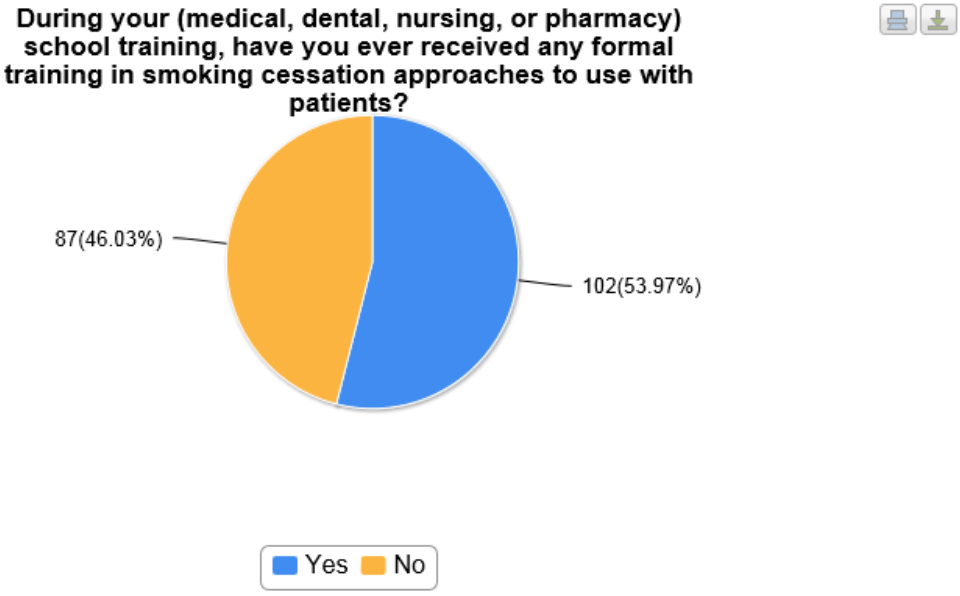

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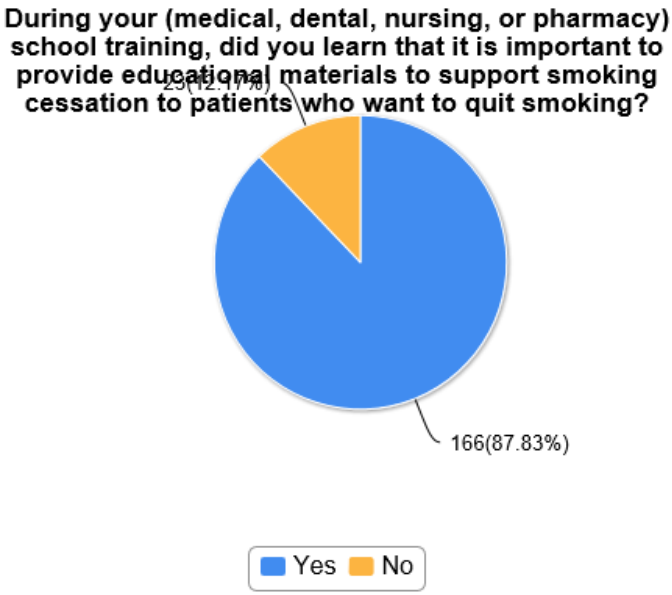

