



National Symposium on Tobacco and Alcohol Prevention
NSTAP 2022
Abstract Book

2nd December 2022

National Authority on Tobacco and Alcohol
11th Floor Wing A, Sethsiripaya Stage II
Battaramulla
Sri Lanka

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Aims and Scope

The National Authority on Tobacco and Alcohol (NATA) was established under section 2 of the National Authority on Tobacco and Alcohol Act, No. 27 of 2006, with the responsibility to reduce tobacco and alcohol related harm through public health policy development and implementation, and advocacy. The authority is functioned under five key objectives as,

- To identify the broad and specific policies in relation to tobacco and alcohol (and other narcotics) for protecting public health
- To eliminate tobacco and alcohol related harm through the assessment and monitoring of the production, marketing, advertising and consumption of tobacco products and alcohol products
- To make provisions discouraging persons especially children from smoking or consuming alcohol by curtailing their access to tobacco products and alcohol products
- To promote and adopt and implement clean air laws and restrict the available spaces to protect the community from tobacco and alcohol
- To propose and promote all other measures, including cessation tobacco and alcohol programmes necessary to prevent harm from tobacco and alcohol to the population.

National Symposium on Tobacco and Alcohol Prevention, 2022 (NSTAP - 2022) is organized by the NATA with the aims of enriching the literature on tobacco and alcohol related research conducted in Sri Lankan setting and creating a platform for Sri Lankan researchers who are interested in tobacco and alcohol control.

To combat this epidemic, we feel that a platform is required for the publication of research/policy actions on tobacco and alcohol control measures. As common issues have common solutions, this strategy provides a valuable opportunity to the tobacco and alcohol control community at the national level. NATA believes that we are the connectors at the national level which can connect and empower stakeholders including researchers who are committed to tobacco and alcohol control in the country. Hence, the NSTAP encourages submissions from vast scale of tobacco and alcohol control aspects such as Cessation and prevention of tobacco and alcohol consumption, Health impact of tobacco and alcohol consumption, Sociological impact of tobacco and alcohol consumption, Economic impact of tobacco and alcohol consumption, Environmental impact of tobacco and alcohol consumption and Legal aspect of tobacco and alcohol control.

NATA strongly believes that this initiative will support the quality and latest scientific evidence on tobacco and alcohol control aspects and provide an inspiration to the researchers to contribute to enriching the tobacco and alcohol control related scientific evidence.

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The effectiveness of a training program based on counseling on cessation and prevention of tobacco and alcohol

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The study aimed to explore the effectiveness of a training program conducted for government officers to create counseling officers on the cessation and prevention of tobacco and alcohol. A sample of 63 government officers comprised authorized officers of the National Authority on Tobacco and Alcohol act, health education officers, officers of the Ministry of Youth Affairs, and staff from hospitals of Warakapola and Balangoda. To achieve the goal of creating counseling officers, 19 training sessions were conducted including theoretical and practical sessions. The trained officers were evaluated by a theory and practical examination, and officers who took over 50% of marks were considered trained counselors. The trainers were motivated to build Facebook posts and videos which aimed cessation and prevention of tobacco and alcohol. As these participants represented many districts in the country, they conducted awareness programs for the community to increase the awareness of the cessation and prevention of tobacco and alcohol with the knowledge and experience they gained from the training session. Community awareness programs were conducted by these trained counseling officers all over the country and 2054 people were aware by them including school children, youth groups, police officers, excise officers, and other community groups. The trained officers voluntarily provided the telephone counseling for the "1948" telephone counseling service in National Authority on Tobacco and Alcohol. The training program was effective in improving capacity among the officers who attended the training program.

Keywords: Cessation, Prevention, Counseling, Tobacco, Alcohol

V NATA Media Violation

ජංගම දුරකථන යෙදවුම පිළිබඳ සංකීර්ෂිත වාර්තාව - 2022

පී.පී.පී. සේනාරත්න¹

- 1. දුම්කොළ හා මද්‍යසාර පිළිබඳ ජාතික අධිකාරිය,
සෙන්සිටිවාය, බත්තරමුල්ල

වර්තමාන සමාජයේ විවිධ සන්නිවේදන මාධ්‍ය හරහා දුම්කොළ හා මද්‍යසාර නිෂ්පාදන නීති විරෝධී ආකාරයේ වෙළඳාම් කිරීම් හා එහි ප්‍රවර්ධන කටයුතු කිරීම් විශාල වශයෙන් සිදු කරන බවට තොරතුරු වාර්තාවීම හේතුවෙන් දුම්කොළ හා මද්‍යසාර පිළිබඳ ජාතික අධිකාරිය විසින් කාලීන සමාජ රටාවට උචිත පරිදි පැමිණිලි වාර්තා කිරීම සඳහා නව ක්‍රමවේදයක් හඳුන්වා දෙනු ලැබූ අතර, ජංගම දුරකතන යෙදවුමක් හරහා ශ්‍රී ලංකාව තුළ විවිධ මාධ්‍ය හරහා සිදු කරන දුම්කොළ හා මද්‍යසාර ආශ්‍රිත නිෂ්පාදන ප්‍රචාරණය හා ප්‍රවර්ධනය කරන අවස්ථා හඳුනාගැනීම හා දුම්කොළ හා මද්‍යසාර පිළිබඳ ජාතික අධිකාරී පනත උල්ලංඝනය වන අවස්ථා හඳුනාගැනීම එමගින් සිදු කරයි. ඒ අනුව 2021 වසරේ හඳුන්වා දෙනු ලැබූ ජංගම දුරකතන මෘදුකාංගය වන “V NATA Media Violation” නමැති ජංගම දුරකතන මෘදුකාංගය හරහා දෙසැම්බර් මස සිට වර්තමානය වන තෙක් විශාල පැමිණිලි සංඛ්‍යාවක් දුම්කොළ හා මද්‍යසාර පිළිබඳ ජාතික අධිකාරියට වාර්තා වෙමින් පවතී. ඒ අනුව එම තොරතුරු පදනම් කර ගනිමින් පසුගිය මාස හය පුරාවට මහජනතාව විසින් කරන ලද පැමිණිලිවල විශ්ලේෂණාත්මක සටහන මෙලෙසින් විග්‍රහ කළ හැකිය. එනම්, පැමිණිලි අවම අගයක් ලැබී ඇති මාසය මාර්තු (8%) මාසය වන අතර, එයට සාපේක්ෂව පැමිණිලි වැඩි ප්‍රමාණයක් වාර්තා වී ඇත්තේ මැයි (23%) මාසයේය. එහිදී බහුතරයක් සමාජ මාධ්‍ය හරහා මද්‍යසාර සම්බන්ධයෙන් කරන ලද ප්‍රවර්ධන කටයුතු ලෙසට එම පැමිණිලි විශේෂය හඳුනාගත හැකිය. හුදෙක්ම නිර්මාණය වී ඇති සමාජ මාධ්‍ය ජාලා පළකිරීම් (Post) තාරුණයේ විනෝදාස්වාදය සඳහා මද්‍යසාර හා දුම්වැටි භාවිතය අත්‍යාවශ්‍ය වන සාධකයක් වශයෙන් උලුප්පාලමින් ඔවුන්ව ඒ සඳහා පහසුවෙන් නැඹුරු කරගත හැකි වන ලෙසට ඉතා ආකර්ෂණීය වන ආකාරයට නිර්මාණය වූ වෙළඳ දැන්වීම් වන බවට අනාවරණය වී ඇත. එමගින් බහුතරයක් වාර්තා වූ පැමිණිලි වූයේ Facebook සමාජ මාධ්‍ය ජාලය යොදාගනිමින් සිදු කරන ලද ප්‍රචාරණයන්ය. එහිදී දුම්වැටි හා මද්‍යසාර අලෙවිකරුවන් තරුණ සමාජය ඉලක්ක කර ගනිමින් ඉතාමත් සුක්ෂ්මව වෙළඳපල හා සමාජය ආක්‍රමණය කර ඇති බව මෙහිදී පෙනී යයි.

