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Global Tobacco Free Summit

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ABSTRACT BOOK

TID

Tobacco Induced Diseases

Aims and Scope

Tobacco Induced Diseases encompasses all aspects of research related to the prevention and control of tobacco use at a global level. Preventing diseases attributable to tobacco is only one aspect of the journal, whose overall scope is to provide a forum for the publication of research articles that can contribute to reducing the burden of tobacco induced diseases globally. To address this epidemic we believe that there must be an avenue for the publication of research/policy activities on tobacco control initiatives that may be very important at a regional and national level. This approach provides a very important "hands on" service to the tobacco control community at a global scale - as common problems have common solutions. Hence, we see ourselves as "connectors" within this global community. The journal hence encourages the submission of articles from all medical, biological and psychosocial disciplines, ranging from medical and dental clinicians, through health professionals to basic biomedical and clinical scientists.

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SYMPOSIA – TOBACCO OR ORAL HEALTH: TOBACCO DEPENDENCE TREATMENT BY ORAL HEALTH PROFESSIONALS

Association between oral HPV prevalence and smoking in people without oral cancer

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Objective

Human papillomavirus (HPV) infection is a major risk factor for cervical cancer and may also be related to development of oral cancer. The objective of this study was to provide updated information regarding association between oral HPV prevalence and smoking in people without oral cancer.

Methods

We systematically reviewed 29 studies which reported the prevalence of oral HPV infection that included 22,756 subjects (age range 2-89 years) and were published from January 2012 to June 2015. Additionally, we investigated oral HPV16 prevalence by PCR using type specific primer in 256 patients who visited Hiroshima University Hospital from 2014 to 2018. The study design was approved by the Ethical Committee of Hiroshima University.

Results

The prevalence of overall HPV was considerably higher in males who had sex with males (12.2%) as compared to heterosexual men (4.7%) and women (2.9%). A meta-analysis revealed a significant statistical association of sexual behavior and smoking with oral HPV infection (OR = 1.90, 95% CI = 1.51-2.39, P <0.0001; OR = 2.13, 95% CI = 1.32-3.43, P = 0.002, respectively). Men showed a significantly higher rate of HPV16 than females (P=0.021). In addition, female smokers showed an increased percentage of HPV16 infection as compared with male smokers, but there was no significant difference. The association of smoking with oral HPV prevalence may be stronger among women than men.

Conclusions

Our findings suggest that smoking is importantly related to oral HPV infection. Local immunosuppressive effects of smoking may affect susceptibility to HPV infection and prolong the duration of virus infection in the oral cavity. These results imply that there would be a future potential risk factor and increase risk of oral and head and neck cancer.

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Current situation of smokeless tobacco consumption and oral health impact in Myanmar

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Objective

The aim of this study was to describe the current situation of smokeless tobacco (SLT) consumption and its oral health impact in Myanmar.

Methods

This study reviewed the published data, reports and research findings on prevalence, factors influencing on SLT use and its oral health impact among Myanmar population. Total of 27 related documents from 2000 to June 2019 were utilized in this study.

Results

Literature review revealed that chewing betel quid (BQ) with tobacco is the common type of SLT in Myanmar because of its accessible and affordable price. Due to high consumption of SLT, oral cancer is one of the health challenges. The prevalence of SLT use in 13-15 years was not much changed from 6.5% in 2007 to 5.7% in 2016. Prevalence of SLT use in adults (25-64 years) increased from 31.0% in 2009 to 43.2% in 2014. SLT use was higher compared with smoking in both males and females. Large consumption of SLT was found in males (especially 25-34 years old), low socio-economic group and rural population. Among tobacco users, prevalence on the detection of premalignant lesions and oral cancer were 4%-8.5% and 1.3%, respectively. Moreover, BQ chewers without tobacco and with tobacco were 6 and 29 times, respectively, increase in risk of premalignant lesion than no BQ chewers. In addition, one study reported that more than half of the BQ chewers had periodontitis and there was a significant relationship. Chewers believe that chewing enhances social engagements, work activities and sexual attractiveness. And also, people initiate BQ chewing to quit smoking, to make breaths sweet and to prevent tooth decay etc.

Conclusions

Although Tobacco Control Law was stipulated in 2006, strengthening the legislation especially on availability and accessibility of SLT products is necessary. And also, tobacco cessation interventions should be implemented at the national level.

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Burden of tobacco and alcohol consumption and its association with periodontal disease, potentially malignant lesions and quality of life among bus drivers in Lagos State, Nigeria

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Objective

To improve their performance and alertness, bus drivers are known to abuse alcohol, cigarette, kola nut, and other substances which have substantial independent and combined deleterious effects on oral tissues. The study aimed to characterize risk associations between aggregates of alcohol/tobacco use and oral health outcomes among a group of road transport workers in the Ojota and Berger bus terminals in Lagos State.

Methods

Data was obtained from a probability sample of 150 commercial drivers from two bus terminals (Ojota and Berger) in Lagos State via face-to-face interviews and oral examination using a validated structured questionnaire. Past and present tobacco and alcohol use were evaluated evocatively. Multivariate regression analysis measured the relationship between the outcomes [potentially malignant lesions (Leukoplakia, Erythroplakia, Smokers palate, Lichen planus), periodontal disease (CPITN Scores 3,4) and OHRQoL (OHIP-14)] and exposures, controlling for covariates -age, marital status, education status, income level, oral hygiene, dental caries, functional tooth units and previous treatment.

Results
All the respondents were male. The prevalence of ever-use alcohol was 82%, 35% were moderate or heavy drinkers (2-4 drinks). Prevalence of ever-use of tobacco was 71%; 32% were heavy smokers (>11 cigarettes per day); 64% had a history of kola nut chewing habit while 53% ate at least 2 kola nuts daily. Heavy smokers/ moderate to heavy drinkers had more potentially malignant lesions (OR=1.89, 95% CI: 1.33–3.27); significantly worse periodontal destruction(OR=3.12, 95% CI: 2.28–5.17); and significantly worse OHRQoL (OR=2.35, 95% CI: 1.42–4.54)[pain (p=0.002), discomfort (p = 0.007), speech (P = 0.005), diet (P = 0.014), social embarrassment (P = 0.017), self-consciousness (P = 0.012)] than Non/light smokers and Non/light drinkers, after adjusting for clinical and socioeconomic covariates.
Conclusions
This study highlights the role of tobacco and alcohol as modifiable risk factors for periodontal disease and potentially malignant lesions which can impact negatively on OHRQoL. Bus drivers in this part of Lagos State in Nigeria, are an important target group in controlling tobacco and alcohol use in Nigeria and they should receive adequate attention for oral health promotion and other preventive initiatives.
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Evaluation for inflammatory response after smoking cessation on human oral cavity

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Objective
Adverse effect of smoking has been widely reported. However effect of smoking cessation has not entirely clear. The objective of this study was to investigate that gingival fibroblast cells (HGF) and human epithelial cells' (HE) smoking inflammatory response and changes in repair period during smoking cessations by time-dependently.
Methods
This study was approved by the Institutional Ethics Review Committee of The Nippon Dental University. Both cells were obtained from normal human gingival tissue. When cells were cultured until confluence, medium was replaced 1ug/ml nicotine contained medium for 24 hours. Then there were replaced non-nicotine fresh medium.
IL-6 level was detected by ELISA. The results of smoking group were significantly decreased cell number time-dependently. The migration of both cell types in response to smoking cessation over period of 3 days was investigated in an in vitro wound healing model. The cell cultures were analyzed by morphologically examination under TEM and SEM.
Results
It was detected that ability of cell migration of smoking cessation group was significantly increased comparing with smoking group ($p<0.001$). Smoking group were significantly decreased comparing control and smoking cessation group ($p<0.001$). Following 24 hours nicotine stimulation, there were observed a lot of vacuolization in cytoplasm by phase-contrast microscope, TEM and SEM.
Conclusions
Our study demonstrated the cell damaging effect of smoking. On the other hand, actually damage of smoking was still remained in cells, we also indicated ability of the cell repairing effect of smoking cessation.
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SECONDHAND SMOKING

2020 Olympics' legacy for tobacco control in Japan

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Tobacco control advocates in Japan face a difficult struggle. Not only can the tobacco industry can easily influence the public and lobby politicians but due the Japanese government holding one-third of the shares of Japan Tobacco (JT), tobacco executives can easily access the highest levels of government. Due to this high level of tobacco industry interference, Japan has weak enforcement in all aspects for MPOWER model except perhaps for smoking cessation support despite having ratified the Framework Convention on Tobacco Control. JT is the third largest tobacco multinational company in the world with key brands of Winston's, Camel's, Benson & Hedges and Mevius (Mild Seven). JT uses Japanese government offices and agencies to influence regulation and acquire access to markets and working from its solid base in Japan where it is lightly regulated and immune from health litigation, JT seems to be destined to the main competitor for Philip Morris International and British American Tobacco for the near future. Therefore, Japan's tobacco policy should be a major concern for tobacco control advocates worldwide. In recent years, health professional groups in Japan have come to support tobacco control, but there is little support outside of the health community. Key reasons are tobacco industry control of both public and private media and CSR activities resulting in tobacco industry allies having influence in non-profit and non-governmental organizations. 2020 Olympics to be held in Tokyo represent an opportunity for stronger tobacco control in Japan with secondhand smoke protection as the first step. Already the national government has made limited secondhand smoke protection measures mandatory and Tokyo and other local government have passed stricter ordinances mandating the banning of smoking in public spaces. The immediate positive effect is that many universities have become completely smoke free and some prominent companies are smoke free or plan to become smoke free shortly. In these circumstances, I have started an on-line group working through social media (Twitter, LinkedIn and Facebook) with the goal of supporting anti-tobacco activities with an emphasis on secondhand smoke protection and drawing international support for tobacco control efforts in Japan.
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Analytical study on street smoking ban by local ordinances in Japan, 2002-2018

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Objective
Since 2002, street smoking ban has been enforced by local

ordinances in municipalities in Japan. We analyzed the trends and development of these ordinances came into force from 2002 to 2018.

Methods

The ordinances which include the word of "street smoking" or "smoke while walking" in the text were picked up in a national ordinance database. The text of each ordinance and the implementing regulations were downloaded for analysis.

Results

As of December 31st, 2018, 189 municipalities are identified to have enforced street smoking ban ordinances. 96 municipalities are found in KANTO area (around Tokyo) followed by 40 municipalities in KANSAI area (around Osaka) and their distribution is uneven. In the titles of the ordinances, the phrase; "littering ban" is used in 34 cases, the word; "environment" is used in 27 cases. In the text of the ordinances, "cigarette butts littering ban" is described in 122 cases, "secondhand smoking" is in 27 cases and "health" is found in only 12 ordinances. 107 municipalities provide penal regulations. The total number of municipalities has been increasing but after the 29 municipalities in 2008, the numbers of the new municipalities in each year is decreasing.

Conclusions

The main purposes of many ordinances are the cleanness of the city. Due to the rapid increase of inbound visitors, the enforcement of street smoking ban ordinance is expected to be increase. At the same time, indoor smoking ban which is not enough regulated at present supposed to be developed towards the Tokyo Olympic year, 2020.

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The effects of Community Participation Program on smoke-free home in sub-urban community of Thailand

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Smoking inside home affects the health of a direct smoker and family members with second-hand exposure. The current research examined the effects of community participation program on smoke-free home in semi-urban community in Thanyaburi district of Pathumthani province in Thailand. Population included members of families with smokers, in respective area of the local administration organization of Thanyaburi municipality, including Lum Pak Kut and Rangsit sub-districts. The sample was randomly assigned for intervention and comparison groups, each containing 27 families. The intervention group was administered with the program for 5 sessions during the 6 month-period of study. The program contained the following components: community committee's participation in decision making to solve the problem of smoking inside home; formulating smoke-free home policy; making action plans; smoke-free home campaign and public relations in community; educating family members about dangers of smoke and secondhand smoke and establishing smoking ban home rule; participation with the research team to practice skills in negotiating with smokers for smoking-ban inside home; giving emotional support for non-smoking inside home; posting smoke-free home stickers; giving advice about sources of help in need of smoking cessation. The comparison group was normally treated by community committee and health volunteers. Data collection was undertaken before implementation and 6 months after implementation by means of response to structured interview form. Skills in negotiating with smokers for no smoking inside home were evaluated. Emotional support was provided for non-smoking inside home. Comparisons were made on proportion of having smoking-ban home rule, and proportion of having smoke-free homes between the intervention and comparison groups. Data analyses were performed using descriptive statistics and test of hypotheses with Chi-Square test, paired t-test, independence t-test, and Fisher's Exact test. Research results suggest that after the implementation, the intervention group reported significantly higher mean score of skills in negotiating with smokers for smoking-ban inside home and mean score of emotional support for non-smoking inside home than those before implementation and those of comparison group ($p < 0.05$). The proportion of having smoking ban home rules in intervention group was significantly higher ($p < 0.05$) than that before implementation and that of comparison group (92.6% versus 18.5%). The proportion of smoke-free home was higher in intervention than comparison group (75% versus 0%) which was significantly higher than that before implementation and that of the comparison group ($p < 0.05$). The current research suggests that community participation program for smoke-free home was effective in raising awareness on the impact of secondhand smoke on family members and in working together to manage for smoke-free home environment. The program was thus applicable for further development of community to achieve smoke-free homes.

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TAXATION

Public support for cigarette price increase in Indonesia

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Objective

The current governmental policies related to tobacco control in Indonesia are known to be not yet effective in reducing tobacco consumption. Therefore, increasing cigarette prices is one of effective instruments that should be supported by governments and public. This study aims to assess public support for cigarette price increase as well as to generate scientific evidence for the government and policymakers.

Methods

This research is a quantitative study with a cross-sectional design. The data were obtained through phone-based interviews in 1,000 respondents aged ≥ 18 years old in Indonesia. The interviews started on 1 May 2018 and ended on 31 May 2018.

Results

Respondents in this study were varied in terms of age, gender, level of education, income, occupation, the area of living, and smoking status. This study found that 88%

of the respondents including 80% of smokers support cigarette price increase to prevent children from buying cigarettes. Around 66% smokers said they would stop smoking when the cigarette price is Rp60,000 (US$4.3) per package. The multivariate analysis revealed that age, income, cigarette expenditure per day, and perception on the current cigarette price are the predictors of support for cigarette price increase.

Conclusions

The increase in cigarette prices is supported by the majority of public including smokers. Cigarette price increase is supported by younger people and higher-income groups as they have less expenditure and less likely to smoke. Governments, academics, NGOs, and tobacco control activists should generate the understanding that increasing cigarette prices will improve the quality of life.

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The impact of tobacco taxation on illicit cigarette trade in selected low- and middle-income countries

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Objective

The importance of monitoring and deterring the illicit trade of tobacco is illuminated by the recent ratification of the WHO's Protocol to eliminate illicit trade of Tobacco Products. While the correlatory relationship between tobacco taxation and illicit trade of cigarettes have been measured globally, there is a paucity of research on the impact that a change in tax and price policy measures will have on illicit trade. Measuring this impact objectively is crucial to countering biased estimates aimed at influencing public opinion and policy makers. The objective of the project was to use the exogeneity of tobacco taxation and price policy changes in four low- and middle-income countries (the Gambia, Georgia, Mongolia and South Africa) as natural experiments to measure this impact.

Methods

Using primary-collected household survey data and the discarded pack collection methodology, we measured illicit trade before and after policy changes.

Results

In Mongolia, South Africa and Georgia, the policy had no impact on illicit trade. Mongolia observed a decline in their illicit trade during this period, from 15.4% (April 2017) to 6.3% (May/June 2018). In the Gambia, last minute changes to planned policy changes meant that we could only collect one wave of cross-sectional data. However, the data revealed that illicit trade is low at 0.9%-7.3%. We will also relate methodological lessons and recommendations from the studies, specifically recommendations for rapid response research by policymakers on this topic.

Conclusions

The evidence indicates that tobacco taxation does not have an impact on the illicit trade of cigarettes.

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The effect of industry vs government induced cigarette price increase on national cigarette consumption in Taiwan, 2011-2018

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Objective

This study compares the effect of industry vs government induced cigarette price increases on cigarette consumption in Taiwan.

Methods

Using governmental tax and market survey data, we analyzed the changes in cigarette retail prices, sales volume, and net revenue of the top tobacco companies in Taiwan from 2011 to 2016, when no tax increases occurred. We also examined the same market reactions when the government raised tax in 2017-2018.

Results

Retail price of cigarette increased from 15 to 20 National Taiwan Dollars (NTD) across different brands by the industry from 2010-2016. Cigarette consumption per one adult (aged 15yrs+) decreased slightly by 5% from 1,781 sticks to 1,687 sticks per year which translated to less than 1% annual decline during this period. On the contrary, the cigarette consumption dropped significantly to 1,406 sticks in 2018, a significant 18.6% declined from 2016 after the government raised tobacco tax by 20 NTD in 2017.

Conclusions

The low and unchanged taxes environment enabled tobacco companies to use aggressive pricing and segmentation strategies to increase cigarette prices without making them less affordable, while simultaneously also maintaining customers' loyalty and kept consumption level. On the contrary, the tax-induced price increase was universally applied across all cigarette brands and segments. The national cigarette consumption declining rapidly from 1.72 billion packs in 2016 to 1.41 billion packs in 2018, representing the first significant decline in tobacco consumption since 2010 in Taiwan.

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RAPID COMMUNICATION SESSION 1

Improvement of cognition for smoking cessation support in nurses who received Japanese Smoking Cessation Educational Program: Program contents and evaluation methods, background of participants

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Objective

The purpose of this study is to assess the improvement of cognition for smoking cessation support among nurses who received Japanese Smoking Cessation Educational Program. In this presentation, we present the program contents and evaluation method to be implemented in the smoking cessation educational program, as well as the background of the participants.

Methods

The smoking cessation workshop for nurses was held six times in 2018 with the cooperation of the prefectural nursing association. *This project is implemented with research and development funds of the National Cancer

Research Center and research funds of the Global Bridge.

Program contents

The program consisted of lectures and exercises to "provide information on the harm of active smoking and passive smoking" and "smoking cessation support, including counseling skills." One program covered five hours.

Evaluation method

A questionnaire survey was administered before and after the program.

Main survey items:

Before the program, basic attributes, number of working years in nursing, number of working years in smoking cessation, smoking cessation status, learning status of smoking cessation, confidence, and importance of smoking cessation, etc.

After the workshop, impressions of the workshop, including degree of satisfaction and learning in the workshop, confidence, and importance of smoking cessation support, etc.