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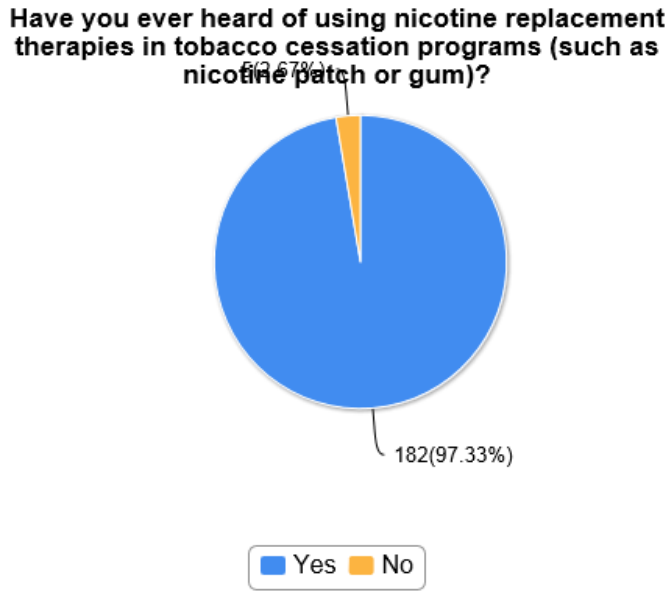

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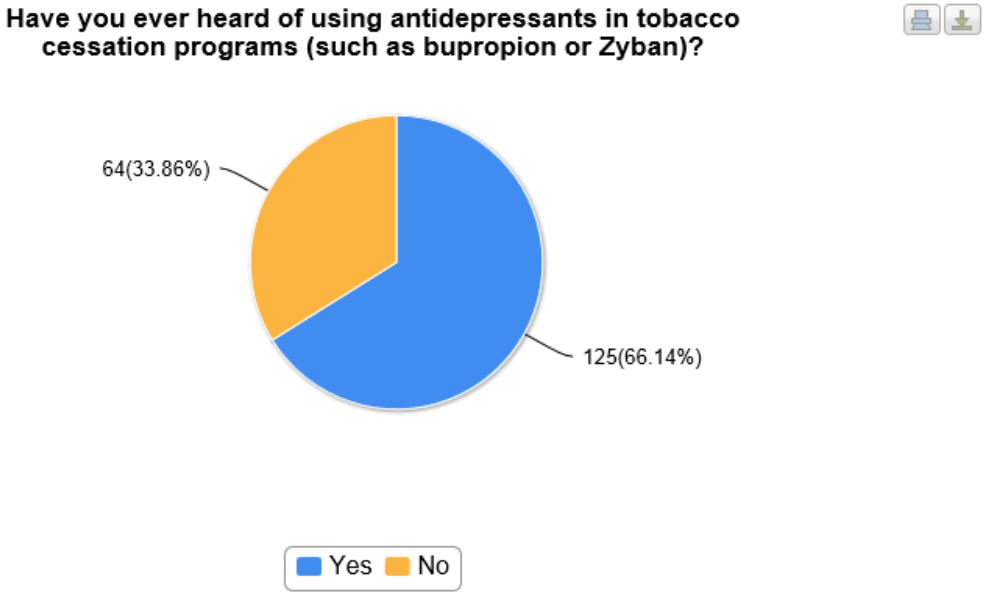

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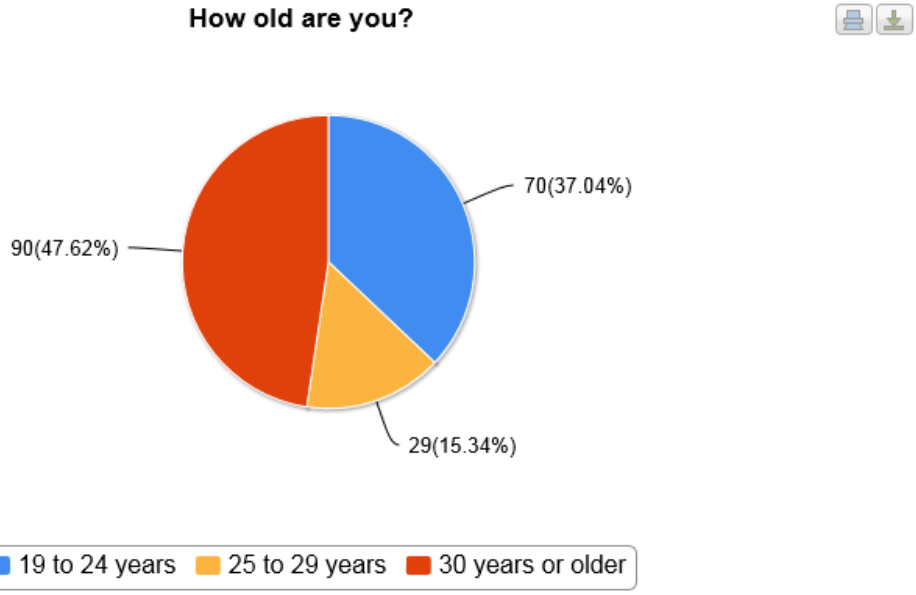