මුර පද : තරුණ, මාධ්‍ය , මර්දනය , දුම්කොළ , මද්‍යසාර

Use of a mobile application to engage communities in Sri Lanka to monitor tobacco, alcohol and other drug industries and their activities

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Centre for Combating Tobacco (CCT) is the tobacco observatory in Sri Lanka established under the Framework Convention on Tobacco Control (FCTC) Article 5.3. CCT has experimented several resource-efficient methods to monitor the tactics and influence of tobacco industry in ground level. This study aimed to effectively engage the public in monitoring tobacco industry interference and activities (TIIA). “Tobacco Unmasked HotSpots” (TU-HotSpots) trilingual free mobile app, was developed and launched in two stages. The preliminary launch (April 2018) was to pilot the app for feasibility and acceptability. A community network to monitor TIIA, Community-Driven Tobacco Surveillance System (CDTSS) using an upgraded app was launched in March 2019. TU-HotSpots enables registered users to report TIIA under three categories: “HotSpots” (Geographical location of TIIA), “Media” (Interference and promotion through media) and “Interference” (Tobacco industry attempts of influence). Data is fed to the TU-HotSpots Map, a website with an interactive map and a dashboard of graphs and charts after verification process. In January 2020, the app was upgraded to report the alcohol and other drug industries' interferences. Two evaluations done to explore the feasibility and acceptability revealed that 91.4% (n=54) agreed this app would be useful in tobacco control and 82.8% (n=48) stated that it would be accepted by the public. Inadequate technological knowledge and interrupted online connection were the perceived challenges for implementation. Active promotion using organized trainings among youth and field officers were the main suggestions for improvement. As at July 2022, 891 registrants reported 850 “HotSpots” (tobacco 827, alcohol 23, other drugs 0); 18,494 “Media” (tobacco 11,885, alcohol 4,637, other drugs 2,200); 1 “Interference” report. Summary reports based on reported data was disseminated weekly via social media and quarterly to relevant stakeholders for their action. A mobile application with networked community is an effective tool to engage the public in monitoring TIIA.

Keywords: Mobile app, Tobacco industry interference, Monitoring, Media

**Report on public opinion on update of pictorial health warnings
on cigarette packets - 2022**

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Pictorial health warnings (PHWs) on 80% of the cigarette packs were introduced in 2015 as the most recent method of communicating the health risks of smoking in Sri Lanka. The law requires health warnings in the form of pictures and text on every packet, package or carton containing cigarettes or other tobacco products. The warnings must be placed on the top surface area of both front and back sides and must cover 80% of the top surface area of the front and back. The regulations establish four categories of warnings with some categories containing more than one warning. The front warning must differ from the back warning. Manufacturers also must ensure that the warnings are changed every six months. These provisions align with FCTC Art. 11 and the FCTC Art. 11 Guidelines. But till now there has been no update on those PHWs. This study aimed to find out the response of the Sri Lankan public to the newly introduced PHWs for cigarette packets by NATA. Most of the respondents were adults and all of them said that updating the PHWs on cigarette packets would be ideal. Because they reasoned that these PHWs had been seen on cigarette packets for a long time and it have become commonplace by now. Therefore, PHWs on cigarette pack is the most efficient health communication tool in Sri Lankan community. The findings suggest that the newly introduced PHWs that cover 80% of the cigarette packs can help to increase knowledge about the harms of smoking among both smokers and nonsmokers, stimulate more conversation with significant others about the dangers of smoking among nonsmokers and encourage quitting among smokers, thus providing some support for its effectiveness as a health communication tool in Sri Lankan community.

Keywords: Pictorial Health Warning, Sri Lanka, Smokers, Health, Packets, Smoking

Assessment of competency among pre-intern doctors regarding prevention and cessation of alcohol and tobacco consumption

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Tobacco and alcohol are leading causes of preventable morbidity and mortality in Sri Lanka. A descriptive cross-sectional study was conducted among a nationally representative sample of 721 prospective medical interns in Sri Lanka. A web-based self-administered questionnaire was used. The questionnaire was developed by a panel of experts. A total of 721 prospective interns participated in the study. Among them, 94.6% (n=682) routinely practiced taking history of substance use in clinical history taking. Appearance of withdrawal symptoms (96.7%, n=697), continuous alcohol consumption by a cirrhotic patient (84.9%, n=612), neglecting alternative pleasures and recreational activities (93.8%, n=676), inability to control number the of cigarettes smoked per day (89.9%, n=710) and consuming the same amount of alcohol every weekend (12.6%, n=91) were recognized as features of substance dependence by prospective interns. Over 80% (n=595) of participants identified the presence of a safe-limit for alcohol consumption while 16% (n=115) stated that a safe-limit does not exist. 95.1% of participants acknowledged that medical interns can play a role in controlling substance use among patients. However, 506 (70.2%) participants thought that a doctor advising a patient to stop substance use for 5 minutes would have no impact. Among the participants, 65.2% (n=470) expressed having competency to counsel patients to stop substance use. However, 25.8% (n=187) of participants were unsure whether patients would accept the advice of an intern. There are significant inadequacies in knowledge and competency of tobacco and alcohol prevention among fresh medical graduates.