This study was approved by the ethics committee of the organization.

Results

Number of participants (collected number of surveys): Kyoto Prefecture (twice, in total), 77 (71); Yamagata Prefecture 88 (84); Tochigi Prefecture, 42 (42); Okinawa Prefecture, 85 (77); and Osaka Prefecture, 78 (78). Total, 370 (352). The survey recovery rate was 95.1%

Mean age: 43 .8 ± 10.5 years

Female: 93.1%

Rate of professional nursing in smoking cessation support: 53.6%.

Conclusions

About half of participants in this training were not involved in smoking cessation professionally, and there was found to be a need among a wide range of nurses.

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Improvement of cognition for smoking cessation support in nurses who received Japanese Smoking Cessation Educational Program - Outcome evaluation before and after the program

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Objective

The purpose of this study is to assess the improvement of cognition for smoking cessation support among nurses who received Japanese Smoking Cessation Educational Program.

Methods

This program was held six times in 2018 with the cooperation of the prefectural nursing association. A questionnaire survey was administered before and after the workshop. Locations and numbers of surveys collected comprised Kyoto Prefecture (twice, in total), 71; Yamagata Prefecture, 84; Tochigi Prefecture, 42; Okinawa Prefecture, 77; and Osaka Prefecture, 78. The purpose was to analyze the results before and after training sessions. In conducting this research, we reported to the ethics committee of our organization.

Results

1) Evaluation at the end of the workshop program

"Satisfaction": "Extremely" 67. 4%, "Moderately" 31.5 %

"Mastery level": "Sufficient" 10.1%, "Good" 76.7%

"I want to participate in the future, too.": "Strongly agree" 56.8%, "Agree" 40.6%

2) Changes in attitude and attitude toward smoking cessation support

Before and after the workshop, those with significant statistical effects were "motivation," "confidence (all nine items)," "anxiety," "difficulty," and "enjoyment" in terms of smoking cessation support. On the other hand, there was no significant difference between the degree of "importance" and "the degree of interest" for smoking cessation support before and after the workshop.

Conclusions

Nurses who participate in this workshop have a high degree of importance and interest in smoking cessation support and are highly motivated to participate in the workshop. Although most participants express a sense of satisfaction after the training sessions, it is also necessary to evaluate whether the participants who completed the workshop are able to capitalize on the actual duties.

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A study on the relationship between the search trends and the news through the smoke-free apartment

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Objective

Smoking in an apartment building causes disputes between neighbors and damages from second-hand smoke. To prevent this, the smoke free apartment was implemented in September 2016, in which corridors, staircases, elevators and underground parking lots of apartments were designated as non-smoking areas if more than one-half of residents approved the system. Therefore, an analysis was conducted through Naver Trends and news articles to understand the interest and effectiveness of the smoke free apartment.

Methods

From January 1, 2016 to September 30, 2018, extract the search volume of 'Smoke-Free Apartment' via Naver Trends and looked at changes in search volume over time. In addition, the contents of 2,315 newspaper articles reported were analyzed to determine the cause of the high search volume. The article was selected as a report from Korea's 13 major daily newspapers and 12 media outlets nationwide.

Results

Analysis of the linkage of 9 peaks and 2,315 articles over two years and eight months showed that trends were related to the topic of the article rather than the number of articles. All the articles featured in peak1, 2 and 3 where people searched the most for 'Smoke Free Apartments' were articles related to the smoking cessation fines. It was also important in which medium the article was written. The number of searches has increased when it is aired on national news outlets.

Conclusions

People's interest in smoke free apartments showed a surge after news and newspapers were reported. Particularly, it shows that they are interested in content that directly affects people such as fines. However, this interest has

not been sustained and often ended in a single event. Therefore, it is necessary to conduct massive publicity campaigns to attract people's attention and response.

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Development of a network for training health care professionals in smoking cessation in medical check-ups in Kumamoto

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Objective

Objective of these projects is to train advisors for the treatment of tobacco dependency, focusing mainly on the training of doctors and healthcare professionals involved in health screening and care that are centered on Kumamoto and the organization of which the applicant (Omori) is a member, and to promote smoking cessation advising (short-term intervention) to healthcare providers.

So far, more than 40 health organization participated in the present projects. We had questionnaire on current status of smoking cessation advising for examinees and patients from these organizations. Seminar of smoking cessation advising (short-term intervention) was held for healthcare professionals and doctors at Kumamoto University. About 90 healthcare professionals and doctors participated this seminar.

Seminar for healthcare professionals in local area (Tamana district, and Yatsushiro District) in Kumamoto will be held in this summer.

We will evaluate the ratio of patients and medical examinees that received smoking cessation advising (short-term intervention) or treatment at a smoking cessation clinic and smokers who received advising and successfully stopped smoking during the research period.

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Operation is a good opportunity for smoking cessation

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Objective

Smoking increases various perioperative risk and affects outcome of patients undergoing operation and the smoking rate is decreasing in Japan. Smoking has been prohibited in our university hospital premises since 2005. Japanese Society of Anesthesiologists formulated a guideline for perioperative smoking cessation in 2015. We surveyed smoking status of patients undergoing operation in their preoperative interview.

Methods

Questionnaire as follows were carried out about smoking status the day before operation in 2006, 2011 and 2018 to the patients who were greater than eighteen years old: smoking history, awareness of the risk of perioperative smoking and intension to continues abstaining from smoking after discharge.

Results

The numbers of patients were 1098 (12 months in 2006), 1124 (6 months in 2011) and 1094 (4 months in 2018). There were 50, 47and 50% non-smokers, 42, 45 and 45% ex-smokers, and 7, 7 and 5% current-smokers in 2006, 2011 and 2018, respectively. An awareness of the perioperative risk of smoking was admitted by 51, 55, and 85% of current-smokers in 2006, 2011 and 2018, respectively. An intention to stop smoking after discharge was stated in 45, 61 and 60% in 2006, 2011 and 2018, respectively.

Conclusions

The perioperative risks of smoking have been gradually known. Among current-smokers, patients who intend to quit smoking after discharge increased. Operation or hospitalization is good opportunity for smoking cessation. Medical stuff should take this opportunity and encourage smoking cessation.

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Evaluation of factors affecting the maintenance of smoking cessation among individuals in Japan

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Objective

More than 25% of smokers in Japan want to quit smoking, but half of them reportedly fail to do so even if they receive medical treatment for nicotine dependence. This study assessed the factors affecting the maintenance of smoking cessation.

Methods

This retrospective cohort study was conducted using health examination and administrative claim data from 2012 to 2014, extracted from a database containing information on the insurance of beneficiaries employed in medium- and small-sized Japanese companies. The study included subjects who quit smoking. Logistic regression analysis was used to assess factors related to the smoking status after the subjects quit smoking, which included sex, age, income, occupation, and medical treatment for nicotine dependence.

Results

Smoking prevalence among subjects was 37.1% in 2012, and 5.1% of them quit smoking in 2013. The percentage of smokers who quit smoking with medical treatment was 8.5%, mainly with varenicline. Data relating to smoking status in 2014 was available for 4,034 subjects, and 69.6% maintained smoking cessation. Logistic regression analysis showed that females and older individuals could significantly maintain smoking cessation. Treatment with varenicline was also significant: OR: 1.50 (95% CI, 1.14–1.96).

Conclusions

Medical treatment for nicotine dependence using varenicline could maintain smoking cessation significantly, although it is reported that half the smokers who were treated started to smoke again. It is difficult for smokers to maintain smoking cessation and they require an effective support system. The difference between this treatment and other methods of smoking cessation could be attributed to

the medication, as well as to the regular support provided by doctors and nurses. We need to consider the post-treatment support system in order to further improve the maintenance of smoking cessation.

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Effectiveness of a smoking cessation support program for tuberculosis patients in Japan

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In Japan, the current smoker rate in tuberculosis (TB) patients is higher than that of the general population. The data show that more than half of them keep smoking throughout their treatment period. The systematic smoking cessation support for TB patients has never been addressed in the Japan's TB control program until now. While a patient is under treatment, a public health nurse (PHN) visits the patient at least once a month to check if the medicine is being taken regularly. But nurses so far have not paid attention to the smoking habit of their patients for fear that it might affect human relationship. International Union Against Tuberculosis and Lung Diseases published the guidebook, "Smoking Cessation and Smoke-free Environment for TB Patients" in 2010. Based on this, we have developed the "TB Patients' Smoking Cessation Support Manual" Japanese version in 2017. This study tries to evaluate the program of this manual, so that its achievements will become a cornerstone of new tobacco cessation support program for TB patients.

The purpose of this study is to strengthen motivation of PHNs toward smoking cessation support, and to assess coverage of smoking cessation support and its outcomes among patients in the health center areas where the program of the above Manual is practiced.

The direct target of the study is PHNs who work at a total of 137 public health centers from 52 municipalities volunteering to collaborate with us. All the TB patients newly registered in the collaborating municipalities are given "ABC guidance" by PHNs; "Ask" about smoking, followed by "Brief advices" for smokers and passive smokers, and then "Cessation support" for smokers who want to quit smoking. The study period is from July, 2018 to December, 2019. We will introduce a part of data in the presentation on site.

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Tobacco quitting characteristics and e-cigarette vaping among Korean ever smokers

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Objective

The objective of our study was to assess the relationship between quit attempts, quit intention, and quit duration of tobacco smoking and electronic cigarette (e-cigarette) vaping among Korean adults.

Methods

We used the nationwide cross-sectional data of the Korea National Health and Nutrition Examination Survey (KNHANES) from 2013 to 2015. Of the total participants (N=22,948), 3,823 of adult (≥ 19 years old) ever smokers were eligible. The main outcome was e-cigarette lifetime vaping, and the predictors included cigarette quit attempts, quit intention, and quit duration. We performed statistical analysis with weighted percentage (%), the x2 test with a p-value of significance level of 0.001, and the multiple logistic regression analysis presented as Odds Ratio (OR) with a 95% confidence interval (CI).

Results

A total of 25.6% of Korean ever smokers have experienced e-cigarettes. Factors related to the lifetime vaping of e-cigarettes were younger age, currently smoking and heavier smoking ($p < .001$). Gender was not associated. The e-cigarette ever vapers more likely to have attempted to quit (OR = 2.45, 95% CI = 1.69-3.53) than never vapers. There was not significant difference in intention to quit (OR = 1.61, 95% CI = 0.98-2.66) according to e-cigarettes vaping. The e-cigarette ever vapers more likely to quit for a short period (<6m: OR = 2.00, 95% CI = 1.21-3.32), but less likely to quit for a long period (3y≤: OR = 0.27, 95% CI = 0.15-0.48).

Conclusions

Although the e-cigarette vaping may be closely related to temporary abstinence from smoking, it may not lead to stable smoking cessation. Thus, considering e-cigarettes as an aid for effective smoking cessation could be misleading.

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Time spent on smartphones are associated with exposure to online tobacco advertisements among youths

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Objectives

Smartphones are considered a double-edged sword in the tobacco control field. Ideally, the device can be used for efficiently delivering prevention and cessation programs. However, there are also concerns adolescents may be receiving pro-smoking messages via smartphones. This study aimed to examine the association between time spent on smartphones and exposure to online tobacco advertisements among youths.

Methods

The 13th (2017) Korean Youth Risk Behavior Survey, a nationally representative data of South Korean adolescents, were used. Along with the exposure to online tobacco advertisements during the past 30 days, smartphone use, and average time spent on smartphones per day were measured. Time spent were defined in quantiles. Multiple logistic regression analyses were performed, adjusting for sex, grade and perceived household wealth.

Results

Among 62,276 adolescents, 87.7% used smartphones during the past 30 days. The average time spent on smartphones per day was 266.8 minutes (4.4 hours). 39.6% of smartphone non-users were exposed to online tobacco advertisements, whereas 44.0% of users were exposed. More time spent on smartphones was associated with more exposure to online advertisements. Odds ratio estimates (reference=smartphone non-use) were as follows: Q1 (1.07, 95% CI=1.01-1.13), Q2 (1.20, 95% CI=1.13-1.27), Q3 (1.24, 95% CI=1.17-1.31) and Q4 (1.33, 95% CI=1.26-1.41).

Conclusions
Our results indicate a dose-response relationship between the time spent on smartphones and exposure to online tobacco advertisements. This implies tobacco advertisements are accessible through smartphones among youths. Tobacco advertisements on the internet is a violation to the article 13 of the WHO Framework Convention Tobacco Control. Further research and control measures are required to tackle online advertisements.
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A revisit at 16 years for individuals from peri-urban New Delhi for tobacco use and associated oral lesions

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Objective
India has a high incidence of oral cancer due to multifarious tobacco use. The objective of this study was to assess the status of tobacco-related oral lesions over 16 years, in a screen-detected population.
Methods
This cross-sectional study involved home visits of 2000 Delhi residents, previously screened for oral potentially malignant disorders/oral cancer and counselled for tobacco cessation. Their basic demographics and tobacco/alcohol history were noted followed by oral visual examination for any related mucosal abnormalities. The data thus obtained were statistically analysed.
Results
Two hundred and sixty-five individuals (13.2%) could be traced after 16 years. The status of oral lesions varied across the participants, mainly in terms of their location, type, number, and/or presence/absence; no oral malignancies were noted. Most individuals had either a decreased use (34%, $p < 0.001$) or had quit tobacco (25.7%, $p < 0.001$); 8.3% individuals from the former and 5.7% from the latter group showed complete lesion(s) regression. The overall change in the tobacco use and oral lesions showed a highly significant positive association ($p < 0.05$).
Conclusions
A direct relationship exists between tobacco use and oral lesions. Repeated, tobacco cessation counselling provided by health-care professionals is effective. Oral screening of high-risk individuals, along with tobacco cessation, is thus essential.
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TOBACCO DEPENDENCE TREATMENT 1

Comparison of two train-the-pharmacist programs for supporting tobacco-nicotine dependence in Japan

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Objective
To evaluate the effect of two train-the-trainer programs to equip pharmacists for the support of patients with tobacco-nicotine dependence in Japan.
Methods
A total of 132 pharmacists participated in either a 2-hour lecture or a half-day program consisting of a 2-hour lecture and 2-hour interactive workshop, conducted in five areas between September 2018 and March 2019. We compared participants' attitude, self-efficacy, and skills for smoking cessation to determine the effect of two programs.
Results
The 2-hour lectures were attended by 97 pharmacists, while 15 participated in the half-day program. Data were collected using a pre-post survey, with follow-up rates of 89% and 65%, respectively. Prior to the program, 76% of lecture participants and 67% of the half-day program participants were not board-certified tobacco cessation specialists ($p<0.11$). For both programs, participants' self-rated attitude, self-efficacy, and skills related to tobacco cessation significantly increased post-training (all $p< 0.05$). After controlling for potential baseline confounding by age, gender, workplace, smoking status, and registration as a tobacco cessation specialist, participants' self-efficacy (range: 12-60 points) showed greater improvement for the half-day program compared to the 2-hour lecture, which showed a mean increase of 3.6 points (confidence interval: 0.1 to 7.2; $P = 0.04$ for between-group comparison).
Conclusions
Both programs significantly improved attitude, self-efficacy, and skills for supporting patients with tobacco-nicotine dependence. The program comprising of both the lecture and the workshop facilitated greater improvement in self-efficacy, compared to the lecture only.
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WHO-ERS train the trainer in smoking cessation: Three years' experience

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WHO-ERS Train the Trainer (TTT) in smoking Cessation (SC) is a successive 3year collaboration (2016-19) to support WHO's training activities for building capacity of WHO Member States to provide SC interventions (SCIs) to smokers both in hospital and primary care settings. 5 countries with high prevalence of tobacco use and low availability of SC support were selected (Greece, Moldova, Bangladesh, Ecuador, Nigeria).
1) A national training network capable of further training HCPs was established to provide brief TCIs to respiratory patients,
2) an online 6module training course on brief TCIs for HCPs was developed in English. The TTT workshops were jointly conducted by WHO and ERS experts as 30 HCPs were trained on brief SCIs in each country and subsequently endorsed to train others through structured cascading training programs. Consequently, the national training teams conducted 4-6 training workshops for primary care providers (PCP) from 2-4 cities in each country. All trained PCPs were supported to deliver 5As and 5Rs brief SCIs. More than 12.000 smokers were enrolled and given brief advice on quitting as existing training centres for on-the-job training of PCPs was strengthened in all countries to train PCPs on brief TCIs. Success quitting rates at 1m.

were (37.1%, 31.7%, 48.4%and 60% respectively) although from unexperienced HCPs. We stress the example of Ecuador where quitting rates at 4 months was 57.2% and at 6 m. 48.9%.
The WHO–ERS SC TTT is a concrete example of how international cooperation is essential for building capacity of WHO Member States' health systems to promote one of the wide-reach approaches to SC: brief SCIs as part of HCPs' routine practice.
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Validation of a willingness-to-quit questionnaire for use among active tobacco products users in medical practice

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Objective
Notwithstanding the declines in proportions of tobacco product users, tobacco products usage continues to be among the substantial public health concern in the recent times. Stopping usage of tobacco products can result in decrease of numerous health conditions. The succinct Willingness to Quit (WTQ) questionnaire can be applied in day to day medical practice to evaluate the ability of tobacco product users to cease smoking and constructively engage healthcare providers and tobacco product users in a conversation on cessation of tobacco products.
To undertake validation of WTQ questionnaire for use among active tobacco product users in medical practice.
Methods
We undertook a meticulous, qualitative interviews with 15 active tobacco products users and 5 general practitioners (GPs). We undertook two sessions, in the first session, research participants were interrogated on varied factors that can sway their enthusiasm to discontinue consuming tobacco products. In the second session, we presented a copy of the WTQ questionnaire and requested them to mention their level of comprehension and interpretability of the items and the practicability of finishing the questionnaire in medical practice.
Results
All the study participants (n=15) and GPs (n=5) interrogated denoted that the items were plausible and appropriate to measure willingness to quit. The questionnaire was contemplated to be simple and appropriate in medical practice.
Conclusions
The WTQ questionnaire is an ephemeral instrument to measure willingness to quit and to initiate a communication amongst patients and GPs. Each tobacco product user ought to be given a smoking cessation backing and enabling a dialogue on readiness to stop the use of tobacco products.
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Determinants of intentions to quit smoking among daily smokers in Vietnam: Results from Global Adult Tobacco Survey (GATS) in Vietnam 2010-2015

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Objective
To identify the relationship of quit intention of smoking among daily smokers in Vietnam.
Methods
Data are subtracted from dataset of Global Adult Tobacco Survey (GATS) of 2010 and 2015 of the Global Tobacco Surveillance System (GTSS). Households were sampled using a stratified multistage design. All men who are currently smoking daily are selected for final analysis. Quit intention of smoking defines as dependent variable. Knowledge, attitude, practice toward smoking; Heaviness of Smoking Index; Demography define as independent variables. Multivariate logistics model was used.
Results
The proportion of smokers are interested in quitting smoking following: planning to quit within next month (6.2%); thinking about quitting within the next 12 months (15.5%); and will quit someday, but not the next 12 months (38.5%). High education, good attitude of harming of smoking on health were positively associated with intentions to quit smoking with adjusted odd ratio: 1.70 (1.04-2.75); 1.89 (1.19-2.98), respectively. Reversely, Heaviness of Smoking Index (HIS) with moderate smoking, less supported for taxes rise on tobacco products were negatively associated with intentions to quit smoking with adjusted odd ratio: 0.66 (0.51-0.83); 0.72 (0.56-0.92), respectively.
Conclusions
The finding implies that identifying the determinants of quit intentions provides practical evidence for shaping effective policies and programs for advancing quitting among smokers in Vietnam.
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Are Electronic Nicotine Delivery Systems (ENDS) an effective aid in smoking cessation?: A critical look

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Objective
To evaluate the current status of knowledge on safety and effectiveness of ENDS as an potential aid in smoking cessation and raise awareness of health professionals and tobacco control advocates in this matter.
Methods
Review of clinical studies, public health agencies reports, smoking cessation guidelines, regulatory policies and best practice in smoking cessation programs in various countries.
Results
Tobacco industry promotes ENDS as safe and effective aid in smoking cessation. Some clinical observations and trials prove that ENDS can be supportive in quitting smoking and contribute to better quit rates than nicotine replacement therapy. However, there are more and more studies that show that ENDS are not safe and effective in smoking cessation. Critical studies indicate on the risk of ENDS use for nicotine intoxication and acute and chronic diseases, a potential of nicotine addiction among ENDS users, a big proportion of dual (cigarette and ENDS) users among ENDS consumers, sharp increase in ENDS use among teenagers and tobacco experimenters, promotion of tobacco products within ENDS advertising

and promotion, lack of guidelines for using ENDS in the process of smoking cessation, lack of ENDS registration as safe and effective aid to cease smoking, contradictory statements of various medical societies on the risks and benefits of ENDS use, bans of ENDS sale and use in leading countries in tobacco control.