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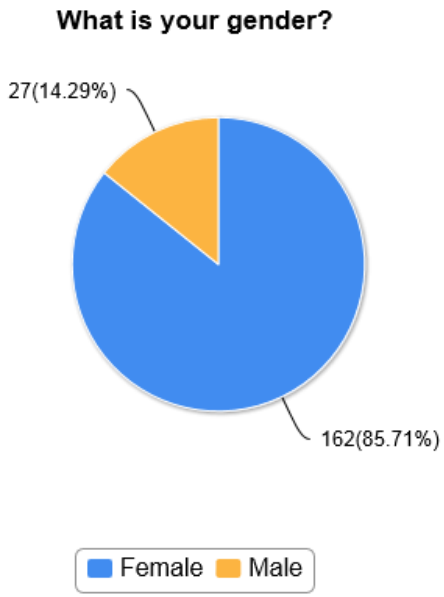

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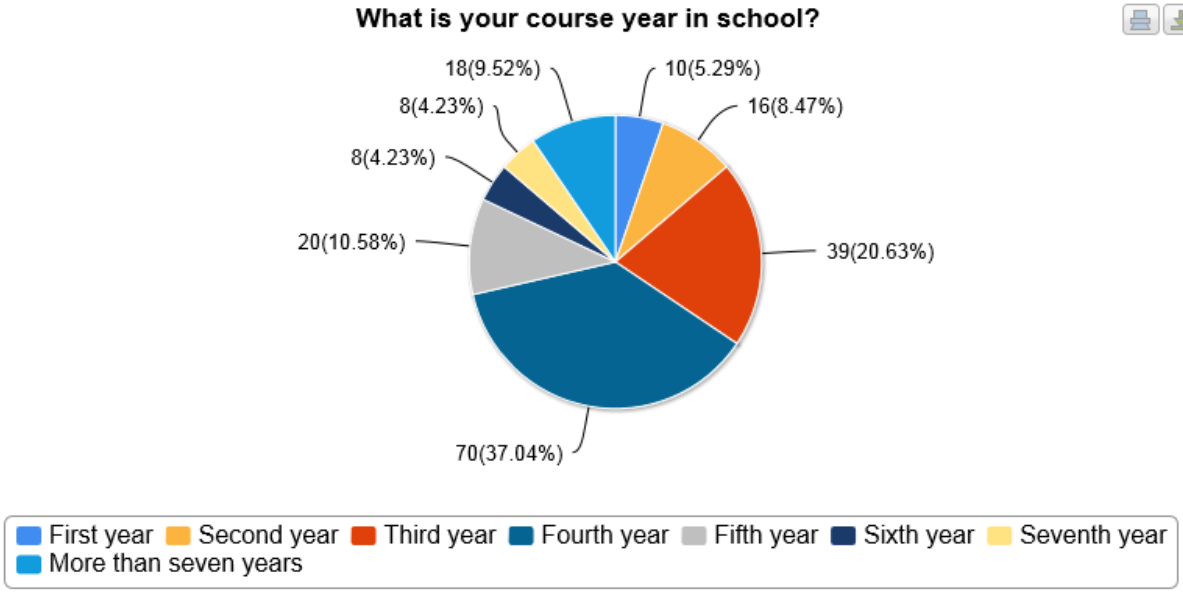