Mobilizing shopkeepers to take steps to avoid passive smoking using health promotion approach

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Tobacco consumption is one of the major health issues in Sri Lanka. It hugely contributes to increase in Non-Communicable Diseases (NCDs) and causes premature deaths. The study objectives to mobilize shopkeepers to take steps to avoid passive smoking using health promotion approach. The study was conducted with shop keepers in Pahala Imbulgoda- East Grama Niladhari division in Gampaha district. Target group consisted of 05 male and 03 female shopkeepers. Informal discussions and 04 formal discussions were conducted with shopkeepers to know their opinions about selling tobacco products, profit earn by selling tobacco products, ideas on passive smoking and harmful effects were discussed with a special on NCDs by the health promotion facilitator. Discussions were naturally flowed and remained a maximum 10 minutes. The statement/feedback of shopkeepers were analyzed qualitatively. Eight shop keepers refrained from keeping a box of matches and lighter in the shop. They also responded by 'closing their noses' to their customers who bought cigarettes, saying, "Stay away from smoking". Posters were prepared and pasted on the walls by 04 shopkeepers and posters mainly gave the message that they want to protect their family especially their kids from passive smoking and asked people to go at least 10m far from the shop for smoking. After 02 weeks of the intervention 07 of the shopkeepers reported that they didn't expose to passive smoking. The study was conducted in line with the principles of the Health Promotion Approach and was effective in mobilizing shop owners to take steps to prevent passive smoking.

Keywords: Passive smoking, Health promotion approach, Mobilizing

Strengthening the community level tobacco control initiatives by reactivating Tobacco Free Areas to prevent secondhand smoking

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1. National Authority on Tobacco and Alcohol, Sri Lanka

In 2019 National Authority on Tobacco & Alcohol (NATA) created more than one hundred and fifty Tobacco-Free Areas (TFA) that controlled sales of tobacco products with the support of authorized officers to the NATA Act, especially Public Health Inspectors (PHI). Preventing Second-Hand smoking (SHS), which poses a severe hazard to public health, was the primary objective of TFAs when they were first implemented at the grassroots level. Research has established the link between SHS exposure and increased morbidity and mortality. It is a cause of cardiovascular diseases, respiratory ailments and lung cancer. Both smoking and smokeless tobacco use were gradually being shown down in past years. But, due to the Covid-19 outbreak in 2020, the monitoring mechanism of TFA collapsed. It was realized only half of the TFAs have remained and sustained as same after the COVID 19 outbreak. Then, NATA initiated a project in 2022 to reactivate collapsed TFAs. As well as it aimed to create TFAs in all existing 362 Medical Officer of Health (MOH) areas in Sri Lanka. Nine provincial workshops were conducted for the authorized officers to cover all nine provinces. Each conducted program has been mainly divided into two parts, including technical terms for initiating TFAs and training for the enactment of the NATA act. The scientific way of communication in tobacco prevention activities and methods of strengthening community engagement have been comprehensively addressed. By representing all MOH areas PHIs have been engaged with provincial training to build 362 TFAs before January 2023. While evaluating the progress of the initiatives by the PHIs to strengthen the reporting mechanism of the TFAs VNATA mobile applications have been introduced. Through the VNATA apps, NATA was able to monitor legal actions and new initiatives. Implementing 362 TFAs throughout Sri Lanka clearly decreases the availability of tobacco products. It is indirectly influenced to reduce the exposure rate to SHS.

Keywords: Tobacco-Free Areas, Second-Hand Smoking, VNATA mobile applications

Content analysis of articles published in Sri Lankan newspapers on tobacco and alcohol in the year 2021

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Print media has become a popular medium in Sri Lanka since 1860. Daily newspapers print an average of 150,000 copies per newspaper, while weekend newspapers print an average of 300,000 copies. The purpose of this study is to compare the content and quality of articles published on tobacco and alcohol prevention in the year 2021. Popular 14 leading newspapers in Sri Lanka were used in this study (Sinhala Medium- 07, English Medium – 06, Tamil Medium – 01). According to the numerical data of the articles published in 2021, 81 articles were published in 14 newspapers regarding tobacco and 78 articles regarding alcohol. In the content analysis of the articles published regarding tobacco, articles have been published on the topics of increase in the price of cigarettes, adverse effects, illegal sale, a ban on cinnamon cigarettes, and introduction of tobacco tax formula. Among the articles published regarding tobacco, the highest number of articles were published regarding the effects of cigarettes on corona disease (17, 20.09%) and introducing the tobacco tax formula (16, 19.75%). In the analysis of the content of the articles published on alcohol, the price increase of alcohol, prohibition of the quarter bottle, raids on illegal alcohol, negative effects of alcohol on corona disease, the opening of liquor stores, and distribution of alcohol through online methods during the pandemic was published. Among the articles published on alcohol, the highest number of articles were published on the negative effects of alcohol on corona disease and on online distribution of alcohol (14, 17.94%). According to the monthly frequency distribution of articles in the year 2021, the highest number of articles on tobacco was published in October (14) and articles on alcohol were published in September (14). Not a month goes by without articles on tobacco and alcohol. Newspapers perform a service to liberate people from tobacco and alcohol while contributing to the socialization of the service done by the National Authority on Tobacco and Alcohol.