Conclusions

There is still not clear evidence whether ENDS are safe and effective aid in smoking cessation and if they can substitute science and evidence based therapies. Moreover, these products are rather used by tobacco industry or strengthening tobacco market than for ending tobacco epidemic. Therefore, these products should not be broadly used by health professionals in treatment of tobacco dependence and advised not to be used by teenagers, pregnant women, patients with allergy, tobacco experimenters and non-smokers.

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A randomized controlled trial of a novel smoking cessation smartphone app integrated with a mobile CO checker

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Objective

To determine the long-term efficacy of "CureApp Smoking Cessation (CASC)" system when added to usual smoking cessation treatments with pharmacotherapy.

Methods

A randomized, sham-controlled, open-label, multi- center trial was conducted in Japan. 584 adult smokers (aged 23 to 80 years) intending to quit smoking were recruited from October 2017 to January 2018 and allocated 1:1 to CASC treatment and control-app (CTL) groups. Both groups underwent a 12-week standard smoking cessation program including varenicline or nicotine patch. In addition, the CASC group used the CASC app for 24 weeks, which provided video tutorials, interactive chatting with automated guidance system, digital diary, and a mobile CO checker for daily measurements of exhaled CO. The CTL group used a control-app in which all the potentially effective functions on smoking cessation were removed. The primary outcome was a biochemically validated continuous abstinence rate (CAR) from weeks 9 to 24. The secondary outcomes included CAR from weeks 9 to 52, and 7-day point prevalence abstinence (PPA) at weeks 4, 8, 12, 24, and 52.

Results

Among all participants, 285 in CASC group and 287 in CTL group (572 in total, of which 74.5% were male) downloaded apps and were included in full analysis set. The primary outcome was significantly higher in the CASC group than in the CTL group (63.9% vs 50.5%; odds ratio [OR] 1.73; 95%CI 1.23-2.42; P=0.001). The results of the CAR from weeks 9 to 52 were comparable (52.3% vs 41.5%; OR 1.55; 95%CI 1.11-2.15; P=0.010). Superiority of the CASC group to the CTL group was also proven in the 7-day PPA at all time points.

Conclusions

A novel smoking cessation app, CASC, could be a promising tool for smoking cessation treatment.

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TOBACCO, CVD AND LUNG HEALTH

The effect of smoking on the incidence of acute myocardial infarction in Tianjin, China, 2010–2013

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Objective

Previous studies on the relative risk (RR) of smoking to acute myocardial infarction (AMI) on a province level in China are lack. The aim of this study is to describe the effect of smoking on the incidence of AMI in Tianjin, China during 2010 to 2013.

Methods

The AMI cases with smoking status were derived from the Tianjin Chronic Disease Incidence Surveillance System. The smoking rates for Tianjin general population by gender and age groups were from the adult tobacco survey in 14 cities from 2013 to 2014, which were used to estimate the corresponding smoking numbers for non-AMI cases from 2010-2013. Average relative risk (RR) for 2010-2013 and 95% confidence intervals (95% CI) of the effect of smoking on the incidence of AMI were calculated. Since AMI mainly occurs after age 40, this paper restricted the population of 40 years old and above.

Results

From 2010-2013, the average incidence of AMI was 194/100000 for male and 121/100000 for female, respectively, increased with age. The incidence of AMI was higher in men than women at all ages. The average number of smokers in three years was 1,007,043, with men 815,956 and women 191,087 in Tianjin. The RR value of smoking for AMI was 2.44 (95%CI: 2.39, 2.50), 1.72 (95%CI: 1.67, 1.78) and 4.74 (95%CI: 4.56, 4.93) for total, male and female, respectively. RR value decreased with age increasing. RR was about 3 at the age of 45 to 64, then decreased to 2 for people aged 65 and above. The highest RR for male was 3 between 40 and 44 years, and for female was 8 at the age of 40-44 and 60-69 groups.

Conclusions

The total RR is about 2.44. RR for female is higher than for male. Using the general population to calculate smoking numbers, RR value may be under estimated.

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Nicotine had no effect on cardiomyocyte death and hypertrophy

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Objective

Smoking is the major risk factor for cardiovascular diseases. Nicotine is most harmful ingredients in cigarettes. Although there are many reports related on the effects of nicotine on cardiomyocytes, some reports showed nicotine induces cardiomyocyte apoptosis and

other reports showed nicotine represses cardiomyocyte hypertrophy. The purpose of this study is to investigate whether nicotine induce/suppress of cardiomyocyte death and hypertrophy.

Methods and Results

First, we preformed MTT assay to evaluate the toxicity of nicotine in neonatal rat primary cultured cardiomyocytes. Treatment of 1mM nicotine did not damage cardiomyocytes compared to control. Next, cardiomyocytes were treated with nicotine for two hours, after this, stimulated with phenylephrine for 48 hours. Cardiomyocytes were immunostained with α-actinin antibody and measured cell surface area. Nicotine treatment did not induce cardiomyocyte hypertrophy compared to control. Moreover, Nicotine did not suppress phenylephrine-induced cardiomyocyte hypertrophy. Finally, cardiac fibroblasts from neonatal rat heart were pretreated with 1 mM of nicotine for 2 hours and stimulated with TGF-ß for 48 hr. Nicotine treatment did not significantly suppressed TGF-ß-induced proline intake.

Conclusion

These results showed that nicotine did not affect directly cardiomyocyte toxicity and hypertrophy. Other compounds in cigarettes may have significant cardiac toxicity.

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Pre-screening mechanism for LDCT lung cancer screening: Identifying higher-risk individuals among never smokers

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Objective

There has been an alarming increase of lung cancer, 3.4-fold at age 65-69 rate and 13-fold in total number in 35 years, among nonsmoking women in Taiwan, The worried well, concerned with their risk, demanded LDCT screening. However, current recommendation was limited to heavy smokers with 30 pack years. Screening low-risk individuals had the potential of causing substantial harms.

Methods

A cohort of 439,119 adults, who had complete medical work up during health surveillance program, between 1994 and 2008, had their IDs matched for lung cancer with National Cancer Registry. Higher lung cancer risk nonsmokers could be identified with prediction models.

Results

Significant risks were found among nonsmokers as follows: Personal history of any cancer or family history of lung cancer; body weight, Reduced spirometry such as FEV1; biomarkers, including elevated Alfa-feto-protean(AFP), Carcino-Embronic Antigen(CEA), and C-reactive Protean (CRP), low bilirubin, second hand smoking, abnormal chest X-ray and geo-coded PM2.5 for air pollution. With 1,307 incidence lung cancer, including nonsmokers (607), light smokers (274) and heavy smokers (426), a prediction model was developed, with ROC 0.806-0.847. A simple 5-year risk score was established for nonsmokers and light smokers to check their risk before LDCT.

Conclusions

With risk-data available, a small portion of nonsmokers (3%) and one fifth of light smokers (20%) could be found qualified for LDCT screening, as they reached 5-year lung cancer risk of heavy smokers, 1.5% in 5 years. This pre-screening model could save unnecessary LDCT procedures and avoid harms and cost associated with screening low risk individuals.

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Environmental tobacco smoke exposure affects the QT interval during early infancy

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Objective

Environmental tobacco smoke (ETS) exposure is associated with an increased risk for sudden infant death syndrome (SIDS). The association between a long QT interval and SIDS has been clearly established. However, there has been little focus on the relationship between the QT interval and ETS exposure during early infancy.

To examine the effect of ETS exposure on the QT interval during early infancy.

Methods

An electrocardiographic study was performed in 624 infants who had been exposed to tobacco smoking since intrauterine life and 1119 age-matched children without ETS exposure. QT data were extracted from an echocardiogram in which an electrocardiogram monitor was incorporated (SSD-ProSound-6500, Hitachi-Aloka, Tokyo, Japan). The corrected QT interval (QTc) using Bazett's formula was measured in the first, second, third, fourth, and fifth months. Data of the number of cigarettes were collected by a questionnaire.

Results

The mean QTc at the first and second months was significantly longer than that at the third, fourth, and fifth months (all $p<0.05$). The mean QTc at the first, second, and third months was significantly greater in ETS infants than in infants without ETS (404±20 vs. 397±21 ms, 407±19 vs. 399±17 ms, and 404±17 vs. 390±18 ms, respectively, all $p<0.01$). However, the mean QTc at the fourth and fifth months was similar in the two groups. The QTc increased significantly with the number of cigarettes ($r = 0.17$, $p<0.01$).

Conclusions

The present study indicates that the QT interval during early infancy lengthens by ETS exposure. Further study is needed as to whether QT prolongation associated with ETS exposure is a risk for SIDS.

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Smoking cessation in diabetic patients

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Objective

Smokers with diabetes show higher risk for serious microvascular and macrovascular complications, leading them to greater mortality risk. Moreover because of insulin resistance that nicotine is causing diabetes parameters become worse in smokers.

The objective was to identify the characteristics of diabetic smokers that could help increase smoking cessation rates.

Methods

We recruited diabetic type II, smokers (searching for diabetic you smoke in the medical files) and motivated them using WHO/ISH risk prediction charts.

We assessed nicotine addiction (FNDT), metabolic rate at rest, psychometric parameters (SCL-90), Confidence, motivation, Body weight, glycosylated hemoglobin, BMI, Blood pressure, exhaled CO, CRP, Blood lipids, eating and exercise questionnaires (FFQ, IPAQ 2002). All parameters were measured at the beginning, at the end of the first month at after 3 months.

The smoking cessation program is administered by a multidisciplinary team (respiratory physician, endocrinologist, dietician, behavioural psychologist) once a week for the first month and then once a month for the first trimester.

All smokers are administered varenicline (free of charge) at the approved dose for 3 months.

Results

From the 20 first diabetic patients that were recruited, 17 (85%-13 men and 4 women) accepted following our smoking cessation program and understood that they would benefit a lot from smoking cessation.

At the end of the 3m. 12 (70,5%) had quit smoking without adding weight, all of them had comorbidities (asthma, depression and coronary heart disease). The group was very addicted (Fangerstrom scale:7,8), was smoking more than one pack of cigarette (24.8cig/d) and were motivated to quit (Average motivation scale 1-10:8.6) but not confident (Average confidence scale 1-10: 5.5).

These are the first results of a clinical trial of diabetic smokers (total number will be 250smokers) that will be helped to quit using intense behavioural support and varenicline for three months.

Conclusions

We conclude that diabetic smokers can effectively quit using an intense multidisciplinary approach, close follow-up plus varenicline for three months, without adding weight. The specific characteristics of this population will be taken into account in order to ameliorate the program. A web-based approach will be added to smokers that cannot follow the program on site.

Table 1. Diabetic Type II smokers that took part at an intense smoking cessation program

Average age (years)	57.6
Average cigarettes/day (before/after)	24.8/3
Average kg (before/after)	82.35/82.85
Average Fagerström score before	7.8
Average motivation (scale 1 to 10)	8.6
Average confidence (scale 1 to 10)	5.5
Average SCL-90 score	77
Average BP systolic/diastolic (mmHg)	124/73
Average HbA1c (%)	6.5
Average CO ppm (before/after)	18.6/7.17

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RAPID COMMUNICATION SESSION 2

Pronounced mortality fluctuations from diseases of circulatory system at working ages in Russia after 1991: Does tobacco play a role?

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Objective

During the last three decades dramatic fluctuations of mortality from the diseases of circulatory system (CSD), with major mortality peaks in 1994 and 2005, were observed in Russia. This study was aimed to estimate associations between two major NCD-risk factors - tobacco and alcohol consumption, with CSD mortality in Russia in working age populations (males:16-59;females:16-54 years) in a time-series analysis between 1991 and 2016.

Methods

Tobacco consumption(TC) was calculated as the index of the annual number of cigarettes sold per capita in Russia. Affordability of vodka (AA) and pattern of alcohol drinking (PAT) were used as the proxy indicators of alcohol consumption. AA index was estimated as the ratio of the index of real disposable income to vodka price index divided by consumer price index. PAT was calculated as the index of proportion of strong alcoholic beverages sold a year in retail. Spearman's rho and Kendal's tau-b correlation coefficients were used to assess strength of bivariate associations between indices of CSD mortality, TC, AA and PAT. All indices were calculated with 1991 taken as the base year. Analysis was disaggregated by sex and by urban/rural status of the population. All primary data were obtained from the Russian Federal State Statistics Agency (RosStat).

Results

Tobacco consumption was moderately to strongly associated with CSD mortality between 1998 and 2016, with the highest strength of association observed among urban males (tau-b=0.534,p=0.002; rho=0.701,p=0.001) and rural females (tau-b=0.582,p=0.001;rho=0.749,p<0.001), with no association seen before 1998 (p>0.05). CSD mortality quite precisely repeated fluctuations of AA between 1991 and 2005, with the strongest association observed among urban males (tau-b=0.714, p<0.001; rho=0.877, p<0.001). PAT was strongly associated with CSD mortality between 2003 and 2016, and especially strongly among urban females (tau-b=0.890, p<0.001; rho=0.969, p<0.001). After 2006 CSD mortality declined in line with the reduction of TC and PAT.

Conclusions

There is evidence that tobacco consumption in Russia contributed to fluctuations of mortality from circulatory system diseases in working age males and females during the period after 1998. Alcohol, in its turn, influenced on mortality fluctuations during the whole period under analysis (1991-2016). Steady reduction of CSD mortality seen after 2006 is likely facilitated both by reduction of tobacco consumption, and by change of pattern of drinking from spirits to low alcohol content beverage drinking. Restrictive tobacco and alcohol control policies implemented in Russia during the past fifteen years contributed to this reduction.

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Serum levels of Cystatin C, a sensitive marker of cardiovascular disease: Decrease after smoking cessation

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Objective

Smoking is the world's leading preventable cause of death. Smoking causes a number of atherosclerosis vascular diseases and contributes to the progression of chronic kidney disease. Serum cystatin C has a low molecular weight of 13 kDa and is produced constantly and is not affected by a decrease in muscle mass. Serum cystatin C is useful in evaluation of early renal dysfunction and serves as a cardiovascular prognostic marker. This study aimed to determine changes in serum cystatin C level after smoking cessation.

Methods and Results

In this study, patients who visited the smoking cessation clinic for the first time and succeeded in smoking cessation for 1 year were enrolled. Among the entire cohort of 86 patients, body mass index (BMI, $P < 0.001$) and waist circumference (WC, $P < 0.001$) increased significantly at 3 months after smoking cessation in comparison to the baseline values. These values were further increased significantly (BMI, $P < 0.001$; WC, $P < 0.001$) from 3 months to 1 year after smoking cessation. The serum cystatin C level decreased significantly at 3 months ($P = 0.045$) after smoking cessation, and remained unchanged ($P = 0.482$) from 3 months to 1 year after smoking cessation. The percent change from the baseline to 3 months after smoking cessation in serum cystatin C was correlated with the percent change in serum MCP-1 ($P = 0.047$).

Conclusions

The present study demonstrates that serum levels of cystatin C, a sensitive marker of atherosclerotic vascular, significantly reduced at 3 months after SC. AT-LDL may lead to the marker of future cardiovascular events in smoker.

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Long-term smoking affects the oral health status of later stage elderly males and increases the cost of dental treatment

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Objective

In this study, we investigated the effect of smoking on the oral health and the cost of dental treatment in Japanese latter-stage elderly people.

Methods

The number of subjects enrolled in this study were 931 (males: 347, females: 584) who was 75 years of age living in Tokushima City, Japan, and who was able to grasp the smoking period until the age of 75. Dental-health examination was conducted in 2015-2017. According to the questionnaire on smoking habit, the subjects were divided into two groups; the smoking group were current smokers and former smokers who quit smoking after the age of 55, and the control group were never smokers and former smokers who quit smoking before the age of 55. Statistical analysis regarding oral condition and the cost of dental treatment was performed according to gender.

Results

The number of the smoking groups and control groups were 253:94 for males, and 573:11 for females, respectively. Among males, the number of teeth in the smoking group (18.6±8.9) was significantly lower ($p=0.008$, t-test) than that in the control group (21.4±7.5), and the cost of dental treatment in the smoking group (65,036±53,706 Japanese Yen/ year) was significantly higher ($p=0.012$, t-test) than that in the control group (48,902±52,179 Japanese Yen/ year). In addition, there is a significant problem with swallowing in the smoking group when compared to that in the control group (odds ratio=1.873; 95% CI=1.067 - 3.302). On the other hand, no significant differences were found between the two groups in females.