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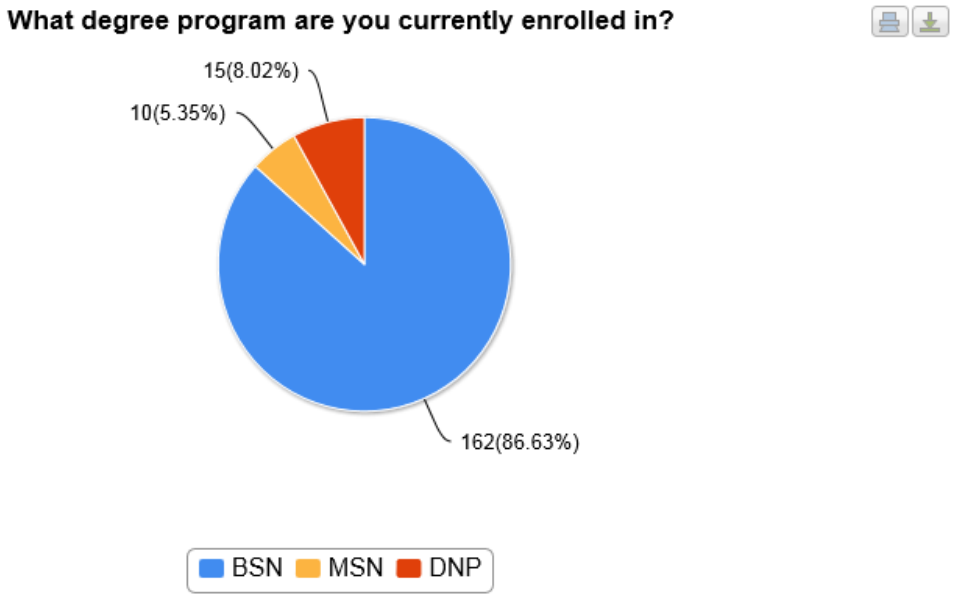

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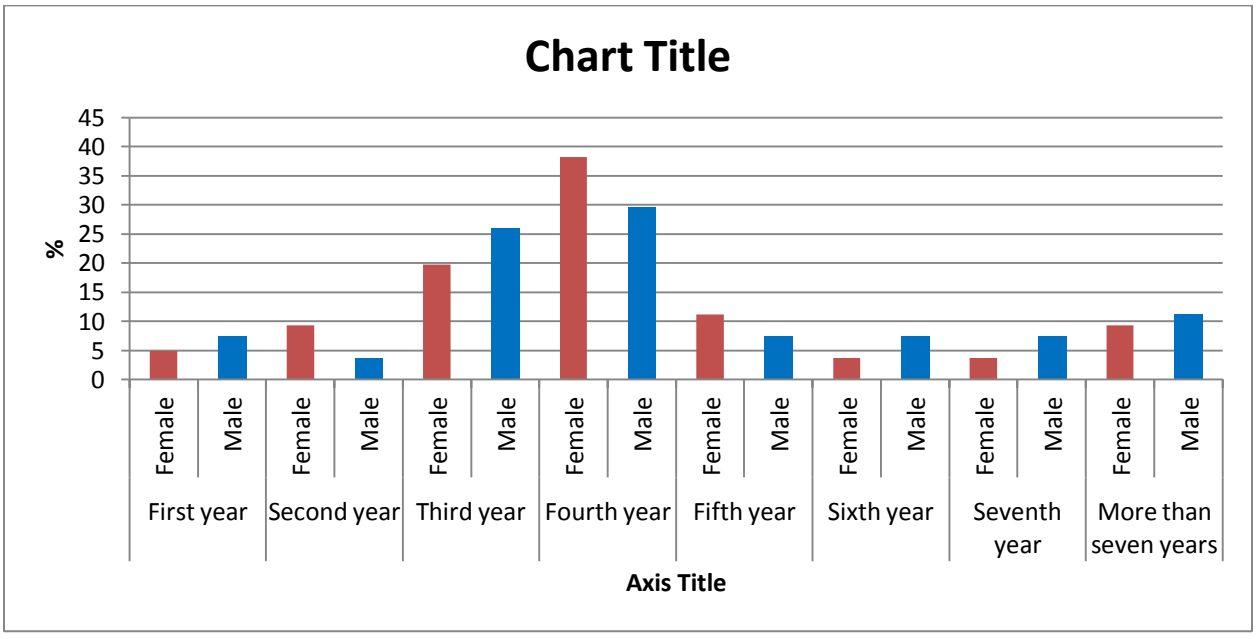