Keywords: Newspapers, Tobacco, Alcohol, Sri Lanka

**දුම්පානය වළක්වා ගැනීම සඳහා
මනෝ උපදේශනයේ වැදගත්කම පිළිබඳ අධ්‍යයනයක්
(දුම්කොළ හා මද්‍යසාර පිළිබඳ ජාතික අධිකාරියේ 1948 දුරකථන
මනෝ උපදේශන සේවය ඇසුරින්)**

පී.එස්. එගොඩගේ¹

1. දුම්කොළ හා මද්‍යසාර පිළිබඳ ජාතික අධිකාරිය,
සෙන්සිටිවාය, බත්තරමුල්ල

ශ්‍රී ලංකාවේ දුම්කොළ හා මද්‍යසාර පිළිබඳ ජාතික අධිකාරියේ 1948 ක්ෂණික දුරකථන සේවාව භාවිතා කරමින්, දුම්පානය නතර කරගැනීම සඳහා, උපදේශනයට සම්බන්ධ වූවන් හා එහි ඵලදායිතාව ඇගයීම මෙහි මූලික අරමුණයි. 1948 ක්ෂණික දුරකථන සේවාව සතියේ දින 07 ම පැය 24 පුරාම ශ්‍රී ලාංකිකයන්ට විවෘතව ඇති අතර, එමගින් දුම්පානයට ඇබ්බැහි වූ පුද්ගලයන්ට මනෝඋපදේශනය ලබා ගැනීමට පහසු වන ලෙස නිර්මාණය කර ඇත. ඒ පිළිබඳ රූපවාහිනී දැන්වීම්, පුවත්පත් දැන්වීම්, සෞඛ්‍ය වෛද්‍ය නිලධාරී කාර්යාල, රෝහල්, පොලීසිය, සුරාබදු දෙපාර්තමේන්තුව හරහා ජනතාව දැනුවත් කරන ලදී. 2021 ජනවාරි මස සිට 2021 ජූනි මස දක්වා මාස හයක් මනෝඋපදේශනයට සම්බන්ධ වූ සේවාවලාභීන්ට ප්‍රතිකාර වේනනාවෙන් 2021 දෙසැම්බර් මස දුරකථනය මගින් පසු විපරම් පරීක්ෂණයක් සිදු කරන ලදී. මූලික උපදේශන සැසිවලට දුරකථනය හරහා සහභාගී වූ සේවාවලාභීන් 1084 ක් මද්‍යසාර, දුම්කොළ හෝ දුම්වැටි භාවිතය සම්බන්ධව මනෝඋපදේශනය අපේක්ෂා කල අතර, ඉන් 732 ක් දැනට දුම්පානය පමණක් කරන පුද්ගලයන් ලෙස සඳහන් විය. ඔවුන් අතරින් සේවාවලාභීන් 478 දෙනෙක් පසු විපරම් කිරීමට කැමැත්ත පල කළ අතර, සේවාවලාභීන් 254 දෙනෙකුට මනෝඋපදේශනයට අමතරව වැඩිදුර වෛද්‍ය ප්‍රතිකාර සඳහා යොමුවීමට උපදෙස් දෙන ලදී. සාමාන්‍ය දුම්පානය කරන ජනගහණය හා සසඳන විට මනෝඋපදේශන සේවයට සම්බන්ධ වූයේ විශේෂයෙන් තරුණ පුරුෂ හා කාන්තා පාර්ශවය, විවිධ රැකියාවල නිරත පුද්ගලයන්, උසස් අධ්‍යාපනය ලබන පිරිස්ය. දිනකට සිගරට් 10/15 භාවිතා කරන පුද්ගලයන් බහුලව මෙම සේවය ආකර්ෂණය කරගෙන ඇත. එම පිරිස බහුතරය මින් පෙර ඇබ්බැහිගත වර්ගයාවෙන් ඉවත්වීමට උත්සාහ දැරූ පිරිස වීම විශේෂයි. මාස 06 කින් පසු කරන ලද පසු විපරමේදී වාර්තා කලේ සේවාවලාභීන් 478 දෙනාගෙන් 268 දෙනෙක් පසුගිය දින 07 තුළ සිගරට් පානය නොකළ බවයි. එය 78% ක ධනාත්මක වර්ධනයකි. වයස අවුරුදු 20-30 අතර සේවාවලාභීන් දුම්පානයෙන් ඉවත්වීම පිළිබඳ ඉතා හොඳ සම්භාවිතාවක් පුරෝකථනය විය. ශ්‍රී ලංකාවේ ප්‍රධානම දුම්පානය කරන්නන් සඳහා වන මනෝඋපදේශන සේවයට ඉතා හොඳ පිළිගැනීමක් ඇති බවත් තවදුරටත් මෙම සේවය භෞතික හා මානව සම්පත වර්ධනය කිරීමෙන් දුම්පානය වැළැක්වීමට සක්‍රීයව සහභාගී වීමට හැකි බව නිගමනය විය.

මූර පද : දුම්කොළ, දුම්පානය, ප්‍රතිකාර, මනෝඋපදේශනය

1948 දුරකතන අංකයට ලැබුණු දුරකතන ඇමතුම් වලින් උපදේශනලාභියා නොවන පුද්ගලයින් විසින් ලබාගත් දුරකතන ඇමතුම් පිළිබඳ අධ්‍යයනය