Conclusions

Results from the cross-sectional survey suggested that long-term smoking affects the oral health of later stage elderly males and also increases the cost of dental treatment.

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The effect of highly absorbed curcumin on an oxidized LDL in patients with COPD

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Objective

COPD is primarily caused by regular smoking and is associated with a high frequency of coronary artery disease. There is growing recognition that the inflammation in COPD is not only confined to the lungs but also involves the systemic circulation and can impact non-pulmonary organs, including blood vessels. α1-antitrypsin-low-density lipoprotein (AT-LDL) complex is an oxidized LDL that accelerates atherosclerosis. Curcumin, one of the best-investigated natural products, is a powerful antioxidant. However, the effects of curcumin on AT-LDL remain unknown. We hypothesized that Theracurmin®, a highly absorptive curcumin with improved bioavailability using a drug delivery system, ameliorates the inflammatory status in subjects with COPD.

Methods

This is a randomized, double-blind, parallel-group study. The subjects were men or women (age, 20–85 years) who met the following criteria: 1) patients with COPD at stage 0, I, or II according to the definition by the Japanese Respiratory Society and 2) patients who have never smoked at least for the past 4 months. Subjects were randomly assigned to receive 90 mg Theracurmin® or placebo

twice a day for 24 weeks, and changes in inflammatory parameters were evaluated.

Results

There were no differences between the Theracurmin® and placebo groups in terms of age, male/female ratio, or body mass index in 39 evaluable subjects. The percent changes in blood pressure and hemoglobin A1c and LDL-cholesterol, triglyceride, or high-density lipoprotein-cholesterol levels after treatment were similar for the two groups. However, the percent change in the AT-LDL level was significantly (P=0.020) lower in the Theracurmin® group compared with the placebo group. However, LDL-C, IL-6 and TNF-α were not changed.

Conclusions

Theracurmin® reduced levels of atherosclerotic AT-LDL, which may lead to the prevention of future cardiovascular events in patients with COPD.

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Development of an online webcast to build tobacco control capacity of nurses in Japanese clinical cancer centers

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Objective

The objective of this presentation is to provide a practical outline of the development process of an online educational webcast based on an e-learning program established in the US to build tobacco control capacity of nurses.

Methods

The Japanese Society of Cancer Nursing joined an international project carried out by the International Society of Nurses in Cancer Care to educate nurses on how to help cancer patients quit smoking. This project has an e-learning program available in several languages, but not in Japanese. In this project, the original program, consisting of 2 webcasts about evidence-based cessation interventions, was translated from English into Japanese and adapted for Japanese oncology nurses.

Results

The original webcasts, which provide general and cancer specific knowledge of cessation interventions, are about 45 minutes each but for the Japanese context were adequately shortened to about 20 minutes each to help keep nurses' enthusiasm throughout the duration. The contents of the Japanese webcasts needed to be equivalent to the original edition in order to compare their effects on nurses' education with those of other countries. Therefore, although some information such as healthcare system and statistical data was replaced to address the Japanese context, there are no major differences from the original edition. Instead, shortening of the webcasts was achieved by editing the culturally specific details and duplicated contents. Also, the narration was simplified and the illustrations corresponding to the scenario were added. The final Japanese webcasts were checked and approved by a colleague who developed the original webcasts.

Conclusions

We were able to successfully develop a culturally appropriate Japanese version of an educational webcast for nurses that was approved by the original author.

Funding

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Reality and possibility of smoking cessation support and collaborative approach by dental hygienists

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Objective

We examined how dental hygienists support smoking cessation in their routine regular check-up sessions. In Japan, where primary medical care is provided by universal health insurance (UHI), smoking cessation support is not included in dental care under UHI. However, the smoking habit is the greatest risk factor for periodontal disease and risk factors for various oral mucosal diseases; hence regardless of lack of financial incentives for the clinics, many dental hygienists take the initiative in smoking cessation support.

Methods

A web survey on smoking cessation support (Survey Monkey, using servers by Advantage Service) was conducted for dental hygienists who were a member of the Japan Health Care Dental Association, and responses were received from 182 people. The release period of the URL was from July 12, 2018 to September 15.

Results

Those who suggested smoking cessation to their patients: 91.2%; recommended smoking cessation to 6 or more patients in the last year: 40.0%. In this survey included was a question, "Under what circumstances would you not suggest smoking cessation?" The answer was, "Anyone who absolutely refuses to quit smoking: 64%; they (DH) feel that the patients do not want to quit smoking or any intervention related to smoking cessation: 52%; when a patient refuses initial treatment: 38%."

Conclusions

The project of "Capacity Development: Dental Hygienists as Supporters and Collaborators of Smoking Cessation" develops seminars and workshops to learn how to support smoking cessation in every day clinical practice, sharing the experiences of each other through group work and role-play based on the narratives of smokers. Through these activities emerging is a way of collaborative approach (in contrast to instructive approach) toward smoking cessation. In regular professional dental care, lifelong continuous care with so many teachable moments, smoking cessation support is both important and effective.

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Effects of cigarette smoke extract and heat-not-burn cigarette smoke extract on microRNA expression in keratinocyte cells

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Objective
Concerning the association between smoking and cancer, the relative risk of death in Japanese oral and pharyngeal cancer due to smoking is more than doubled. On the other hand, heat-not-burn cigarettes have begun to be sold in Japan, and it has recently been reported to release carcinogens at higher concentrations than conventional heating cigarettes.
In this research, it was clarified whether the heat-not-burn cigarettes, as well as conventional heating cigarettes, are involved in carcinogenesis by causing multi-step gene mutation. The purpose of this study was to obtain new evidence based on comprehensive gene expression analysis focusing on microRNA.
Methods
The Keratinocyte-derived cell lines HaCaT was routinely cultured in DMEM and 10% (v/v) FBS. All cells were grown in antibiotic-free media at 37°C and 5% (v/v) CO2.
Keratinocyte cells were serum-starved for 16-18 h before experimentation. For the viability assays and preparation of conditioned media, Keratinocyte cells were treated with 0–100 µg/ml CSC for 48 h at 37°C and 5% (v/v) CO2. Cells were collected and stored at –20°C.
MTS reagent (Promega) was added and OD measured at 490 nm using a spectrophotometer following incubation at 37°C, 5% (v/v) CO2 for 48 h.
The RNeasy Mini Kit (Quiagen, Hilden, Germany) was used to extract total RNA from keratinocyte according to the manufacturer's instructions, and RNA was quantified using a bioanalyzer 2100 (Agilent, California, US).
Subsequently, using miRNA PCR array platform (Human Cancer Pathway Finder miScript miRNA PCR array, MIHS-102Z, Qiagen), we analyzed the miRNA profiles in these cell lines.
To identify the possible targets of this miRNA, we performed bioinformatics analysis by TargetScan algorithm and integrated analysis across the data of human cancer cell lines and mRNA microarray data to identify miRNAs whose expression correlated with the inverse expression of mRNA targets predicted in silico.
Results and Conclusions
Heat map generated from miRNA microarray data and scatterplot of miRNA gene expression level in keratinocyte cells exposed to heat-not-burn cigarette smoke extract against cigarette smoke extract are differences in miRNA expression were observed.
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Who still smokes in older age?

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As smokers get older, they tend to quit smoking in association with declining health and economic status. However, the association with the changes in work and life situations in the older age has not been fully explored. This study investigated the factors associated with current smoking among older persons in Korea, using the data from 2016 survey as part of Korean Longitudinal Study of Ageing (KLoSA). Multiple logistic regression analysis was used for current smoking as the dependent variable. Of the 6618 participants, average age was 70.8 years (range 56-108), 58% were women, and 10.3% were current smokers, including 1.6% of women and 22.3% of men. The factors associated with current smoking included younger age ($p<0.01$), being male (OR 19.1, $p<0.01$), single (OR 1.5, $p<0.05$), currently employed (OR 1.4, $p<0.01$) or self-employed (OR 1.3, $p<0.05$), no social life engagement (OR 1.6, $p<0.01$), and having fewer than 2 chronic diseases (OR 1.4, $p<0.01$). This study suggests that smoking cessation messages need to be adapted to the evolving work and life contexts among older persons.
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Early and late implant loss among smokers according to a large-scale survey in Japan

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Objectives
Oral implant loss has been recognized to be associated with smoking. Nicotine is affected by peri-implant soft tissue with vasoconstriction and impaired cellular healing response. However, a gap between preclinical and clinical research outcomes was observed. A cross-sectional, nationwide survey was conducted to examine the relationship between tobacco smoking and oral diseases among the Japanese population.
Methods
Questionnaire survey sheets were sent to 489 designated facilities by postal mail, and in all, 251 (50.4%) facilities responded. Among these, 246 were valid responses. The following demographic items were corrected: number of implants placed, duration of observation period after implantation, smoking habits, number of cigarettes, smoking duration, drinking habits, diabetes mellitus morbidity, and number of implant failures for those who underwent implantation between January 1, 2012 and December 31, 2012. Pack-years in implant loss were evaluated in three groups: at ≤12 months (early loss group), ≤120 months (late loss group) and >120 months of implant loss (non-implant loss group).
Results
During the survey period, 1,966 patients were analyzed. The odds ratio for implant failure was 2.20 (95%CI: 1.34–3.63) for current smokers in a selected age group (≤20 years). The pack-years were higher in the late implant loss group (35.7 ± 18.4) than those in the non-implant loss group (26.1 ± 18.1). The result indicated that a higher number of pack-years was associated with late implant loss. However, the number of pack-years was not associated with early implant loss.
Conclusions
This cross-sectional survey conducted in Japan suggested that smoking is significantly associated with implant failure. Irrespective of the duration of smoking exposure, smoking habit was associated with early implant loss.
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Heated tobacco smoking may decrease gingival blood flow in humans

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Objective

Earlier studies on crevicular fluid flow and gingival blood flow indicated increased gingival blood flow after smoking. In this study, we measured gingival blood flow following heated tobacco smoking.

Methods

We used a laser Doppler flowmeter (LDF) with different optic-fiber separations of 0.3 mm (LDF-0.3) and 0.7 mm (LDF-0.7). We have confirmed that the LDF-0.3 and difference between LDF-0.7 and LDF-0.3 (LDF-d) represented gingival blood flow in superficial fraction and deeper fraction, respectively. Eight heated-tobacco smokers consuming 4-25 daily volunteered and were asked not to smoke at least 5 h before the experiment. Gingival blood flow of upper papillary gingiva of frontal teeth was measured before and after smoking. Subjects smoked heated tobacco for about 5 min.

Results

Changes in LDF-0.3 and LDF-d after smoking were not statistically significant. However, LDF-0.7 significantly decreased after smoking ($P<0.05$). Five subjects showed a decrease in LDF-0.3 immediately after smoking, while smoking in 5 subjects caused a relative increase in LDF-d after smoking. Decreases in gingival blood flow in both fractions of gingiva after smoking were found only in one subject.

Conclusions

These results suggest that heated tobacco smoking may decrease gingival blood flow particularly in superficial layer of gingival.

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Effects of smoking cessation on HDL functionality

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Objective

Cigarette smoking is positively correlated with the morbidity of cardiovascular diseases (CVD). It was reported that reduced high density lipoprotein (HDL) functionality is one of the causes of CVD. In this study, we hypothesized that smoking cessation could lead to improved HDL functions, and evaluated the cholesterol efflux capacity, antioxidative capacity of HDL in participants before and after smoking cessation.

Methods

Thirty-two Japanese adult smokers aged were enrolled for treatment at the Smoking Cessation Clinic of Fukuoka University Hospital. Participants either received varenicline for 12 weeks or wore a transdermal nicotine patch on their chest for 8 weeks. Successful smoking cessation was identified by both a self-assessment report and the end-expiratory carbon monoxide (CO) concentration (under 8ppm). Plasma lipid profiles, plasma and HDL malondialdehyde (MDA) levels, HDL subfractions as analyzed by capillary isotachophoresis, cholesterol efflux capacity and antioxidative capacity of HDL were measured before and after this intervention.

Results

After smoking cessation, HDL-C, apoA-I levels and HDL subfractions did not significantly change. Nevertheless, cholesterol efflux capacity and the antioxidative capacity of HDL were significantly improved in the successful smoking cessation group. The extent of the changes in cholesterol efflux capacity and antioxidative capacity of HDL correlated with those in the end-expiratory CO concentration and MDA in HDL, respectively.

Conclusions

Our findings indicate that cigarette smoking impairs HDL function and smoking cessation restores it. This may be one of the mechanisms by which smoking cessation has beneficial effects against CVD.

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Smoking history and long-term outcomes post PCI by sex, from FU-Registry

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Objective

Most important lifestyle factor for the primary and secondary prevention for coronary heart diseases is smoking. However, few reported on the relationship between smoking habits/history and long-term outcomes post PCI procedures.

Methods

From our PCI- Registry (FU-Registry), 829 PCI cases (497 males, 332 females) whose 5 years follow-up data including clinical outcomes were available, were used.

Results

In males, no difference was observed in patient's background or lesion characteristics between smoker and never smoker groups, however, smoking (+) showed high incidence of dyslipidemia, statin use at first PCI, but as for clinical outcomes are similar between the groups. For females, smoking (+) group showed low HDL-C (48.3 +12.8mg/dL vs. 51.5+13.4mg/dL, $p<0.01$), and lesion reference was significantly smaller than smoking (-) group. No difference was observed in medications, while smoking (+) showed high complication of ASO.

Conclusions

Females were less smokers than males, while female smokers showed low HDL-C levels at PCI and then long-term outcomes (including MACEs) were more frequent in smokers than never smokers.

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TOBACCO PRODUCT REGULATION AND TOBACCO CONTROL IN ACTION

Tobacco control in three North African countries: Tunisia, Algeria and Morocco

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Objective

The aim of the study is to describe the main challenges of tobacco control in 3 north African countries: Tunisia,

Algeria and Morocco.

Methods

Data information was obtained from peer-reviewed articles, official government documents, reports, decrees and grey literature in French, Arabic and English. Main keywords in use were "policies", "MPOWER", "tobacco control", "Tunisia" "Algeria".

Results

The highest prevalence in the general population were noted in Tunisia with an overall prevalence at 25%. This prevalence was 16% in Morocco and 14% in Algeria. The mortality attributable to tobacco among men was 18.2% (for 35 years old and over) in Morocco and 22% (25 years and over) in Tunisia. It was 3.4% and 4% among women successively for Morocco and Tunisia. This latter adopted anti-tobacco law on 1998, In Morocco a tobacco control law was enacted in 1996 and in 1985 in Algeria. Added to this Tunisia and Algeria adopted the FCTC but not Morocco. This country only signed the convention.

All laws in these countries included bans on advertising, on sponsorship and on smoking in public transport and educational and health care facilities. The law requires that all packs of cigarettes display messages warning about the harmful effects of tobacco. However, these laws have not been strictly enforced and has generally not been respected by the general population.

Therefore, it is essential to highlight that Morocco adopts the FCTC. All three countries should raise efforts to implement tobacco control legislation that fully complies with the Framework Convention on Tobacco Control. In order to achieve these countries should prioritize resources for capacity building for strong FCTC compliant legislation, including strengthening the monitoring system of the MPOWER policies: a national surveillance system; communication campaigns; promoting and expanding the coverage of the smoking cessation care; actions to control advertisement, promotion, sponsorship, and smuggled cigarettes; and increasing tax.

Conclusions

Effective tobacco control should be implemented in Tunisia, Algeria and Morocco. Commitments from their governments are crucial for this tobacco control actions.

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Dismissal of eight tobacco industry lawsuits against the Panamanian State

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Panama has implemented several tobacco control health regulations (TCHR), contained in law 13/2008, that are stated in the Framework Convention on Tobacco Control (FCTC). Consequently, Panama has the lowest recorded prevalence of tobacco use in adults in the Americas.

The tobacco industry (TI) has interpreted the TCHR as a means of damaging its products, its business model and its clients, and it has sued the Panamanian State to render the TCHR null and void. If the TCHR are allowed to become null and void, the TI will be free to advertise its products.

The lawsuits in which the Panamanian State is the defendant have been deliberated in the Contentious-Administrative Room, also known as the Third Room, of the Panamanian Supreme Court (PSC) due to the lack of lower courts in the Panamanian legal system. Each room of the PSC is presided over by three justices. Since 2010, the TI has sued the Panamanian State nine times. After deliberations, the justices of the Third Room have dismissed eight of the TI claims, but there is still one lawsuit concerning which a verdict has not yet been reached.

These rulings are important because they exemplify the interaction between TCHR and the law, including jurisprudence regarding the right to health that people hold in the context of human rights.

Funding

This study is financed by public funds. Some of these public funds come from the Selective Tax on the Consumption of Cigarettes and other Tobacco Products. This tax discourages the use of tobacco products. However, the funds coming from this tax are used in activities to improve the primary and secondary prevention of tobacco-associated diseases, such as this study.

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Social variations in tobacco products consumption in Kenya: The influence of education, employment status and gender

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Objective

The consumption of tobacco products in resource limited settings is envisaged to greatly contribute to all times high global burden of disease especially in low- and middle-income earning economies. over 78% of the world users of tobacco products currently live in resource limited settings and this coupled with myriad of health challenges in these countries, the continued consumption of these products is a subject that cannot be ignored.

To determine various social variations in consumption of tobacco products and how gender, employment status and education level influences its consumption.

Methods

A cross-sectional study design with simple random sampling was used. An interviewer-administered questionnaire was used. Quantitative data was analyzed using SPSS. Chi- Square and Odds Ratio were used to test for significance of association.

Results

Overall tobacco products use according to education level showed a sturdy gradient; risks were higher among respondents with no education (male OR=7.42, female OR=20.11) than among those in tertiary level of education. The odds of tobacco products use were equally significant according to employment status; casual male workers (OR=1.58), male semi-skilled workers (OR=1.49), and unemployed (male OR=1.31 female OR=1.81) were more at risk than skilled workers.

Conclusions

The outcome of this research reveals that education and employment status have critical and independent relationships with tobacco products consumption that necessitate consideration from legislators and investigators.

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Attitudes towards tobacco control policies among smokers of menthol, other flavored and unflavored cigarettes: Findings from the EUREST-PLUS ITC Europe Surveys

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Objective
To assess the attitudes of flavored and unflavored cigarette smokers towards tobacco control policies, including the EU flavors ban and to explore the ban impact on smoking behaviors.