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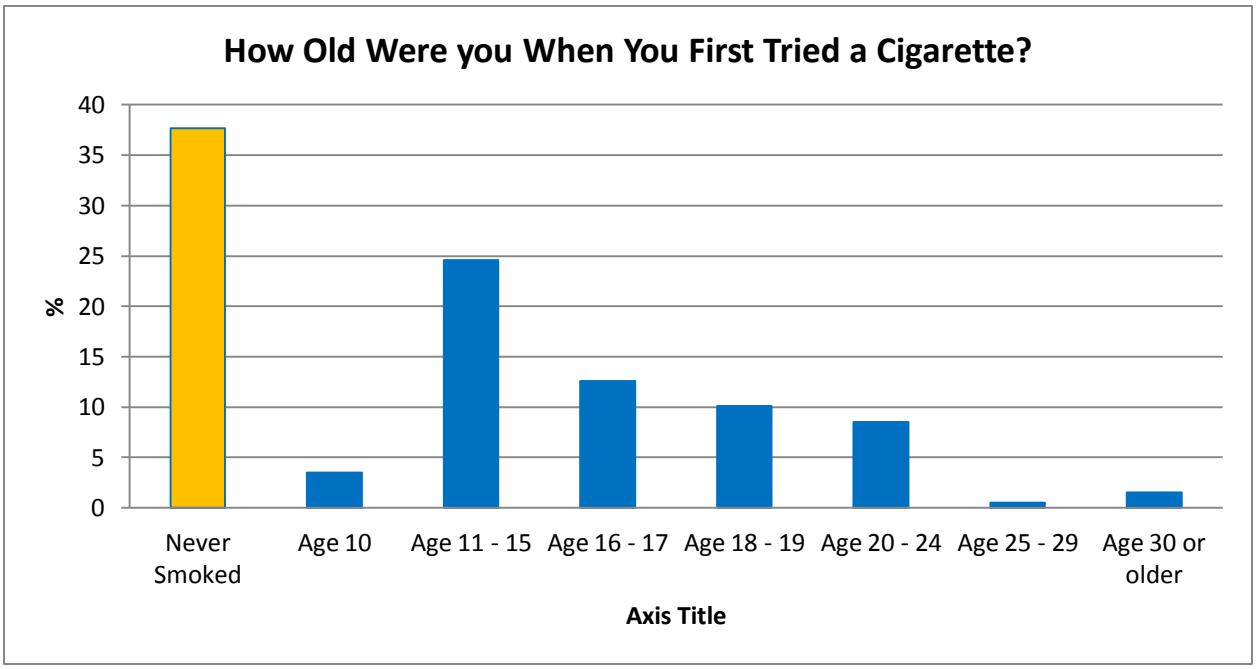

Figure 46

QUESTION	YES (%)	NO (%)
Should health professionals get specific training on cessation techniques?	93.8	6.3
Should health professionals serve as "role models" for their patients and the public?	94.7	5.3
Should health professionals routinely advise patients who smoke to quit?	96.9	3.1
Do health professionals have a role in giving advice or information about smoking cessation to their patients?	99.0	1.0
Are a patient's chances of quitting smoking increased if a health professional advises him or her to quit?	72.9	27.1
Are health professionals who smoke less likely to advise patients to stop smoking?	77.5	22.5