පී.එන්. මධුහාමිණි ප්‍රනාන්දු¹

1. දුම්කොළ හා මද්‍යසාර පිළිබඳ ජාතික අධිකාරිය,
සෙන්සිටිපාය, බත්තරමුල්ල

ශ්‍රී ලංකාව තුළ දුම්කොළ හා මද්‍යසාර පිළිබඳ ජාතික අධිකාරිය විසින් 1948 දුරකතන අංකය හරහා දුම්වැටි, මද්‍යසාර හා දුම්කොළ භාවිතා කරන පුද්ගලයන් සඳහා මනෝ උපදේශනය ලබා දීම සිදු කෙරෙන අතර, එම දුරකතන අංකය හරහා මනෝ උපදේශනය ලබා දෙනු ලබන්නේ දුම්වැටි, මද්‍යසාර හා දුම්කොළ භාවිතා කරන පුද්ගලයන් වෙනුවෙන් වන නමුත් උපදේශනලාභියා නොවන මෙම මන්ද්‍රව්‍යයන් භාවිතා කරන පුද්ගලයෙකුගේ මන්ද්‍රව්‍යය භාවිතය ගැටලුකාරී බව පවසමින් එම තත්ත්වයෙන් භාවිතා කරන පුද්ගලයාව මුදවා ගැනීම සඳහා ගතයුතු ක්‍රියාමාර්ග පිළිබඳ උපදෙස් විමසීම සඳහා ලබා ගත් දුරකතන ඇමතුම් පිළිබඳ අධ්‍යයනය මෙම පරීක්ෂණය මගින් සිදු කරනු ලැබිණි. 1948 දුරකතන මනෝ උපදේශන සේවාව ක්‍රියාත්මක වූ මාස 6 ක් ඇතුළත ලැබුණු දුරකතන ඇමතුම්වලින් උපදේශනලාභියා නොවන 1500ක් වන පුද්ගලයින් දත්ත දායකයන් ලෙස යොදාගනිමින් මෙම අධ්‍යයනය සිදු කරනු ලැබුණි. එහිදී සමස්ථ උපදේශනලාභියා නොවන පුද්ගලයින්ගෙන් 30% ක් දෙමාපියන් ද, 39% ක් බිරින්දෑවරු ද, 14% ක් ඥාතීන් ද, 10% ක් දරුවෝ ද, 6% ක් මිත්‍රයන් ද, 1% ක් වෙනත් පුද්ගලයන් ද දුම්කොළ, දුම්වැටි සහ මද්‍යසාර භාවිතා කරන පුද්ගලයෙකු සම්බන්ධයෙන් කතා කිරීම සඳහා දුරකතන ඇමතුම් ලබාගෙන ඇති බවට අනාවරණය විය. මෙම දත්තවලට අනුව ගම්‍ය වනුයේ වැඩි වශයෙන් බිරින්දෑවරුන් සැමියාගේ මන්ද්‍රව්‍ය භාවිත ගැටලුව සම්බන්ධයෙන් උපදේශනය ලබා ගැනීම සඳහා දුරකතන ඇමතුම් ලබාගෙන ඇති බවත්, ඊට සමගාමීව දෙමාපියන් ද තම දරුවන්ගේ මන්ද්‍රව්‍ය භාවිත ගැටලු සම්බන්ධයෙන් උපදේශනය ලබා ගැනීම සඳහා දුරකතන ඇමතුම් ලබාගෙන තිබෙන බවත්ය. තවද පවුලට සමීප නොවන වෙනත් පුද්ගලයන් ද 1% දුරකතන ඇමතුම් ලබාගෙන තිබෙන අතර, එයින් ගම්‍ය වනුයේ යම් පුද්ගලයෙකුගේ ගැටලුකාරී මන්ද්‍රව්‍ය භාවිතය පවුලට පමණක් නොව වෙනත් පුද්ගලයන්ට ද ගැටලුකාරී විය හැකි බවයි. සමස්තයක් ලෙස බලන කල්හී යම් පුද්ගලයෙකුගේ මන්ද්‍රව්‍ය භාවිතය ඔහුට හෝ ඇයට පමණක් නොව ඔවුන්ට සමීපව ජීවත්වන පුද්ගලයන්ට ද බලපෑමක් කරන බවත් එම පුද්ගලයන්ට එම තත්ත්වයෙන් මුදවාගැනීම සඳහා ඔවුන්ට සමීපව ජීවත් වන පුද්ගලයන් ද වෙහෙසක් දරන බව නිගමනය කළ හැකිය.

මූලික පද - දුම්වැටි, මද්‍යසාර, දුම්කොළ, දුරකතනය හරහා මනෝ උපදේශනය, උපදේශනලාභියා නොවන, මුදවාගැනීම

Effect of smoking cessation interventions on adult tobacco smokers in Sri Lanka

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Smoking kills more than 8 million people yearly, and mortality in Sri Lanka is 20,000 per year. Effective cessation interventions are needed to improve the motivation of smokers to quit. The current study aims to assess the effectiveness of smoking cessation intervention among a sample of peri-urban smokers in the Colombo district. 180 smokers were selected for a prospective follow-up from a previously recruited pool of 360 smokers. Cessation interventions were applied by a trained investigator in three levels based on the WHO 5A and 5R counselling tools on the first day, one week, and one month. The quit state and compliance to quitting were assessed at the same time. After one month, the researchers maintained six months of non-communication, and the last follow-up was made at the end. Smoking status was confirmed with smoking biomarker assessment of carbon monoxide e-CO (ppm) and carboxyhaemoglobin (COHb%) with Smokerlyzer® (Bedfont Scientific, UK). The median smoking duration was 21.0±17.0(IQR) years; daily consumption of cigarettes (DC) before the interventions was 4.0±4.75 (median±IQR) sticks, e-CO 7.0±8.0(IQR)ppm, COHb% 1.75±1.44(IQR)%. Median Values at one-week follow-up were DC 0.14±1.0(IQR), CO 3.0±3.0(IQR), COHb% 1.11±0.48(IQR). Median Values at one-month follow-up following counseling were SD 0±1.0(IQR), CO 3.0±1.0(IQR), COHb% 1.16±0.16(IQR). The final Median values at the six-month follow-up were SD 0±2.0 (IQR), CO 4.0±3.0(IQR), and COHb% 1.27±0.48(IQR). After the non-communication period, the median values of all smoking variables at six months were statistically significantly low when compared to the baseline values, including the number of cigarettes ($Z=-8.395$, $p<0.001$), CO ($Z=-5.936$, $p<0.001$), COHb%, and ($Z=-8.574$, $p<0.001$). Even without pharmacological treatments, structural smoking cessation programs can successfully change a smoker's addiction through motivational counselling.

Keywords: Exhaled carbon monoxide (e-CO), carboxyhaemoglobin (COHb%), smoking cessation

A systematic review on the economic impact of tobacco uses in Sri Lanka

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1. National Authority on Tobacco and Alcohol