Methods
The research analysis include data from Wave 1 of the EUREST PLUS-ITC Europe Survey Project in Germany, Greece, Hungary, Poland, Romania, and Spain, and data from other ITC surveys conducted in England and the Netherlands. All cross-sectional data were collected in 2016 among 10,760 adult current smokers. The attitudes towards various tobacco control policies have been compared among menthol, other flavored and unflavored cigarette smokers. The univariate data analysis adjusted to few confounding factors was made with the use of SPSS Complex Samples Package.

Results
Findings show that menthol smokers are much less likely to support a ban on tobacco additives and flavors than other cigarette smokers but they are more supportive of smoking ban in public places. After the enforcement of the ban, 16% of menthol cigarette smokers and 10% of other flavored cigarette smokers reported the intention to quit smoking. However, the percentage of those menthol and other flavored smokers who declare quitting smoking after the ban implementation varies substantially with countries. Furthermore, almost one of three menthol cigarette smokers (27%) say they will find a way to get menthol tobacco product banned.

Conclusions
Attitudes of menthol and other flavored cigarettes towards various tobacco control policies differ substantially in the analyzed countries. Therefore, tobacco control and smoking cessation programs should be adapted to country needs. A special attention must be focused on smoking cessation offer addressed to those menthol cigarette smokers who intend to quit smoking after the flavors ban and on preventing the risk of illicit trade in menthol cigarettes.

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RAPID COMMUNICATION SESSION 3

Smoking cessation affects human platelet activation induced by collagen

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Objective
For patients undergoing surgery, quitting smoking prior to surgery is recommended, since smoking increases the risk of postoperative morbidity or mortality. Although smoking is recognized to change the hemostatic process, the influences of smoking and smoking cessation on human platelet activation remain controversial. Since collagen initiates human platelet activation in the process of thrombus formation, we investigated the effects of smoking cessation on human platelet activation induced by collagen.

Methods
We enrolled patients in smoking cessation outpatient services (n=19). Blood samples were donated before smoking cessation, 4, 8 and 12 weeks after smoking cessation. We investigated the size of platelet aggregation using laser scattering methods. We examined the effects of collagen on platelet aggregation, the secretion of platelet-derived growth factor (PDGF)-AB and the levels of collagen-induced phosphorylation of p38 mitogen-activated protein (MAP) kinase.

Results
A low dose of collagen (1 μg/ml) accelerated platelet aggregation at 4 or 8 weeks after smoking cessation compared with before cessation. After 12 weeks, the levels of platelet aggregation induced by collagen were almost to the levels before smoking cessation. The collagen-induced PDGF-AB secretion levels at 4 or 8 weeks after quitting smoking were significantly higher than before quitting smoking. Smoking cessation strengthened the collagen-induced phosphorylation of p38 MAP kinase after 4 weeks.

Conclusions
Our results strongly suggest that smoking cessation causes temporary hyper-activation of human platelets in the short term. We may be able to reduce the incidence of complications due to hyper-reactivity of human platelets by considering the smoking abstinence period.

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Disease familiarity and believability inform pictorial health warning ineffectiveness, among rural male smokers in the Philippines

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The Philippines continues to have one of the highest tobacco burdens in Asia and Southeast Asia. Only in the last decade were substantial tobacco control policy reforms implemented to address this public health issue, such as the enactment of the Graphic Health Warnings (GHW) Act in 2014 that requires at least 50% GHWs in tobacco product packages through 12 discrete pictograms changed biennially. However, despite a 5-year implementation, no systematic study has been conducted regarding GHWs and local contexts to inform pictorial selection or evidence-based policy amendment. This qualitative study examined why smokers continued to smoke despite the presence of GHWs using the Fear Appeals Theory. Explanation-building and thematic analysis were utilized after semi-structured interviews of qualified respondents. Adult males with at most a high school education, from barangay Urdaneta, Magallanes, Cavite (population = 2,092) were selected by chain-referral sampling and interviewed until data saturation (n = 44). Respondents found GHWs "ineffective" because of their "inability to go against their impulse to smoke" and their "disbelief" on GHWs. Respondents viewed GHWs as "a hoax meant to scare them", "unrealistic," and "untrue" because they did not personally observe or know about the GHW disease state depicted. This is more pronounced for unfamiliar diseases such as gangrene and emphysema. "More familiar" diseases like those involving the heart and lungs elicited better responses on GHW believability. This study highlighted the importance of integrating a cognitive dimension to GHW policy to counteract nicotine addictiveness and increase its role in smoking cessation support, especially among similar cohorts. This serves as an early evidence that depicting "more familiar" diseases, in contrast to exclusively "shocking" images, could improve the health literacy goal of GHWs.

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Education and training of tobacco control for public health personnel of local governments

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The aim of our project is to provide opportunities of smoking cessation to smokers by health guidance in the community health service, industrial health care, and school health care etc. Finally, we hope to increase the number of smokers who perform the smoking cessation and successfully quit smoking. In order to achieve this objective, we will develop e-learning system, science-based information booklet for staff in the field of health/medical care and social services to know how to support smoking cessation for smokers. In particular, we can offer learning opportunities for many people using e-learning system. However, it is difficult to build an instructor network with only e-learning system, we will also have training session in the conventional classroom structure.

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Sex differences in the attitudes towards a school-based smoking prevention intervention

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Objective
Over the last decades, numerous school-based smoking prevention programs have been launched internationally. However, there has been limited research on the differential effect of sex in response to the implementation of school-based smoking prevention interventions.
The aim of this study was to examine sex differences in the attitudes towards a school-based smoking prevention intervention. Specifically, the research questions explore whether there are sex differences in the attitudes towards the three main components; 1) Smoke-free school grounds 2) Smoke-free curriculum, and 3) Smoke-free agreement.
Methods
We used data from the X:IT II intervention study with 46 elementary schools collected in 2017-2018. The X:IT II intervention is a school-based multicomponent smoking prevention intervention targeted all students attending grade 7 to 9 (13- to 15-year-olds). Data were collected by electronic questionnaires completed by students at first follow-up.
Results
We found that compared to boys, girls were significantly more positive towards the implementation of smoke-free school grounds, both concerning teachers smoking (66 % vs 53.5 %) and students smoking (61.3 % vs 51.9 %) and toward the smoke-free curriculum (79.5 % vs 71.9 %). No statistically significant differences between boys and girls could be observed in the proportion of students signing the smoke-free agreement, nor in their attitudes towards the agreement.
Conclusions
This study showed that there were, to some extent, sex differences in the attitudes towards components in the X:IT II intervention study. Our findings highlight the importance of considering sex differences in future health prevention initiatives.
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Smoking prevention class by physicians reduced smoking rates after 8 years

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Objective
Numerous studies have examined whether school smoking prevention education for minors can reduce smoking rates in later life, but no consensus has been established. Doctors in Kanazawa, Japan, voluntarily visited elementary schools to provide smoking prevention education for 12-year-old students. We attempted to assess whether this education is effective for lowering smoking rates in students when they reach 20 years of age.
Methods
We defined a community area that has 14 elementary schools for this study. We provided education at some of the 14 schools once a year for 12-year-old students. After 8 years, we carried out a questionnaire survey on smoking for 20-year-old young adults. We compared smoking

behaviors at the age of 20 between the educated and the control groups of the 3 year period from 2015.

Results

The smoking rate was significantly lower in the educated group, indicating that smoking prevention education in elementary schools for 12-year-old students, provided by doctors, reduced smoking behavior, even at the age of 20.

Conclusions

Smoking prevention education for 12-year-old students at elementary schools by volunteer physicians significantly reduced smoking rate at the age of 20.

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Awareness of e-cigarette and heat-not-burn tobacco, and actual status of their use among Japanese students

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Objective

Recently the number of adults who smoke e-cigarette (EC) and/or heat-not-burn tobacco (HNBT) has been increasing in Japan. It is important to clarify the awareness of them and actual status of their use among Japanese students.

Methods

In 2018, the author conducted questionnaire surveys in six primary schools and four junior high schools, and asked the students if they knew EC and HNBT (IQOS, PloomTECH, Glo). The degree of recognition was classified into four categories; A: "never know", B: "only know the name", C: "have seen the item", and D: "my family member(s) smoke(s)".

Results

Responses were obtained from 593 schoolchildren (5th and 6th grades) and 584 junior high school students (7th and 8th grades), and the results were as follows. Among schoolchildren about EC, A:47.6%, B:28.7%, C:17.6%, D:6.1%, and about IQOS, A:49.1%, B:14.8%, C:15.1%, D:21.0%. Among students about EC, A:35.3%, B:36.8%, C:22.6%, D:5.3%, and about IQOS, A:53.2%, B:17.8%, C:17.0%, D:12.0%. As for Ploom TECH and Glo, nearly 90% of them answered "A".

Conclusions

About half of the schoolchildren and the students knew EC and IQOS. It may reflect the popularity of them in Japanese society. Smoking rate of combustible cigarette in Japanese junior high school students has been dramatically decreasing in these 20 years. The first and nationwide data of their smoking rate of EC and HNBT were reported from the Japanese Youth Tobacco and Alcohol Surveys in 2018. It revealed that the rates of smoking experience of EC were 2.4% in male students and 1.7% in females, and those of HNBT were 1.3% in males and 0.9% in females. As for cigarette, 3.1% in males and 2.1% in females. Since there's a possibility that more students will start to smoke EC and HNBT, anti-smoking education should include information about the risk of EC and HNBT.

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Subgroup meta-analysis on relationship between secondhand smoke exposure and dental caries

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Objective

A previous meta-analysis demonstrated a moderate relationship between dental caries in primary and permanent dentition and secondhand smoke exposure (prenatal or postnatal) in children and adolescents. The present study aimed to compare the effect size of secondhand smoke on dental caries and its heterogeneity by potential sources of the difference with subgroup meta-analysis.

Methods

Articles identified in our previous review and collected through updated PubMed search were used. A generic inverse variance method (random-effects model) was conducted to combine the data from eligible studies and calculate the summary adjusted odds ratio (OR) as pooled effect size estimates. Subgroup meta-analysis compared differences of the pooled effect size by study design (cross-sectional or longitudinal), country (Japan, the U.S. and Europe), adjustments for socio-economic status (with or without), and status of secondhand smoke exposure (current and former). The heterogeneity across studies was assessed using the I2 statistics and Cochrane's Q.

Results

Nineteen articles were included in the meta-analysis. The pooled effect size estimate for studies in Japan (OR = 1.61, $p < 0.001$) was similar to that in the U.S. and slightly higher than that in Europe. Studies with adjustments for socio-economic status showed a lower effect size (OR = 1.51, $p < 0.001$) compared to those without (OR = 1.66, $p < 0.001$). The estimated OR was 1.46 ($p < 0.001$) and 1.13 ($p = 0.11$) for current and former exposure, respectively. Heterogeneity analysis found a moderate heterogeneity in most subgroups, a high heterogeneity (Q = 13.6, $p = 0.004$; I2 = 78%) in longitudinal studies and a mild heterogeneity (Q = 9.1, $p = 0.17$; I2 = 34%) in studies of Europe.

Conclusions

The effect of secondhand smoke on dental caries and its heterogeneity were influenced by geographical and methodological factors. Unexpected factors for explaining heterogeneity still remain.

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Association among secondhand smoke exposure, sleep quality, and prevalence of sleep bruxism in Japanese young adults: A cross-sectional study

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Objective

Sleep bruxism, a major sleep disorder that causes serious

harm to oral health, is considered a multifactorial disease. Sleep bruxism can be induced by secondhand smoke (SHS), which adversely affects sleep quality. The objective of present study was to clarify the associations between sleep bruxism, sleep quality, and SHS exposure.

Methods

To assess the prevalence of sleep bruxism, sleep quality, and SHS exposure, we conducted oral examinations and self-report questionnaires on university students in Japan. The inclusion criteria were age 18 or 19 years, non-smokers and non-alcohol drinkers. The exclusion criteria were failing to complete the questionnaire in full. To assess the associations between sleep bruxism, sleep quality, and SHS exposure, we used chi-squared test and structural equation modeling.

Results

We analyzed a total of 1,781 Japanese young adults. Females who had been exposed to SHS had worse sleep quality ($p = 0.019$) than those who had not. Females with worse sleep quality showed a higher prevalence of sleep bruxism ($p = 0.034$) than those with better sleep quality. Using structural equation modelling, direct associations were identified between SHS exposure and poor sleep quality (standardized coefficients, 0.153; $p = 0.008$) and between sleep bruxism and poor sleep quality (standardized coefficients, 0.187; $p = 0.022$) in females. However, no association was found among males.

Conclusions

These results suggest that SHS exposure is associated with poor sleep quality and sleep bruxism in Japanese young adult females.

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Exposure of children to secondhand smoke is abuse: A new definition

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Objective

The Tokyo Metropolitan Government was the first part of the country to enact laws to protect children from second-hand smoke starting in April 2018. Regulations on second-hand smoke in homes and private automobiles are commonplace in developed nations, but in our country this could be considered ground-breaking. We conducted an opinion poll of people in a variety of occupations regarding the need for such regulations.

Methods

Speakers at lectures on tobacco countermeasures held from October through December 2017 after the regulations in the Tokyo area were enacted presented an anonymous questionnaire to about 600 people of various occupations before classifying and examining their responses by gender and occupation.

Results

1) Regarding legal regulations to protect children from second-hand smoke, the majority responded that they are "necessary," followed by "notify guardians of the dangers first."

2) The responses to the question of whether smoking in the home or private automobiles was abuse, the responses were split evenly between "abuse" and "cannot be called abuse".

In our country abuse is defined as 4 categories: physical abuse, psychological abuse, sexual abuse and neglect, with "physical abuse" covering bone fractures and external wounds. It does not include respiratory illness, tympanitis, developmental disorders and other such damage, but inasmuch as these threaten the development of children, they can be called abuse. In many other countries and provinces smoking with children in private automobiles is already prohibited.

Conclusions

The presenters have already conducted surveys regarding signage prohibiting smoking in children's playgrounds around the countries, but as of yet only 10% of such playgrounds have signage prohibiting smoking.

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How Indonesian media portray electronic cigarettes: A content analysis of online news reports from 2012-2017

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Electronic cigarettes (e-cigarettes), of which the health effects are deemed as less harmful than traditional cigarettes, have been sold in Indonesian market since 2010. We sought to examine the portrayals of e-cigarettes in online news media as they have been the new main source of information among Indonesians. A content analysis was conducted on all news report published by four most popular online news media in Indonesia from 2012 to late 2017. The news reports were obtained by both search methods; within the media websites, and through the Google advance search. The reports were reliably coded for topics of the story, news source, and coverage of benefits and harms of these products. The result shows that of the 418 articles found mentioning e-cigarettes, only 320 articles (76.6%) focused specifically on e-cigarette issues and were included in the analysis. The dominant topics of those articles were regulation or policy updates, and health effects of e-cigarettes (26.6% and 21.6% respectively); while the dominant news sources were scientist/researcher (34.7%) and government officials/policy makers (30.3%). Framing of e-cigarettes are equally or more harmful than traditional cigarettes appeared in 126 articles (39.4%); while framing of e-cigarettes are not harmful or less harmful than traditional cigarettes were used in 63 articles (19.7%). Over time, e-cigarettes were portrayed more negatively (70.9% of total articles) with a sudden three-fold increase in the number of articles published from 2016 to 2017. The outnumbering negative frames of e-cigarette indicated that the online news media tried to influence the public to oppose these products. However, the tendency of dominantly portraying the negative effects of e-cigarettes are inconsistent with the current e-cigarette smoking behaviour in Indonesia. Future research investigating the political economy of media may obtain deeper understanding on how online news media produce their stories.

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Determination of harmful chemical compounds generated from heated tobacco products in Japan

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Japan is a country with a large sales volume of Heated tobacco products (HTPs) in the world. The reason was widely recognized by the introduction of IQOS in Japan's famous TV show in 2016. And more, electronic cigarettes containing nicotine are hardly widespread because they need to be marketed as pharmaceuticals in Japan. Since the heating temperature of the HTPs is controlled to be lower than the combustion temperature of cigarette, generation of harmful chemical substances is also suppressed. HTPs such as glo and Ploom TECH were sold one after another after IQOS which was put on the Japanese market from Philip Morris International in 2014. From the second half of 2018, new heated tobacco products such as IQOS 3.0, Ploom S, Ploom TECH + and PULZE have been introduced to the Japanese market. In this study, we also analyzed harmful chemical compounds newly generated from IQOS, glo, and Ploom TECH.

IQOS tobacco sticks, glo and Ploom TECH were purchased from the Japanese market. Mainstream aerosol from HTPs were collected on a Borgwaldt linear smoking machine model LM4E. The collected aerosol was analyzed tar, nicotine, carbon monoxide (CO), tobacco specific nitrosamine (TSNAs) and polycyclic aromatic hydrocarbon (PAHs). The smoking regime adopted the Health Canada Intense method.

The amount of nicotine in HTPs was comparable to that of cigarettes. The amounts of CO, TSNAs and PAHs were reduced compared to cigarettes. However, the number of harmful chemicals has not been reduced.

HTPs are tobacco products that heat tobacco filler using electric device. The mainstream aerosol of HTPs contained some harmful constituents as cigarettes. The amounts of harmful constituents from HTP decreased than cigarette by smoking regime, however HTP smoking proved the combined exposure by many harmful constituents and some carcinogens.

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TOBACCO CONTROL POLICIES AND USE OF HEATED TOBACCO PRODUCTS: FINDINGS FROM THE ITC JAPAN SURVEY AND THE JASTIS SURVEY

SHS exposure in public places and support for smoke-free laws in Japan: Findings from the 2018 ITC Japan Survey

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Objective

Before 2018, Japan did not have a national smoke-free law covering indoor public places, workplaces, or public transport as recommended by the WHO FCTC. A national smoking ban was passed in July 2018, to be implemented in stages leading up to the 2020 Olympics; however, the law is still not comprehensive. This study examines baseline levels of smoking in public places and support for smoke-free laws in Japan prior to the 2018 smoke-free law. The results will also be compared to findings from other ITC countries to demonstrate the need for stronger smoke-free legislation.

Methods

Data are from the International Tobacco Control (ITC) Japan Wave 1 Survey (Feb-Mar 2018), a web survey of adult cigarette smokers, HTP users, dual users, and non-users (total N=4,684). Measures included prevalence of smoking (whether respondents noticed people smoking inside restaurants, bars, and workplaces); smoking rules inside these venues; and support for complete smoking bans in these venues.

Results

The majority of indoor workplaces in 2018 (52%) had a complete smoking ban; however, restaurants and bars were more likely to have a partial ban or no rules. As a result, smoking prevalence in public places was extremely high overall – even higher than in China, the country with the greatest toll of SHS. Almost half of all workplaces (49%), over half of restaurants (55%) and the majority of bars (83%) had smoking in 2018, although non-users were less likely to be exposed to SHS. Support for complete smoking bans was also high overall (81% for workplaces, 78% for restaurants, and 65% for bars), and was higher among non-users.

Conclusions

These findings demonstrate the weak impact of partial smoke-free laws in Japan thus far and strong support for a comprehensive national law without exceptions to protect the public from the harms of tobacco smoke.

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Effectiveness of text-only cigarette health warnings in Japan: Findings from the 2018 International Tobacco Control (ITC) Japan Survey

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Objective

Health warnings are an effective strategy for communicating information on smoking-related health harms, encouraging smoking cessation, and preventing smoking initiation. This study is the first to examine the effectiveness of existing text-only health warnings, identify key indicators of health warning effectiveness, and assess support for pictorial warnings in Japan.

Methods

Data are from the 2018 International Tobacco Control (ITC) Japan Survey, a web-based cohort survey of adult cigarette smokers (n=3306), dual users of cigarettes/heated tobacco products (n=555), and non-cigarette smokers (n=823). Six key indicators of health warning effectiveness: salience (noticing, reading); cognitive responses (thinking about harms, quitting); and behavioral responses (forgoing cigarette, avoiding warnings). Respondents were asked whether they supported pictorial warnings on cigarette packs. Weighted multivariable logistic regression models were used to assess predictors of health warning effectiveness and support for pictorial warnings by demographics, and smoking status.

Results
15.6% of respondents noticed health warnings, and 7.9% read or looked closely at warnings. 10.3% of respondents said that the warnings stopped them from having a cigarette, and 7.2% avoided warnings. Although 27.5% of respondents said the warnings made them think about health risks of smoking, only 2.7% said the warnings made them more likely to quit. There were few differences by smoking status across most indicators of warning effectiveness, with the exception of higher noticing of warnings among cigarette smokers (30.0%) vs dual users (20.6%) and non-cigarette smokers (11.7%). A majority of respondents (57.6%) support pictorial warnings, with lower support among cigarette smokers (29.4%) vs dual users (36.2%) and non-cigarette smokers (64.2%).
Conclusions
Japan's existing text-only warnings are ineffective across all key indicators of warning salience, and behavioral and cognitive responses to warnings. While there is majority support for pictorial warnings in Japan, it is still well below the level of support found in other countries.
Conflicts of interest
GTF has served as an expert witness on behalf of governments in litigation involving the tobacco industry. All other authors have no conflicts of interest to declare.
Funding
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Awareness of cigarette and heated tobacco products marketing and support for tobacco marketing restrictions in Japan: Findings from the 2018 ITC Japan Survey

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Objective
Since iQOS was introduced in Japan in 2014, the heated tobacco product (HTP) market has expanded in Japan and globally. Tobacco advertising, promotion, and sponsorship (TAPS) restrictions in Japan are self-regulated by the industry, and no forms of TAPS are banned under national law. This study examines awareness of cigarette and HTP marketing, and support for TAPS bans in Japan.
Methods
Data are from the International Tobacco Control (ITC) Japan Wave 1 (2018) Survey, a web-based survey of adult cigarette smokers, dual users of cigarettes and HTPs, and non-smokers/non-HTP users (n=4,684). Measures included noticing cigarette and HTP advertising in the last 6 months; and support for bans on cigarette and HTP POS displays, cigarette advertising, and price promotions in stores. Weighted logistic regression models examined exposure to cigarette and HTP marketing and support for TAPS bans among HTP users (n=555 dual users and n=207 HTP-only users) and HTP non-users (n=3,306 cigarette smokers and n=616 non-smokers).
Results
Retail stores were the most common source of cigarette and HTP advertising with higher exposure among HTP users compared to non-users (58% vs. 48% for cigarette advertising; 57% vs. 31% for HTP advertising). At least 1 in 5 HTP users and non-users noticed HTPs and cigarettes advertised on TV, in newspapers/magazines, and on posters/billboards. With a few exceptions, more HTP users noticed HTP advertising than non-users, whereas there were few differences in exposure to cigarette advertising. Non-users had stronger support for TAPS bans than HTP users: POS display bans for HTPs (74% vs. 47%) and cigarettes (65% vs. 49%); bans on cigarette advertising in stores (69% vs. 53%); and price promotions (76% vs. 65%).
Conclusions
TAPS restrictions are not effective for reducing exposure to HTP and cigarette advertising in Japan. Findings suggest that the public would support a comprehensive TAPS ban.
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Increased use of heated tobacco products (HTPs) before and after the 2016 HTP epidemic in Japan: Findings from the Japan Society and New Tobacco Internet Survey (JASTIS)

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Objective
In Japan, the use of heated tobacco products (HTPs) has increased substantially between 2016 and 2017. Previous reports on the early phase of the HTP epidemic showed men, younger people, and current cigarette smokers with intention to quit are more likely to start using HTPs than women, older people, never smoker, and former smokers. The aim of this study is to clarify how HTP use (IQOS, Ploom TECH, and glo) spread across the different cigarette smoking status and intention to quit categories, by time series analyses pre- and post-2016 HTP epidemic in Japan.
Methods
Two sets of pre- and post-2016 data from the Japan "Society and New Tobacco" Internet Survey (JASTIS) were analyzed: N=5,403 (2015-16) and N=3,468 (2017-18). Multivariable logistic regression models for current HTP use in the last 30 days by baseline characteristics such as smoking status (never smoker, former smoker, current smoker with intention to quit, and current smoker without intention to quit) were used adjusting for socio-demographic factors.
Results
HTP use increased by about 11 times post-2016 epidemic compared with pre-2016 epidemic according to the adjusted odds ratio (95% CI) for HTP use of 11.0 (7.54-16.0). According to smoking status, significantly higher adjusted ORs (95% CIs) of current HTP use for the post-2016 were observed: 3.33 (1.79-6.18) for never smokers, 8.81 (4.20-18.4) for former smokers, 28.0 (6.78-116) for current smokers with intention to quit, and 16.4 (9.11-29.6) for current smokers without intention to quit.
Conclusions
After the 2016 HTP epidemic, prevalence of current HTP use dramatically increased in all subgroups except for never smokers; not only among current cigarette smokers

but also former smokers. HTPs might therefore be a gateway to the continue use and also relapse of tobacco products.

Funding
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TOBACCO AND HEALTH

Intervention of pregnant smokers for smoking cessation by health professionals

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Objective
We tried to develop smoking cessation program for pregnant smokers at an obstetric clinic.
Methods
We asked 10 obstetric clinics to participate in this project from July to August, 2018. Eventually, 4 clinics responded to our request for participation. We provided them a device for measuring respiratory carbon monoxide, manual for instruction of smoking cessation in a pregnant smoker conducted by health professionals, and right for health professionals to access the internet e-learning program of smoking cessation called J-STOP. A doctor and midwifes at each clinic conducted intervention of pregnant smoker for smoking cessation from September, 2018 to March, 2019, using the manual of smoking cessation for a pregnant smoker.
Results
30 pregnant smokers had been involved in this program with written informed consent. Their average age (standard deviation or SD) was 29.2 years (5.4), and their average number of cigarettes per day was 8.5 pieces (5.6). Their average value of respiratory carbon monoxide (CO) concentration was 8.6ppm (6.3), and 28 subjects (93.3%) had at least a smoker in household, including 24 subjects of smoking partner. Among them, 4 subjects stopped smoking just before the survey, and residual 20 subjects stated that they would like to stop smoking in 6 months.
Conclusions
Because most of pregnant smokers desired to stop smoking, it is important to develop the way for their smoking cessation.
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Discrepancy of the effect of maternal smoking during pregnancy on trajectories of gestational weight gain and estimated fetal weight

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Objective
To examine the difference of the effect of maternal smoking during pregnancy on trajectories of gestational weight gain (GWG) and estimated fetal weight (EFW) by using multilevel models.
Methods
Prenatal check-up data including EFW measured by ultrasonography and GWG were collected from three hospitals in Yamanashi prefecture, Japan. Multilevel analyses were conducted to determine the estimates of slopes of EFW and GWG, separately, in each gestational period by maternal smoking status during pregnancy.
Results
We obtained 10525 prenatal check-up data from 1021 women. Of these, 494 (48.4%) were primipara. Mean maternal age at delivery was 31.1 years. The number of smoking mother was 109 (10.7%). Mean weight gain during pregnancy was 10.1 kg. Means of birthweight in boys and girls were 3033.0g and 2922.5g, respectively. Although women who smoked during pregnancy were likely to have increase weight, the slope of EFW in non-smoking mothers was significantly increased during third trimester while this trend was not observed in smoking mothers.
Conclusions
It was suggested that the effect of maternal smoking during pregnancy on GWG was inversely associated with fetal growth.
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Associations between smoking habits and the presence or severity of coronary stenosis as assessed by coronary computed tomography angiography

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Objective
Smoking is a risk factor for various diseases such as malignant tumor and respiratory illness, and is one of the most important coronary risk factors. However, few studies have investigated the association between smoking habits and the presence or severity of coronary stenosis as assessed by coronary computed tomography angiography (CCTA).
Methods
We enrolled 1,008 patients (males:females=492:516, 65±12 y). They had all undergone CCTA and either were clinically suspected of having coronary artery disease (CAD) or had at least one cardiovascular risk factor. We divided the patients into smoking (past and current smoker) and non-smoking groups, and evaluated the presence of CAD, the number of significantly stenosed coronary vessels (VD), and the Gensini score as assessed by CCTA in the two groups. Among 1,008 patients, we selected 416 patients who had the data for Pack-year, and also divided the patients into smoking and non-smoking groups.
Results
In all patients, percentages of smoker, CAD, hypertension, diabetes and dyslipidemia were 51%, 51%, 64%, 20% and 54%, respectively. The incidence of CAD, VD and Gensini score in the smoking group were all significantly greater than those in the non-smoking group (CAD, p=0.001; VD, p<0.001; Gensini score, p<0.001). In 416 patients, pack-year was significantly associated with VD and Gensini score, and was strongly associated with multi-vessel disease (2- and 3-VD) ($p < 0.05$).
Conclusions
Smoking was one of the most important coronary risk

factors. In addition, Pack-year may be one of factors that was associated with the severity of coronary stenosis in terms of VD and Gensini score.

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Correlation between tobacco smoking and dental caries: A systematic review and meta-analysis

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Objective
Tobacco is responsible for infaust oral conditions and many oral diseases. Dental caries is one of the most prevalent oral diseases. The association between tobacco smoking and dental caries has become an important recent topic of research. A systematic review and meta-analysis were conducted to evaluate the association between tobacco smoking and dental caries.

Methods
A literature search was conducted in the databases PubMed, EMBASE, Medline and Cochrane, up to December 2018. Original observational articles that estimated relevance between tobacco smoking and dental caries in adults were included. Caries were determined by measurements of decayed, missing or filled teeth (DMFT), or decayed, missing or filled surface (DMFS), or caries-related microflora levels. Trials did not include a non-smoking group, exposure to smokeless tobacco products, or participants under 16 years old. Also, literature reviews, comments, case reports and letters to the editor were not considered. Both methods of systematic review and meta-analysis were adopted. Newcastle-Ottawa Scale (NOS) was used to assess the methodological quality of all the included studies.

Results
Ten out of eleven of the included studies indicated a positive association between tobacco smoking and dental caries. Two meta-analyses were performed: one included five studies using DMFT as an outcome; the other included two studies of DMFS. A random effects model was used. Both were highly heterogeneous (I2=93%, chi-squared p<0.00001; I2=70%, chi-squared p=0.07, respectively) and statistically significant (mean difference, MD=1.20, 95% confidence interval, CI: 0.40–2.00, z-test p=0.003; MD=1.88, 95% CI:0.99–2.77, z-test p<0.0001, respectively). The quality scores of all varied from 7 to 9.

Conclusions
There is a correlation between tobacco smoking and an increased risk of dental caries. However, the overall representativeness of the studies is not good. More prospective and extensive research on this topic is needed to get validation. Even so, it is imperative that people quit tobacco smoking.

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Tobacco and oral squamous cell carcinoma: A review of carcinogenic pathways

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Objective
Tobacco is one of the most important risk factors for premature death globally. More than 60 toxic chemicals in tobacco can invade the body's various systems. Oral squamous cell carcinoma (OSCC) is a pathological type of oral cancer, accounting for over 90% of oral cancer. A vast quantity of scientific, clinical and epidemiological data shows that tobacco is associated with the development of oral squamous cell carcinoma, and its carcinogenic pathways may be complicated.

Methods
We conducted a thorough electronic search by Cochrane, EMBASE and PubMed to identify relevant studies. Studies published up to the end of October 2018 were included. After assessing and selecting articles based on eligibility criteria, studies were classified and elaborated according to the pathogenesis.

Results
Tobacco as an important risk factor can cause epigenetic alteration of oral epithelial cells, inhibit multiple systemic immune functions of the host, and use its toxic metabolites to cause oxidative stress on tissues to reach the purpose of inducing OSCC. In addition, some specific viruses such as EBV, HPV are thought to play roles in the development of OSCC.

Conclusions
Oral cancer ranks eighth among the most common causes of cancer-related deaths worldwide, and tobacco is one the most important carcinogenic factors of OSCC. The review of the literature attempts to provide directions and ideas for future related researches, as well as call on everyone to take efforts to reduce the amount of tobacco consumption.

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Mystery of rapid increase of lung cancer in non-smoking women

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Objective
The rapid increase in lung cancer in nonsmoking women puzzled the public. The 3.4 folds increase for age 65-69 rate in 35 years was translated into a 13-fold increase in total lung cancer cases in women in Taiwan. More than 90% came from nonsmokers. Without smoking as a cause, how they came about was a mystery, and many people blamed it on air pollution.

Methods
Smoking rates and age-specific lung cancer incidence in Taiwan for the last 35 years were compiled from governmental statistics, and compared between male and female.

Results
Male smoking rate was 65% in 1975 in Taiwan. Growing up as a girl, she was surrounded by men with 2/3 smoking, such as her father, her brothers, her husband, and her co-workers. With crowded indoor spaces, not to be exposed to second-hand smoking would be exceptional for any woman.
The continued increase of age-specific lung cancer rates from 1981-2016 in women patterned after the increase in men. Rates for women were half of men, incompatible with

air pollution theory. Starting 2009, male rates declined in the old age, with similar decline in women.

Conclusions

Given the similarity in stepwise pattern of age-specific rates increase in lung cancer in the last 35 years between women and men, the high second-hand smoking exposure, resulting from 2/3 of men surrounding women smoking, and the recent decline occurred in sync between men and women, main cause for lung cancer in nonsmoking women in Taiwan should be second-hand smoking, and not air pollution.

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Relationship between oral carcinogenesis and lifestyle habits in Gunma prefecture

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Objective

Smoking and drinking are risks not only of oral cancer but also of the onset and death of cancer as a whole. In this study, we investigated the effects of smoking and drinking on the onset of oral mucosal disease and examined the relationship with lifestyle diseases (hypertension, dyslipidemia, diabetes) and BMI. Furthermore, the characteristics in Gumma prefecture compared with the whole country were clarified.

Methods

1105 subjects who were able to conduct detailed examination among patients who underwent our department from January 2010 to December 2016 were targeted. It was classified into each group diagnosed as oral squamous cell carcinoma (OSCC), High-grade dysplasia and carcinoma in situ(H-dys-CIS), oral lichen planus (OLP) and the control group. The questionnaire and medical records described at the time of the first visit to the reference, oral mucosal disease onset and smoking and drinking, lifestyle-related diseases morbidity, were studied retrospectively the relationship of BMI.

Results

Age, diabetes mellitus, Brinkman Index was a risk factor for onset in the OSCC group. Observed significant increase in odds ratio of 3.32 in the group which performs both smoking and drinking in men, became more diabetes joins the 12.51 high odds ratio. In addition, the risk increased significantly as the Brinkman Index increased, indicating a correlation between cumulative smoking dose and oral carcinogenesis. Gunma Prefecture, is the latest of statistics is a nationwide first place male smoking rates, may contribute significantly to the oral cancer incidence has been suggested.

Conclusions

In the group with both smoking and drinking habits, the risk of developing oral cancer significantly increases. Also, the risk is further increased by the factor of diabetes mellitus. There is a dose-response relationship between smoking and the risk of developing oral cancer. In Gunma prefecture, high smoking rate may be involved in the development of oral cancer.

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E-CIGARETTES AND NOVEL TOBACCO PRODUCTS

Use of electronic cigarettes and heated tobacco products among junior and senior high school students in Taiwan

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Objective

In recent years, e-cigarettes and Heated Tobacco Products are emerging. Young group are more susceptible to the flavors and modern designs of e-cigarettes and HTPs. Both of e-cigarettes and HTPs contain nicotine. The adolescent brain is particularly sensitive to the effects of nicotine. This study aims to examine the prevalence of e-cigarettes use and HTPs use among adolescents.

Methods

Data were drawn from the 2018 Taiwan Global youth tobacco survey (Taiwan GYTS) conducted under a school-based and cross-sectional study. A total of 44,905 students in grades 7-12 were analyzed.

Results

The prevalence of e-cigarettes use by junior and senior high school students was 1.9% and 3.4% in 2018 respectively. The HTPs use among junior and senior high school students was 2.0% and 2.7% in 2018. 37.0% of junior high school students and 20.9% of senior high school students who have never used traditional cigarettes have tried e-cigarettes, and 45.7% of junior high school students and 25.8% of senior high school students who have never used traditional cigarettes have used HTPs.

Conclusions

Although cigarettes use by adolescents has declined substantially over the past few years, the rise of e-cigarettes and HTPs poses a serious health risk for children and teenagers. Taiwan's governments have cooperated with each other to comprehensively block hazards from e-cigarettes and HTPs by border seizure and inspection, source tracking, channel inspection, monitoring and management, education broadcasting and cessation guidance, etc. The goal is to protect children and teenagers against these dangers and to create a smoke-free environment for the next generation.

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The patterns and trends in e-cigarette consumption and use in Poland: One of the biggest markets in Europe

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Objective

To evaluate patterns and trends in e-cigarette consumption and use in Poland through 1) analyzing changes in e-cigarette market share, value, and consumption, 2) comparison of current use of combustible, smokeless, and vaping tobacco products, 3) examining social patterns and changes in e-cigarette use in adult and youth population.