Tobacco utilization creates a negative spiral of socioeconomic drawbacks that impedes the development of individuals, families, as well as countries. The purpose of the present study is to provide an in-depth overview of the literature based on tobacco use from an economic point of view. A comprehensive literature review was conducted by utilizing numerous database systems such as related papers, health reports, annual reports as well as white papers published by government agencies, and world health organizations. It is estimated that 20,000 people die each year while 60 Sri Lankan citizens die per day due to diseases related to consuming tobacco products. As per the GATS survey 2020, 9.1% of the population in Sri Lanka start smoking per year and it can be estimated as 1994720 individuals in Sri Lanka who have consumed 2.3 billion sticks in 2020. Daily usage per person is found as 3 sticks per day. The prevalent cigarette brand throughout Sri Lanka which also accounts for roughly 80% of the market has been priced at Rs. 65 for a single stick. Thus, tobacco consumers have to spend Rs. 195 to purchase 3 sticks from their daily wages. The total direct economic costs of tobacco-related conditions in Sri Lanka were estimated at Rs. 15.3 billion while the indirect cost for tobacco use was Rs.198.4 billion of cost in 2016. Tobacco use is influenced by 76 different illnesses across the globe. Nevertheless, Cigarette butts with filters have been the most harmful littered item on the entire globe, with an estimated 4.5 trillion thrown into the environment every year. An estimated 1886 tons of cigarette butts and packaging waste end up as toxic rubbish each year in Sri Lanka. Tobacco consumption continues to become prevalent among smokers and their families could be a significant negative impact through increasing premature death rates moreover preventable non-communicable diseases as well as disabilities. Meanwhile, tobacco production and waste have been widely regarded as vast environmental issues. Raising the problem of tobacco consumption from an economic standpoint across health and environmental implications could help countries to prioritize tobacco control. To adequately address the economic and financial aspects of tobacco control, effective coordination between relevant authorities has been necessary.

Keywords: Economic impact, Direct cost, Indirect cost, Health consequences, Environmental consequences

Risky Substance Use and associated factors: a cross-sectional study among undergraduates in state universities in Sri Lanka

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Many studies have identified excessive consumption of alcohol and binge drinking and smoking as widespread problems among undergraduates globally. Objective is to assess the prevalence of Risky Substance Use (RSU) and its associated factors among second-year undergraduates in Sri Lanka. A descriptive-cross-sectional study was carried out among 1290, second-year undergraduates in Sri Lanka using multi-stage stratified cluster sampling. Four universities were randomly selected from 10 eligible universities. The cluster size was 30 and 43 clusters were allocated proportionate to the total second-year undergraduate population and three faculties were selected. UniHRB-Inventory is a self-administered questionnaire (SAQ) developed, translated and validated in a local setting. RSU was assessed using 13 items, and the minimum score obtained was 0 and the maximum possible score was 50. The minimum threshold score for presence of RSU was 16 based on expert opinion. An SAQ developed to assess its associated factors. The factors significantly associated with RSU were identified using the Chi-Square Test, Fisher's Exact test and Mann-Whitney U test. All the variables significant in the bivariate analysis were checked for possible effect modification with each other for RSU. In logistic regression analysis forward stepwise logistic regression method was used. Overall response-rate for the study was 88.1% (n=1136). Prevalence of RSU was 6.9% (95%CI:5.5%-7.8%), and it was positively associated with sexual-risk-behaviour without unhealthy-sleeping behaviour (AOR=3.3;95%CI:1.6-6.5), and with unhealthy-sleeping behaviour (AOR=13.5) and those perceived inadequate economic status (AOR=8.6; 95%CI:3.3-22.4), poor-relationship with lecturers (AOR=3.4; 95%CI: 1.6-7.1), visiting nightclubs (AOR=4.7;95%CI:1.5-14.7), discrimination due to religion (AOR=5.9; 95%CI 2.1-16.2) and negatively associated with EI (AOR=0.93; 95%CI:0.9-0.97). Co-existence and clustering of other health risk behaviours were observed. University should introduce opportunities for healthy recreation within the university setting and provide a secure, respectful, and nondiscriminatory environment.

Keywords: Substance Use, Associated factors, Undergraduates, State Universities

Determinants of tobacco use among adolescents in low and middle-income countries : A review

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Adolescence is a unique phase in the life course as it includes rapid changes in physical, mental as well as social development in a person. The World Health Organization defines adolescence as individuals aged between 10 to 19 years. Nurturing adolescence by strengthening its protective factors while addressing risk factors is imperative to build a healthy adult in future. Tobacco use has been identified as one of the major risk factors which restrain healthy development during adolescence. Studies suggest that smoking and tobacco use usually begin during early adolescence and those who initiate the use during their adolescent years tend to continue the usage. Identification of correct determinants of adolescents' tobacco use is crucial to address it effectively. Thus, this review was conducted aiming to explore the major determinants of tobacco use among adolescents who live in Low and Middle-Income Countries (LMICs). A comprehensive review was conducted by reviewing research papers and scientific reports on tobacco consumption among adolescents who live in LMICs. A total of 28 factors had been identified in reviewed papers as determinants of tobacco use among adolescents in LMICs. Nine out of those 28 determinants were repeatedly highlighted in these papers. Thus, tobacco use among friends, exposure to smoking at home and public places, being offered free tobacco products, low academic achievement/ lack of school involvement, exposure to tobacco use in electronic media, lack of social cohesion and supervision, weak legislation on access restrictions, feeling of need for approval and being a male can be noted as major determinants responsible for the tobacco use among adolescents. Adolescents' tobacco usage is influenced by a wide range of determinants. These determinants can be found on a variety of scales, including the individual, interaction, community, and societal levels. Therefore, understanding the real determinants at their specific level and using interventions with scientifically proven efficacy to change those is essential to addressing tobacco use among adolescents.

Keywords: Adolescents, Tobacco-use, Determinants, Low-and -middle-income-countries

Applicability of *Pranayama* (Vital life) in prevention and management of tobacco and alcohol addiction; A review

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Annually, tobacco kills over 8 million people and more than 7 million of deaths are caused by direct tobacco use while approximately 1.2 million are caused by second-hand smoke. Harmful alcohol using kills 3 million people worldwide. The link between alcohol and tobacco has significant implications as many alcoholics use to smoke by developing complications such as multiple cancers, lung disease and heart disease. Therefore, the importance of complimentary medical approaches in prevention and management of tobacco and alcohol addiction should be identified. The objective of this study was to review on applicability of *Pranayama* (Vital life) in prevention and management of tobacco and alcohol addiction. Data has been collected from authentic texts, previous research evidences, journals and authentic web sites. *Pranayama* is the fourth limb of the eight fold holistic process defined as *Ashtanga Yoga*, according to Patanjali's Yoga Sutra which is the most authenticated book on Yoga. *Pranayama* involves in conscious deep breathing and breath control which helps to calm the mind by focusing the practitioner's attention to produce physiological and cognitive relaxation. Smoking causes to damage the alveoli in lungs, block airways and blood vessels. Alcohol and tobacco addiction consist with cluster of behavioral, cognitive and physiological factors that include a strong desire with difficulties in controlling. Further, the withdrawal of smoking and alcohol use also related to physical and psychological symptoms. *Pranayama* controls the breathing through inhalation, retention of breath and exhalation which is leading to normal regulation of GABA receptors and lowers cortisol levels by rich oxygenated air flow. It mediates to improve lung and cognitive capacities, lower blood pressure, anxiety and other psychosomatic patterns to promote physical well-being and self-awareness by increasing parasympathetic tone. Therefore, it can be concluded that applicability of *Pranayama* has positive intervention in prevention and management of tobacco and alcohol addiction.