Methods
Quantitative data analysis from: Market reports (2014, 2016), national randomized surveys (2013, 2015, 2017), ITC Europe 2016, national youth surveys (2011, 2014).
Results
Currently, number of vapers in Poland is estimated at around one million people, however, over half of them are dual users. Although prevalence of daily e-cigarettes use among adults seems to be still at low level (3% to 5%), the current use of e-cigarettes among Polish schoolchildren is even 5-times higher (25%). Sociological studies show that typical Polish adult e-cigarette user is middle-aged and high educated person living in good economic conditions.
Conclusions
Main reasons for e-cigarette use include lower or reasonable price of e-cigarettes as compared with price of traditional cigarettes and belief that they are less harmful than other tobacco products and more effective tool for quitting smoking than existing methods of tobacco dependence treatment. In Poland, e-cigarettes are regulated by the Polish Anti-Tobacco Act (2016). It is illegal to sell e-cigarettes and e-cigarette accessories to minors under the age of 18. There is a ban on online sales. Vaping is only allowed where smoking is permitted. Until it has been forbidden, almost half of e-cigarettes users were vaping in public place in Poland. The recent market studies and sociological surveys show that above legislative measures work and sale and the use of e-cigarettes among adults is on decline in Poland.
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What is necessary to evaluate negative health effects of tobacco vaporizers in Japan?

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Objective
To prepare for the Olympic Games at Tokyo 2020, smoking areas in Tokyo are getting smaller. However, tobacco vaporizers are not managed like other tobacco products. To clarify reasons why tobacco vaporizers are managed differently from other tobacco products.
Methods
Several kinds of information of tobacco vaporizers were collected from newspapers, internet and so forth.
Results
Tobacco vaporizers are a kind of e-cigarettes. Three vaporizers are available in Japan. They are IQOS, ploomTECH and glo. Most popular one is IQOS. By the reports of Japanese Ministry of Health, Welfare and Labor, tobacco vaporizers provide almost same value of nicotine and smaller values of carcinogens in their mainstream smoke. The nicotine density in room by tobacco vaporizers is smaller than that by cigarettes. Epidemiological data are not enough for evaluate their negative health effects.
Tobacco companies advertise they have less harm on health than cigarettes. Some restaurants permit to use only ploomTECH in their private rooms because of low bad smell. Some smoking areas are only for tobacco vaporizers because of low value of nicotine, carcinogen and bad smell around users.
Conclusions
Biggest reason not to manage tobacco vaporizers like cigarettes is that only small scientific data are available to evaluate their negative health effects. They are evaluated by their less bad smell or low values of carcinogens in present status. But the vapor of them contains tars and other harmful materials like cigarettes. Scientific data of tobacco vaporizers should be collected urgently. Scientific data of tobacco vaporizers should be collected urgently. To diffuse facts of the vaporizers is necessary and regulations should be made by the precautional principles.
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Does iQOS harvest personal data from users and manipulate their tobacco habits?: A review of current evidence

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Objective
To review available reports on harvesting personal data about tobacco habits from iQOS users and raise awareness of tobacco users and tobacco control community on this risk.
Methods
The analysis is mainly based on data taken from patent documentation, reports on technological inspection of iQOS hardware, marketing reports, including iQOS strategy for point-of-sale, internal industry documents and consumer's guidelines. In addition, it includes media reports, desk research made by public health specialists, and industry statements and claims in the press and in media interviews.
Results
The recent reports warn the public on new risk in using novel tobacco products such as iQOS. Patent documentation and technological inspection reports prove that the iQOS is equipped with two microcontroller chips enable to store and transmit usage information to producer. Findings of public health specialists and media reports provide evidence that Phillip Morris International (PMI - iQOS producer) already builds the mega database of iQOS customers for these needs. Collected data include the number of puffs and average iQOS use per day that seems to be crucial information for manipulating user's addiction potential and his tobacco habits.
Conclusions
The use of iQOS may create a potential risk of personal data harvesting. Such data could be stored on PMI database and used both for tobacco marketing and reinforcing a potential tobacco addiction. There is an urgent need to do in-depth examination on iQOS hardware capabilities, its software, PMI storage database and iQOS marketing and promotion strategy (both in points of sale and in Internet, including cloud and deep data). Personal data protection of tobacco consumers should be incorporated into human and civil rights agenda and considered for law regulation at least in those countries where such legislative measures are not enough strong or not enforced at all.
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Changes in recognition and usage of heated tobacco products among Japanese workers

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Heated tobacco products (HTPs), such as IQOSTM (Philip Morris International), Ploom TECHTM (Japan Tobacco Inc.) and gloTM (British American Tobacco), were released in Japan from 2016. Since then, HTPs use has risen exponentially. However, there were few information about HTPs and the situation of HTPs users. This study investigated awareness and use of HTPs among Japanese workers, as well as examined users' characteristics.

We distributed questionnaires twice to about 3,300 workers in an automotive manufacturing company located in Kyushu in January, 2017 and 2018 respectively. We analyzed awareness of HTPs, and the usage of HTPs and traditional cigarettes among male workers.

70% of workers had the correct understandings that "using HTPs is smoking" and "HTPs cannot be used in smoke-free areas". Of all the male workers, the percentage of traditional cigarette users decreased by 9.7% (52.1% → 42.4%). On the other hand, the percentage of HTPs users increased by 13.2% (9.1% → 22.3%). The reasons for using HTPs were interesting (47.9%), less smelly (46.0%), harmless to health (35.3%), harmless to bystanders (19.0%), reduction in number of cigarettes (12.6%), influenced by families or friends (12.3%), and quitting smoking (5.1%) in 2018. The percentage of dual users increased from 4.7% to 10.5%. About 32.6% of the dual users used traditional cigarettes outside the house and used HTPs in the house.

The number of HTPs users is still increasing and it is not confirmed that HTPs are harmless. Health personnel should warn the tobacco products users to quit both HTPs and traditional cigarettes.

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E-cigarette: Threat of new dimension of tobacco marketing, distribution and availability in Dhaka city

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Objectives

Currently 37.8 million peoples are using tobacco in Bangladesh. Current user of electronic cigarettes in Bangladesh is 0.2 %. Overall 66.2 % adults both men and women current use tobacco but thinking about quitting. The objectives of the study were to identify the market, import, distribution, promotion strategy and pricing policy of e-cigarette in Bangladesh.

Methods

Cross sectional study design, qualitative and quantitative approaches, purposive sampling techniques were used to conduct the study. Semi-structured Questioner was used collect the primary data and Observational methods and in-depth interview were used to collect qualitative information.

Results

The study found that most of the E-cigarette shops are situated nearby university area. The team found 15 big e-cigarette shops in 4 market area most of the seller started their business within 1-2 years. They sell their product mostly in two ways - one is direct sales and in the other they use online shopping system. Average device was found between 6 to10 types and the price between 550 to 35,000 BDT and the liquid price is 350 to 24,000 BDT. Their market has been rapidly expanding using aggressive marketing tactics.

Conclusions

Bangladesh is the first signatory country of FCTC but still now e-cigarette is un-regulated product and Tobacco Control Law has no specific definition regarding e-cigarette that's why the company aggressively marketing their products. So, Government should ban importing and amendment the law for protecting peoples from danger of tobacco.

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TOBACCO DEPENDENCE TREATMENT 2

Improvement of tobacco-free hospitals' cessation services with a pay-for-performance subsidy in Taiwan

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Objective

World Health Organization (WHO) reported that tobacco causes more than 8 million people deaths a year. It was estimated that smoking kills 27,000 people annually in Taiwan, and on average one person dies from smoking-related diseases every 20 minutes. Health Promotion Administration (HPA) in Taiwan provided a pay-for-performance subsidy to improve tobacco-free hospitals' cessation services for helping people get rid of tobacco hazards.

Methods

The performance of 348 hospitals in 2018 was analyzed, including the subject number and cost of cessation services and the 7-day point prevalence abstinence rate (PPAR) at 6 month of the subjects. One hundred and nineteen hospitals were subsidized by HPA and the other 229 hospitals were not.

Results

Each subsidized hospital served 467 subjects (including 170 inpatients) on average for smoking cessation in 2018. They cost 225 US dollars to assist a subject to quit smoking. On the other hand, each hospital without subsidy averagely served 69 subjects (including 16 inpatients) and cost 380 US dollars to assist a subject to quit smoking. It was revealed that the hospitals with subsidy served 6.8-fold more subjects and cost 41% less for cessation services when compared with the hospitals without subsidy. The 7-day PPAR at 6 months of subjects served by hospitals with and without subsidy was 30.4% (95% CI: 29.6%-31.2%) and 28.6% (95% CI: 27.0%-30.1%), respectively.

Conclusions

The pay-for-performance subsidy offered by HPA facilitated tobacco-free hospitals to serve more subjects. The subsidy made them have more resources to improve cessation services, enabling them to help subjects quit smoking with more practical and more effective approaches.

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Smoking cessation and HIV positive patients

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Objective
To review literature on smoking among HIV positive people.
Methods
Literature review.
Results
Smoking-related morbidity and mortality is huge problem in HIV positive population. Cigarette smoking is one of the most important risk factors for a variety of serious clinical conditions, including CVD, pulmonary diseases and cancers. Some cancers have been included in the category of diseases that define AIDS. Introduction of antiretroviral treatment (ARV) changed the course of infection and decreased the incidence of diseases that define AIDS (including cancers). Unfortunately, the problem of cancer in the HIV + population has not disappeared. Before the introduction of ARV, non-AIDS-dependent cancers (NADCs) were responsible for less than 1% of deaths, currently it is 13% of deaths. NADCs occur in the younger age group and have more aggressive course. The low number of CD4 promote the development of some NADCs, including lung cancer. Lung cancer (mainly connected with smoking) is one of the most frequent NADCs (HIV infection 3.5-fold increases the risk).
Also the risk of most tobacco-related diseases is significantly higher in people living with HIV, and the progression of already existing tobacco-related diseases is also faster among them. Epidemiological studies show that tobacco smoking is frequent among HIV-infected people (50-70%). The life expectancy of HIV-infected smokers is about 10 years shorter than that of HIV+ non-smokers. Tobacco-related diseases significantly reduce the effects of effective ARV and worsen quality of life. Lifestyle-related factors, may be greater threat to long-term survival of HIV-infected patients than those associated with HIV infection. Tobacco use is currently the highest health risk for people living with HIV.
Conclusions
All doctors conducting ARV should offer to each smoker help to stop smoking. HIV-positive patients should be screened for smoking, and smokers should be enrolled in smoking cessation programs as a part of routine care. They need to be informed about the impact of smoking on HIV disease and its treatment.
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Are we questioning our patients' smoking status appropriately?

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Objective
Tobacco use is one of the most important causes of preventable diseases worldwide. Doctors are responsible for their patients' health status both by being a role model with their smoking related behaviours and by following the recommended strategies known as '5A' and '5R'. While it is not clear what to add to the syllabi of medical faculties' for tobacco related courses, we aimed to raise awareness about the importance of the topic by doing a research evaluating the clinicians' implemention of the strategies in real life settings.
Methods
A cross-sectional study was conducted between February 11-15, 2019 at our university affiliated tertiary care hospital's blood sample collection unit. Short questionnaires that contains 12 questions were asked to the patients who had just applied to the unit after their outpatient clinic examination. They are being interviewed by medical students after obtaining their oral informed consents.
Results
Data from 500 patients were evaluated. Their mean age was 46,44±14,78. 56.2% of them were males. 44.4% of them were graduates of primary education. Among the admitted clinics, 75.4% were from internal medicine related clinics, the rest was from surgical clinics. Current smoking rate was 34%; 46.6% of males, 17.8% of females. Among all patients, 41% of them were asked about their smoking status. Among current smokers, 31.8% had received only oral advices, only 6% had been referred to smoking cessation clinics. The populations who have higher rates for being questioned about their smoking status were males, patients with respiratory system related symptoms, and patients who went to clinics related to thoracic problems (pulmonology, cardiology, etc.) ($p<0.05$).
Conclusion
This study showed that among 5A strategies, 'ask'(41%), 'advice'(31.8% of current smokers) and 'arrange'(6% of current smokers) steps were followed significantly lower than similar international studies. Future investigations are required for the underlying reasons.
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Cancer and smoking cessation

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Objective
To identify literature findings on successful smoking cessation among cancer patients.
Methods
Literature review.
Results and Conclusions
Tobacco smoking has been linked not only to the development of cancer (15 different sites), but also to prognosis upon diagnosis and risk of death during treatment. However, smoking prevalence remains high among cancer patients. Continuing smoking after diagnosis of cancer increase risk of second primary cancer and recurrence. Smoking has been shown to negatively impact outcomes from cancer surgery, affecting postoperative complications. Smoking alters drug metabolism and increases the risk of drug resistance and fluctuation of drug concentrations, of which consequence is poorer response to chemotherapy. Smoking during radiotherapy worsen treatment prognosis too. Quitting smoking can benefit even after a cancer diagnosis, regardless of stage and prognosis and results in immediate and long-

term benefits. Therefore, smoking cessation should be the part or routine cancer care. The diagnosis of cancer is called a teachable moment and it should be treated by medical staff as an opportunity to promote smoking cessation. Generally, tobacco treatment approaches that are recommended for the general population are also appropriate for cancer patients. However, few cancer-specific factors should be taken into account. 1. The level of stress and depression among cancer patients is high 2. If cancer is smoking-related that may result in high level of feeling guilty and shame. 3. The motivation to quit is the highest just after the diagnosis and there is a huge proportion of those who declare willingness of quitting smoking, so early intervention is highly recommended. 4. The education about health benefits is important since the knowledge of patients is relatively poor. 5. In some types of cancer, e.g. head and neck cancers, not all of pharmacotherapy forms can be used.

The oncologists are focused mainly on anticancer treatment so smoking cessation program for cancer patients should be based on service available in country – like smoking cessation clinics, quitline, family doctors etc.

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Impact of population-level tobacco control interventions on smoking quit intention in Vietnam

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Objective

Even the tobacco control law acts in 2010, the proportion of smoking in Vietnam remains high with one in two men smokes tobacco. The combination of tobacco non-taxes policies appears a crucial approach to reduce smoking prevalence. The objective of this study was to analyze the impact of population-level tobacco control interventions on smoking quit intention in Vietnam.

Methods

Data was subtracted from a cross-sectional study among 900 current men smokers in Da Nang city, the third largest city in Vietnam. The target population comprised only adult men, 18 years of age or older, who had smoked more than 100 cigarettes in their lifetimes, smoked at least once in the past 30 days. Households were sampled using a stratified multistage design. Quit intention of smoking defines as they reported "in the next month", "in the next 6 months" or "sometime in the future after 6 months". Graphical warning labels on cigarette packs; mass media campaigns; and smoking bans (in public or in work places); advice from health professional was included as the main tobacco control intervention in Vietnam. Multivariate logistics model was used after adjustment other independent variables: knowledge, attitude, practice toward smoking; Heaviness of Smoking Index; demography. The analysis also stratified by age group (<40 and >=40).

Results

The proportion of smokers interested in quitting smoking was 30.26%. Among 4 intervention policies, mass media campaigns were significantly associated with an increase quit intention with odd ratio: 2.33 95%CI (1.29,4.23). In term of policy combination, two/more policies was significantly increased a quit intention with odd ratio 1.72 (1.11,2.65) in overall, whereas age group less than 40 years with OR: 1.93, 95%CI (1.05,3.55), respectively; but no significance for group more than 40 years with OR: 1.56 95%CI (0.82,2.97).

Conclusions

The finding shows a positive effect of non-taxes policy approaches in increased a quit intention. A combination of these policies advances the quit intentions among cigarette smokers in Vietnam and presents its dose-response in this relationship, especially among young adult smokers.

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TOBACCO CONTROL IN ACTION

JSMO Tobacco Control Action: Result of a membership survey

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Objective

On July, 2017 the 15th Annual Meeting of the Japanese Society of Clinical Oncology (JSMO), the non-smoking declarations including that "Promote smoking cessation at every opportunity" and "Aim for all members to be non-smokers" were made and started tobacco control action.

Methods

We conducted a membership survey during April and June in 2019 on smoking cessation, and contacted 8,821 and got answers from 1,169 members (response rate 13.3%).

Results

The results of 2019 (2017) were as follows: Current smoking 3.3 (4.1)%, Quit smoking 23.7 (27.5)%, Never smoking 73.0 (68.4)%, Members should not smoke 85.6 (86.1)%, Cancer patients should not smoke 53.8 (49.0)%, Smoking by cancer patients is free 40.9 (45.8)%, Can give sufficient smoking cessation instruction 17.6 (19.6)%, The most disability of smoking cessation guidance is "I have not received enough education about smoking control 40.5% (take time 40.7%)". Major opinions in free text were: "Emphasize the harms of secondhand smoke", "It is a big problem that there are smokers at society executive staffs", and "Should not allow smoking to society members". Whereas, there are opposite opinions "Smoking is free" and "Should not be put out because it is the role of politics". Opinions that should be considered are "Anyone can do it only by declaration, how evaluate the outcome" and "Educational lecture is needed".

Conclusions

JSMO will continue the Tobacco Control Action such as member's own smoking cessation and tobacco control ability improvement.

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Can tobacco industry be compatible with the purport of SDGs?

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Objective

SDGs was proposed to promote prosperity while protecting the planet. Because MDGs are a call for action by all countries, poor, rich and middle income, while principle targets of MDGs were poor and developing countries,

economic worlds have promptly adopted this principle in which they found business chance. Because even Japan Tobacco Inc. and its group (JT) insists SDGs on its management policy, we need to closely watch how they are going to gloss over their business.

Methods & Results

We attempt to compare the Sustainability Report of JT group with several goals of SDGs. Agriculture of tobacco leaf largely depends on child labor and more than half of 152 million children who engaged in some labor worked in farms and are deprived from chance of education (SDGs 1, 4 and 8). JT proudly declared that they provided chance of education for only just more than 7 thousand children by ARISE program. Concerning SDGs 3, JT states they are offering consumers reduced risk products which have been already proved not to be harmless. Tobacco leaf cultivation itself gives hazard to farmers who suffer green tobacco sickness. Concerning SDGs 13 and 15, second hand smoke caused damages to people just like air-pollution and large areas of forest have been destroyed by slash-and-burn agriculture for tobacco leaf cultivation.

Conclusions

The business of JT and its group seems not to be compatible with the purport of SDGs.

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Classification of trends in male smoking rate by prefecture in Japan

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Objective

Smoking rate varies across Japanese prefectures. However, it isn't clear whether there are differences in trends in smoking rate by prefecture. In this study, we estimated the trend in smoking rate by prefecture and categorized by feature.

Methods

Male smoking rates by prefecture from 2001 through 2016 were obtained from dataset which is provided by Cancer Registry and Statistics, Cancer Information Service, National Cancer Center, Japan. Joinpoint analysis was used to compute annual percentage changes (APC) in male smoking rate by prefecture. And we categorized based on whether the prefecture had a joinpoint and how large the APC was.

Results and Conclusions

We showed that three prefectures had a joinpoint. Specifically, Saitama, Chiba and Nara prefectures. In all those prefectures, the point was observed at 2010. And smoking rates showed a significant decrease until 2010, while trends were flat thereafter. Although the other 44 prefectures had no joinpoint, those prefectures' APCs showed wide ranges (Min: -10.77, Max: -5.21). In 2010, tax rate of tobacco was increased. That is, after tax increase of tobacco, there were differences about decrease of smoking rate between prefectures with and without a joinpoint. Furthermore, there were differences in the slope of decrease even across the prefectures without a joinpoint. We need to examine reasons of those differences considering the situation of prefectural tobacco control policy.

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Smoking status and social nicotine dependence among members in the Japanese Society of Periodontology

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Objective

The aim of this study was to determine the smoking status and social nicotine dependence of the members of the Japanese Society of Periodontology (JSP).

Methods

Self-administered smoking status questionnaires including the "The Kano Test for Social Nicotine Dependence (KTSND)" questionnaire were distributed to the members who were selected through stratified proportional random sampling.

Results

A total of 631 members responded with a response rate of 42%. Of those who responded, 62% were males and 30% were in their 30s which was the largest percentage of all age groups. The respondents consisted of dentists (75%), dental hygienists (23%) and others (2%). With regard to workplace policy on smoking, a completely smoke-free workplace policy was reported by 48% of respondents, and 35% reported that smoking was allowed only outside of buildings. The possible rate of second-hand smoke at home was 31%. The sample included 376 people who had never smoked (60%), 211 ex-smokers (33%), and 44 active smokers (7%). The prevalence of smoking in dentists was 8%, which was higher than that in dental hygienists (2%, $P < 0.05$). By qualification, the prevalence of smoking in all certified periodontists was 8%, which was lower than that in general members (9%). The total KTSND score was 12.2 ± 5.2 in this sample. According to smoking status, the KTSND scores were 11.3 ± 5.1 in non-smokers, 12.9 ± 4.9 in ex-smokers, and 16.9 ± 4.8 in smokers. Smokers' and ex-smokers' KTSND scores were significantly higher than those in non-smokers ($P < 0.01$).

Conclusions

The present study highlights the importance of focusing attention on smoking cessation training in periodontal treatments addressed to JSP members.

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Smoking-cessation support for non-Japanese patients using the STOP SMOKING application

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Objective

As smoking is not allowed at most medical institutions,

it is important to provide smoking cessation support for smoking patients. However, the lack of human resources is the biggest problem for smoking cessation support. Moreover, it is concerned that there are little supports for non-Japanese smokers. According to the ministry of health, labor and welfare, approximately 90% of medical institutions in Japan have some problems for multilingual support, such as delay and lack of translated manuals, maps and signs for non-Japanese patients.
To provide smoking cessation support for Japanese and non-Japanese patients within daily duties related to hospitalization guide, we created a new device.

Methods

We create a multilingual smoking cessation support tool, called STOP SMOKING application.

Results

This application has three advantages. First, it contains not only smoking cessation support information but also admission interview sheets. Therefore, it can be used for orientation in hospitalization and inform that smoking is not allowed. Secondly, the tool can also identify who is a current smoker and provides information to motivate smoking cessation depends on each patient's treatment, purpose, and their age. Thirdly, it has English, Chinese and Portuguese version.

Conclusions

STOP SMOKING Application will be useful to support Japanese and non-Japanese smoking patients on admission. This application will be provided to hospitals requesting, for free during the project implementation period.

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The tobacco messages exposure: Take 2018 popular movie as examples

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Objective

Numerous Chinese-language movies have gained considerable popularity among international movie markets and audiences. For example, there are 700 foreign movies imported into Taiwan. Among these movies, there are 80 percent import from the Western world. In the past, there are many studies confirm that the smoking scenes or behaviors could affect teenagers' smoking behavior (Charlesworth et al., 2005).

Methods

Content Analysis.

Results

Tobacco Messages Exposure (1) In 100 movies that were analyzed, half of them (49%) exposed tobacco messages. (2) In 49 movies that were exposed tobacco messages, the number of foreign-language movies (41movies) was five times as Chinese-language (8 movies). However, every Chinese-language movie average exposed tobacco messages 40.13 times, more than foreign movies (23.00 times) as 1.74 times.

Conclusions

There are some important discoveries in 2018, for example, in the popular 100 movies, there is one out of every two movies exposed tobacco messages. In addition, the tobacco messages appear in the G-rated movies that are suitable for children (13.17 times) are more than the tobacco messages that appear in the PG12-rated movie (10.14 times). In particular, the tobacco messages exposed in Chinese-language movies are more than Hollywood movies, and also illustrate the phenomenon that young people are exposed to the risk of smoke, not just Hollywood movies.

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YOUTH AND TOBACCO

Social patterning in Indonesian adolescent smoking: A mediation analysis of family smoking, parental control, and parental permissiveness

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Objective

In poorer communities, smoking has demonstrated as an indicator of social inequalities in mortality. Adolescents from poor family are often exposed to smoking and are more vulnerable to smoke. This study quantified 1) the association between family characteristics and adolescent smoking in Indonesia and 2) the mediating role of the family smoking environment in this association.

Methods

A cross-sectional survey was conducted in eight Indonesian cities among 2,661 students aged 13 to 18 years old. Multilevel logistic regression was used to estimate the association between family characteristics (parent's educational attainment, wealth, and religion) and adolescent smoking. Mediation analysis using Generalized Structural Equation Modelling (GSEM) quantified how much the family smoking environment (family smoking status, parental control, and parental permissiveness of smoking) mediated these associations. Analyses were stratified by gender.

Results

Smoking prevalence was 53.2% among boys and 7.7% among girls. The correlation between smoking and wealth were not significant in boys (wealthier vs poorer: OR 0.97, 95%CI 0.68-1.39), but was significant in girls (wealthier vs poorer: OR 0.49, 95%CI 0.27 – 0.89). Smoking was less favourable among Christian boys (OR 0.56, 95%CI 0.35-0.89) and Buddhist-Hindu girls (OR 0.23, 95%CI 0.05 – 0.97) compared to Muslims. Parental education was an insignificant predictor of smoking in boys and girls. Smoking environment significantly mediated the association between smoking in boys and parental education (moderate: 69.9%; low: 88.7%) and between smoking and religions in both genders (Christian boys: 46.9%; Buddhist-Hindu girls: 297%). Significant mediation indicates parental control and parental permissiveness as mediators.

Conclusions

The current study demonstrates that social inequality in smoking remains high in girls and smoking environment is important in social patterning of adolescent smoking.

Predictors of and mediation effect in smoking among girls and boys differed, hence, future tobacco control campaign targeting adolescents may not necessarily identical for both groups.

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Secular trends in tobacco use prevalence among Panamanian students aged 13-15 years, GYTS 2002-2017

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Objective

According to the Global Adult Tobacco Survey (GATS), Panama has the lowest recorded tobacco use prevalence among adults in the Americas (6.4%). Such achievement has been the product of the translation of the Framework Convention for Tobacco Control (FCTC) as the law 13/2008. Several regulations complementary to the law 13/2008 have also been implemented by the health authority.

We aim to assess the secular trends of tobacco use prevalence in Panama among teens aged 13-15 years between 2002 and 2017 in Panama.

Methods

The Global Youth Tobacco Survey (GYTS) is an international standardized survey of school students aged between 13 and 15 years. The objective of the survey is to monitor key tobacco control indicators. The GYTS was performed in Panama in 2002, 2008, 2012 and 2017. A total of 1296 students participated in the GYTS in 2002, 2716 students participated in 2008, 4077 students participated in 2012, and 2096 students participated in 2017. Definitions of tobacco product use indicators were homologated for all years according to the 2015 GYTS Analysis and Reporting Package.

Results

Current tobacco use has decreased between 2002 and 2017 from 19.5% to 9.3%. The greatest decrease was observed between 2002 and 2008, with a 52% decrease in current tobacco use in both male and female teens (p value: < 0.01). Between 2008 and 2017, a decrease was clearly observed in male teens but not in females. No statistically significant differences in current tobacco use prevalences were observed between male and female teens in 2017.

Conclusion

A clear decline in prevalence was observed the same year the 13/2008 law was implemented. The prevalence in male teens also decreased after 2008, but this was not the case in female teens. Current tobacco control policies must be reinforced, and the FCTC must be fully implemented to further decrease tobacco use in teens, particularly among females.

Funding

This study is financed by public funds. Some of these public funds come from the Selective Tax on the Consumption of Cigarettes and other Tobacco Products. This tax discourages the use of tobacco products. However, the funds coming from this tax are used in activities to improve the primary and secondary prevention of tobacco-associated diseases, such as this study.

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A qualitative study of the smoking-related norms and practices among adolescents

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Objective

The aim of this paper was to examine smoking-specific norms and practices to understand the meaning of social context for young adolescent's perception of tobacco use. The analysis of the social context was informed by the Collective Lifestyle framework and draws on concepts like place-based smoking, structure and agency.

Methods

This paper draws from an ethnographic study of smoking-specific norms and practices. We conducted eight focus group interviews with a total of 44 adolescents and 28 days of field observations among grade 8 students at two Danish schools.

Results

Our analysis suggests that adolescents' smoking-related practices and hence meaning of smoking differs according to the social context they engage in. The social context contributes to the way adolescents smoking unfold in specific places by specific groups of adolescents. Herby suggesting that smoking becomes an object contributing to social exclusion.

Conclusions

Future interventions and tobacco control initiatives targeting young adolescents should consider the meaning of the social context for creating places to practice smoking.

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The enormities and consequences of tobacco use among youths in resource limited settings in Kenya

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Objective

Tobacco usage continues to be pronounced prominently as a public health concern distressing a broad-spectrum of health and well-being of populations around the world. Despite the harm caused by its consumption, the extent and its consequences to youths in resource limited settings is not known.

To determine the enormity and consequences of tobacco usage among youths while specific objectives were to determine the level of usage, contributing factors and the consequences of its usage among youths in resource limited settings.

Methods

A cross-sectional study design with simple random sampling was used. An interviewer-administered questionnaire was used. Quantitative data was analyzed using SPSS. Chi- Square and Odds Ratio were used to test for significance of association.

Results

Tobacco usage and gender of the respondents was statistically significant at 95% confidence level with x^2=107.0; df =1; p=0.0001. Odds Ratio showed that males were 7.5 times more likely to use tobacco compared to female respondents. Main source of tobacco products was in markets (78%) and friends (22%). Peer pressure was reported by 48% as the main factor that drives youths to tobacco usage. A total of 56.6% of the respondents did not

know any health consequences of tobacco usage.

Conclusions

The recommended intervention included awareness creation, reduction of accessibility to tobacco, health education and functional youth friendly centres.

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Tobacco control policies in medical schools and nursing colleges in Japan: A national survey

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Objective

Smoking among young adults aged 18-24 years is a growing public health concern. Tobacco control in medical schools and nursing colleges is especially important because most of the students become healthcare professionals, who may be responsible for treatment or prevention of tobacco-related diseases. In this study, we aimed to elucidate tobacco control policies in medical schools and nursing colleges in Japan.

Methods

A self-administered questionnaire was mailed to 82 medicals schools and 209 nursing colleges in late 2017.

Results

Seventy-five (91%) medical schools and 105 (50%) nursing colleges responded the survey. Among the 75 medical schools, 69 (92%) prohibited smoking in the entire campus including university hospital, whereas 6 had smoking area outside the buildings. Thirty-eight medical schools had sub-campuses including research buildings, among which 10 had open-air smoking area and 1 had a smoking room in the building. Seventy medical schools share a campus with other faculties. In 3 (4%) of them, tobacco was sold in the campus. Among 105 nursing colleges, 80 (76%) prohibited smoking in the entire campus, whereas 19 had open-air smoking area and 6 had smoking rooms. Sixteen (21%) medical schools and 20 (19%) nursing colleges had no lecture or instruction concerning the risks of smoking.

Conclusions

In most medical schools and nursing colleges in Japan, tobacco control policies are strict but there is room for improvement.

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Empowering teachers to implement tobacco-free school campaigns in schools

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Objective

Children in India are vulnerable to tobacco use due to lack of awareness and easy access to tobacco products in the surroundings. During schooling years, teachers have significant influence on children's behaviour. Involving teachers to implement tobacco control program would be an effective tool to create anti-tobacco awareness and reduce tobacco use among children. Salaam Bombay Foundation (SBF) in collaboration with education departments of Mumbai West, Mumbai North, Thane and Pune introduced tobacco free school campaign in all government and aided schools in these cities.

Methods

Mumbai, Thane and Pune have the largest of 26 municipal corporations in Maharashtra. The corporation have education department headed by education officers (EOs) and Mumbai is divided into South, West and North zones with one education officer per zone. The campaign started with sensitization meetings with concerned education officers. Sensitized EOs announced 'Tobacco Free School Campaign' by sending notices to schools under their jurisdiction and called for principals' meetings. The principals were sensitized in ward-wise meetings in the presence of EOs who instructed them to identify nodal teacher to lead the tobacco free school campaign. Nodal teachers were trained by SBF team through ward-wise training to implement tobacco control workshops, activities and implement 8 tobacco free school (TFS) criteria.

Results

In three cities 303 nodal teachers conducted tobacco control workshops with 49,478 children. 109 schools formed Balpanchayats at schools to implement tobacco control activities. More than 1,500 Children participated in tobacco control activities like poster drawing, songs, drama performances, oath, rallies etc. 80 Schools achieved tobacco free status by fulfilling 8 'Tobacco Free School Criteria'.

Conclusions

Success of tobacco free school campaign in terms of outreach through tobacco control workshops and awareness activities is a strong evidence to advocate for 'National Level Tobacco Free School' policy.

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Impact assessment study on pictorial warnings among rickshaw polar in Dhaka city

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Objective

Bangladesh is a large and heavily densely populated country. Total population are 168.07 million, this makes the 8th most populous country in the world. The capital and largest city is Dhaka, which has a population of 14.4 million. Dhaka is often called the Rickshaw Capital of the World with more than 600,000 cycle rickshaws on the roads every day. In Bangladesh 37.8 Million (GATS-2017) people are using tobacco and tobacco is one of the major causes of poverty. Bangladesh government has enacted tobacco control law in 2005 and amended in 2013 passed the rules in 2015. As per rules Graphic Health Warnings (GHWs) has been implemented from 19 March 2016. The objective of the study was to identify the impact of GHWs implementation among the Rikshaw Polar in Dhaka city. SPSS 21, Microsoft Excel used to analysis the data.

Methods

Cross sectional study design, quantitative and qualitative approaches, purposive sampling method, semi-structured questionnaire and in-depth interview used to conduct the survey.

Results

100% Rickshaw Polar are well known the visual impact of GHWs implementation among these 54 % respondents feel that they should quit smoking after seen the GHWs on the time of smoking. Only 30% respondents tried to quit smoking after implement the GHWs but they again start smoking and only 26% respondent shows that their

relatives/friends/family totally quit smoking to see the GHWs.

Conclusions

Noticeable changed have been seen but changing attitude of GHWs vary among different groups. Less priority and poor awareness are the big challenges for protecting rikshaw polar from the danger of tobacco. Tobacco Company still trying to increased their sales among this group through illegal promotional campaign. So that related authority/government should strongly monitor the promotional campaign and government and civil society organization should take initiative to building awareness.

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Factors associated with success of quitting smoking in Japanese Smoking Cessation Treatment Program: A systematic review and meta analysis focusing on gender, medicine and having present diseases

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Objective

The aim of this review was to clarify whether the effects of gender, medicine and having present diseases were associated with success of quitting smoking in the Japanese Smoking Cessation Treatment (SCT) program.

Methods

A systematic search of four English electronic databases (Pubmed, CINAHL Plus, Scopus and Web of Science), two Japanese electronic databases (CiNii Articals and Ichushi), and additional search through references of previous papers were conducted to identify eligible studies. The search terms were: ['factors' or 'predictors'] and ['smoking cessation' or 'smoking cessation interventions' or 'quit smoking' or 'stop smoking']. The terms of ['Japan' or 'Japanese'] were further limited when the papers were searched in four English electronic databases. For meta-analysis, we used the software of Review Manager 5.3 to compute pooled effect estimates and a heterogeneity index I2. The meta-analysis results were reported as pooled OR (95% CI), with I2 and p-values.

Results

Of 1079 identified studies, 30 studies (N=6389 people) were included in this review. Our study revealed that male (OR=1.61, 95% CI:1.35-1.92, I2=26%, p<0.001) , varenicline (OR=1.78, 95%CI: 1.46-2.18, I2=0%, p<0.001), and having mental disease (OR=0.34, 95%CI: 0.23-0.51, I2=45%, p<0.001) were associated with success in quitting smoking in the Japanese SCT program. Having present diseases (OR=0.68, 95% CI: 0.42-1.11, I2=70%, p=0.12) was not significantly associated with success of quitting smoking statistically.

Conclusions

In the Japanese SCT program, male, varenicline and having mental diseases have been found to predict success in quitting smoking.

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Pilot outline of a school-based intervention on tobacco use in a high school of Attica, Greece

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Objective

Adolescents are exposed to a variety of tobacco products in Greece. On the other hand, tobacco industry promotional strategies aim to critically increase the attractiveness of their products so that adolescents start to use them. According to the literature, school-based preventive interventions may have positive effects in discouraging adolescents from initiating smoking. This study aims to present activities of a school-based program for smoking prevention in Greek adolescents.

Methods

The intervention was co-designed and implemented in one high school located in Attica, Greece, in the 2018-2019 school year among 10th grade adolescents.

Results

The educational process included the provision of information on the health effects of smoking and nicotine products, information on tobacco product ingredients, training of social skills to resist peer pressure, peer-led activities and discussions, group problem-solving and role-playing under different peer and social pressure situations.

Conclusions

The program was well received by the adolescents and covered key priority domains of a tobacco prevention curriculum. Within the context of this pilot study, we did not use a control group, and the effects of the intervention were not assessed. An appropriate evaluation of the program would give a better understanding of its potential effectiveness in reducing tobacco use within the public school system in Greece.

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