Keywords: Management, Pranayama, Prevention, Yoga

Use of Madya (Alcohol) during pregnancy; An ayurvedic perspective

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Alcohol causes several health hazards in pregnancy, including miscarriage, intrauterine growth restriction, preterm labor, stillbirth, and fetal alcohol spectrum disorders (FASDs). *Madya* (Alcohol) is having properties like toxin/*Visha*. Hence, the Caraka Samhita begins the chapter on alcoholism treatment (*Madatyā Cikitsā*) with a warning that alcohol is a toxin. The classification, stages, severity, signs & symptoms, complications, and treatments of *Madatyā* are explained in Ayurveda. Some Ayurveda drug preparations: *Arishta* and *Asava* contain some amount of alcohol generated during their development process and have been indicated for the conditions in pregnancy. The primary goal of this review is to study the Ayurveda perspective on use of Madya (Alcohol) During Pregnancy. The Caraka Samhita, Susruta Samhita, Ashtanga Hridaya Samhita, and Kashyapa Samhita are a few authentic Ayurvedic texts that were used to seek data and interpret it using contemporary correlations. *Madya* has included in the (*Garbhopaghatakāra Bhavas*) specific practices that should be avoided while pregnant. The treatment of *Madhya's* consequences on newborns and pregnant women are also described in authentic texts. It has been observed that none of the references mentioned on use of alcohol containing Ayurvedic medications for a healthy pregnancy. But such medications can be given to pregnant women with acute, severe medical conditions, even though they are detrimental to the fetus. Examples of ailments for which alcohol containing Ayurvedic medicines are prescribed include the following: to treat after uterine death due to obstruction (*Mudhagarbha*), after abortion (*Garbha Srava* and *Garbha Pata*), to treat retained placenta condition, to treat puerperal post-pains (*Sutika Makkalla*), and to treat cessation of breast milk production (*Stanyakshaya*). In conclusion, Ayurveda has contraindicated the use of alcohol and alcoholic drug preparations during pregnancy.

Keywords: Madya, Ayurveda, Pregnancy

The evaluation of a pilot study on introducing alternative crops for tobacco cultivation in Sri Lanka

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The environmental impacts of tobacco include tobacco growing and curing; product manufacturing and distribution; product consumption; and post-consumption waste. Sri Lanka has ideal conditions to grow tobacco and interference in the cultivation process by providing those seeds, agrochemicals and buying their harvest at high price by Tobacco Company in led to spread of tobacco cultivation in Sri Lanka. There are short-term economic benefits for some famers, but there will be long- term social, economic, health and environment detriments for many others. The project was conducted as pilot project to introduce alternative livelihood for tobacco cultivation in Monaragala and Anuradapura districts. The general objective of this project was to determine the effectiveness of pilot study on introducing alternative crops for tobacco cultivation in Anuradhapura and Monaragala districts. This interventional study was done with 202 farmers who engaged with tobacco farming in Monaragala and Anuradhapura districts over 6 months. The study was done in three phases as pretest, intervention and evaluation. A participatory approach was adopted throughout the evaluation process. Different secondary and primary data collection instruments was used in the study. Reviewing literature was the instrument that was used in secondary data collection. Primary data included the information gather from interviewer administrated questionnaire. Four programs were conducted under the intervention phrase. Advocacy and consultative program were conducted for high Government officials, Advocacy program was conducted for ground level agriculture officers, Community empowerment programs were conducted for tobacco farmers and their family members. Three months after the end of the intervention evaluation was done from interviewer administrated questionnaire. In Monaragala district, 38.6% of farmers totally stopped tobacco farming, 29.8% of farmers partially stopped tobacco farming, and 29.8% of farmers were willing to stop tobacco farming. 58% of land reduced from tobacco cultivation in Monaragala district. In Anuradhapura district 67.4% of farmers totally stopped tobacco farming, 10.51% of farmers partially stopped tobacco farming and 6.31% of farmers were willing to stop tobacco farming. 92% of land reduced from tobacco cultivation in Anuradapura district. The percentage of farmers engaged in tobacco cultivation started to decrease after the intervention. Farmers were more willing to give up tobacco cultivation with the support of government.

Keywords: Tobacco cultivation, Alternative crops

Tobacco cultivation and its effects on the environment

Dr. C.S. Weeraratna

Basic components of physical environment are the soil, water and air. Biotic environment includes living macro and microorganisms. The world faces many environmental challenges. A fertile soil, an adequate supply of clean and fresh water and clean air are just a few of the basic necessities that enable humans to live. In Sri Lanka tobacco is cultivated in Jaffna, Galewela, Polonnaruwa, Mahiyangana, Ududumbara, Haliela and Buttala covering an area of around 1500 ha. Topography of most of the land cultivated with tobacco are undulating to sloping. Plants are planted keeping 1 meter space between rows and 75 cm within rows. Such an agricultural practice tends to promote soil erosion. The National Action Plan (NAP) for Combating Land Degradation in Sri Lanka 2015-2024 National Action Plan (NAP) for Combating Land Degradation in Sri Lanka 2015-2024 estimates that the soil erosion rate in sloping lands where tobacco is cultivated without any soil conservation measures is 70 mt/ha/year. It further highlights that heavy soil erosion caused by tobacco cultivation has severely degraded the soil in most of the tobacco cultivated areas. As a result of soil degradation caused by tobacco cultivation, the fertile topsoil layer is lost making the soil infertile. Soil fertility is a complex quality of soils that is closely related to plant nutrient management. Proper management of soil fertility is of utmost importance for optimizing crop nutrition on both a short-term and a long-term basis to achieve sustainable crop production. Tobacco is often grown as a mono crop leaving the tobacco plants vulnerable to a variety of pests and diseases. As a result, large quantities of chemicals (insecticides, fungicides and fumigants) and growth regulators (growth inhibitors and ripening agents) are applied. Herbicides are applied to control weeds. Many of these chemicals are harmful to living organisms including bacteria in the environment. When such chemicals are applied, a part of it tends to get washed down polluting the water resources such as lakes and rivers. Agricultural practices in tobacco cultivation are designed to attain high leaf yields. Hence, large amounts of nitrogen containing fertilizers such as urea, which promotes leaf growth has to be applied. Annually around 75 kg of urea/ha is applied to a tobacco crop. A substantial portion of this urea tends to leach down polluting water resources such as ponds, lakes and rivers causing eutrophication. Nitrous oxide is formed from urea as a result of nitrifying and denitrifying bacteria. Nitrous oxide has significant global warming potential as a greenhouse gas. Tobacco growing and curing are both direct causes of deforestation, since forests are cleared for the tobacco plantations, and wood is burned to cure the tobacco leaves. Deforestation tends to cause land degradation. There is evidence of substantial, and largely irreversible, losses of trees and other plant species caused by tobacco farming that make it a particular threat to bio diversity.

Key words: Tobacco Cultivation, Environmental impact

Importance of developing a mobile application to evaluate the cases filed by authorized officers regarding violations of the NATA act

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According to the National Authority on Tobacco and Alcohol (NATA) Act, No. 27 of 2006, and as per sections 16 and 17; Food and Drug Inspectors, Public Health Inspectors, Police officers, and Excise Officers are the authorized officers who are empowered to enforce several powers on Tobacco and Alcohol control in Sri Lanka and they are enabled to file cases regarding the NATA Act violations. Further, the NATA identified lack of connection between authorized officers and the NATA, regarding enforced powers. Therefore, the NATA decided to develop a Mobile Application to increase the efficiency of the connection while opening up to the digitalization. This project is conducted under the supervision of the NATA and it is in the initial step. The main objectives of this project are; to strengthen the connection and to evaluate the cases filled by authorized officers under the NATA Act. This project was initiated in 2021 with the supervision of the chairman and the legal officer in the NATA. Further, to develop this mobile application, the NATA created a Google form. Based on that, the NATA developed the user-friendly Mobile Application for authorized officers' and launched it in December 2021. Outcomes of this project concluded that; through this digital platform it is convenient for the authorized officers to send information to the NATA within a short time period and it is helpful to the NATA to evaluate information received by the authorized officers. As of 30th June 2022, there are 172 numbers of officers registered with this Mobile Application, and 20 reports received from the registered officers. Further, it is recommended to do more awareness programs for the authorized officers in every district, to get more information regarding the NATA Act violations. Through that, it is easy to evaluate received information on a daily, weekly, and yearly basis and to take necessary legal actions to reduce the NATA Act violations in the country.

Keywords: NATA, Mobile application, Authorized officers

The role of tobacco industry in delaying singlestick cigarette sales ban in Sri Lanka

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Studies have revealed that majority of cigarettes sales in Sri Lanka occur in loose form. Global evidence revealed that the availability of cigarettes in loose form with increased affordability and accessibility, promote smoking among the minors, the beginners and the poor. In September 2018, Health Minister tabled a draft policy to ban the sale of singlestick cigarettes in Sri Lanka for the approval of Cabinet of Ministers. The proposal failed to get the approval to date. This study aimed to explore the role the tobacco industry played in influencing the policy decision to ban singlestick cigarette sales in Sri Lanka. Content analysis of media articles, industry reports and websites were carried out using investigative research techniques to identify the tactics of the tobacco industry in this process. Tobacco Retailer's Association (TRA), a front group of Ceylon Tobacco Company (CTC), met and advocated with the Minister of Finance (MoF). TRA argued that the ban would impact retail cigarette sales, affecting retail businesses and livelihoods which was covered by media. CTC argued the ban would reduce the government tax revenue, which was highlighted in the media. Proposal was not approved by the Cabinet Ministers due to the opposition of four ministers including MoF, among the 30 members in the cabinet including the President and the Prime Minister. MoF further argued that the ban would reduce the income tax and increase beedi consumption due to reduced affordability. Highlighting the loss of government revenue, active engagement of front group, lobbying policy makers and media were identified as tactics used by the CTC. CTC is a subsidiary of British American Tobacco which hold the monopoly of cigarette manufacturing and trade in Sri Lanka. This study found that CTC and its associates played a major role in not implementing the single stick ban in Sri Lanka.

Keywords: Tobacco industry interference, Singlestick cigarettes, Ban, Media, Front groups

Exploring the views of general public about pictorial warnings on cigarette packets

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Pictorial warning is one of the strategies use by many countries to aware people about health risks of smoking. According to the current Sri Lankan regulations, pictorial warnings have been included in 80% area of a cigarette packet in both front and back sides. This study was planned to explore the views of general public about the pictorial warnings currently included in cigarette packets. It was a descriptive cross-sectional study conducted among the general public in Sri Lanka after obtaining ethical approval from the Ethics Review Committee of Faculty of Allied Health Sciences, University of Ruhuna. Voluntary participants above 18 years of age were recruited, they were educated about the study and consent was obtained. Data were collected using a validated questionnaire consisting of 40 questions about socio-demography, smoking behaviour and views about pictorial warnings. Data were analyzed using SPSS version 20. The study sample (n=220) comprised of 195 (88.6%) males. Approximately 66% (144) were smokers and among them 61.5% (88) were daily smokers. Majority (95%) were usually buying cigarettes in singles. About 51% of participants said pictorial warning encourages a person to quit the habit of smoking. Pictorial warnings had not aroused the fear of smoking (38%), not felt them to meet a doctor (73%) and not helped non-smokers (37%) to stay away from smoking. Only 46% (n=100) agreed that pictorial warnings in present form are effective. Approximately 98% of the participants said they could understand the pictorial warnings and 90% said picture is clear. However, most understood warning is the picture consisting of the health message “smoking causes cancer” (n=203) and awareness about other pictorial warnings is less (50%). Participants have suggested to include more fearful (95%, n=209) larger size (96.8%, n=213) pictorial warnings to the cigarette packet. Participants' overall view is current pictorial warnings on cigarette packet do not encourage a person to quit smoking and they are less effective.

Key words: Pictorial warnings, sociodemographic factors, views, perceptions, smoking behavior

